

**BASEL II IMPLEMENTATION
IN THE MIDST OF TURBULENCE**

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The Centre for European Policy Studies (CEPS) is an independent policy research institute in Brussels. Its mission is to produce sound policy research leading to constructive solutions to the challenges facing Europe. The views expressed are entirely those of the author.

This report is based on discussions in the CEPS Task Force on the Implementation of the New Basel Capital Accord and the Remaining Challenges and was complemented by substantial internal research. The members of the Task Force participated in extensive discussions in the course of several meetings in 2005-06, and submitted comments on earlier drafts of the report. Its contents convey the general tone and direction of the discussions, but its recommendations do not necessarily reflect a common position reached by all members of the Task Force. Nor do they represent the views of the institutions to which the members, the rapporteur and her fellow contributors belong. A list of participants and invited guests and speakers appears in the final appendix at the end of this report.

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PREFACE

This Task Force report on the implementation of Basel II is the second report prepared by the Centre for European Policy Studies (CEPS) in parallel with the Basel II process.

As with the previous Task Force, the meetings generated lively debates on many issues by well-informed presenters and participants from the financial industry, academia, central banks and regulators, from both Europe and the US. It is again thanks to Dr Rym Ayadi, Senior Research Fellow and Head of the Financial Institutions and Prudential Policy Unit at CEPS who acted as rapporteur, and to enthusiastic contributions from Maria Nieto, Advisor at the Bank of Spain, and Mathias Schmit, Professor at the Solvay Business School, that this new report – combining the many, sometimes conflicting views – is here before us.

The report was close to finalisation when the first effects of the subprime turmoil began to be felt in the summer of 2007. At that stage, Task Force members agreed that many issues were close to resolution. However, they felt that further work by both supervisors and bankers was needed to address some key questions, namely:

- How can further evolution towards fully integrated risk-management practices be encouraged?
- How can more consistency and clarity be provided on supervisory expectations and practices under pillar 2?
- How can it be ensured that disclosures, while aligned with International Financial Reporting Standards, also provide significant and essential information to both counterparties and the public?
- How can timely implementation be facilitated in order to enhance the level playing field?

As we all know, the subprime crisis spread quickly to Europe from the US. At first, many considered it only a liquidity problem that could be solved by central bank interventions and increased market disclosures. Yet, as mark-to-market policies have gradually revealed ever more write-downs and created the necessity for (foreign) capital injections, a much wider problem in terms of the stability of markets and institutions – and the rules and regulations that govern them – became apparent.

As in several earlier banking crises, one may venture that this one too was preceded by the over-provision of liquidity over many years, by lax monetary policies leading to asset price bubbles, by an over-supply of credit and by increasing reliance on leverage by both borrowers and lenders. What is so astonishing is that many risk-management instruments used by the international banking system did not work properly. While one might have expected some balancing out, each factor on the contrary seemed to create its own problems, including:

- What has been called a ‘shadow banking system’ has emerged, with off-balance-sheet items lacking sufficient oversight by both bankers and supervisors.
- Even in some leading banks that had advanced risk-management systems in place, the management and the board were completely surprised by the magnitude and the excess of risk-taking.
- Stress tests in many banks missed ‘the big one’ completely.
- Governance systems failed to provide appropriate information or were unable to react promptly and decisively (or both).
- Whatever disclosure there was, it failed to alert counterparties, who often were in knowledgeable positions.
- Banks were totally unprepared to deal with the liquidity problems they encountered.
- Mark-to-market valuation created sudden, dramatic changes in asset values, while lack of market liquidity made many instruments difficult or impossible to value.

The Financial Stability Forum and the Basel Committee on Banking Supervision at the Bank for International Settlements, the Senior Supervisors Group, the Institute of International Finance, the European

Commission and the US Treasury, to name a few, have all recently published insights into the problems that have arisen offering recommendations on new measures that will impact on Basel II and banking regulation generally, while the International Accounting Standards Board is considering changes to its valuation rules. In the coming months and years, one may expect ongoing and sustained effects.

All these issues and many more that have come up in recent times are good reason to launch a subsequent CEPS Task Force concerning Basel II and the crisis, with the present report providing essential background.

The Task Force related to this report discussed many of the issues in the context of the finalisation of Basel II, envisaging that there would be no major problems if Basel II were implemented wisely. In light of recent market developments, however, a number of issues need to be revisited. These include the treatment of the banking book; home-host issues in the context of a college of supervisors for the large banking institutions; the role of supervision, capital requirements and disclosure of off-balance-sheet items including special-purpose vehicles and issues of recourse. These aspects, as well as the capital treatment of complex structured products, will have to be expanded in a further report.

As a British politician once said, "Politics is driven by 'events'". We have seen another example of an unexpected event traumatising the banking industry as has occurred so many times over history. In the new CEPS Task Force, we will have to discuss whether internal models and external ratings can be improved and thus form building blocks of a system in which both regulators and bankers will work together to achieve the mutual objective of a sound global banking system.

Frederik C. Musch
Chairman

EXECUTIVE SUMMARY & POLICY RECOMMENDATIONS

The positive aspects introduced by Basel II capital regulation – namely enhanced risk sensitivity and flexibility, the increased importance attached to risk mitigation techniques and an emphasis on supervisory review and market discipline – are a step forward towards a modern and global banking regulatory framework. Having been implemented under severe financial market conditions, however, Basel II's inherent weaknesses were brought to the forefront, compelling international regulators to revisit several of its aspects that might not have been adequately addressed under more benign market circumstances.

The 2007 market turmoil was the result of an exceptional boom in credit growth and leverage in the financial system fed by a long period of low real interest rates, abundant liquidity and optimistic views of risk pricing, coupled with poor risk-governance, measurement and management systems. Undoubtedly, the incentives motivating market participants to govern, assess and manage risk in a responsible manner were loosened. At the same time, regulators who were supposed to respond to warning signals of approaching troubles, failed to react in time to temper the scale of the adverse impacts.

Only eight months following the 'outbreak', international regulators' coordinated response through the Financial Stability Forum converged on the need to strengthen the resilience of the banking system mainly through an overhaul of several aspects in the Basel II framework, the enhancement of the management and the supervision of liquidity risk management at a global level and the promotion of stronger industry disclosure and valuation practices. Yet, Basel II's aspiration to strengthen the banking system's resilience and to prevent the next wave of turmoil may not be the perfect answer despite serious efforts to fix a number of its flawed features.

Building on long-standing contributions of CEPS in the area of banking regulation through a series of Task Forces and independent research since 2001, this Task Force report, which is a product of discussion at several meetings in the course of 2005-06 and extensive research since then, examines the achievements of and challenges for Basel II's three-pillar implementation in Europe and across the Atlantic. The turbulence offered a unique life stress case and hence emphasised the importance of a resilient and stable regulatory and supervisory framework whose main aim should be to create the right incentives for better risk governance and management and appropriate capital buffers in the system.

The Task Force has formulated four broad recommendations aimed at policy-makers.

1. An integrated, three-pillar approach to implementing Basel II is essential for ensuring responsible and efficient institution-wide risk governance, assessment and management as well as adequate disclosure.

The Basel II Accord should be regarded as a **risk governance, assessment and management framework** that goes beyond capital management. Its second pillar plays the fundamental role of prompting banks to develop a holistic approach to assessing and managing their risks at the institutional level. Its scope is much wider than just the minimum capital requirements aspect of pillar 1, whose calculations mainly rest on a silo approach to measuring credit, market and operational risks founded on mere improvements of Basel I under the standardised approach and on complex internal quantitative and perishable measurements of risk under more advanced approaches. While covering all types of risks, internal governance and supervisory review, pillar 2 should set the right incentives for banks to develop and use better-quality risk-assessment and management techniques for setting capital targets in accordance with the bank's overall risk appetites, profile and operating environment. Pillar 2 relies on the role of supervisors in this respect to foster a truly integrated risk-management culture within institutions and to monitor developments closely while using capital add-ons if the capital requirements produced under pillar 1 do not reflect the true risk profile of the institution. Nevertheless, to succeed in this challenging exercise, supervisors must be armed with substantial quantitative and qualitative expertise and

resources, and must work closely with other supervisors in the case of cross-border financial groups.

To establish an effective risk-assessment and management system, a causality-driven framework, is key. Although it is supposed to be well defined by the Basel Committee, risk delimitation remains a puzzle for a number of banks. Indeed, one of the main problems is the definition of boundaries between the different types of risk (including any new or emerging ones), leading to potential inefficiencies when assessing them. The Basel Committee should consider developing an up-to-date risk taxonomy, based on a causality methodology to distinguish among the different types of risks. The application of this framework by banks would help to prevent the use of unsuitable risk assessment and management methods that are based exclusively on the classification of events (effects) without taking into consideration the causes. This framework would have been most helpful in identifying and analysing the risks that led to the recent financial market turmoil.

Finally, guidance on appropriate disclosure is essential not only to restore market confidence but also to build a transparent market for all types of products. Disclosure requirements under pillar 3 should be strengthened, particularly in terms of the risk disclosure for all types of exposures, while remaining consistent with international accounting standards (which are broader in scope to ensure the comparability of released information among institutions). In view of the weak interaction between pillars 2 and 3, international regulators may consider investigating the disciplinary role of disclosing capital add-ons under the supervisory review process.

- 2. In light of the significant limitations of the fifth quantitative impact study (QIS5) in general and the unreliability of its results in adverse market conditions in particular, international regulators are strongly encouraged to conduct a new impact study followed by a deeper macroeconomic analysis to gauge the effects of the 2007 market turmoil.**

Following the material decrease of minimum capital requirements for internationally active banks under the favourable market conditions reported in the QIS5 results and the significant limitations of this exercise, there is a need to conduct a new quantitative impact study to gauge the

potential impact of adverse and benign market scenarios on regulatory capital. Market conditions in the wake of the 2007 turmoil should be carefully considered in an effort to improve the robustness of the Basel II rules across the globe, especially given that the rules are currently being revisited by the Basel Committee. The impact study should be followed by deeper macroeconomic analysis to elaborate on the potential consequences (notably the cyclical nature of capital requirements) for the real economy and to propose solutions to counter adverse impacts.

3. In Europe, more consistency, convergence, cooperation and coordination are needed to successfully implement Basel II.

In the current situation, the tasks of transposing, implementing and enforcing Basel II require a **clear** and **common** understanding of multiple documents (the Capital Requirements Directive (CRD), opinions, guidelines, etc.) produced by various bodies (the CRD Transposition Group, European Banking Committee, Committee of European Banking Supervisors (CEBS) and National Supervisors).

To support consistent application of the rules and guidance at the EU level, more convergence is needed of the currently differing supervisory practices and tools (including those related to corrective action), whose divergence which may ultimately undermine a level playing field in the EU. Consequently, while striving to achieve one of its missions, that of 'supervisory convergence', a major difficulty for the CEBS concerns how to ensure that its 500-page consolidated guidebook becomes legally binding and enforceable in all member states. Yet, this may not be possible unless the CEBS role is formally strengthened, which remains a political issue.

More specifically, with respect to the cooperation between home and host supervisors, Art. 129 of the CRD establishes the background for joint model validation under the consolidating supervisor, but neither does it contain an *explicit* reference to the coordination of the supervisory review process under pillar 2 nor does it define a coordination mechanism among supervisors of cross-border banking groups. In its 2008 public consultation on possible changes to the CRD, the European Commission sought to reinforce the coordination of supervision in particular through the welcome addition of the host prudential supervisors of systemically important branches in the field of crisis management. Moreover, the European Commission's (2008) proposal patently recognises that "[t]he competent

authorities in one Member State shall have regard to the potential impact of their decisions on the stability of the financial system in all other Member States concerned". Even so, this ambitious objective falls beyond the scope of the CRD and demands an approach with compatible incentives for the entire EU safety net (lender of last resort, reorganisation and winding up, and deposit insurance).

Regarding the exchange of information among supervisors, the drafting of Art. 131 (written arrangements for coordination between home and host supervisors) and Art. 132 (consultation on supervisory actions) currently offers an opaque precept that will in turn hinder its effective application and the sharing of information among supervisors before a crisis erupts.

The proposed revision of the CRD is another welcome improvement in this regard, since it implicitly reinforces the importance of effective communication by specifically establishing the need to reach agreements on the disclosure requirements for 'significant' subsidiaries, on reporting for the calculation of minimum regulatory requirements, on the treatment of intra-group exposures for large exposures purposes and on own funds requirements in excess of the minimum level. This proposal, however, still falls short of a comprehensive approach to the sharing of information about a banking group in both normal and crisis circumstances.

In sum, the CRD is a revolution in prudential supervision, not only for EU banks but also for EU supervisors, and their respective tasks are daunting. Putting all the key elements together – comprehensible legislation, adequate and flexible measures for updating it, the means to promote consistency and a continual impartial dialogue with the interested parties, effective cooperation and coordination between supervisors in the most sensitive matters, and ultimately enforcement – will lay a firm foundation for successful application in all member states.

4. A consistent and timely implementation of Basel II around the globe is essential for ensuring a resilient global banking system.

Owing to the flexible character of the Basel II Accord, the aspiration for consistent application across the globe may sound naïve, especially in view of the US decision to delay the adoption of its related Notice of Proposed Rulemaking. The final compromise in July 2007 was reached on the condition that the joint federal agencies undertake a post-adoption study to

evaluate whether there are any material deficiencies in the banking system. The implementation of Basel II will proceed smoothly only if no material deficiencies are found. The conservative decision on the part of the US is legitimate, mainly in view of the worrying results of the earlier fourth quantitative impact study. Nonetheless, because of the staggered implementation dates in Europe and the US, internationally active banks and supervisors will have to identify and cope with problems arising from the application of different rules across the Atlantic.

Hence, given the systemic importance of the world's major banking groups as well as market conditions following the 2007 turmoil, it is crucial that Basel II is properly implemented by financial institutions and national authorities and done so in a timely manner, and that all problems (when they surface) are swiftly and adequately solved. A further challenge is to define an explicit quality-assessment framework for the implementation of Basel II. In this respect, the role of the Accord Implementation Group in assessing adequacy and consistency in the application of the new rules is paramount.

Finally, in addition to advanced discussions at multilateral and bilateral levels, international regulators will have to coordinate their efforts and actions more closely (including the sharing of information) and seek solutions in mutual recognition. And indeed, 'why not' rethink the building blocks of 'global regulatory and supervisory convergence' in order to provide tangible, quick, pragmatic, efficient and workable solutions, particularly for supervising complex cross-border banking groups.

INTRODUCTION

Multi-billion euro losses suffered by the world's largest and most reputable financial institutions following the 2007 subprime lending crisis and other scandals have cast doubt on the credibility of banks' internal governance and risk assessment and management systems, the role of credit rating agencies in externally assessing the risk of complex structured products and the capacity of regulators to prevent financial crises. The market turmoil was a response to long-lasting excess liquidity coupled with flawed internal governance and risk management and inappropriate incentives, which in combination created a delusion in the financial markets that everything was possible. In less than one year, the global financial scene experienced episodes of liquidity dry-ups, disruptions in inter-bank lending, a general loss of confidence in asset-backed securities, bank runs and bail-outs. Facing these serious consequences of ill-considered risk-taking, central banks across the Atlantic indulgently stepped-in to prevent worse scenarios from unfolding. This astonishing and worrisome context for Basel II implementation across the globe has raised scepticism and prompted the banking industry and international regulators to respond.

In a period of protracted turbulence, it is only human nature to seek a 'culprit'. Although credited with having increased the amount of bank capital across the globe, Basel I failed to adapt to market developments and, more dangerously, created perverse incentives and ultimately contributed to the delusions suffered by the financial market participants. The use of broad-based risk buckets without taking account of relative risk, the focus on a single credit risk indicator, outdated treatments of securitisation and trading book risks, the zero-risk weight for short-term stand-by credits and the cap on the counterparty-risk weight for swaps and forward contracts spawned an army of financial engineers and encouraged many of the imprudent practices that are being ruthlessly exposed by an extreme reassessment of credit counterparty risk.

Seeking to address the weaknesses of Basel I, the Basel Committee's sustained efforts and immense resources succeeded in producing the so-called 'Basel II' Accord.

Basel II rests on an evolutionary and flexible approach to banking supervision, which reflects the rapid progress and sophistication of banking practices and risk-management techniques, including securitisation. By aligning supervision and regulation with market developments, the new capital framework aims to provide incentives for banks to continue improving their internal risk-management capabilities and to enhance corporate governance and disclosure. It also gives supervisors the necessary tools to enable them to react to emerging developments, thereby reducing the regulatory arbitrage opportunities that Basel I created.

However, Basel II is not perfect and far from being the ultimate answer neither to the 2007 turmoil created in the financial market nor to a future one. The over-reliance on poorly performing quantitative risk measures, the imbalance and weak interaction between its three pillars and the inherent flaws in the treatment of securitisations and trading book instruments are only some of its weaknesses. Last but not least, its previously projected quantitative impacts on minimum capital requirement levels, banks and portfolios are no longer relevant under adverse market conditions due to its cyclical nature.

The 2007 market turmoil equally revealed that authorities are ill-equipped to monitor complex and risky activities of large cross-border institutions, not only due to insufficient resources and capabilities but also because of poor information exchange and cooperation in both stable and crisis situations. In view of these deficiencies, an overall regulatory and supervisory paradigm shift is needed. This shift should be based on setting the right incentives for banks to establish an integrated risk assessment, management and governance system at an institution-wide level. The focus should mainly be on Pillar 2, which requires supervisors to ensure that banks have this system in place and that their capital requirements reflect their true risk profile, and on Pillar 3, which aims at reinforcing market discipline through enhanced and effective disclosure by banks.

Under Pillar 2, supervisory authorities face an important challenge to efficiently monitor complex activities of banking institutions. **First**, they are expected to build a substantial body of quantitative and qualitative

expertise and to work closely with banks (with a particular focus on systemic banks). In practice, this will translate into the efficient use of larger human and technical resources in place. **Second**, they have to apply a clear and consistent approach on prudential measures resulting in capital add-ons. **Third**, they have to establish a mechanism for timely cooperation and exchange of information in both favourable and adverse market conditions.

Finally under Pillar 3, market discipline has to be viewed as an important mechanism to induce banks to assess and manage effectively their risks and to maintain sufficient levels of capital accordingly. Effective market discipline requires not only that relevant information is available to investors but also that it is possible to use this information to discipline institutions. Disclosing specific aspects of the supervisory review process, such as capital add-ons, may be considered to achieve this purpose.

In January 2008, Europe implemented the advanced approaches of Basel II, while the US is running behind. In light of the 2007 market turmoil, timely and consistent implementation of the new Accord at a global level is decisive.

By addressing these issues, the purpose of this report is to provide policy recommendations built on a critical assessment of the achievements and remaining challenges for Basel II and its implementation in Europe and in the US in the midst of turbulence. **The first chapter** examines the new integrated approach of risk governance and management in banking institutions underlined in Basel II while highlighting the main weaknesses in the contents of its three Pillars. **The second chapter** reviews the impacts of the new risk-sensitive capital requirements in light of the fifth quantitative impact study and underlines the weaknesses of this exercise and its irrelevance in adverse market conditions. **The third chapter** reflects on the building blocks of the implementation of Basel II in Europe, from the adoption process by the European institutions (the European Commission and Parliament and the Council) to the role of the Committee of European Banking Supervisors (CEBS) in ensuring consistency and convergence. **The fourth chapter** examines the role of the Accord Implementation Group and the consequences of a delayed implementation process of Basel II in the US. **A postscript opens new avenues for policy reflections.**

1. WHAT IS BEHIND THE NEW BASEL CAPITAL FRAMEWORK?

This section highlights the main regulatory developments by the Basel Committee on Banking Supervision (BCBS) since publication of the 1988 Accord - the so-called 'Basel I'. In particular, it examines the rationale, content and weaknesses of Basel I, investigates the new aspects introduced by Basel II, while highlighting its main drawbacks, particularly its focus on a silo approach to risk assessment and management, and elaborating on the concept of an integrated risk assessment, management and governance approach within Basel II's three pillars.

1.1 Capital requirements an essential regulatory tool

The essence of banking activity is to take and manage **risks**.¹ Banks implicitly accept risk as a straightforward consequence of providing services to customers and explicitly take risk positions that offer profitable returns relative to their risk appetites. Banks have always been the most important financial intermediaries. This results from their role as providers of liquidity insurance² and monitoring services³ and as producers of information. Banks and other financial institutions have traditionally been highly regulated. Two justifications⁴ are often adduced for regulating

¹ Risk has traditionally been viewed in 'negative' terms. Webster's dictionary, for instance, defines risk as "exposing to danger or hazard". The Chinese symbols for risk, 风险, give a much better description. The first symbol is for "wind" and the second is for "danger", which makes a clear association between wind and danger. In their classic study of the banking industry, Benston et al. (1986, p. xiii) observe: "Banking is now, and has always been, a risk business. The key to success both in operating a bank and supervising a banking system is management of risk."

² Bryant (1980) and Diamond & Dybvig (1983).

³ Diamond (1984).

⁴ For other rationales for regulating banks, see Goodhart et al. (1998).

banks: the risk of a systemic crisis⁵ and the inability of depositors to monitor banks.⁶ Here comes the role of deposit insurance and its associated costs since it leads to moral hazard. When it is not fairly priced, deposit insurance gives banks an incentive to increase risk, which they can pursue by increasing the risk of their assets or their leverage. This risk-shifting incentive, together with the potential externalities resulting from bank failures, has been one of the main justifications for regulating bank capital.⁷

Bank prudential supervisors, who are responsible for financial stability, have the important task of ensuring that banks (notably systemic and too big to fail banks) maintain an adequate cushion of capital and liquidity that takes account of the potential for risk assessment and management failures, particularly during times of stress. So far, minimum capital requirements are a major tool for maintaining an adequate cushion to absorb losses that would otherwise cause the failure of a bank (Box 1). However, although a minimum level of capital was maintained over years, history has shown the grim reality of the banking industry tainted with worldwide failures and fiascos⁸ arising from different sources of risks and heavy exposures to risky portfolios coupled with risk mismanagement.

⁵ According to Diamond & Dybvig (1983), a bank's provision of liquidity services leaves it exposed to runs. For example, if depositors panic, they may try to withdraw their funds out of fear that other depositors will do so first, thus forcing an otherwise sound bank into bankruptcy (witness the recent case of Northern Rock). Furthermore, in an environment of asymmetric information, a bank run may trigger contagion runs, which can culminate in a system failure (Aghion et al., 1999), showing how the failure of one bank may trigger a contagious run on other banks in a model with multiple competing banks and an interbank market.

⁶ Dewatripont & Tirole (1993a, 1993b) propose a rationale for banking regulation – the representation hypothesis – that builds on the corporate governance problems created by the separation of ownership from management and on the inability of depositors to monitor banks. The point of departure of their argument is that banks, like most businesses, are subject to moral hazard and adverse selection problems. Therefore, it is important that investors monitor them, but that is an expensive activity and requires, among other things, access to information.

⁷ For an extensive review of the literature, see Santos (2000).

⁸ In 1995 the UK's oldest merchant bank, Barings, also known as the 'Queen's bank', went bankrupt as a result of the embezzling actions of a single trader based

Box 1. What is capital in a regulatory context?

In the regulatory context and according to BCBS (1988), capital is defined on a two-tiered basis:

- *Tier 1 capital* (or core capital) includes stock issues (shareholders' equity) and disclosed reserves. Disclosed reserves can take the form of loan-loss reserves set aside to cushion future losses and smooth out income volatility.
- *Tier 2 capital* (or supplementary capital) includes perpetual securities, unrealised gains on investment securities, hybrid capital instruments (e.g. mandatory convertibles), long-term subordinated debt with maturities greater than five years and hidden reserves, such as excess allowance for losses on loans and leases. The total of tier 2 capital is limited to a maximum of 100% of the total of tier 1 capital.

The 1995 proposal (BCBS, 1995) also provided – at the discretion of national supervisors – for a third tier of capital consisting of short-term unsecured subordinated debts that can only be used for meeting market-risk capital requirements.

The BIS press release of October 1998 (<http://www.bis.org/press/p981027.htm>) provided stringent conditions for the inclusion of innovative capital instruments in tier 1 capital. These instruments will be limited to a maximum of 15% of tier 1 capital.

Source: BCBS (1988, 1995, 1998 (press release)).

Among the risks that a bank must manage adequately, credit risk⁹ is fundamentally important particularly when a bank focuses on traditional retail and corporate activities. Moreover, a bank must manage market risk¹⁰ when it deals with securities and bonds in its balance sheet, operational

at a small office in Singapore and the incapacity of the risk-management team to avoid the worst consequences. In 2007/2008, several highly reputed global and regional banks suffered hefty write-downs and losses due to inconsiderate exposures to the US subprime market and related poor risk management, control and governance.

⁹ Credit risk is the risk of loss due to the failure of the counterparties to meet their obligations as stated in a loan contract.

¹⁰ Market risk is the risk of loss owing to a change in market prices, such as equity prices, interest or exchange rates.

risk¹¹ when it relies heavily on information technology and human resources, liquidity risk¹² (market and funding¹³) when it relies on the market to secure funding of its operations, concentration risk¹⁴ when it deals with large exposures and other types of risk¹⁵ such as counterparty credit risk,¹⁶ reputation risk, business risk, interest rates risk, pricing and correlation¹⁷ risks due to flaws in modelling and data collection. The

¹¹ Operational risk is the risk of loss resulting from inadequate or failed internal processes, persons or IT systems, or from external events.

¹² Liquidity risk is a risk of not maintaining or generating sufficient cash resources to meet payment obligations in full as they fall due, or can only do so at materially disadvantageous terms.

¹³ The recent episode of Northern Rock revealed the importance of managing liquidity risk, which is not taken into consideration under Basel I.

¹⁴ Concentration risk is the risk when an exposure has the potential to produce losses large enough to threaten a financial institution's health or ability to maintain its core operations.

¹⁵ The management of a number of these risks proved to be rather weak during the market turmoil that began in 2007. See BCBS (2008).

¹⁶ As mentioned by BCBS (2008), counterparty risk measurement has always acknowledged a concern with so-called 'wrong way' exposures, namely, those exposures that are likely to be largest precisely when the counterparty's creditworthiness is lowest.

¹⁷ Correlation risk exists in many credit risk transfer (CRT) products, such as CDOs (collateralised debt obligation). These are structured based on assumptions about the degree of diversification of an underlying portfolio. An estimate of the correlation of defaults among the exposures in the portfolio is a key input into a model used to design, value or risk-manage CDOs. The statistical concept of correlation refers to the average co-movement of two assets or prices over time. But often what matters for the performance of more senior CDO tranches is the worst-case co-movement, because that generates the largest losses in the underlying portfolio. This is especially true for the senior part of the CRT capital structure, which only suffers a loss when the losses in the underlying portfolio are very large. This difference between average and worst-case correlation can be difficult to incorporate into models and difficult for market participants to understand. It is important to mention that for ABS CDOs, the correlation parameters in the rating agencies' models were not derived from any empirical data, due to the short data history available on the default history of the underlying subprime residential mortgage-

interaction between these risks is very important too in the overall risk measurement and management framework of a bank.

A bank that manages these risks is required to hold capital, referred to as regulatory capital requirements or the capital adequacy ratio, to limit its leverage and to provide a buffer against unexpected losses. The retention of sufficient capital decreases the likelihood of a bank becoming insolvent and reduces the negative impact of bank failure through its loss absorption capacity and ensures increased public confidence. Nevertheless, high capital adequacy ratios do not guarantee the bank's soundness, particularly if all types of risks have not been adequately managed,¹⁸ or the risks being taken are not fully identified¹⁹ or the bank is misgoverned.²⁰ The 2007 market turmoil²¹ showed that many banks and securities firms operating under relatively sound financial conditions and generally with capital well above minimum regulatory requirements entered in serious distress because of lousy risk assessment and governance systems, leading to a wave of write-downs, unexpected losses and share prices plunges (see

backed security (RMBS). For more discussion on the sensitivity of senior tranches of ABS CDOs to correlated, economy-wide shocks, see BCBS (2008).

¹⁸ In the case of Northern Rock, the bank was apparently solvent but a poor liquidity risk management was exacerbated by market liquidity dry-ups, which triggered the bank run and in order to avoid a subsequent failure, the bank was nationalised.

¹⁹ As recognised by the Committee on Market Best Practices of the Institute of International Finance (IIF, 2008), certain risk management practices and methodologies failed to identify the real risk profile of structured financial instruments.

²⁰ In this respect, supervisors should consider a bank's capital adequacy in the context of a broader set of factors, including a bank's corporate governance. The BCBS (1999) clearly recognised the importance of a sound corporate governance system as a condition for a well functioning banking supervision. In 2006, the Committee published an updated guidance paper (BCBS, 2006c), containing eight clear principles for a sound corporate governance framework.

²¹ Triggered by a sharp loss in the value of subprime mortgages and related mortgage-backed securities and the deterioration of investors' appetite during the summer of 2007. For more extensive discussion on the factors underlying the market turmoil, see FSF (2008).

situation of high street banks in Appendix 1). Highly capitalised banks could absorb these unexpected losses, whereas others had to replenish their capital base or required government intervention. The bottom line is that regulatory capital is an important indicator of a bank's general condition and a sound signal to financial markets. Therefore, minimum capital requirements provide one essential prudential regulatory instrument. However, holding capital²² (whatever its level) without a comprehensive and integrated risk assessment and management framework at the institution-wide level may not be sufficient and may still expose a bank to a failure.²³

Basel I was the first step forward in capital regulation. However, this regulatory framework has proved to be too simple to address all types of risks and the inherent complexities of large banks' activities, particularly securitisation. As a response to the limitations of Basel I in a more sophisticated financial era, the Basel Committee on Banking Supervision²⁴

²² When looking at the history of banking capital ratios in the US over the past 100 years, the ratio of equity to assets has fallen remarkably. In 1840, equity funded over 50% of banks' assets, after which the ratio fell fairly steadily for about 100 years until it settled in the 6% to 8% range from the mid-1940s until today. The aggregate equity/asset ratio rose from 6.21% at the end of 1989 to 8.01% at the end of 1993, an increase of almost 30% in four years due to combined effects of various US regulatory actions including Basel I. See Berger et al. (1995) for a more extensive discussion on the role of capital in financial institutions. Nowadays, capital ratios only account for certain types of risks (particularly credit risk), which is necessarily the reflection of modern banking activities.

²³ See definition of concentration in footnote 14.

²⁴ The BCBS was created in 1975 within the Bank of International Settlements (BIS) in Basel. The Committee brought together bank supervisors from the G-13 countries (Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the UK and the US) to respond to the myriad of bank failures that undermined financial stability in the 1970s. It has no formal authority, rather its objective is to develop broad supervisory standards and promote best practices, in the expectation that each country will implement the standards in the ways most appropriate to its circumstances. Agreements are developed by consensus, but decisions about which parts of the agreements to implement and how to do so are left to each nation's regulatory authorities.

worked on a new Accord (Basel II) that reflects the changes in the structure and practices of banking and financial markets.

1.2 Basel I: A first step towards capital regulation...

The Basel Capital Accord (Basel I) – the international framework on capital adequacy – was adopted in 1988 by a group of central banks and other national supervisory authorities working within the Basel Committee on Banking Supervision (BCBS). The 1988 Accord²⁵ set out details for measuring capital adequacy and the minimum standards for its implementation into national laws of the G-13 member countries by December 1992.

The Basel I Accord had two fundamental objectives, namely,

- to “strengthen the soundness and the stability of the international banking system”²⁶ by creating common minimum capital adequacy requirements for internationally active banks to set aside a capital cushion for the amount of risk taken; and
- to create a level playing field among international banks by establishing that the framework should be fair and consistent in its application to banks in different countries.

The original framework assessed capital mainly in relation to credit risk and addressed other risks (such as market risk, liquidity risk and operational risk) only **implicitly** – it effectively loaded all regulatory capital requirements into insensitive risk measures of credit risk.

Specifically, the 1988 capital framework requires banks to hold capital known as ‘regulatory capital’ through the combination of equity, loan-loss reserves, subordinated debts and some other instruments, equal to at least 8% of all the risk-weighted assets (RWA) (such as loans and securities) and asset-equivalent off-balance-sheet exposures (such as loan commitments, standby letters of credit and obligations on derivatives contracts) in their

²⁵ See BCBS (1988).

²⁶ Ibid.

portfolios.²⁷ This measure has finally allowed the provision of a common and comparable measure of solvency known as the 'Cooke ratio' (Table 1).

Table 1. Regulatory capital in selected countries in 2005

	France	Germany	Italy	Spain	UK	US
Regulatory capital to risk-weighted assets	11.41%	12.15%	9.97%	12.43%	12.76%	12.79%
Regulatory tier 1 capital to risk-weighted assets	8.25%	7.96%	7.32%	8.01%	8.91%	10.69%

Source: IMF (2007).

The assignment of risk weights is based on the perceived credit quality of an individual obligor and each off-balance-sheet exposure is converted to its equivalent amount of asset and then weighted accordingly.

Four broad categories of capital charges are set by the Basel I Accord:

- government exposures with OECD countries receive 0% credit-risk capital charges;
- OECD banks and non-OECD governments receive a 1.6% capital charge (which corresponds to a risk weight of 20%);
- mortgages receive a 4% capital charge (which corresponds to a risk weight of 50%) and;
- other remaining exposures such as those to other banks and all corporates including SMEs receive a capital charge of 8% (which corresponds to a risk weight of 100%). More recently, the 1996 amendment²⁸ to the Basel Capital Accord extended the initial requirement to include risk-based capital adequacy for market risk in the trading books of the banks.

²⁷ In addition to on-balance-sheet activities, the Basel framework takes into account the credit risk of off-balance-sheet items by applying credit conversion factors to the different types of off-balance-sheet assets, so that they can then be treated as on-balance-sheet items.

²⁸ BCBS (1996).

Basel I has served its purpose of promoting financial stability by strengthening the capital base of internationally active banks²⁹ and providing an equitable basis for competition since its inception in 1988.

Nevertheless, throughout the numerous previous and recent turbulent market events, Basel I failed to cope with market developments including the growing sophistication of financial products. More dangerously it has created perverse regulatory incentives to move exposures off the balance sheet and did not capture important elements of banks' risk exposures. Its inadequacy was mainly triggered by major innovations in the banking industry and advances in risk-management techniques, as discussed below.

- The first limitation of Basel I is related to the overly *simplified approach inherent in its architecture*. First and foremost, it only accounted for credit risk, while many other risks that banks manage are equally important nowadays. For credit risk, the use of only four broad credit risk-weighting categories for capital charges does not provide enough granularity in the measurement or distinction of different levels of credit risk and other risks embedded in banking portfolios, especially to address the activities of the most complex organisations. This limited differentiation among degrees of risks means that calculated capital ratios are often uninformative and may provide misleading information about a bank's capital adequacy relative to its real risk profile. As a very simplistic example, suppose 'bank A' has a portfolio of different quality borrowers. This bank is required to hold 8% of capital adequacy on its overall portfolio regardless of the quality of its borrowers, which in turn means that a better quality or investment grade borrower is not rewarded by its bank (with better terms in its loan policy, better rates and more access to loan financing).
- Second, the most obvious limitation, which is a result of the limited differentiation among degrees of risks, is the *creation of incentives for banks to engage in 'gaming'* through regulatory arbitrage provided by asset securitisation and other innovative financial vehicles including credit derivatives (credit derivatives swaps, collateralised debt, loan,

²⁹ See discussion in footnote 22.

notes obligations and alike). The general idea behind these new instruments is to allow banks to trade their credit risk exposures in order to transfer the risk to other financial actors in the market.³⁰ In other words, thanks to these new instruments, banks tend to trade exposures for whatever regulatory capital requirement is higher than what the market requires. As an example, residential mortgages are types of assets that banks securitised in large volume because they believe the required regulatory capital would be greater than economic capital (see Box 2). As a consequence, asset securitisation has rendered the 1988 Accord's minimum capital requirements ineffective as a tool to maintain adequate regulatory capital against the real risk taken. Through asset securitisation, banks have been able to significantly lower their credit risk-based capital requirements without reducing the actual credit risk embedded in their banking portfolios, as the recent crisis in the credit derivatives market has demonstrated.

Box 2. What is economic capital?

Economic capital is a bank's own estimate of the capital needed to support its risk-taking activities. It represents the emerging best practice for measuring and reporting all kinds of risk across a financial organisation. It is called 'economic' because it measures risk in terms of economic realities. It is called 'capital' because part of the measurement process involves converting a risk distribution to the amount of capital that is required to support the risk, in line with the institution's targeted financial strength (e.g. credit rating).

An economic capital framework allows banking institutions to derive a return on equity objective into individual transaction decisions through risk-based pricing. Risk-based pricing can be a key competitive differentiator. Indeed, the banks that use risk-based pricing are able to 'cherry pick' the most profitable loans through aggressive pricing; those not using this technique will accumulate a disproportionate share of underpriced and higher-risk loans.

Leading global banks that have embraced the economic capital framework include Deutsche Bank, Bank of Ireland, Barclays, SE Banken and ING.

³⁰ See Ayadi & Behr (2008).

- Third, a one-size-fits-all approach to risk assessment and management is neither adequate for banks of different levels of complexity in determining minimum capital requirements, nor does it provide them with enough incentives to improve risk assessment and management techniques. Moreover, the 1988 Accord gives very little attention to other types of risks and credit-risk mitigation. Despite the rapid expansion of credit derivatives (particularly credit derivative swaps) as a risk-management tool during the past decade, the 1988 Accord does not recognise offsets on the banking book through credit-risk mitigation techniques covering collateral, guarantees,³¹ credit derivatives³² and on-balance-sheet netting.
- Fourth, with the exception of the 1996 amendment to extend capital adequacy to market risk, the 1988 Accord focused primarily on credit-risk capital requirements and did not keep pace with banking industry developments. Indeed, over the past 15 years, a large number of banks have extensively used the technological advances in information technology to improve their risk-management techniques and functions that cover a far more comprehensive range of risks outside credit and market risks such as operational risks and liquidity risks.

1.3 An integrated view of Basel II's three-pillar approach

Since 1998, the BCBS has been engaged in a revision process of the 1988 Capital Accord in an extensive consultation process particularly with the industry: in 2001, it published the second consultation paper (CP2); in 2003, the third consultation paper (CP3) improved the previous version of the Accord; and in June 2004, the new Basel Capital Accord (Basel II) was formally released.

Implementation of the new Accord has been gradual: from January 2007 for the simpler approaches and from January 2008 for the more advanced ones (see Table 2).

³¹ According to a survey of industry views undertaken by the capital group of the BCBS in January 2000, collateral and guarantees are the most widely used credit-risk mitigation techniques.

³² These instruments have exploded in recent years (see Ayadi & Behr, 2008).

Table 2. History of the Basel II process

June 1999	First Consultation Paper (CP1)
July 2000	Quantitative Impact Study 1 (QIS1)
January 2001	Second Consultation Paper (CP2)
April 2001	Quantitative Impact Study 2 (QIS2)
November 2001	Quantitative Impact Study 2.5 (QIS2.5)
October 2002	Quantitative Impact Study 3 (QIS3)
April 2003	Third Consultation Paper (CP3)
2004/2005	Quantitative Impact Studies 4 and 5 (QIS4/5)
January 2004	Modifications to the capital treatment for expected and unexpected credit losses in the New Basel Accord
June 2004	Publication of the 'New Framework' document
April 2005	Consultation on the trading book review and double default
July 2005	Publication of the trading book review and double default
January 2007	Scheduled implementation of simple methods
January 2008	Scheduled implementation of advanced methods

The new Basel Capital Accord introduces an evolutionary, flexible and more complex risk-sensitive approach to banking supervision, which reflects a response to the weaknesses of the Basel I Accord and the rapid progress and sophistication of banking practices and risk-management techniques.

Basel II significantly refines the framework's risk sensitivity by avoiding cross-subsidisation and thus requiring higher (lower) levels of capital for high-risk (low-risk) borrowers. It also allows for the treatment of risk mitigation techniques and securitisation which have been in use by banks over the past years and thus reduces risk arbitrage opportunities. In addition, the new framework provides rules for market disclosure and therefore supports market discipline and finally it offers guidance on the supervisory review of banks' risk assessment and management practices.

By aligning regulation and supervision with banks' own risk estimates, the new capital framework not only provides incentives for banks to continue improving their internal risk- measurement and management capabilities but also supplies the necessary tools (e.g. scenario

and stress testing) to supervisors to enable them to react to emerging developments.

Basel II introduces a number of new aspects to the regulation and supervision of banks, structured around three mutually reinforcing pillars (diagrammed in Figure 1):

- Pillar 1: minimum capital requirements
- Pillar 2: supervisory review
- Pillar 3: market discipline.

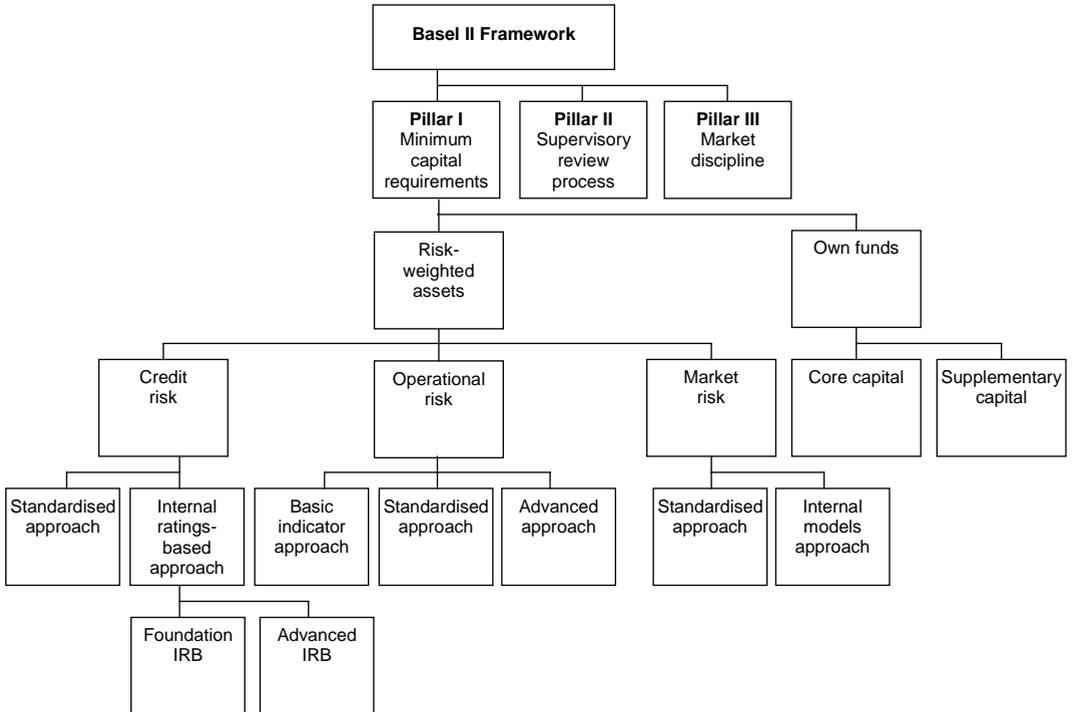
However, many weaknesses persist (see Appendix 2). These range from the imbalance and weak interaction between its pillars to the flaws in the treatment of several technical aspects. Most importantly, in its first pillar, Basel II relies on a silo approach for assessing and managing three types of risks (credit, market and operational). This approach may be laudable when compared to Basel I but may not be sufficient to respond to the reality of complex banking institutions that deal with a variety of other risks. In its recent report, the Institute of International Finance (IIF, 2008) recognised the need to further integrate risk management systems, breaking down silos that may result in missed issues across credit, market and operational risks. Equally, in their report published in March 2008 on risk management practices in the aftermath of the 2007 market turmoil, the Senior Supervisors Group³³ recognised the necessity to be armed with a comprehensive approach to viewing firm-wide exposures and risk. In the same line of thinking, the FSF (2008) underscored the importance of pillar 2 in strengthening banks' risk assessment and management practices.

In this section, we will briefly review the contents of the three pillars,³⁴ while focusing on the developments in July 2005 including the new rules for securitised assets, trading book and double default.

³³ From France, Germany, Switzerland, the UK and the US.

³⁴ For more details, consult Ayadi & Resti (2004) and BCBS (2006a).

Figure 1. An overview of the new Basel framework



Source: ECB (2005).

1.3.1 Pillar 1 – A silo approach for measuring credit and operational risks

The computation of the minimum supervisory capital under the first Pillar is based on the simple sum of the capital requirements originating from: 1) credit risk, 2) market risk and 3) operational risk (see Box 3).

Box 3. The capital ratio under Basel II

Regulatory capital (definition unchanged)

 = Minimum required capital ratio (8% minimum unchanged)

Risk-weighted assets (measure revised) *

*Credit risk exposure (measure revised) + market risk exposure (measure unchanged) + operational risk exposure (explicit measure added)

To estimate the minimum supervisory capital for credit risk, a variety of approaches, which include the standardised and the internal rating based (IRB), are available for banks.

1. *Measuring credit risk under different approaches*

The standardised approach slightly improves the existing Accord by differentiating assets according to the obligor and the risk profile solely assessed by external credit assessments institutions (ECAI).

The exposures are classified into a set of standardised asset classes (sovereign, banks, corporate, retail, residential property, commercial real estate and other assets), and a risk weight is applied to each class, reflecting the relative degree of credit risk.³⁵

The amount of capital required on an unsecured €1 loan to a private firm – now fixed at 8 cents (8% x €1) – could decrease to 1.6 or increase to 12 cents, depending on the ratings issued by the ECAI.

Better ratings (type AAA-AA) will bring about lower weights in the computation of risk-weighted assets; moreover, as in Basel I, different categories of counterparties (e.g. non-financial firms, states or banks) will receive different sets of coefficients.

For example, a €100 loan to a AAA-rated non-financial company will translate into €20 of risk-weighted assets, and will therefore lead to a capital requirement of $20 \times 8\% = €1.6$ (in other words, 1.6% of the unweighted exposure). Similarly, a €100 facility offered to a sovereign state with a rating lower than B- will give rise to a €150 risk-weighted exposure, hence requiring a capital coverage of $150 \times 8\% = €12$ (12% of the face value).

Banks that opt for this approach are expected to rely on ECAs. However, these institutions must obtain recognition from the banking supervisors before their ratings can be used by banks for determining risk weights. Therefore, an ECAI must satisfy each of the following **six criteria**:

1. *Objectivity* of the rating or credit risk assessment methodology;
2. *Independence* which is related to the requirement to be free from political or economic pressures that may influence the analysis;

³⁵ For a more detailed discussion, see Ayadi & Resti (2004).

3. *International access/transparency* related to the services that should be offered to both domestic and foreign firms at similar terms;
4. *Disclosure* of material information, which includes the rating methodology, the definition of default, the time horizon, the meaning of each rating, the actual default rates experienced in each assessment category and the transition matrix;
5. *Sufficient resources* for offering credit assessments of high quality; and
6. *Credibility* of the credit assessments.

The standardised approach provides simplicity to banks which do not have the necessary risk measurement and management capacities to qualify for the advanced approaches. However, operating under this approach weakens banks' incentives to upgrade their risk measurement and management systems and therefore creates a 'second-best' tier of banks whose risk is not managed at its optimum level. This approach delivers risk sensitivity only if all corporates are rated³⁶ and if their ratings properly reflect their risk profiles. Unrated corporates are expected to face the same risk charges as in the Basel I Accord. Therefore there is a strong expectation that highly risky exposures will be better off in terms of capital charges when they are simply unrated. In an extreme-case scenario, banks opting for this 'somewhat adverse' behaviour would be inclined to specialise in highly risky portfolios. In addition, if their business models coincide with the 'originate and distribute' model type, then a widespread market impact will be a repetition of the 2007 financial turmoil. This perverse incentive may be overcome by enhancing the incentives to broaden ratings to unrated companies.

Importantly on the demand side, since unrated companies incur a lower risk weight than companies rated B and below, using the standardised approach may create negative incentives for risky companies to prefer forgoing ratings to obtain cheaper finance.³⁷ Such behaviour may be encouraged by the emergence of private rating assessment services providers, which perform confidential ratings for companies without

³⁶ Small- and medium-sized enterprises are generally not rated.

³⁷ Ayadi & Resti (2004) and Danielson et al. (2001).

committing to make the results public. This creates an incentive to shop around for better ratings.

Consequently, regulators may consider monitoring the variability of external ratings and the models used by the market over time³⁸ or simply review – with the aim of strengthening – the six criteria for external ratings agencies to qualify for Basel II and to avoid adverse behaviour.

Similar to the standardised approach, the IRB approaches³⁹ distinguish between asset classes (sovereign, bank, corporate,⁴⁰ retail⁴¹ and equity exposures) to which different supervisory risk weight functions apply.

If a bank chooses (and is allowed by the national supervisor) to create its own rating system (instead of depending on external agencies), the

³⁸ Danielson et al. (2001).

³⁹ The IRB approaches are derived from the academic work of Gordy (2003) on credit risk modeling. Its theoretical basis is the asymptotic single risk factor (ASRF) model of credit risk. According to this model, default occurs when a borrower's assets do not cover its debt. The corresponding measure of credit risk within a certain time frame (commonly set at one year, also in Basel II) is the probability of default (PD). The ASRF model implies that it does not take into account borrowers' idiosyncratic risks, i.e. risks that can be diversified in the bank's loan portfolio. Instead, the model measures the marginal risk contribution of an exposure that it would add to an already well diversified portfolio. In this respect the IRB approach differs from models that some banks apply internally which measure a loan's risk contribution to a bank's actual portfolio, inclusive of a potential additional diversification effect achieved by adding an exposure to this specific borrower (the 'credit risk portfolio model'). The IRB approach therefore contains a deliberate simplification compared with the most advanced techniques currently applied. This simplification allows for a model that is standardised and can be applied uniformly to banks of different sizes and portfolio compositions. The horizon of the risk assessment is set at one year. The IRB model also assumes a 99.9% confidence level. For more details, see Resti (2002).

⁴⁰ Broken down into exposures to small- and medium-sized enterprises, specialised lending, purchased receivables and other corporate exposures.

⁴¹ Broken down into residential mortgage loans, qualifying revolving credit exposures, purchased receivables and other retail including loans to small businesses.

capital against each credit exposure will be a function of four basic risk parameters: *the probability of default*⁴² (*PD*), *the loss given default*⁴³ (*LGD*), *the exposure at default*⁴⁴ (*EAD*) and *the remaining maturity of the exposure*⁴⁵ (*m*) of the credit portfolio to which the exposure belongs.

The expected loss is a simple multiplication of ($PD \cdot LGD \cdot EAD$). In conjunction with the maturity estimate of the exposure (*m*) and the diversification coefficient (*rho*), these risk parameters are used to determine capital for both economic capital and Basel II regulatory capital models.

Risk weights and thus capital requirements would be determined by a combination of a bank providing the quantitative inputs and the supervisor providing the formulas (the risk weight functions). The resulting risk weights are shown in Figure 2. As designed by the BCBS, the treatment of retail portfolio is more favourable than that of large corporate borrowers.⁴⁶

⁴² The default probability for a borrower over a one-year period. It is also known as the expected default frequency. A starting point of the measurement of PD is the definition of default. In general, the default event arises from the non-payment of principal or interest. It is commonly admitted that default occurs if payment is past due 90 days. These types of loans are characterised as ‘non-performing’.

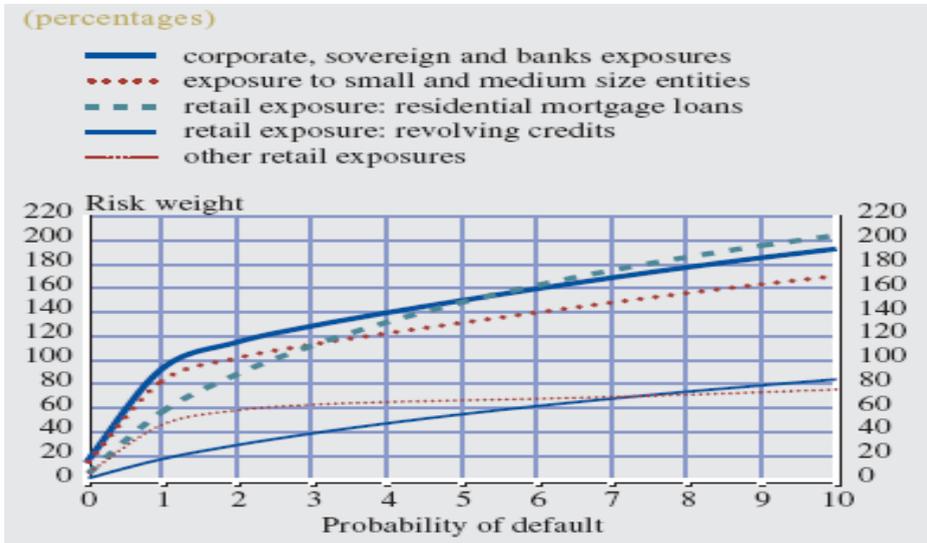
⁴³ The expected amount of loss on a facility provided to the borrower when s/he defaults. To determine LGD, a bank must be able to identify the borrowers who defaulted, the exposures outstanding at the time of default and the amount and timing of repayments ultimately received. In addition, private information on the borrower and the availability of collateral could serve to develop the LGD estimates.

⁴⁴ The amount the borrower owes at the time of default. The EAD is the sum of the current utilisation expressed as a percentage of the total commitment and the loan equivalent, which is the additional utilisation as a percentage of the unused commitment.

⁴⁵ Which raises the possibility that the original probability of default needs to be revised and possibly increased.

⁴⁶ For a more extensive discussion on the impact of Basel II on SME portfolios, see Ayadi & Resti (2004).

Figure 2. IRB risk weights* across asset classes



* Risk weights are calibrated to cover only unexpected losses which have to be met via capital requirements.

Source: ECB (2005).

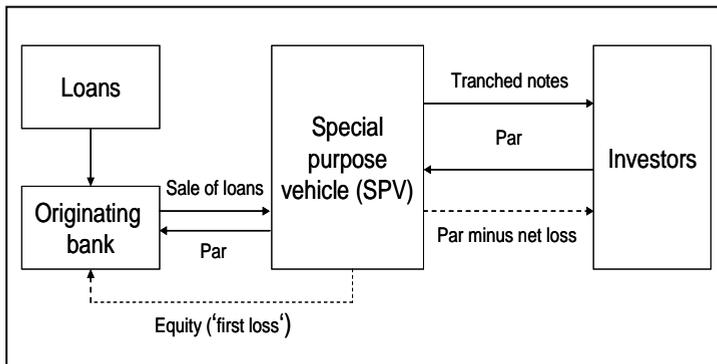
There are two IRB approaches: the foundation and the advanced. The difference between the two is that the former would require the bank only to determine each loan’s probability of default and the supervisor would provide the other risk inputs; under the latter, the bank would determine all the risk parameters internally, based on estimations and procedures validated by the supervisor. In principle, both the foundation and the advanced IRB approaches are available for all asset classes, with the exception of the retail class where the advanced IRB is available. The choice of operating under either of the two approaches would be required to meet minimum qualifying criteria based on the comprehensiveness and integrity of the banks’ internal capabilities for assessing the risk inputs relevant for each approach. It is important to note that the use of internal banking models to assess credit risk exposures, although seemingly powerful tools, may suffer from the ‘somewhat’ unrealistic assumptions inherent in them. This drawback should be acknowledged and monitored over time by banks and by supervisors under pillar 2.

2. *The new treatment for securitised assets*

Basel II provides for an internationally harmonised standard for the supervisory treatment for securitisation exposures. These exposures include – but are not restricted – to asset-backed securities, mortgage-backed securities, credit enhancements, liquidity facilities, interest rate or currency swaps, credit derivatives and tranching cover.⁴⁷

Securitisations can be structured in many different ways, including traditional or cash securitisation (Figure 3) and synthetic securitisation (Figure 4). Traditional securitisation is a structure where the cash flow from an underlying asset is used to service at least two different stratified risk positions or ‘tranches’ reflecting different degrees of credit risk. Payments to the investors depend upon the performance of the specified underlying asset. A synthetic securitisation is a structure with at least two different stratified risk positions⁴⁸ or ‘tranches’ where credit risk of an underlying asset is transferred. This transfer can be either in whole or in part, through the use of funded (e.g. credit-linked notes) or unfunded (e.g. credit default swaps) credit derivatives or guarantees that serve to hedge the credit risk of the portfolio. Accordingly, the investors’ potential risk depends on the performance of the underlying asset.

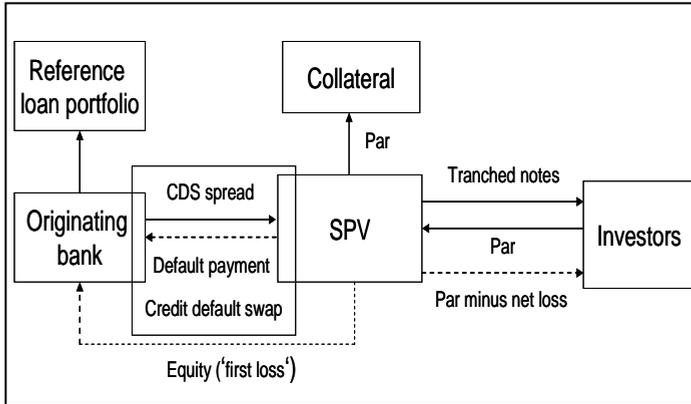
Figure 3. *Cash securitisation*



⁴⁷ Where the bank transfers a portion of the risk of an exposure in one or more tranches to a protection seller or sellers and retains some level of risk of the loan, and the risk transferred and the risk retained are of different seniority (BCBS, 2006a).

⁴⁸ Which reflect different degrees of credit risk.

Figure 4. Synthetic securitisation



Source: Ayadi & Behr (2008).

In practice, the originating bank packages a portfolio of reference entities (e.g. loans...). The package is subsequently sold to an independent special purpose vehicle⁴⁹ (SPV) formed for the specific purpose of funding the loans. In a traditional or cash securitisation transaction, the SPV issues tradable securities to fund its purchase of the loan portfolio from the originator. The performance of these securities is directly linked to the performance of the loan portfolio. The securities are then sold to investors. In a synthetic securitisation transaction, a credit default swap (CDS) (in the case of unfunded transaction) or a credit linked note (CLN) (in the case of funded transaction) on the reference portfolio is created between the originating bank and the SPV. The originating bank pays a premium to the SPV and in case of a credit event, the SPV ensures the default payment to the originating bank.

⁴⁹ The SPV is a separate company, which is not owned by the originator. Its structure is intended to isolate the entity from the credit risk of an originator or seller of exposures. SPVs are commonly used as financing vehicles in which exposures are sold to a trust or similar entity in exchange for cash or other assets funded by debt issued by the trust (BCBS, 2006a).

The originating bank could also serve as a sponsor of an asset-backed commercial paper (ABCP) conduit⁵⁰ or similar programme that acquires exposures from third-party entities. In this case, it manages or advises the programme, places securities onto the market or provides liquidity and/or credit enhancements.⁵¹

Basel II introduces operational requirements for the recognition of risk transfer in the traditional and synthetic securitisations. At the same time, by making capital requirements depend on the risk in the securitised positions, Basel II aims at reducing the scope for capital arbitrage, a key drawback of the Basel I framework and apparently an important driver of securitisation.

Basel II deals with both traditional as well as synthetic transactions. Just as for credit risk, a number of approaches of different complexity are introduced to deal with the wide variety in instruments and degree of sophistication of the bank. Banks that apply the standardised approach to credit risk for the type of underlying exposure(s) securitised are required to use the standardised approach under the securitisation framework. This approach is similar to the standardised approach for credit risk, although tranches that carry a higher risk or are unrated are dealt with more conservatively (higher risk weight or capital deduction).

Banks that were given supervisory approval to use the IRB approach for the type of underlying exposures securitised are required to apply the IRB methodology to securitisation. Three approaches for calculating capital requirements are provided: the (external) ratings-based approach (RBA), the supervisory formula (SF) approach and the internal assessment approach (IAA).

⁵⁰ An asset-backed commercial paper (ABCP) programme predominately issues commercial paper with an original maturity of one year or less that is backed by assets or other exposures held in a bankruptcy remote, special purpose entity (see BCBS, 2006a).

⁵¹ A credit enhancement is a contractual arrangement in which the bank retains or assumes a securitisation exposure and, in substance, provides some degree of added protection to other parties to the transaction (see BCBS, 2006a).

The RBA is applied to securitisation exposures that are rated or where a rating can be inferred.⁵² Under this approach, the risk-weighted assets are determined by multiplying the amount of the exposure by the appropriate risk weights. The risk weights depend on i) the external rating grade or an available inferred rating, ii) whether the credit rating (external or inferred) represents a long-term or a short-term credit rating, iii) the granularity of the underlying pool and iv) the seniority of the position.

The SA and IAA apply to exposures where an external or an inferred rating is not available. Under the SF, the capital charge for a securitisation tranche depends on five bank-supplied inputs: the IRB capital charge (K) if the underlying exposures had not been securitised (KIRB); the tranche's credit enhancement level (L) and thickness (T); the pool's effective number of exposures (N); and the pool's exposure weighted average loss given default (LGD).

The IAA is only available to exposures (e.g. liquidity facilities and credit enhancements) that banks (including third-party banks) extend to ABCP programmes if the bank's internal assessment process meets certain operational requirements ranging from the availability and the credibility of external ratings for the ABCP and any securitised exposures to this conduit to setting clear criteria for an ABCP programme underwriting policy.⁵³

The main drawback of the securitisation framework is its heavy reliance on ECAI and banks' internal models to assess the risk of these complex structured products.⁵⁴ The current market turbulence revealed the inadequacies of risk assessment of these products⁵⁵ and other conflicts-of-interest issues related to the strong revenue incentives for external rating

⁵² This is subject to operational requirements (see BCBS, 2006a).

⁵³ Paragraph 620 in BCBS (2006a).

⁵⁴ As pointed out in Duffie (2007), "Even specialists in collateralized debt obligations (CDOs) are currently ill equipped to measure the risks and fair valuation of tranches that are sensitive to default correlation. This is currently the weakest link in CRT markets, which could suffer a dramatic loss of liquidity in the event of a sudden failure of a large specialty investor or a surprise cluster of corporate defaults."

⁵⁵ Ayadi & Behr (2008) and Senior Supervisors Group (2008a).

agencies whose payments are secured by the originators and issuers of structured products.⁵⁶ As mentioned in FSF (2008), international regulators will issue proposals during 2008 to strengthen the rules of structured credit and securitisation activities. This decision is mostly welcomed to ensure the adequacy of the regulatory treatment of such products although we expect the growth of complex products such as collateralised debt, note and loans obligations to slow down over the next years.

3. The revised treatment of counterparty credit risk and double default

When the revised framework for credit and operational risks was finalised in June 2004, the Basel Committee had already set up a joint Working Group with the International Organisation of Securities Commission (IOSCO) in January 2004, aimed at revising the treatment of counterparty credit risk (CCR),⁵⁷ a number of trading book-related issues as well as the treatment of double-default. The resulting framework was finalised on 18 July 2005.

Importantly, the review sought to deliver a consistent regulatory treatment of economically similar products (derivatives and Securities Financing Transactions (SFTs)⁵⁸), enabling cross-product netting⁵⁹ of

⁵⁶ As was pointed out by several academics such as Buitert (2007) clearly stating: "How would the rating agency, even if it knew as much about the underlying assets as the originators/ultimate borrowers, rate the complex structures created by pooling heterogeneous underlying asset classes, slicing and dicing the pool, tranching and enhancing the payment streams and making the ultimate pay-offs complex, non-linear functions of the underlying income streams? These ratings were overwhelmingly model-based. The models used tended to be the models of the designers and sellers of the complex structures, who work for the issuers of the instruments. The potential for conflict of interest in the design and use of these models is obvious". In IIF (2008), the potential conflict of interest was also confirmed.

⁵⁷ CCR is the risk that the counterparty to a transaction could default before the final settlement of the transaction cash flows (BCBS, 2005).

⁵⁸ These are short dated transactions including transactions such as re-purchase agreements, reverse re-purchase agreements, security lending and borrowing and margin-lending transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin agreements (BCBS, 2005).

current and future exposures and ensuring a level playing field for all dealers in these products, whether banks or investment firms.

Overall, the review is a step forward towards a modern and more economically viable treatment for these complex products.

In the field of counterparty risk, the changes put forward better reflect market practices. Indeed, the use of expected positive exposure (EPE)⁶⁰ is the new measure brought about by the industry to estimate the exposure at default (EAD)⁶¹ and amended by⁶² the regulators to account for the roll-over⁶³ of positions.

With respect to the treatment of double-default, there have been efforts to improve the regulatory treatment of credit mitigation through the purchase of credit derivatives or guarantees, a process that is based on the 'substitution approach'. A new approach based on the asymptotic single risk factor (ASRF) model was put forward by the international regulators,

⁵⁹ Cross-product netting refers to the inclusion of transactions of different product categories within the same 'netting set'. A netting set is a group of transactions with a single counterparty that are subject to a legally-enforceable bilateral netting arrangement and for which netting is recognised for regulatory capital purposes (BCBS, 2005).

⁶⁰ EPE is the weighted average over time of expected exposures in which the weights are the proportion that an individual expected exposure represents over the entire time interval. When calculating the minimum capital requirements, the average is taken over the first year or over the time period of the longest maturity contract on the netting set. This concept was originally worked out by the industry (ISDA, LIBA and TBMA, 2004).

⁶¹ For more details on the limitations of EPE, see Ayadi (2005).

⁶² The solution proposed by the regulators is to use the effective EPE defined as the weighted average over time of effective expected exposure over the first year, or over the time period of the longest maturity contract in the netting set where the weights are the proportion that an individual expected exposure represents over the entire time interval: $\text{effective EPE}_t = \text{Max}(\text{eff EPE}_{t-1}, \text{EPE})$.

⁶³ The rollover risk is the amount by which the EPE is understated when future transactions with a counterpart are expected to be conducted on an ongoing basis, but the additional exposure generated by those future transactions is not included in the calculation of EPE.

introduces a separate risk factor⁶⁴ that affects the reference entity and the protection provider.

Further improvements have been proposed to the trading book regime to achieve a risk-sensitive treatment of items including the clarification of the types of exposures that qualify for the trading book (such as securitisation pipelines and conduits and investment in non-financial assets). In this regard, the Working Group introduced some changes that relate to the specific risk modelling. These changes were designed to update the rules in line with the developments in industry practices and the growth of complex and less liquid positions in the institutions' trading books. Changes include a specific requirement under Pillar 1 to incorporate the results of a firm's stress test into their pillar 2 internal capital assessment. Further, firms will be required to capture default and event risk if they want to receive specific risk-model recognition. Finally, with respect to the failed trades and non-DvP⁶⁵ (delivery versus payment) transactions, the new measures aim at setting out a uniform treatment for various types of unsettled transactions as current global standards differ. The measures also distinguish between DvP and non-DvP transactions as well as those with normal and longer settlement periods, and set the corresponding risk multipliers based on the settlement period. Obviously, capital requirements for these types of transactions are expected to increase. At the same time, the measures encourage institutions to develop, implement and improve systems for tracking and monitoring credit-risk exposures arising from unsettled transactions.

Overall, the changes brought by the trading book review are a significant step to achieve better measurement and management of the risks stemming from these growing complex activities. The framework has also allowed for a degree of flexibility necessary for further adaptation in the future.⁶⁶ Undoubtedly, as markets develop for offloading new forms of risk, this flexibility will allow regulators to recalibrate the regulatory model

⁶⁴ A more detailed discussion on the extra risk factor is provided in Ayadi (2005).

⁶⁵ These deliverables are delivered without receipt of the corresponding cash payment.

⁶⁶ For a more extensive discussion on trading book, see Ayadi (2005).

based on new, more extensive and better-quality data. The 2007 market turmoil offers the right opportunity to test the trading book rules with the new data set (under stress conditions) and to revise and strengthen many related aspects⁶⁷ particularly in a scenario of liquidity distress and when a financial instrument no longer qualifies to be in the trading book.

4. *Measuring operational risk under pillar 1*

Operational risk has not been subject to capital requirements. With the new framework, more capital will have to be held against this type of risk, which is defined as “the risk that flaws in a bank’s own systems or human resources, as well as external events may cause unexpected losses, such as those related to mass litigation, fraud or natural catastrophes”.⁶⁸ To measure operational risk, three approaches are provided by the Accord: the basic indicator approach, the standardised approach and the advanced measurement approach.

Under the basic indicator approach, a bank is required to hold a capital cushion against operational risks equal to 15% of its total gross income (measured as a three-year moving average); this just reflects the fact that larger banks are subject to a higher amount of risk since they are expected to have higher gross income.

Under the standardised approach, a bank’s gross income is split among eight business lines: corporate finance, trading and sales, payment and settlement, commercial banking, agency services, retail banking, asset management and retail brokerage. For the first three lines, which are supposed to be more exposed to operational risks, the 15% coefficient is raised to 18%; symmetrically, it is lowered to 12% for the last three lines, which are thought to be less risky.

⁶⁷ For example, a large proportion of structured credit products are held in the trading books, where capital requirements reflecting market risk do not fully capture the default and event risk of credit risk exposures held in the trading book. Also, following the large losses suffered by financial institutions during the 2007 market turmoil, the regulatory treatment of banks providing their liquidity facilities to off-balance sheet asset-backed commercial paper conduits will have to be reviewed. As mentioned in the FSF (2008), international regulators will issue a proposal to strengthen the capital requirements rules in this respect.

⁶⁸ See BIS (2006).

The advanced measurement approach (AMA) is designed to be more sensitive to operational risk and is intended for internationally active banks that have significant exposure to such a risk. It seeks to build on banks' rapidly developing internal assessment techniques and would allow banks to use their own methods for assessing their exposures, as long as these methods are judged by supervisors to be sufficiently comprehensive and systematic. For the AMA, the internal measurement system must estimate expected and unexpected losses based on a combination of internal and external data, scenario analysis, business environment and internal controls. The internal risk measurement system must be able to support economic capital allocation to business units such that it generates incentive to improve their operational risk management.

It is premature to assess the effectiveness of the inclusion of capital requirements for operational risk in pillar 1. Obviously the main difficulties to compute this risk are the identification of its origin, the delimitation of its scope and the availability of adequate internal data.⁶⁹

1.3.2 Pillar 2 - A trigger for an overall risk integrated approach

Another novelty in the new Accord is the pillar 2 dealing with the supervisory review process (SRP) carried out by national authorities. The purpose of the SRP is to ensure that institutions have sufficient capital to support all the risks they are exposed to. Institutions are expected to develop and use sound risk management techniques in monitoring and measuring their risks.

This pillar relies on four key principles: **principle 1** introduces internal governance provisions with which banks have to comply, while **principles 2, 3 and 4** are standards for supervisory authorities.⁷⁰

This pillar is expected to play a **key role** under the new Accord in prompting banks to govern risk and to develop, refine and make better use of risk-measurement and management techniques.

⁶⁹ Although the latter problem could be mitigated by the possibility recognised in the new Accord to use public databases.

⁷⁰ BCBS (2006a, p. 204).

Principle 1 states: “Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.” The Basel II Accord elaborates five main features of a rigorous process to fulfil the objectives of principle 1. These relate to the so-called ‘internal capital adequacy assessment process’ (ICAAP)⁷¹ and include:

1. **Board and senior management oversight.** The bank’s senior management or board of directors should clearly define the institution’s risk strategies and risk profile of the financial institution, which have to be translated into business objectives. They also have the responsibility for developing and supporting strong internal controls and written policies and procedures and have to ensure that management effectively communicates these throughout the organisation.
2. **Sound capital assessment.** This feature relates to the process that capital requirements are defined in accordance with the level of all material risks that may occur within a given horizon. The following risk exposures, which by no means constitute a comprehensive list of all risks, should be considered:
 - credit risk, including at least risk rating systems, portfolio analysis/aggregation, securitisation/complex derivatives, and large exposures and risk concentrations;
 - operational risk;
 - market risk when it arises at position, desk, business line and firm-wide level. A minimum capital adequacy for market risk should be based on both VaR modelling and stress testing, including an assessment of concentration risk and illiquidity under stressful market scenarios;

⁷¹ The ICAAP is a process to ensure that the management body (both supervisory and management functions): 1) adequately identifies and measures the institution’s risks; 2) holds adequate internal capital in relation to the institution’s risk profile and 3) uses sound risk management systems and develops them further (see CEBS, 2005a).

- interest rate risk in the banking book whereas the measurement process should include all material interest rate positions of the bank and consider all relevant repricing and maturity data;
 - liquidity risk: each bank must have adequate systems for measuring, monitoring and controlling liquidity risk. Banks should evaluate the adequacy of capital given their own liquidity profile and the liquidity of the markets in which they operate; and
 - other risks such as reputational and strategic risk.
3. **Comprehensive assessment of risks.** Contrary to pillar 1, the list of risks under pillar 2 is not limited implying that all material risk should be addressed even those that can hardly be measured precisely.
 4. **Monitoring and reporting.** The bank should establish an adequate system for monitoring and reporting risk exposures and assessing how the bank's changing risk profile affects the need for capital. Furthermore, the bank's senior management or board of directors should, on a regular basis, receive reports on the bank's risk profile and capital needs in order to evaluate risk management and to reassess the status of each of its components. The process should ensure that risks are covered adequately in accordance with the bank's risk profile and permit necessary adjustments to be made to the bank's strategic plan accordingly.
 5. **Internal control review.** Effective control of the capital assessment process should include an independent review. The bank's senior management or board of directors is responsible for developing and maintaining systems to ensure effective and efficient operations, adequate control of risks, prudent conduct of business, reliability of financial and non-financial information reported or disclosed both internally and externally, and compliance with laws, regulations and the institution's internal policies and procedures.

Building a solid risk culture and a credible and integrated risk monitoring function at all organisational levels of a bank are essential.⁷² These five broad features under pillar 2's principle 1 are the basis for a

⁷² Recognised in IIF (2008).

proper integrated risk governance, assessment and management framework, which in turn will ensure an adequate and effective capital adequacy assessment.

These features should be strengthened even more⁷³ to create the adequate incentive structure to measure and manage risk at all level of an organisation on an integrated basis while accounting for stress scenarios, qualitative expert judgements and with a systematic oversight by the senior management and the board.

Principles 2, 3 and 4 relate to requirements for supervisors under Basel II. While principles 3 and 4 are linked to the regulatory capital, principle 2 gives guidelines on the qualitative supervisor's duty under the supervisory review process (SRP). In a nutshell, regulators should:

- Verify that each bank has a sound risk management and control system in place to assess its own capital needs and a sensible strategy to ensure that its capital remains adequate in the future;
- Review and validate such a system, taking appropriate steps whenever it is not fully satisfactory;
- Impose capital requirements above and beyond the regulatory minimum stated in the first pillar if necessary; and
- Act in a quick and timely manner (asking for prompt corrective actions) to prevent the bank's capital from falling below the minimum threshold suggested by its risk profile.

Aiming at strengthening these features, the Basel Committee will issue further pillar 2 guidance in the course of 2008 and 2009 related to: the management of institutions, including wide risks such as concentration risks; stress testing for risk management and capital planning purposes; risk management relating to securitisation business; and management of

⁷³ The current market turmoil underscored significant differences in the specific quality of risk-management practices among the largest and most sophisticated financial institutions (see Senior Supervisors Group, 2008a). To ensure an adequate monitoring of the progress of financial institutions in strengthening risk management and capital planning practices, supervisors reconfirmed the role of pillar 2 "to strengthen banks' risk management practices, to sharpen banks' control of tail risks and mitigate the build-up of excessive exposures and risk concentrations" (see FSF, 2008).

exposures to leveraged counterparties.⁷⁴ These resolutions, mainly triggered by the consequences of the 2007 market turmoil, are welcome and it is important that they are adequately enforced with capabilities and resources to prevent future turmoil from happening.

Finally, guidance is also needed when supervisors impose additional capital buffers beyond the minimum capital requirements under pillar 1. Not only does guidance in this field minimise national discretions but also it will ensure a level playing field.

Section 3.4 of this report discusses the implications and the implementation issues of principles 2, 3 4 in Europe.

1.3.3 Pillar 3 - Effective disclosure the tool for market discipline

The third pillar aims at providing market participants (particularly the bank stakeholders i.e. owners, supervisors, analysts/rating agencies, creditors and depositors) with all **the relevant information** that may help them to assess the risk profile of a bank. Banks are therefore required to release a set of minimum data, both quantitative (e.g. capital adequacy measures and the main aggregates on which capital computation is based) and qualitative (risk-assessment methodologies and related organisational processes). Bank disclosure of the internal rating systems is generally perceived as a step forward towards increased transparency. Pillar 3 aims at enhancing market discipline in the financial sector by providing information to the external stakeholders. They will then be able to discipline banks that operate with an inadequate capital endowment or an ineffective risk-management system (or both). To achieve transparency, it is important to rely on adequate disclosures that can be efficiently used by the market. However, nothing is said about disclosing the criteria used to internally rate a specific borrower and any other security. Additionally, the transparency requirements of the third Pillar apply to material information but not to any proprietary or confidential information that, if made known to the bank's competitors, could decrease the value of the bank or reduce its competitive advantage. The key concepts of materiality, proprietary and confidentiality are as follows:

⁷⁴ FSF (2008).

- **Materiality.** Information is material if its omission or misstatement could change or influence the assessment or the decision of a user relying on that information for the purpose of making economic decisions.
- **Proprietary.** Information is regarded as proprietary if sharing that information on products or systems with competitors would render a credit institution's investments therein less valuable.
- **Confidentiality.** Information shall be regarded as confidential if there are obligations to customers or other counterparty relationships binding a financial institution to confidentiality.

As a rule, the information required in the third pillar must be released every six months (every year for qualitative data concerning the bank's credit policies, reporting and management systems; every quarter for quantitative data on capital ratios and related aggregates). The Committee believes that a common disclosure framework is an effective means to inform the market about a bank's risk exposures and therefore it provides a consistent and understandable disclosure framework that enhances comparability. Nevertheless, the degree of transparency and disclosure is not precisely defined and there is still vast room for manoeuvre and lack of comparability.

Public disclosures by some financial institutions were not always effective during the market turmoil, since they did not make clear the risks associated with certain types of exposures. The information disclosed about risk exposures was not necessarily timely and useful for many investors and other market participants. The Financial Stability Forum (FSF, 2008) rightly states: "A lack of adequate and consistent disclosure of risk exposures and valuation continues to have a corrosive effect on public confidence." The need for robust risk disclosures is paramount in both favourable and adverse market conditions. Undoubtedly, enhanced disclosures of meaningful and consistent quantitative and qualitative information about risk exposures, valuations, off-balance sheet entities and related policies are essential to restore confidence in adverse market conditions. However, it should equally be the practice⁷⁵ in benign market

⁷⁵ In light of a recent survey conducted by the Senior Supervisory Group in 2008.

conditions and should be extended to any other emerging areas of the banking business with a new risk and return profile.

Accordingly, the Basel Committee will issue further guidance during 2009 to strengthen disclosure requirements under Pillar 3 for securitisation exposures, sponsorship of off-balance sheet vehicles, banks' liquidity commitments to asset-backed commercial papers, conduits and valuations.⁷⁶ However, it is important to monitor to development of these structured products in parallel and to ensure that the information disclosed is still meaningful for market participants.

Additionally, the Committee recognises the need for a pillar 3 disclosure framework that does not conflict with accounting standards requirements, which are broader in scope. However, disclosures that can efficiently be used by the market are originated from two sources applying different criteria and thus producing different figures. As an illustration, the often-mentioned example is the way write-downs on non-performing loans are reported. Under Basel II, write-downs are reported per counterparty on an aggregated level while under IFRS/US GAAP, they are reported per transaction. To counter this issue, the Basel II Committee advises that management should use its discretion in determining the appropriate means and location of disclosures, which in turn renders comparability a fictitious objective.

1.3.4 An integrated view of Basel II's three pillars

The Basel II accord is a significant challenge for banks and supervisory authorities. **Its second pillar is the fundamental part of the framework** and should be regarded with great importance, particularly in the aftermath of the financial market turbulence. Its scope is much wider than the minimum capital requirement under Pillar 1 whose calculations mainly rest on mere improvements of Basel I under the standardised approach and on internal complex quantitative and short lived measurements of risk under the IRB approaches. Pillar 2 covers all risks facing a bank's management, internal governance and supervisory review. Indeed, according to the Basel II framework, pillar 2 should encourage financial

⁷⁶ See FSF (2008). See <http://www.fsforum.org> for more information about this body.

institutions to develop and use better risk measurement and management techniques, especially in setting-up capital targets in accordance with the bank's risk profile and operating environment. A bank's risk profile is a strategic decision taken by senior management, which defines the level of risk exposure of the institution, and approved by the board. A bank might wish to ensure capital coverage higher than the defined minimum standards.

Pillar 1, complemented by an effective pillar 2, aims at determining the regulatory capital. The development of measures under pillar 1 should be carried out in a consistent, harmonised and transparent way in the institution. Indeed, models aiming at defining the level of regulatory capital should be determined in line with the key objectives of the financial institution, its risk appetite and its ability to control, mitigate or transfer its risk. Furthermore, the information that is used or produced by risk measurement systems should also be used in the course of conducting regular business, particularly for:

- Risk management,
- Decision-making (e.g. credit approval),
- Internal capital allocation and
- Internal governance functions.

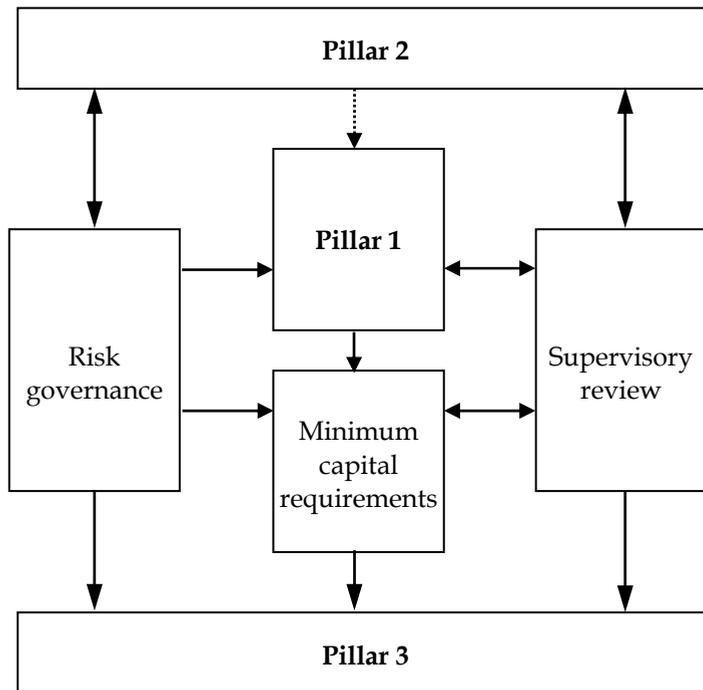
An efficient and timely connection between risk measurement and risk policies is essential for optimising the implementation strategy. When confronted by an increasing or misappraised risk or a change of risk profile, a bank may take timely corrective actions such as increasing the amount of capital it holds or strengthening its risk management processes and control systems. In a nutshell, before developing and implementing the quantitative tools of the first pillar, a financial institution must set up its second pillar. Indeed, ideally pillar 1 development is a tool dedicated to a given purpose and should contribute to the overall financial institution's vision and strategy in terms of risk management and business profitability. After setting the right incentives for banks to establish an institution-wide risk assessment system, supervisors can evaluate, review and monitor the institutions' progress and impose add-ons if capital requirements set under Pillar 1 are proved to be insufficient in relation to the overall risk profile.

Lastly, the first and the second pillars should be the fundamentals for the elaboration of the third pillar - 'Disclosure' aiming at market discipline. Indeed, disclosure to the market of key information on a specific financial

institution to improve transparency can only be made once the supervisory review including risk management, capital requirements and internal methodologies is made. In view of the weak interaction between pillars 2 and 3 under Basel II, international regulators may consider investigating the disciplinary role of disclosing specific information under the supervisory review process,⁷⁷ such as capital add-ons.

Following this approach (Figure 5), a financial institution opting for an integrated approach of risk governance, measurement and management for regulatory purposes would pay attention to all types of risks at all levels of its business and their potential interaction. An institution opting for such an approach would account its liquidity risk under pillar 1.

Figure 5. An integrated view of Basel II's three pillars



Source: Author's elaboration.

⁷⁷ Clearly this can be effective only if all supervisors apply capital add-ons on a coherent and consistent basis.

1.3.5 Does Basel II provide a clear delimitation of risk?

Although it was supposed to be well defined by the Basel Committee, risk delimitation remains a puzzle for a financial institution. Indeed, one main problem is the definition of the boundaries between the types of risk and their interactions. In that respect, the current taxonomy proposed by the Basel Accord suffers from shortcomings. Indeed, in paragraph 452 (BCBS, 2006a), the definition of default with regard to a particular obligor should rely on two types of events: ‘unlikelihood to pay’ and ‘past due status for more than 90 days on a material credit obligation’. The result of a strict application of the definition is that the treatment of such an exposure is automatically treated as a credit risk exposure whatever the cause is. This shortcoming is reinforced by paragraph 673 of the Basel Accord which states: “under AMA operational risk losses related to credit risk have been historically included in banks’ credit risk databases (e.g. collateral management failures) and will continue to be considered as credit risk for the purpose of calculating minimum regulatory capital...” even if they should be flagged separately within the bank’s internal operational database. Such losses will not be subject to the operational risk capital charge. Moreover, including data regarding losses due to operational factors (e.g. mismanagement of collateral) in a database to build a credit risk model can bias its results and as a consequence adversely affect its performance. Ultimately, it may lead to a disregard of adequate corrective actions to mitigate the risk. This can be the case for instance when the credit procedures are misused or not respected, which may generate excessive losses. These losses are flagged in the credit risk database because the counterparties have an overdue of 90 days. They are primarily viewed as credit risk events instead of being registered as operational risk events since they relate to the mismanagement of collaterals. Other examples are losses due to a human error in incorrectly classifying data as either a market or a credit risk because of the exposure it creates, although its origin is operational. Similarly, disputes on the exercise of guarantees can induce a higher level of Loss Given Default and thus credit risk exposures, although the cause can be operational because of non-compliance with the current legal framework.

As illustrated by these examples, it is essential to use a sound and consistent framework to identify and categorise risk exposures in order to establish an integrated approach to risk management. Indeed, a meaningful

data structure allowing analysis of the causes and effects of risk exposures should prevent financial institutions from generating inefficiencies.

In light of these observations, the Basel Committee should develop a risk taxonomy based on a cause-effect approach to distinguish the different kinds of risk in order to prevent inconsistencies arising due to the fact that losses are currently grouped by events (effects) without considering their causes.

1.4 Conclusions

Despite the positive features introduced by Basel II capital regulation – including enhanced risk sensitivity and flexibility, the increased importance attached to risk mitigation techniques and its emphasis on supervisory review and market discipline – there are several fundamental aspects of the framework that need to be reconsidered. The pillar 1's silo approach, which does not consider the interaction between credit, market and operational risks, is inadequate to regulate today's banking businesses. Not only does contemporary banking business involve other types of equally important risks but these risks are also interconnected and should be managed on an integrated and firm-wide basis. Pillar 1 only aims at providing quantitative tools and measures – which are generally based on unrealistic assumptions – for three types of risks to determine capital requirements. The measure does not include the other types of risks that banks are exposed to nor their interaction. It is therefore crucial to view Basel II as an integrated risk governance, assessment and management framework. In this respect, pillar 2 plays the key role under the new Accord in prompting banks to govern risk on an integrated basis and at all organisational levels with a systematic oversight by the senior management and the board and to constantly develop, refine and make better use of risk-measurement and management techniques. Full implementation of pillar 2 at a bank level will ensure an effective capital adequacy assessment and may avoid capital add-on requirements that are insensitive to supervisory risk. Towards this end, international regulators should rethink – in view of strengthening – the contents and role of and the interaction between the 3 pillars.

In this vein, it is essential to establish an integrated regulatory approach of risk governance in line with internal modern risk management and measurement techniques that foster better overall institution-wide risk

pricing and transparency, a clearly defined interaction between the financial institution and its supervisors, and a proper and effective disclosure for market discipline purposes.

The interaction between the financial institution and its supervisors must be built on clearly defined principles based on a sound corporate governance system in which risk measurement and management are key and in which implementation can be easily monitored. To achieve this objective, supervisors should be armed with adequate capabilities and sufficient resources and tools to cope with the challenge.

2. WHAT ARE THE LIKELY IMPACTS OF RISK-SENSITIVE CAPITAL REQUIREMENTS?

This section considers some of the results contained in the report of the Basel Committee's fifth Quantitative Impact Study (QIS5) and offers a critical analysis of the potential impacts of the new risk-sensitive capital requirements introduced under pillar 1 on banks and portfolios.

2.1 An overall decrease of capital requirements in benign market conditions

In October 2005, the Basel Committee embarked on the QIS5 in order to review the calibration of the Basel II framework. At the EU level, the CEBS played a key role in compiling the data and interpreting the results for European banks.

The QIS5 aimed at gathering the most recent as well as better-quality data for the review and at evaluating the impact of the new proposals concerning the recognition of double-default and trading book-related issues. It considered the changes associated with the relative improvement in banks' data series (more complete and robust data on default and loss-severity), and in the capital models as compared with the previous QIS3 conducted in 2003.⁷⁸ Furthermore, the QIS5 tested the changes related to the treatment of unexpected losses, the treatment of reserves and the 1.06

⁷⁸ For an extensive analysis of QIS3, consult Ayadi & Resti (2004).

scaling factor applied to credit risk-weighted assets.⁷⁹ QIS5 also assessed the impact of new trading book rules and the specific 'EU measures' for European credit institutions and investment firms.⁸⁰

Yet, the additional implementation work that was required until the end of 2007 (for the banks applying internal models) coupled with adverse macroeconomic and financial market conditions have weakened the QIS5 results. In turn, this has increased the importance of another impact study (QIS6),⁸¹ not only to take into account the improvements (if any) in data collection and modelling during 2007, but also to have a fresh look at data in light of the unique life stress case presented by the 2007 market turmoil.

In a context of benign macroeconomic and financial conditions, the worldwide test, which was run by more than 382 banks from 31 countries, showed that the minimum required capital (MRC) under Basel II (including the 1.06 scaling factor for credit risk-weighted assets) would decrease relative to the 1988 Accord.

The results⁸² for the G10 and EU⁸³ banks are shown in Table 3, which reveals changes to the MRC relative to the 1988 Accord under each approach for credit and operational risk. These results were broadly in line with the Basel Committee's expectations, mainly of leaving the level of regulatory capital held by the banking system unchanged while providing incentives to institutions that adopt the more sophisticated approaches to improve their risk assessment and management systems. Nevertheless, the same results might not be expected if another QIS were to be conducted in

⁷⁹ The scaling factor of 1.06, which was set by the Basel Committee, adds 6% to the capital levels calculated under the Basel II formulas to ensure that the new framework will produce overall capital levels approximately equal to the levels under the 1988 Accord.

⁸⁰ These measures are discussed in the next section.

⁸¹ Another QIS has also been supported by the Shadow Financial Regulatory Committee of Asia, Australia-New Zealand, Japan, Latin America and the US (2007) and Benink & Kaufman (2008).

⁸² See BCBS (2006d) and CEBS (2006b).

⁸³ These groupings include 30 countries (both G10 and non-G10 – Bulgaria, Cyprus, the Czech Republic, Finland, Greece, Hungary, Ireland, Malta, Norway, Poland and Portugal).

view of the more adverse market conditions experienced by the financial industry since summer 2007, particularly in the US and Europe.

The outcome for the other non-G10 countries is mixed and more difficult to interpret. The results display significant variation both within and between countries, recording a 20.7% reduction for group 1 banks and a 19.5% increase in capital requirements for group 2 banks.

Table 3. Changes in the MRC relative to the 1988 Accord (in %)

Approach	'Most likely'	RSA	FIRB	AIRB
G10 Group	(6.8)	1.7	(1.3)	(7.1)
G10 Group 2	(11.3)	(1.3)	(12.3)	(26.7)
CEBS Group 1	(7.7)	(0.9)	(3.2)	(8.3)
CEBS Group 2	(15.4)	(3.0)	(16.6)	(26.6)
Other non-G10 Group 1	(20.7)	1.8	(16.2)	(29.0)
Other non-G10 Group 2	19.5	38.2	11.4	(1.0)

* Figures do not take into account of the transitional floors.

Notes: RSA = Standardised approach; FIRB = Foundation internal ratings-based approach; AIRB = Advanced internal ratings-based approach; 'most likely approach' = the only approach for which a bank provided data and which it is expected to adopt after implementation is reported.

Group 1 banks fulfil all of the following three criteria: Tier 1 capital in excess of €3 billion, the bank is diversified and the bank is internationally active.

Source: Results of the QIS5, BCBS (2006d).

Clearly, the average impact figures show dispersion and a decline in the MRC levels across banking institutions, and across their portfolio compositions, although they were topped-up by 6%.

2.1.1 Impact on small, medium-sized and large banks

As shown in Table 3, if they are subject to benign market conditions, large diversified and internationally active banks (group 1 banks in G10 and EU countries) would consistently save capital of 6.8% and 7.7% according to the 'most likely approach'. Capital savings at smaller banks (group 2 banks) in G10 and EU countries would be even higher, at 11.3% and 15.4%. This variation can be explained by the typical asset composition of these two

groups. Despite their 'often' reduced ability to move directly to the more efficient advanced approach, group 2 banks, thanks to their focus on retail business,⁸⁴ will benefit from the most extensive pillar 1 capital relief. In contrast, large diversified banks are usually more involved in investment banking and asset management activities, which may give rise to higher capital requirements under Basel II. Even so, depending on the level of diversification, they may also be able to enjoy substantial capital relief.

Obviously, when market conditions are favourable, there is a clear incentive for all banks to adopt the more sophisticated IRB approaches, which could guarantee lower capital charges. Such an incentive is among the key drivers behind further improvements to the risk-management systems across the banking industry. These improvements will allow bank management as well as regulators to better capture specific existing and future underlying business risks. Hence, there is a high level of expectation that many specialised lenders or banks will increase their size either organically or through mergers and acquisitions until they reach a critical mass in order to upgrade their risk-management capabilities substantially.⁸⁵ As a consequence, Basel II is expected to reinforce the trend of global industry consolidation. This is because larger sophisticated banks using the most advanced approach will benefit from a material competitive edge through their capacity to minimise capital requirements compared with less sophisticated banks using the standardised approach.

Still, these results and conclusions may not hold in an adverse market context. The computation of the capital requirements under the IRB Basel II approaches is founded on parameters that are influenced by cyclical movements.⁸⁶ A higher degree of risk sensitivity in banks' ratings systems may lead to increases in regulatory capital requirements in an economic downturn, when asset quality deteriorates. If a strong increase in capital requirements occurs, other incentives may emerge. In such scenarios, a less risk-sensitive approach may reward institutions since it does not capture mounting risk profiles, while a more risk-sensitive approach may lead to rising capital requirements.

⁸⁴ For more details, consult Ayadi & Resti (2004).

⁸⁵ See Standard & Poor's (2006).

⁸⁶ See the chapter on pro-cyclicality in Ayadi & Resti (2004) and Appendix 2.

Therefore, to respond to such divergent outcomes resulting from contrasting market conditions, international regulators are urged to examine different possible scenarios and the interaction between them. Different market- and regulatory-based solutions exist and need to be carefully assessed. One possible market-based solution is to maintain a capital cushion under favourable market conditions that could fulfil the increasing need for capital under adverse market conditions (particularly when liquidity dries up). Another regulatory-based solution is to calibrate capital requirements in different market conditions.

2.1.2 Impact across banking portfolios

As shown in Table 4 and under the same favourable market and financial conditions, the retail mortgage portfolio contributes to most of the reduction in MRC under the most likely IRB approach (an approximate reduction of 64%) for G10 internationally active banks. Group 2 banks are also expected to enjoy substantial capital relief, because of their greater focus on retail lending. From a behavioural point of view, this may lead to a shift of global business in favour of retail lending, notably retail mortgage and SME lending, which will increase competition in these segments. Corporate and SME corporate portfolios also benefit from material capital relief. Importantly, the trend towards asset-based lending will be reinforced, reducing or making unsecured funding lines more expensive, particularly for corporates. This is because Basel II will incorporate credit risk mitigation for the first time.

At this stage, it is not possible to assess the extent to which pillar 2 will balance the significant pillar 1 capital relief achieved by a number of retail-focused players. According to research by Standard & Poor's (2006), the first signals from regulators indicate that pillar 2 regulatory requirements will vary significantly among countries, that is, some regulators will require specific additional capital charges for risks not captured in pillar 1 while others will not. In Europe, the supervisory review process requires a review and evaluation of the banks' risk profile and management system and calls for prudential measures to be promptly applied. These prudential measures include setting a capital requirement above the pillar 1 requirement (own funds or tier 1), although the guidelines emphasise that they "should not be interpreted as resulting in automatic capital add-ons" (CEBS, 2006c).

Table 4. MRC contribution under the most likely IRB approach relative to the 1988 Accord, by portfolio (in %)

Portfolio (%)	G10 Group 1			-	G10 Group 2		
	Size	Change in MRC	Contribution to overall change in MRC		Size	Change in MRC	Contribution to overall change in MRC
Wholesale, of which	32.1	(10.3)	(3.3)		21.2	(18.2)	(3.9)
- Corporate	27.8	(18.0)	(5.0)		16.9	(26.8)	(4.5)
- Bank	3.8	10.1	0.4		4.0	2.4	0.1
- Sovereign	0.5	239.1	1.3		0.4	139.6	0.6
SME corporate	6.9	(19.0)	(1.3)		15.1	(14.7)	(2.2)
Retail, of which	17.6	(46.3)	(8.1)		33.7	(51.3)	(17.3)
- Mortgage	11.8	(64.4)	(7.6)		21.6	(58.2)	(12.6)
- Revolving	1.5	23.0	0.3		1.1	(18.7)	(0.2)
- Other	4.3	(20.4)	(0.9)		11.0	(41.0)	(4.5)
SME retail	2.9	(48.7)	(1.4)		7.2	(45.7)	(3.3)
Equity	3.1	85.1	2.6		2.8	130.7	3.6
Market risk	2.5	(0.7)	0.0		1.6	0.4	0.0
All others	34.9	-	1.3		17.5	-	1.6
Operational risk	-	-	6.1		-	-	7.5
Total	100.0	-	(4.5)		100.0	-	(14.1)

Note: These figures differ from the results illustrated in Table 1, as Group 1 figures exclude US data, and Group 2 figures exclude those banks for which the standardised approach is the 'most likely approach'.

Source: Results of QIS5, BCBS (2006d).

Sovereign and bank credit exposures also invoke higher capital requirements, but the impact on overall capital requirements remains

moderate. QIS5 results identified equity investments as a driver of capital needs, but the results are distorted, owing to the use of national discretion for immateriality treatment or grandfathering rules (or both).⁸⁷

Operational risk is clearly a spur for increases in capital requirements, as Basel I did not impose any capital requirements for this risk. The extent of the additional capital requirements shown in the QIS5 survey is not very reliable, however. This is because the Basel II modelling and quantification of operational risk continues to be a major problem for many banks. Therefore, operational risk estimations vary considerably. Most banks have been unable to use the advanced management approach (AMA) for operational risk.⁸⁸

To sum up,

- highly sophisticated banks that apply internal, scientific and integrated portfolio risk management and use credit mitigation techniques,
 - banks with highly rated loan and securities portfolios,
 - banks with a strong retail and mortgage lending focus (UK mortgage banks, Nordic retail banks and major Irish banks), and
 - smaller, domestically-oriented banks using the IRB approaches
- will benefit from lower capital requirements under the new Basel rules in favourable market conditions.

At the same time, banks with

- high levels of interbank exposures to non-OECD banks,
- high levels non-OECD/non-investment-grade sovereign exposures,
- corporate exposures with above average PDs and LGDs and assets with longer maturities,
- high levels of equity holdings in the banking book,
- high levels of holdings of non-investment-grade securitisation tranches (BB+ to BB-),

⁸⁷ Standard and Poor's (2006) expects much higher capital for new equity investments.

⁸⁸ Fewer than half the group 1 banks and none of the group 2 banks used the AMA (Standard and Poor's, 2006).

- low levels of retail exposures, and
- high levels capital market and limited retail exposures (Deutsche Bank, Credit Suisse and UBS)

are likely to see an increase in risk-weighted assets and hence capital requirements in good times.

These conclusions may differ in severe market conditions. The 2007 financial turmoil has vividly shown how quickly optimistic expectations may turn gloomy. Indeed, in less than half a year, highly reputed and diversified banks have suffered write-downs and losses of billions of euros, the securitisation market that has served to boost home-financing for a long time is facing collapse, investment-grade securities are turning sour and smaller banks are on the brink of failing. In a context of a general deterioration of assets, coupled with liquidity dry-ups, the capital requirements under Basel II's advanced approaches (which were only implemented in January 2008 in the EU) will increase, while putting further pressure on institutions to hold more capital against the mounting risks.

2.2 How reliable are the QIS5 results?

The QIS5 results are certainly an improvement in comparison with those of the QIS3 conducted a few years before. Yet, the impact of Basel II on capital requirements may differ markedly from the QIS5 results, reflecting both potential changes in the economic cycle⁸⁹ and in methodology. Because of its pro-cyclical nature, Basel II is expected to drive capital requirements to their highest levels in a downturn period. This will tighten credit and may have unintended effects on the real economy. Moreover, the results of the QIS5 may have been distorted by the quality and consistency of the data, which was often inadequate at the time of the test run in mid-2005. Despite some clear progress compared with the QIS3 test run, there was narrower but still wide data dispersion. The dispersion was driven by portfolio characteristics as well as disparities and uncertainties in methodologies and IT implementation.

Therefore, issues remain⁹⁰ that blur the real impacts of Basel II rules:

⁸⁹ For more details, see Ayadi & Resti (2004) and ECB (2005).

⁹⁰ See Standard and Poor's (2006).

- The results of the QIS5 and the related conclusions were based on tests in favourable market and macroeconomic conditions. This gives rise to questions about the adequacy of the results and therefore the conclusions in view of the recent financial market turbulence.
- Banks' portfolios and their future risk weightings are not publicly known, since these will also depend on whether banks use the standardised or IRB approaches. There will be more (fewer) incentives to use and refine the advanced IRB approaches when market conditions are favourable (severe).
- Capital charges related to operational risk are not precisely known due to a lack of adequate internal data. Moreover, flaws in the delimitation of risk boundaries make it more difficult to assess clearly the real level of operational risk within an institution.
- LGD and PD calculations were distorted owing to national and bank-specific discretion. In addition, limited risk-management capacities and systems were distorted further by inferior data quality and data time series that were too short at the time of the QIS5 survey. Given the benign environment that prevailed until summer 2007, data estimates incorporated a fair degree of subjectivity and optimism in a large number of cases. Even so, consistency in LGD was still far from perfect: many banks were not able fully to take into account eligible collateral, methodologies for LGD calculations were still under development, the calibrations of downturn LGD⁹¹ were often not

⁹¹ The LGD downturn concept was introduced in paragraph 468 of the BCBS (2006a). It suffers from vagueness, however. Indeed, it does not describe a specific set of economic downturn conditions that could be used to estimate downturn LGDs, although it suggests that downturn LGDs should be calibrated to a period when credit losses are substantially higher than average. Furthermore, the relationship between the PD and the recovery rates (1-LGD) on the one hand, and the extent to which recovery risk is idiosyncratic on the other, is not obvious. In their research, Altman et al. (2005) indicate that growing empirical evidence shows a negative correlation between default and recovery rates, and thus recovery risk is a systematic risk component. Mitigating these conclusions, Laurent & Schmit (2005) show that portfolios backed by physical collateral face a recovery risk that is more idiosyncratic in nature. In view of these unclear links, downturn conditions should be identified as well as the risk drivers affecting different types of assets.

possible while lacking clear guidelines and times to recovery and discount rates also highlighted some inconsistencies.

- Collateral was frequently not recognised in the calculations because credit risk-mitigation techniques still pose problems. As a result, QIS5 results revealed a high number of unsecured exposures, which increased regulatory capital requirements. For example, on average, more than 80% of corporate exposures were reported as unsecured, yet practice suggests a very high proportion of secured lending, such as that for commercial mortgages.
- Many banks were unable to assess the EAD precisely.
- Only a few banks were able to apply the Committee's new trading book and double-default treatment rules. Furthermore, only a selected number of methods were used.
- Differences between regional accounting regimes compared with the IFRS distorted smaller banks' regulatory capital calculations in particular.
- Finally, the impact of capital add-on by national supervisors will be discretionary and levels will not be comparable.

In spite of the use of prudential filters whose purpose is to mitigate some uncertainty, the impact of all the above-mentioned issues is difficult to quantify on both the incentive structure and the overall capital relief. Whereas the need to compute a downturn LGD could translate into higher advanced IRB capital charges, better recognition of collateral could have the opposite effect. Finally and most importantly, QIS5 results may be of little value when considering the severe conditions experienced by the global financial market since summer 2007.

2.3 Conclusions

In view of the QIS5 results, international regulators decided to keep the initial calibration factor of 1.06 unchanged, but expected that national supervisors would ensure that banks maintained a solid capital base

Hence, downturn LGD modelling should take into account the specificities of various types of assets and should counter the fact that downturn LGDs may decrease the incentives for banks to move towards the IRB approach.

throughout the economic cycle through the effective application of pillar 2. Such calibration was believed to be adequate before summer 2007 to maintain MRC levels. Yet, unfavourable market conditions have shown that this decision may need to be revisited in the aftermath of a new quantitative impact study.⁹²

International regulators may also be urged to address the fact that Basel II rules suffer from fundamental weaknesses. For instance, the calculations of capital requirements do not account for liquidity, interest rates, concentration or business risks. The standards partly rely on external ratings, which are neither perfect⁹³ (especially concerning ratings for structured products) nor generalised to all banks' exposures (particularly SME portfolios),⁹⁴ and partly depend on the banks' own data series and internal models. Data are based on estimates and models with assumptions – with the former being subject to errors or incompleteness and the latter often being flawed if not unrealistic – and do not account for stress scenarios. The recent financial turmoil has clearly revealed that some of these models have performed poorly and underestimated the degree of risk taken.^{95, 96}

⁹² The Basel Committee will monitor the cyclicity of the Basel II framework and will take additional appropriate measures (FSF, 2008). In Europe, work is underway to monitor developments stemming from the economic cycle (a requirement under Art. 156 of Directive 2006/48/EC).

⁹³ The standardised approach makes heavy use of debt ratings assigned by credit rating agencies. The reliability of these ratings is questionable, however, because of the numerous delays in recent years surrounding appropriate downward revisions (this problem was exacerbated by Moody's laggard rating downgrade for Yamaichi Securities, one of Japan's biggest stock and security brokers, in 1997).

⁹⁴ These exposures are unrated and hence fall under the Basel I risk-insensitive rules.

⁹⁵ This view is supported by the Shadow Regulatory Committee (2007).

⁹⁶ Large internationally active banks in the US and Europe have suffered huge losses (see Appendix 1) as a result of a poor risk evaluation of large exposures to the US subprime market through synthetic illiquid financial instruments. This situation has resulted in massive layoffs, write-downs, dividend cuts, earnings warnings and negative impacts on the real economy.

Topping-up the MRC by whatever scaling factor is an issue that deserves systematic reflection by international regulators. This 'somewhat' opaque measure certainly diminishes the scope of a risk-based regulatory capital system. It may be viewed as penalising adequately capitalised and well-managed banks and may yield little opportunity for banks to realise the benefits from a more risk-efficient use of capital in good and in bad times. Building upon the emerging concepts of better and more risk-sensitive regulation, including the opportunity to pursue an integrated risk-governance and management approach and the strengthened role of supervisors under pillar 2, the minimum Basel I capital level that was historically required could perhaps be challenged. Undoubtedly, while introducing regulation that is more risk-sensitive it is hard to continue advocating a minimum capital level that is roughly determined solely on the grounds that it has historically served to ensure the safety of the financial system. Herein lies a serious dilemma for international regulators: Is it safe for the financial system to give up the minimum required capital level of 8%, which has historically if partially served its purpose⁹⁷ for the new levels that will be produced by the new risk-based regulation? Why strive to keep the minimum level of 8% with a supervisory top-up approach if this does not ultimately help to prevent banking failures? Rather than being content with this unobtrusive approach, are there, for example, more targeted complementary incentives or measures worth developing to assess the ability of institutions to withstand liquidity shocks and concentration risk? What is the role of pillar 3 in this respect? Is it not the right tool for supervisors to discipline banks?

Finally, it is important to proceed with a deep macroeconomic analysis that goes beyond quantitative impact studies,⁹⁸ which only

⁹⁷ Against the background of the current financial turmoil, the collapse of the British mortgage lender Northern Rock revealed that it is not just a matter of holding a minimum capital requirement accounting for credit risk. The bank also suffered a dangerous liquidity squeeze, which was aggravated by the bank run, as a consequence of poor liquidity risk management.

⁹⁸ In a joint statement (Shadow Regulatory Committee, 2007), academics from around the world have called on regulators to conduct another international impact study before implementing Basel II. This study should use observations from the recent turmoil.

examine the impacts on regulatory capital differential and on banking institutions and their portfolios. Such an analysis should examine all these impacts in adverse and benign scenarios, elaborate on the potential consequences for the real economy and propose solutions in both cases. Yet, the recent financial market conditions should be carefully considered in an effort to improve the robustness of the Basel II rules.⁹⁹ The success of Basel II depends on its strengths overcoming its weaknesses.¹⁰⁰

⁹⁹ The financial turbulence has been viewed by many observers as having a 'silver lining' since it provides important new stress data that had previously been missing from banks' economic capital models (*Global Risk Regulator*, 2007). In April 2008, the Financial Stability Forum published its report in response to the financial turmoil, recommending the measures to be taken to strengthen the capital adequacy rules.

¹⁰⁰ See Appendix 2.

3. WHAT ARE THE BUILDING BLOCKS FOR IMPLEMENTATING BASEL II IN EUROPE?

Following seven years of painstaking and demanding negotiations in Europe, bankers and regulators breathed a sigh of relief when the Capital Requirements Directive (CRD) got through the European Parliament on 28 September 2005, and was formally agreed by the Council of Ministers of the 25 EU member states on 11 October 2005. The last step of a long process was the adoption of the CRD by the Council and the European Parliament on 14 June 2006 and its publication in the *Official Journal* on 30 June 2006.¹⁰¹

Among the three alternatives for updating the existing banking legislation (amending, recasting or developing a new directive), the recasting technique¹⁰² was the preferred one since it not only retains the previously adopted provisions (which may not be subject to further negotiation or adaptation) but also preserves the consolidated version of the legislation. Obviously, in light of the length and complexity of the original Basel II framework, the resulting EU version is a highly burdensome piece of legislation (two-thirds of which is contained in the annexes).

The new 'non-Lamfalussy' CRD finally applies the complex, risk-sensitive Basel II capital adequacy rules to some 8,000 European banks and

¹⁰¹ The CRD comprises Directive (2006/48/EC) of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions, OJ L 177/1, 30.06.2006 and Directive (2006/49/EC) of 14 June 2006 on the capital adequacy of investment firms and credit institutions, OJ L 177/201, 30.06.2006.

¹⁰² The recasting technique for legal acts is outlined in the Inter-Institutional Agreement of 28 November 2001, 2002/C 77/01).

some 2,000 investment firms in two stages: the first in January 2007 for banks applying the simpler approaches for credit and operational risks and the second one in January 2008 for banks applying the more advanced approaches.

Prior to the implementation of the CRD in the 27 member states, several issues that were on hold during the adoption process have been smoothly solved over time, such as the strengthening of the European Parliament's role under the comitology procedure. Other issues, however, including the role of pillar 2 and a cautious extension of the role of the established consolidating supervisor, are still under revision.¹⁰³

Indeed, since the beginning of the process, the chief attention has been given to the quantitative aspects of the CRD (mainly related to pillar 1 because of its complexity) while overlooking other very important elements related to pillar 2. Moreover, the intricacy of the CRD and its implementation in 27 member states has led to intervention by many actors in order to achieve convergence in its interpretation.

This section intends to provide a comprehensive overview of the workings of the legislative process in the EU and the key challenges faced by European financial institutions and investment firms in adopting the CRD.¹⁰⁴

3.1 A form of Basel II adapted to the European context

Since the beginning of the revision process of the capital adequacy framework for internationally active banks by the Basel Committee in 1999, the European Commission has been deeply involved and committed to updating the EU banking rules, as part of the wider Financial Services Action Plan,¹⁰⁵ to keep pace with market developments. In July 2004, a

¹⁰³ The European Commission (2008) has published its proposal for potential changes to the CRD, which includes supervisory arrangements among others.

¹⁰⁴ This includes the future amendments related to the ongoing revision of the CRD.

¹⁰⁵ The Financial Services Action Plan, launched in 1999, outlined a number of policy objectives and measures to improve the Single Market for financial services. One of its objectives was to ensure financial stability by keeping pace with state-of-the-art prudential rules and supervision, in particular in the area of banks'

proposal for an updated CRD was published, which largely retained the same provisions introduced in the Basel II text, but with some variations to accommodate the EU context.¹⁰⁶ In September 2005, the Commission proposal was expanded to incorporate additions from the review of trading book rules and the treatment of double-default effects.¹⁰⁷ In 2008, the European Commission embarked on a revision process for the CRD, primarily related to i) large exposures, ii) hybrid capital instruments, iii) supervisory arrangements, iv) waivers for banks organised in networks and v) adjustments to certain technical provisions. In line with the Basel Committee's timetable, other aspects of the CRD – including the revision of the securitisation framework, the trading book rules, pillar 2 and 3 issues – are expected to be revisited at a later stage.

The amendments, including those to large exposures, hybrids, supervisory arrangements and the extension of waivers and some technical changes (in Annex III¹⁰⁸ of Directive 2006/48/EC), will be made using co-decision while other technical amendments will be made through the comitology procedure in accordance with the EC Treaty.¹⁰⁹

Although Basel II was originally intended to be applied by internationally active banks, the European Directive targets all credit institutions and investment firms irrespective of their size, scope of

solvency requirements. The Single Market is an important factor explaining why in some cases the proposed EU rules go further than the Basel rules do.

¹⁰⁶ See Appendix 3.

¹⁰⁷ These rules were finalised by the joint IOSCO/Basel Committee working group on 18 July 2005. At that time, the European Commission had not yet published the last draft incorporating the changes agreed in July 2005. The new trading book rules were introduced to the CRD through an amending package adopted in the plenary session on 28 September 2005.

¹⁰⁸ The amendments in this annex should have been made under the comitology procedure. Yet, Art. 150(1)(l) only includes the adjustments of Annexes V to XII. This specific paragraph is subject to an amendment in the 2008 review to include any adjustment in Annex III under the comitology procedure.

¹⁰⁹ The potential entry into force of the Lisbon Treaty in January 2009 will not affect the delegated powers in the CRD since the new Treaty only affects new, secondary Community legislative acts (law cannot be retroactive).

activities or level of sophistication. It applies in principle on both a consolidated and an individual (solo) basis.¹¹⁰

This scope of application is highly challenging since it should be made appropriate for small, medium-sized and large banks as well as investment firms on the grounds that they carry out similar activities and risks. Moreover, the adaptations reflect the specific Single Market context, which encompasses features such as the single banking license, home country control and the minimum harmonisation of prudential requirements.

This approach is laudable, since it encourages all types of EU financial institutions to upgrade their internal systems, resulting in a more risk-sensitive management of their activities in the future. Additionally, it pays close attention to the level-playing-field principle since EU banks and investment firms need to be subject to equivalent regulations because they bear the same risk.

In order to smooth the transition to the new regulatory framework of such a large population of financial institutions varying in size and sophistication and to make risk-sensitivity achievable for all of them, the Commission introduced some EU-specific solutions¹¹¹ such as:

- creating ‘roll-out’ rules for the IRB approaches that allow credit institutions to move different business lines and exposure classes to the foundation or the advanced IRB approach (Art. 85);
- allowing credit institutions to partially use the IRB approaches for some exposures combined with the continued use of the standardised approach for exposures to sovereigns and financial institutions (Art. 89);
- providing special treatment (LGD of 12.5%) for covered bonds (Annexes VI and VII); and

¹¹⁰ Subject to certain conditions, however, the CRD includes the possibility to waive the solo requirements on (only) domestic subsidiaries. The conditions for this waiver aim at ensuring that the parent guarantees the commitments of the subsidiary that has been exempted from the solo capital requirements.

¹¹¹ This list is not exhaustive. Other differences between Basel II and the CRD are shown in Appendix 3.

- exempting small investment firms from the new operational risk charges, thus reflecting their risk profile and limited systemic importance.

Nevertheless, the fact that the drafters of the EU text have relied on the results of the Basel Committee's and the European Commission's QIS3 results published in 2003 and a subsequent macroeconomic impact study¹¹² published in 2004 should not necessarily have inspired confidence, since the results of the QIS3 have proven insufficiently trustworthy to enable final conclusions to be drawn.¹¹³ What is more, these results did not take into account the impact that the new trading book rules would have on the required levels of capital for banks and investment firms.

Notwithstanding these limitations, the Council and the European Parliament adopted the new CRD in June 2006. Subsequently, the new legislative text was transposed into the national laws of the 27 member states after being translated into their respective languages.

Since its formal approval by the Council of Ministers in October 2005, the European Commission has published the final consolidated text of the CRD on its website, containing some 255 pages for regulating European credit institutions and investment firms.¹¹⁴ Furthermore, it has made accessible the conclusions of the QIS5¹¹⁵ and the impact study of the new operational risk charge for investment firms,¹¹⁶ and formed a new

¹¹² See PriceWaterhouseCoopers (2004).

¹¹³ Most importantly, these results did not take into account the endorsement of the new treatment of expected and unexpected losses (see Ayadi & Resti, 2004).

¹¹⁴ For the full text of the CRD, see the European Commission's website (retrieved from http://europa.eu.int/comm/internal_market/bank/regcapital/index_en.htm#capitalrequire).

¹¹⁵ For details on the QIS5, see the European Commission's website (retrieved from http://ec.europa.eu/internal_market/bank/regcapital/impact_en.htm#qis5).

¹¹⁶ For further information about the study, see the European Commission's website (retrieved from http://europa.eu.int/comm/internal_market/bank/regcapital/impact_en.htm#impact).

Transposition Group¹¹⁷ for the Directive, whose purpose is to clarify several issues in the new capital adequacy regulation.

3.2 A strengthened role for the European Parliament

European policy-makers were determined to push ahead with the new regulation, albeit under a cloud of uncertainty that called into question its timely adoption a few weeks before the vote of the Parliament.¹¹⁸ The last-minute compromise reached between the Parliament, Commission and Council, driven by the will and commitment of the Parliament to win its call-back right under the comitology procedure, saved the Directive from further delays in the process.

This compromise amended Arts. 150 and 151 of the Codified Banking Directive (2000/12/EC) and Arts. 42 and 43 in the recasting of the Capital Adequacy Directive (93/6/EEC).^{119, 120} It meant that the comitology system¹²¹ – which largely excluded the European Parliament – could be used to update and implement the CRD for a maximum of two years (sunset clause) following the formal adoption of the new Directive (until 1

¹¹⁷ Concerning the Transposition Group, see the European Commission's website (retrieved from http://europa.eu.int/comm/internal_market/bank/regcapital/transposition_en.htm).

¹¹⁸ See Ayadi (2005 and 2006).

¹¹⁹ These articles set the rules allowing for future amendments in some provisions (related to the adaptation of definitions and technical adjustments in several articles and annexes) in the new Directive, subject to comitology.

¹²⁰ The text introduced by the Parliament amending Art. 151 of recasting Directive 2000/12/EC and Art. 43 of recasting Directive 93/6/ECC states:

Without prejudice to the implementing measures already adopted, upon expiry of a two-year period following the adoption of this Directive and on 1 April 2008 at latest, the application of its provisions requiring the adoption of technical rules, amendments and decisions in accordance with paragraph 2 shall be suspended. Acting on a proposal from the Commission, the European Parliament and the Council may renew the provisions concerned in accordance with the procedure laid down in Art. 251 of the Treaty and, to that end, they shall review them prior to the expiry of the period or the date referred to above.

¹²¹ The comitology system is defined in the 1999 Council Decision (1999/468/EC) laying down the procedures for the exercise of implementing powers conferred on the Commission.

April 2008 at latest). After that time, these powers were expected to be renewed with a subsequent agreement of the three institutions.

Thus, by gaining agreement in July 2005 on the future suspension of the comitology provisions in the CRD, the European Parliament succeeded in the negotiations with the Commission and the Council with respect to its call-back right under the comitology framework. Furthermore, by adding the new amendments to the related articles in the new Directive at the last minute, the Parliament put further pressure on the Commission and the Council to re-examine the previous Inter-Institutional Agreement – laying down the procedures for the exercise of implementing powers conferred on the Commission – before the end of the two-year sunset clause following adoption of the Directive.

On 6 July 2006, the European Parliament¹²² won the battle in full by endorsing (with an overwhelming majority) the compromise reached with the Commission and the Council on the comitology procedure. The new agreement, which followed several months of talks among the three EU institutions, allows Members of the European Parliament, for the first time, to block implementing decisions taken by the Commission. The new Inter-Institutional Agreement also improves the Parliament's rights to be informed, by insuring that the Commission provides detailed information on all comitology activities in all the official languages of the EU and extends the time available for parliamentary scrutiny.

The agreement is highly welcome since it not only improves accountability and transparency, it also thwarts the threat of returning to the lengthy, traditional legislative co-decision process when the sunset clause attached to several EU directives – including the CRD – expires.

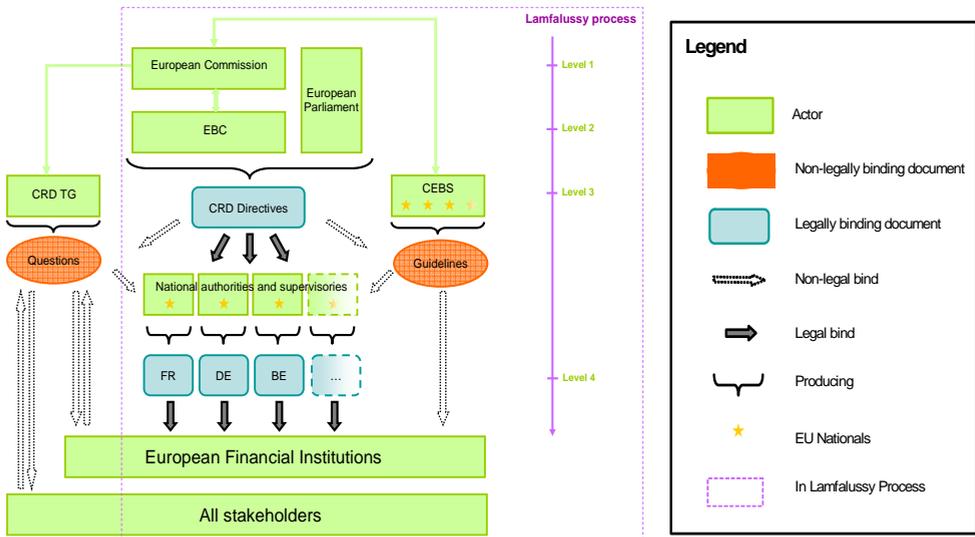
For the CRD, this agreement restores the durable powers of the Commission to delegate some responsibility for the technical details to expert committees subject to oversight by the co-legislators (the Council and Parliament). It also preserves the flexibility in the Directive to enable it to keep pace with developments in industry practices, markets and supervisory needs.

¹²² See European Parliament (2006a & b).

3.3 A multicephalic implementation process

The existence of several layers of governance and actors (see Figure 6) with overlapping legal and political responsibilities, competences and partly contrasting agendas raises questions about how to achieve the consistent application of the CRD across all member states. Indeed, one of the fundamental principles underpinning the EU is that its laws should be “applied with the same effectiveness and rigour as national laws”¹²³ while striving for a level playing field. The tasks of transposing, implementing and enforcing the CRD involve numerous actors at national and supranational levels and a variety of decision-making systems. Consequently, in the adoption phase of the CRD, financial institutions face a plethora of legal texts, opinions and guidelines produced by different bodies: the European Commission (and its CRD Transposition Group), the European Banking Committee (EBC), the CEBS and the national authorities.

Figure 6. Layers of the decision-making process for transposing the CRD in Europe



Source: Author’s elaboration.

¹²³ See Declaration No. 19 on the implementation of Community law in the Treaty of the European Union.

The main legislative texts resulting from the complex interactions, negotiations and compromises by supranational authorities (the European Commission, Parliament and Council), are brought together in the final, consolidated CRD (Table 5).

Table 5. The legislative texts of the CRD (June 2006)

Text	No. of pages and articles/annexes
Directive 2006/48/EC relating to the taking up and pursuit of the business of credit institutions	56 pp. 160 articles
Annexes to 2006/48/EC	144 pp. 13 annexes
Directive 2006/49/EC on the capital adequacy of investment firms and credit institutions	18 pp. 54 articles
Annexes to 2006/49/EC	37 pp. 9 annexes

Source: Author's compilation.

To respond to the large number of issues that remain unclear (after more than two years) while leaving room for divergent interpretations in implementing the CRD, the European Commission set up the CRD Transposition Group, whose purpose is to facilitate correct and consistent transposition of the CRD in member states' legislation. In particular, the Transposition Group aims at providing all interested parties with interpretations of specific provisions of the Directive. By April 2008, the Transposition Group had received around 332 questions (of which 284 were answered) (see Table 6). Hence, the extension of the activities of the Transposition Group was thought to be beneficial. Indeed, in its July 2007 meeting, the European Banking Committee, which fulfils both comitology and advisory functions, agreed that the Transposition Group should continue its work in 2008, to look at

- critical issues when implementing the most sophisticated approaches,
- the reduction of national options and discretion,
- possible amendments to the CRD recommended by the Transposition Group, and

- the resolution of material technical difficulties where prudential treatment does not work or results in disproportionate costs in view of the development of market practices.

Clearly, the complexity of the new rules is challenging for European financial institutions and their supervisors. Not only should the rules and their updates be correctly understood, but also their application by supervisors within a member state and across frontiers needs to be reinforced. The answers provided by the Transposition Group may serve to facilitate the transposition of the CRD into member state legislation,¹²⁴ but it may not be realistic to expect financial institutions and national supervisors to follow them literally, as they are not legally binding.

Table 6. Volume of queries to the CRD Transposition Group (up to April 2008)

Status	Number
Total number of questions	332
Answered	284
Not yet answered	24
Rejected	24

Source: Author's compilation.

Regarding options and areas for national discretion, as mentioned by the European Commission in its Call for Technical Advice (No. 10) from the CEBS, "the European Banking Committee has agreed that mutual recognition of national discretions should not be seen as an optimum or definitive solution. This might result in embedding national discretions in

¹²⁴ During 2008, the European Commission will perform a transposition check (incorporating the important answers to questions given by the Transposition Group) to ensure consistent implementation of the Directive in the 27 member states.

Community legislation and might, under certain circumstances, lead to regulatory arbitrage.”¹²⁵

In order to avoid these scenarios, the Commission called for further harmonisation.

The creation of CEBS – under the comitology structure and specified by Commission Decision 2004/5/EC of 5 November 2003 – intended to respond to the Commission’s call for enhanced convergence of regulatory and supervisory practices, with the ultimate aim of forging a single EU financial market. Towards this end, the tasks of CEBS include

- advising the Commission, at either the Commission’s request and within a time limit that the Commission may specify according to the urgency of the matter or the Committee’s own initiative, in particular as regards the preparation of draft implementing measures in the field of banking activities. The CEBS also helps to incorporate updates and technical changes more easily under the comitology procedure;
- contributing to the consistent implementation of Community directives and to the convergence of member states’ supervisory practices throughout the Community; and
- enhancing supervisory cooperation, including the sharing of information among national supervisors to increase the effectiveness of supervision in a cross-border context.

The CEBS has already released a set of guidelines and is currently working on a variety of topics as shown in Table 7. A consolidated guidebook, which will amount to some 500 pages of guidelines (mostly principle-based), is under preparation. Nevertheless, the application of such voluminous and open-to-interpretation guidelines may generate a major concern for cross-border financial institutions in terms of consistency in application and a level playing field. The challenge is significant, and CEBS itself recognises that it could fail in closing the gap between national practices and therefore in helping to achieve a full-scale convergence. In this respect, the CEBS guidelines seek to establish important common

¹²⁵ See the European Commission’s (2007) Call for Technical Advice (retrieved from <http://www.cebs.org/Advice/documents/CFA10onnationaldiscretions16052007.pdf>).

ground, although they may be unsuccessful in generating a sufficient level of convergence in practices. Furthermore, according to CEBS, the concept of convergence has changed markedly since 2004. Indeed, as mentioned by CEBS Chair Daniele Nouy:¹²⁶

[A] few years ago the objective was to ensure a consistent implementation of Basel II while maintaining enough flexibility for institutions to adapt; now we are often asked to deliver country-neutral approaches in all areas of our work. I believe we need to elaborate further on the notion of convergence, so as to have an ex ante common understanding on what CEBS is expected to deliver; this would also favour proper ex post assessment and accountability. [W]e have also to stress that the degree of supervisory convergence CEBS could achieve is limited by significant regulatory constraints. A regulatory setting is now crystallised in Community legislation that leaves ample space to national adjustments.

Table 7. Standards and guidelines produced by CEBS

Standards and guidelines	Date	Pages	Topic
Recommendation for cooperation in crisis (work in progress)	2008	x	In cooperation with the Banking Supervision Committee of the European System of Central Banks, in order to be prepared in case of a crisis with a cross-border dimension
Rating agencies (work in progress)	2008	x	In collaboration with the Committee of European Securities Regulators, Commissioner Charlie McCreevy requested a review of the rating process of structured finance instruments
Liquidity risk (work in progress)	2008	x	A response to the US subprime mortgage credit risk, which has revealed many complex interactions of liquidity risk with credit, market and reputation risks
National discretion (work in progress)	2008	x	Call for advice from the European Commission to reduce the large number of national options and areas of discretion available in the CRD
Review of the current large exposures regime	April 2008	34	Initiated after some European banks stressed the importance for supervisors to look at the bank's management of concentration risk, including measurement of off-balance-sheet exposures

¹²⁶ See the speech given by Daniele Nouy at the Economic and Monetary Affairs Committee of the European Parliament on 2 October 2007.

CEBS adopts its peer review mechanism	October 2007	6	Protocol and methodology for a peer review mechanism; a group dedicated to conducting peer reviews – the Review Panel – is being set up and the CEBS is implementing peer review as a powerful tool for convergence
Assessment of convergence on supervisory reporting	October 2007	58	Study to assess the level of convergence achieved by the introduction of the CEBS <i>Guidelines on Reporting</i> in order to provide a first overview of the progress made in this area; in addition, this study has helped to identify areas where further convergence of supervisory practices should be possible
Analytical report on prudential filters	October 2007	42	The analytical report seeks to assess compliance by CEBS' members with the <i>Guidelines on the use of Prudential Filters for Regulatory Capital</i> and to present their impact in quantitative terms on regulatory own funds; it also provides a basis for discussion on the possible scope for further convergence of these filters
Mediation protocol between banking supervisors	September 2007	8	CEBS reiterates its commitment to using all tools at its disposal, including mediation, to achieve further convergence and reduce the supervisory burden of cross-border banking groups
Approved amendments to the <i>Guidelines on Financial Reporting</i>	July 2007	19	During the consultation period, CEBS has received a number of comments from industry participants, which have improved the quality and the accuracy of the proposals
Recast version of the <i>Guidelines on Financial Reporting</i>	December 2006	18	These guidelines are intended for use by credit institutions when preparing prudential reports to be sent to any EU supervisory authority according to the International Accounting Standards/IFRS endorsed by the European Commission
Additional <i>Guidelines on Stress Testing</i>	December 2006	28	Additional technical guidance to complement the CEBS <i>Guidelines on the Supervisory Review Process</i> issued in January 2006 on the theme of stress testing
Additional <i>Technical Guidelines on Concentration Risk</i>	December 2006	17	Final technical guidelines on the application of the supervisory review process in relation to concentration risk under pillar 2
<i>Guidelines on Outsourcing</i>	December 2006	11	The aim of these guidelines is to promote an appropriate level of convergence in supervisory approaches to outsourcing; the proposed guidelines are based on current supervisory and market practices and also take into account international and European developments in this field

Recast version of the <i>Guidelines on Common Reporting</i>	October 2006	19	These guidelines are intended for use by credit institutions and investment firms when preparing prudential reports to be sent to any EU supervisory authority according to the new capital framework established in the new capital regulation
<i>Technical Guideline on Interest Rate Risk in the Banking Book</i>	October 2006	19	Final technical guidance on the application of the supervisory review process in relation to interest rate risk in the banking book
<i>Guidelines on Validation</i>	April 2006	143	Guidelines on the implementation, validation and assessment of the risk-management and risk-measurement systems used by credit institutions and investment firms for the calculation of their capital requirements
<i>Guidelines on Supervisory Cooperation for Cross-Border Banking and Investment Firm Groups</i>	January 2006	38	Guidelines on cooperation between supervisors of EU banking groups and investment firms, which are designed to promote an efficient supervisory framework for groups that operate in several EU jurisdictions by enhancing the practical operational networking of national supervisors
<i>Guidelines on the Supervisory Review Process</i>	January 2006	43	Guidelines on the application of the supervisory review process under pillar 2; the supervisory review process is a central component of the new CRD and is designed to enhance the link between the risks taken on by credit institutions and investment firms, their management of those risks and the capital they hold
<i>Guidelines on the Recognition of External Credit Assessments Institutions</i>	January 2006	40	Final guidelines on a common approach to the recognition of ECAs under the CRD
<i>Guidelines on Common Reporting</i>	January 2006	5	Guidelines on a common reporting framework to be used by credit institutions and investment firms when they report their solvency ratio to supervisory authorities under the CRD
<i>Guidelines on Financial Reporting</i>	December 2005	18	Guidelines establishing a standardised financial reporting framework for credit institutions operating in the EU, which will enable credit institutions to use the same standardised data formats and data definitions for prudential reporting in all countries where the framework is applied

<i>Guidelines on Supervisory Disclosure</i>	November 2005	31	The guidelines for supervisory authorities on increased transparency and public disclosure will allow easy access to qualitative information on the laws and rules adopted at the national level and on the ways in which member states have exercised the options and national discretion, as well as to statistical data on the implementation of the Directive
<i>Guidelines on Prudential Filters for Regulatory Capital</i>	December 2004	4	CEBS has developed prudential filters for regulatory capital and is now issuing the guidelines, the objective of which is to maintain the current definition - and quality - of regulatory capital

Source: Author's compilation.

Although the tasks and responsibilities granted to the CEBS are substantial, the Lamfalussy framework¹²⁷ as a whole and the role of the CEBS in particular are hindered by the lack of a clear legal framework for the functions, powers and operations of the Level 3 committees. Making the CEBS' guidelines and other Level 3 tools legally binding could be a way forward to enhance supervisory convergence at the EU level. It should be noted, however, that this approach might add to the already established regulatory burden created by the voluminous legislative text of some 255 pages.

Finally, the member states have the responsibility for the timely transposition of the CRD into national law and for ensuring enforcement. The only legally binding document is the CRD itself (Table 5 above), which contains a large number of areas for national discretion (Table 8). These aspects for national discretion secure the autonomy of the authorities to adapt the CRD to their requirements at the local level (into laws, annexes and guidelines). Such discretion may lead to discrepancies in the transposition of the CRD, which is harmful for the level playing field at the European level. In light of this challenge, the European Commission called upon the CEBS to give advice on the extent to which further harmonisation should be achieved by reducing the number of discretionary areas and options under the CRD. The CEBS' response is expected at the end of May 2008.

¹²⁷ See Appendix 4.

Table 8. Number of discretionary areas for national authorities in transposing the CRD

National discretion...	Number of areas
For the CRD on its own	57
With respect to the CRD annexes	84

Source: Author's compilation.

Status of transitory measures and revisions in light of the recent market turmoil

In the near future, a set of specified areas for national discretion will apply until either 2009, 2010, 2011 or 2012. A (non-exhaustive) list of the transitory measures can be found in Table 9. These are expected to be reviewed before their date of expiration. The review is to include *the number of past due days in the IRB approaches, the risk weight for secured mortgages and property leasing transactions, the recognition of collateral and provisions for operational risks under the standardised approach, and LGD.*

Finally, the 2008 CRD review – which includes specific revisions to the large exposures' section (Chapter 2, Section 5), hybrid capital instruments (Chapter 2, Section 1), supervisory arrangements (mainly Arts. 4, 40, 42, 49, 50, 129 and 130) and waivers for cooperative bank networks and other technical amendments in Directive 2006/48//EC – will be revised under co-decision and comitology procedures.

These potential changes might add further complexity to the implementation of the Directive, particularly in terms of the timetable.

Table 9. *Transitory measures for the CRD*

Topic	Scope	Provision	Reference	Validity
Number of past due days	Retail, corporate and public sector entity under the standardised approach	<ul style="list-style-type: none"> The competent authorities of each member state may, for the purposes of Annex VI, Part 1, point 61, set the number of days past due up to a figure of 180 for exposures indicated in Annex VI, Part 1, points 12 to 17 and 41 to 43, to counterparties situated in their territory, if local conditions make it appropriate. The specific number may differ across product lines. 	Art. 154, point 1	12/2011
	Corporate exposures under the IRB approach	<ul style="list-style-type: none"> For corporate exposures, the competent authorities of each member state may set the number of days past due that all credit institutions in its jurisdiction shall abide by under the definition of 'default' set out in Annex VII, Part 4, point 44 for exposures to such counterparties situated within this member state. The specific number shall fall within 90- up to a figure of 180 days if local conditions make it appropriate. For exposures to such counterparties situated in the territories of other member states, the competent authorities shall set a number of days past due that is not higher than the number set by the competent authority of the respective member state. 	Art. 154, point 7	12/2011

Topic	Scope	Provision	Reference	Validity
<p>Risk weights under the standardised approach</p>	<p>Secured mortgages and property leasing transactions concerning offices and other commercial premises</p>	<ul style="list-style-type: none"> • In Art. 113, point 3, member states may fully or partially exempt the following exposures from the application of Art. 111:(q), where they would receive a 50% risk weight under Arts. 78 to 83, and only up to 50% of the value of the property concerned: <ul style="list-style-type: none"> i) exposures secured by mortgages on offices or other commercial premises, or by shares in Finnish housing companies, operating in accordance with the Finnish Housing Company Act of 1991 or subsequent equivalent legislation, in respect of offices or other commercial premises; and ii) exposures related to property leasing transactions concerning offices or other commercial premises. • For the purposes of point (ii), until 31 December 2011, the competent authorities of each member state may allow credit institutions to recognise 100% of the value of the property concerned. At the end of this period, this treatment shall be reviewed. Member states shall inform the Commission of the use they make of this preferential treatment. 	<p>Art. 113, point 3</p>	<p>12/2011</p>

Topic	Scope	Provision	Reference	Validity
	Property leasing transactions concerning offices and other commercial premises	<ul style="list-style-type: none"> In the calculation of risk-weighted exposure amounts for exposures arising from property leasing transactions concerning offices or other commercial premises situated in their territory and meeting the criteria set out in Annex VI, Part 1, point 54, the competent authorities may, until 31 December 2012 allow a 50% risk weight to be assigned without the application of Annex VI, Part 1, points 55 and 56. 	Art. 153	12/2012
	Exposure in the national currency of the borrower	<ul style="list-style-type: none"> In the calculation of risk-weighted exposure amounts for the purposes of Annex VI, Part 1, point 4, until 31 December 2012 the same risk weight shall be assigned in relation to exposures to member states' central governments or central banks denominated and funded in the domestic currency of any member state as would be applied to such exposures denominated and funded in their domestic currency. 	Art. 153	12/2012
Recognition of collateral under the standardised approach		<ul style="list-style-type: none"> Competent authorities may, for the purpose of defining the secured portion of a past due loan for the purposes of Annex VI, recognise collateral other than eligible collateral as set out under Arts. 90 to 93. 	Art. 153	12/2010

Topic	Scope	Provision	Reference	Validity
LGD	Retail exposures secured by residential properties	<ul style="list-style-type: none"> Until 31 December 2010, the exposure-weighted average LGD for all retail exposures secured by residential properties and not benefiting from guarantees from central governments shall not fall below than 10%. 	Art. 154, point 5	12/2010
	Period of calculation	<ul style="list-style-type: none"> For credit institutions applying for the use of the IRB approach before 2010, subject to the approval of the competent authorities, the three-years' use requirement prescribed in Art. 84(3) may be reduced to a period no shorter than one year until 31 December 2009. 	Art. 154, point 2	12/2009

Source: Authors' compilation.

3.4 Supervisory consistency and convergence

The supervisory review process¹²⁸ (SRP) has stimulated extensive debate among different interest groups since the adoption process of the CRD began and deserves further scrutiny to ensure consistent implementation of the CRD in the 27 member states. The SRP includes

- the role of pillar 2 in the CRD; and
- home- and host-country issues and the role of a 'cautious' extension of the already established consolidating supervisor.

¹²⁸ The SRP represents the collective views of EU supervisors on the standards (including standards on internal governance) that credit institutions and investment firms are expected to observe and the supervisory practices that supervisory authorities will apply.

3.4.1 *The role of pillar 2*

The rationale of pillar 2 is to enhance the link between banks' risk profiles, risk-management and risk-mitigation systems and their regulatory capital (CEBS, 2006c).

Under the first principle codified in Art. 123 of the CRD, institutions are expected to sufficiently identify and measure the institution's risks and to develop sound risk-management processes that accurately monitor, measure and aggregate their risks in order to ensure that they hold adequate internal capital. This is the essence of the internal capital adequacy assessment process (ICAAP). Sound internal governance is especially important in this context.¹²⁹ As rightly mentioned in CEBS (2006c), "[t]he ICAAP should be embedded in the institution's business and organisational processes, and not simply regarded as an add-on that permits the management body to 'tick a box' and indicate that supervisory expectations nominally have been met". The interaction between the ICAAP and the supervisory review and evaluation process (SREP) is essential to make certain there is an effective dialogue between the institutions and their supervisors covering risk management, internal controls, the organisation of the institution's business and the way capital is allocated against the overall risk taken. See Figure 7.

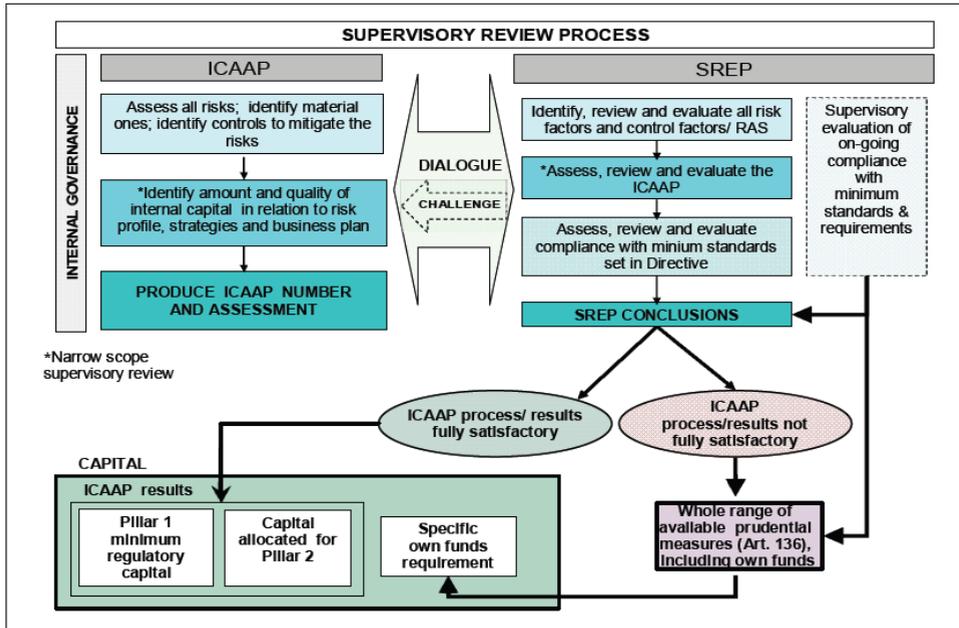
With respect to the prudential supervisors' assessment of banks' risk profiles, the question that arises is thus: Does the Directive guarantee prompt intervention?

The second pillar is meant to assist the risk management of banks by offering a second opinion on what is being done and by providing incentives for improvement. The requirement of supervisors' prompt intervention is reflected in three of the four principles in pillar 2 of the new Capital Accord as described above. Principle 2 calls for supervisory evaluation of a bank's internal procedures for maintaining adequate capital and taking appropriate supervisory action if the supervisors are not satisfied. Principle 3 states that supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to do so. Principle 4 establishes that supervisors should

¹²⁹ CEBS has developed further guidance based on Art. 22 of the CRD (CEBS, 2006c).

intervene at an early stage to prevent an individual bank's capital from falling below the minimum requirements and require rapid remedial action. Principles 2, 3 and 4 of pillar 2 in Basel II are broadly dealt with in Arts. 22, 123, 124 and 136 as well as Annex XI of Directive 2006/48/EC (recast).¹³⁰

Figure 7. Links between the ICAAP and SREP



Source: CEBS (2006c).

The principle-based character of pillar 2 requires consistency and transparency in its implementation. Moreover, consistent application throughout the EU calls for the convergence of supervisory practices and tools, which does not exist in the EU at this stage. The need for banking supervisors to have at their disposal adequate supervisory measures to bring about timely corrective action when banks fail to meet prudential requirements (such as minimum capital adequacy ratios) is recognised by

¹³⁰ See Directive (2006/48/EC) of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions, OJ L 177/1, 30.06.2006.

the BCBS in its *Core Principles for Effective Banking Supervision* (CP 23).¹³¹ In the EU, the IMF assessments of the observance of these principles have identified a number of shortcomings at the time of the assessment.¹³² In some countries, bank supervisors do not have a full range of corrective actions at their disposal, such as restricting asset transfers or suspending dividends. In the recently acceded EU countries, the ability of the supervisor to address issues related to the safety and soundness of banks is significantly encumbered by its institutional capacity and resources. Furthermore, in a number of countries, governments must formally approve the license withdrawal, although the decision corresponds to the stance of the supervisor (Nieto & Wall, 2006).

The limitations in the scope of adequate supervisory measures and lack of convergence explain why *the implementation of pillar 2 is one of the biggest challenges for prudential supervisors*. At this stage, it is not clear how supervisors will conduct the review or how comparable it will be across the various jurisdictions in the EU.¹³³ As such, the CEBS has issued a set of guidelines under the SRP for the implementation of pillar 2. These guidelines establish that “prudential measures should be applied promptly” and provide an indication of the range of measures available to supervisory authorities including the requirement “to hold own funds and/Tier 1 capital above the minimum level required by pillar 1, and/or imposing other limitations on own funds”.¹³⁴ This requirement is envisaged only in case the imbalances cannot be remedied by other prudential measures within an appropriate timeframe, but even if this were the case, it raises the question of whether bank supervisors are legally empowered to

¹³¹ The *Core Principles for Effective Banking Supervision* were revised by the BCBS in 2006 (BCBS, 2006e).

¹³² See *Implementation the Basel Core Principles for Effective Banking Supervision*, IMF-WB Assessments, IMF (2002) (retrieved from <http://www.imf.org/external/np/mae/bcore/2002/092302.pdf>). These institutional arrangements may have changed since the date of the assessment.

¹³³ See Ayadi & Resti (2004), p. 66

¹³⁴ See CEBS (2006c).

require regulatory capital above the minimum in the present framework of national legislations.¹³⁵

Moreover, the CRD and the SRP establish the principle of early intervention but do not remove supervisory discretion as to when to intervene nor do they establish minimum supervisory actions. As explained by Nieto & Wall (2006), they constitute a “step in the right direction to reduce forbearance and bring about timely corrective action by supervisors when banks fail to meet prudential requirements. Nonetheless, they fall short of a structured early intervention mechanism in the EU.” In the opinion of those authors, a more structured prudential-performance benchmark based on predetermined, minimum regulatory capital ratios would make the imposition of sanctions more credible, further discouraging prudential supervisors’ forbearance and limiting potential losses in the event of bank crisis. In this context, as highlighted by Nieto & Wall (2006), market discipline should play an even more important role in putting a backstop to prudential supervisory action in the EU.

3.4.2 Home- and host-country issues

The major aim of the CEBS in adopting the Basel Capital Accord was to ensure that internationally active banks have a sufficiently high capital cushion against insolvency. The internationally active banks with important cross-border activity are precisely the ones that pose the greatest challenge to supervisors from the point of view of the implementation of the Basel II Accord. A close cooperation between home- and host-country supervisory authorities is crucial for preserving the level playing field and the single EU banking market (Ayadi & Resti, 2004). In turn, this cooperation is challenging for the following reasons: a) the apportionment of responsibilities between the home- and host-country supervisors of subsidiaries and branches in the EU, b) the lack of full convergence of supervisory practices and disciplinary actions, and c) the need for a coordinated implementation of pillars 1 and 2. It should be remembered that the home-country supervisor of a bank parent exercises supervisory authority over a bank subsidiary incorporated in another EU member state

¹³⁵ In the CEPS Task Force meetings, the Belgian banking supervisor mentioned that, to that end, the banking law had to be amended.

through its supervision of the consolidated group. Also, the home-country supervisor is the prudential supervisor of a branch located in the host country (except for liquidity, whose surveillance is the responsibility of the host-country supervisor).¹³⁶

In April 2008, the European Commission began public consultation on proposed changes to the CRD, aimed at reinforcing the efficiency and effectiveness of supervision of cross-border banking groups. This initiative implicitly recognises that the recent market turmoil has highlighted the shortcomings of the CRD and, more generally, of the existing apportionment of responsibilities of the EU institutional framework, even if no cross-border crisis has occurred in the EU. The Commission's proposal explicitly recognises that "[t]he competent authorities in one member state shall have regard to the potential impact of their decisions on the stability of the financial system in all other member states concerned".¹³⁷ Even so, this ambitious objective, falls beyond the scope of the CRD and demands an approach with compatible incentives for the entire EU safety net.

The drafters of the Directive, aware of the importance of cooperation between the home- and the host-country prudential supervisors, dealt with this aspect in Arts. 129, 131 and 132, which set the statutory framework for an enhanced collaborative approach to prudential supervision.¹³⁸ These articles deal with the joint model of validation under the lead of the consolidating supervisor (Art. 129), written arrangements for coordination and cooperation between home- and host-country supervisors (Art. 131) and consultation on supervisory action (Art. 132). Furthermore, these requirements have been fleshed out for practical application by the CEBS (CEBS, 2005b).¹³⁹

The European Commission proposal spells out in more detail the responsibilities of the "consolidating supervisor" and clearly defines the

¹³⁶ See Directive (2006/48/EC) of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions, OJ L 177/1, 30.06.2006.

¹³⁷ See European Commission (2008).

¹³⁸ Ibid.

¹³⁹ The public consultation on possible changes to the CRD also envisages that CEBS will elaborate guidelines for the operational functioning of colleges (European Commission, 2008).

“colleges of supervisors” of which s/he is the chair. The proposed revision of the CRD will strengthen the effectiveness of supervision by requiring

- a) the establishment of colleges of supervisors, which in this proposal also encompasses the host prudential supervisors of systemically important branches;
- b) the need to reach minimum agreements within colleges on certain supervisory matters; and
- c) referrals to CEBS in case of disagreement in order to preclude the possibility of regulatory arbitrage between colleges.

Another welcome proposal by the European Commission refers to the requirement that prudential supervisors of the host and home countries decide jointly on the designation of branches and subsidiaries of systemic importance in the host country. In addition, this proposal goes further by referring to specific criteria for the consideration of systemic relevance and, by doing so, facilitates effective coordination.

A potential problem for prudential supervisors of a cross-border banking group is that of determining the financial condition of those parts of the group outside its supervisory control (Mayes, Nieto & Wall, 2007). The communication of information is dealt with in Art. 132 of the CRD, which establishes that

[T]hey shall provide one another with any information which is *essential* or *relevant* for the exercise of the other authorities' supervisory tasks under this Directive. In this regard, the competent authorities shall communicate *on request* all relevant information and shall communicate *on their own initiative* all essential information. ...Information shall be regarded as essential if it could materially influence the assessment of the financial soundness of a credit institution or financial institution in another Member State. (Emphasis added)

The CRD, however, does not define “relevant information” and limits itself to stating that the extent of relevant information will be given by “the importance of these subsidiaries within the financial system in those Member States”. The evasiveness of these precepts and the foreseeable difficulties of supervisors in agreeing on the significance or systemic relevance of the banks, both within the group and in their local markets, may pose a hindrance to the effective implementation of information exchange before a crisis erupts. In its consultation, the Commission

proposes another welcome improvement in the CRD that implicitly reinforces the importance of effective communication: it specifically outlines the need to reach agreements on the disclosure requirements for 'significant' subsidiaries, on reporting for the calculation of minimum regulatory requirements, on the treatment of intra-group exposures for large exposures purposes and on own funds requirements in excess of the minimum level. Moreover, it recognises the significance of the potential negative externalities that systemically important branches may cause in the host country by subjecting the home-country supervisor to similar requirements as in the case of subsidiaries spelled out in Art. 132. Nevertheless, the drafting of this article has not been revised, thus continuing to pose questions of interpretation.

More generally, the ad hoc sharing of information on a banking-group by banking-group basis is likely to be inefficient and vulnerable to gaps (Mayes, Nieto & Wall, 2007). This risk is even more pervasive in light of the detailed and prescriptive character of the list of information that could be exchanged between the consolidating supervisors and the host supervisors provided in the CEBS' Guidelines (CEBS, 2005b, pp. 16-18).

Most importantly, the obligation of information exchange needs to respect the rule of secrecy of Art. 44: "No confidential information which they may receive in the course of their duties may be divulged to any person or authority whatsoever, except in summary or collective form, such that individual credit institutions cannot be identified, without prejudice to cases covered by criminal law." This rule precludes the possibility of establishing a common EU database with confidential supervisory information and analysis on the financial condition of banks. Such a database could be made available to the affected national supervisory agencies to assist all prudential supervisors in understanding the condition of a group as a whole and its relationship to the bank they each supervise (Mayes, 2006 and Vesala, 2005).¹⁴⁰ Yet, the European Commission's proposal is silent in this respect, falling short of a comprehensive approach

¹⁴⁰ In this regard, it should be borne in mind that the US gathers and makes publicly available common quarterly financial statements for all banks and top-level bank holding companies.

to the sharing of information about a banking group in both normal and crisis circumstances.

The CRD explicitly recognises that cooperation among supervisors needs to go beyond the mere exchange of information (Arts. 129 and 131). Art. 131 establishes that “in order to facilitate and establish effective supervision, the competent authority responsible for supervision on a consolidated basis and the other competent authorities shall have *written coordination and cooperation arrangements in place*” (emphasis added). Moreover, this article envisages a stronger form of coordination, which entails the possibility that the host supervisor of a subsidiary may delegate its responsibility to the home-country prudential supervisor of the subsidiary’s parent:

Under these arrangements *additional tasks may be entrusted to the competent authority responsible for supervision on a consolidated basis and procedures for the decision-making process and for cooperation with other competent authorities, may be specified*. The competent authorities responsible for authorising the subsidiary of a parent undertaking which is a credit institution may, by bilateral agreement, delegate their responsibility for supervision to the competent authorities which authorise and supervise the parent undertaking so that they assume responsibility for supervising the subsidiary in accordance with this Directive. (Emphasis added)

This possibility already existed but it has never been used in the EU. What is more, the lack of convergence of supervisory practices and the national character of the disciplinary laws do not favour delegation. The European Commission’s proposal reinforces the concept of delegation in their suggested amendment of Art. 129 (responsibilities of the consolidating supervisor).

The above-mentioned lack of convergence in supervisory measures demands close cooperation between the home and host supervisors of cross-border banks in the implementation of pillars 1 and 2. In this regard, Art. 129 establishes that

the competent authority responsible for the exercise of supervision on a consolidated basis of EU parent credit institutions and credit institutions controlled by EU parent financial holding companies shall carry out the following tasks: (a) coordination of the gathering and dissemination of relevant or essential information in going concern and emergency situations; and (b) planning and coordination of

supervisory activities in going concern as well as in emergency situations.

These precepts of Art. 129 raise two questions: First, what is the scope of cooperation? Second, what is the form of cooperation? The first one is plainly dealt with regarding pillar 1, but the CRD does not contain a clear reference to coordination of the SRP of pillar 2. Regarding pillar 1, it requires that the authorities shall work together, in full consultation, to decide whether to grant permission for and determine the terms of usage of credit models (IRB) (including their parameters) and of operational risk models (AMA) as well as the internal model method to calculate certain exposures (Art. 129(2)). Yet, although supervisory cooperation encompasses pillar 2, Art. 129 does not contain any patent reference to those prudential measures that can be used in the application of the SRP, such as setting a capital requirement above the own funds or tier 1 (pillar 1), requiring improvements in an institution's internal and risk-management controls, applying specific provisioning policy or treating risk assets in terms of regulatory capital requirements, restricting the business operations and reducing the risk profile of its activities.¹⁴¹

The second issue emerging from Art. 129 is the form of cooperation. In this regard, the CRD refers only to the actors of cooperation but not to the fashion in which they organise themselves (e.g. the colleges of supervisors) or their general functioning rules. That is, the CRD refers to the responsibilities of the consolidating supervisor and the need to coordinate with the supervisors of the subsidiaries in the terms mentioned above. This obligation of coordination does not explicitly encompass the host-branch supervisors, although CEBS (2005b) provides some guidelines for "a more active involvement of the relevant host supervisors in the supervisory process - in full respect of the consolidated supervisors' responsibility".¹⁴² The European Commission's proposal offers a significant improvement in this regard by clearly recognising the obligation of the

¹⁴¹ The CEBS Guidelines (CEBS, 2005b) extend that obligation to "establishing cooperative arrangements based on the SREP". Nonetheless, these guidelines are not legally binding and they are thus subject to a wide scope of interpretation.

¹⁴² The host-branch supervisors are responsible for the supervision of the liquidity. See Art. 43.1 of Directive (2006/48/EC) of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions, OJ L 177/1, 30.06.2006 (recast).

“consolidating supervisor” to establish “colleges of supervisors” and expanding the latter in order to encompass the authorities of the host country in which systemically relevant branches are established. The experience of the existing memoranda of understanding and the colleges of supervisors of Nordea, Fortis and Dexia (all of which are banks with an important cross-border presence), would be relevant for future colleges in the EU.¹⁴³ As part of CEBS’ work in promoting convergence in the way EU banking supervisors do their job, on 27 December 2007 CEBS published a paper on the range of practices on supervisory colleges and home-host cooperation, and a template for a “Multilateral Cooperation and Coordination Agreement” (CEBS, 2007b). It follows CEBS’ extensive work in this field, such as setting up an infrastructure to support the exchange of information and experiences between consolidating and host supervisors for a sample of 10 EU banking groups with substantial cross-border business. The template seeks to foster supervisory consistency across EU banking groups, while retaining enough flexibility to be adapted to the specific organisation, the circumstances of each college of EU supervisors and each banking group, and the legal frameworks of participating authorities. The Commission’s proposal grants CEBS the power to elaborate guidelines for the operational functioning of colleges and requires that the consolidating supervisor regularly informs CEBS about the activities of the colleges of supervisors.

It can hardly be argued that the CRD and the recent European Commission proposal mean an important concession by the host-country supervisors towards the consolidating supervisors compatible with the existing, national regulatory frameworks. Still, this could be considered one step forward towards the full ‘lead supervisor’ regime suggested by the European Financial Services Round Table (2005). According to this proposal, the lead supervisor would have responsibilities for coordinating licensing procedures, approving the cross-border set-up of central functions, deciding upon all onsite inspections, allocating capital at group level, and liquidity rules at group and branch level as well as the ultimate decision on supervisory action under pillar 2. These responsibilities are not

¹⁴³ Work on these issues is underway as part of the European Commission’s CRD review in 2008.

envisaged for the consolidating supervisor in the CRD or the European Commission's proposal and they would imply a further centralisation of power under the home-country supervisor. Furthermore, they would imply a dual regulatory and supervisory framework: one for cross-border banks and another for purely domestic entities. At the same time, a full lead supervisor regime may not be sustainable unless there is a binding agreement between the home and the host safety-net regulators with respect to the issues of deposit guarantee schemes, lender of last resort, reorganisation and winding up.

The colleges of supervisors provide a mechanism for all affected EU countries to have a voice in the surveillance of cross-border banks' solvency and, eventually, on the corrective measures. That notwithstanding, colleges do not completely solve the agency problem caused by the mismatch between supervisory powers and supervisory accountability to national taxpayers. As highlighted by Mayes, Nieto & Wall (2007), giving each member state's supervisor a say in a coordinating college is not equivalent to the power that the supervisor would have to protect its country's interests as it could with a purely domestic bank. Still, the inability of supervisors in each country to have the same control as they would over a purely domestic group is an unavoidable consequence of groups operating as integrated entities in more than one member state.

3.5 Conclusions

Since the inception of the process to revise the capital requirement rules, the European Commission has followed a very flexible approach, incorporating public consultation at every step. Following the compromise reached in the new Inter-Institutional Agreement establishing the call-back right for the European Parliament, the new CRD will benefit from the comitology provisions to allow updates and changes related to the continuous development in market practices. In addition, the role of the CEBS will continue to be crucial in promoting a consistent and coherent application of EU banking regulation in all member states.

The implementation of the CRD is certainly burdensome and demanding because it has to seek an equilibrium between specificity and convergence. The need for specificity results from differences in the levels of institutional sophistication, culture and legislation among the member states, while the drive for convergence – through the new and very

complex legislation – relates to the major opportunity to achieve the level playing field necessary for an integrated European financial market.

Hence, the main challenges posed by the CRD legislation and its related guidance for the European regulatory authorities consist of effective and consistent transposition, implementation and **enforcement** of the CRD, which are vital for achieving a level playing field and are aligned with the objectives for better regulation. This requires a clear and common understanding of the multiple documents (the CRD, opinions, guidelines, etc.) produced by various bodies (the European Commission, European Banking Committee, CEBS and national supervisors). Effective implementation involves a balance between achieving consistency and **allowing member states to exercise some necessary discretion**. Narrowing the possibility for national discretion, however, would facilitate the exchange of information and the coordination among prudential supervisors of banking groups.

A major difficulty for CEBS in achieving one of its missions, supervisory convergence, concerns how to ensure that its 500-page consolidated guidebook becomes legally binding and enforceable in all member states. Yet, this undertaking would entail a change in the status and mission of CEBS.

The new CRD is a revolution in prudential supervision, for EU financial institutions as well as for EU supervisors, and their respective tasks are daunting. Putting all the key elements together – comprehensible legislation, adequate and flexible means for updating it, the means to promote consistency and a continual impartial dialogue with the interested parties, together with effective cooperation and coordination between supervisors in the most sensitive matters – will lay a firm foundation for successful application. Making certain that the concept of a consolidating supervisor functions well not only in model validation but also in pillar 2 issues is also vital in the context of the CRD.

Therefore, the critical factor for the success of the EU in implementing the CRD is to construct a solid, cooperative system for banking supervision in order to spread supervisory best practices throughout the member states. To achieve this goal, the institutional role of the CEBS must be strengthened with clearly defined powers to set binding common standards.

4. WILL BASEL II BE IMPLEMENTED CONSISTENTLY ACROSS THE GLOBE?

The revised Framework provides *a range of options* for determining the capital requirements for credit risk and operational risk to allow banks and supervisors to select approaches that are most appropriate for their operations and their financial market infrastructure. In addition, the Framework also allows for *a limited degree of national discretion* in the way in which each of these options may be applied, to adapt the standards to different conditions of national markets. These features, however, will necessitate substantial efforts by national authorities to ensure *sufficient consistency* in application. The BCBS intends to monitor and review the application of the Framework in the period ahead with a view to achieving even *greater consistency*. In particular, its *Accord Implementation Group (AIG)* was established to promote consistency in the Framework's application by encouraging supervisors to exchange information on implementation approaches.¹⁴⁴ (BCBS, 2006a, emphasis added)

According to the above statement, the BCBS has explicitly accepted that owing to the degree of flexibility allowed and the variety of options introduced in the new Accord, there will be a need to monitor and review the application of the rules with respect to consistent and effective implementation across the globe. This task will be a challenging one, however. Indeed, the highly flexible and non-binding

¹⁴⁴ The AIG was set up in order to share information and thereby to promote consistency in the adoption of the new framework. While the AIG provides a forum for discussing members' approaches to implementing Basel II, it is not intended to mandate uniformity in application of the revised framework.

nature of the new Basel II Accord will result in different interpretations and therefore application. Countries (most likely those with members on the Basel Committee) will adopt the framework that is 'best' adapted to their market structure and their inherent regulatory environment. Others, particularly the non-BCBS member countries, whose infrastructures are not ready, will struggle over the next few years to implement the complex rules of Basel II. Diverse and staggered adoption of the Accord will not necessarily contribute to the promotion of global consistency or resiliency in the banking system and hence will not be without consequences.

This section examines the role played by the Accord Implementation Group (AIG) established by the BCBS to ensure consistent implementation of the Basel II Accord. It also discusses the uncertainties and delays that have occurred in the application of the new rules in the US.

4.1 A challenging role for the AIG

A central question in relation to Basel II concerns how to promote consistency in its global implementation. In this regard, the AIG has been very active over the last few years. Primarily, the group has given attention to the role of home-country supervisors as leaders and coordinators of enhanced cooperation between home- and host-country supervisors and as responsible for the Accord's implementation at a consolidated level.¹⁴⁵ More precisely, practical arrangements for cooperation and coordination to reduce the implementation burden for the industry and supervisors are being developed, such as the issuance of clear principles for the cross-border application of the revised framework (BCBS, 2006a) and of more focused principles on operational risk charges under the advanced measurement approaches for home and host supervisors (BCBS, 2007 b).

The progress made by the AIG was reported in 2007 by the BCBS (2007a). Indeed, a significant number of country members¹⁴⁶ of the BCBS have already implemented all approaches of the Accord or are in the

¹⁴⁵ The BCBS (2006a) has also recognised that "[h]ome country supervisors have an important role in *leading the enhanced cooperation* between home and host country supervisors that will be required for effective implementation" (emphasis added).

¹⁴⁶ The members include Switzerland and all 27 EU member states.

process of doing so.¹⁴⁷ In many of the other jurisdictions that are not members of the Basel Committee, the necessary infrastructure to implement the framework is either being put in place or being developed (FSI, 2006), which will allow a growing number of countries to implement Basel II's various approaches between 2007 and 2015.

According to the BCBS (2007a), supervisors have also made significant progress in coordinating home-host implementation issues at the level of individual banks, particularly for pillar 1. The related high-level supervisory principles published in June 2006 (BCBS, 2006b) were helpful in shaping the discussions among supervisors and with the industry. In particular, the advances concerning information exchange within the colleges of supervisors tailored to the circumstances of individual institutions and within other fora involving bilateral discussions among supervisors have been beneficial.

Nevertheless, the AIG's major tasks (the most substantial of its workload) of examining pillars 2 and 3 are now underway. The difficulties of coordination between home and host supervisors go beyond pillar 1 and have clear implications for pillar 2, especially in terms of global risk management, diversification effects and the treatment of risks beyond those captured in pillar 1 (e.g. risk concentration, interest rate risk and liquidity risk¹⁴⁸). The differences in supervisory practices across countries and their unknown impacts on individual institutions will render the AIG's tasks ever more challenging. For promoting communication and transparency, the Basel Committee (BCBS, 2007a) reported that a large and growing number of countries have put in place and made available to the public their pillar 2 evaluation processes for a bank's ICAAP.

Undoubtedly, the AIG will face a variety of tough issues in the next few years in ensuring the successful implementation of pillar 2, including

- sharing diverse ICAAP approaches across countries;
- fostering the supervisory exchange of case studies on the practical application of these approaches at the level of individual institutions;

¹⁴⁷ This latter case refers to the US.

¹⁴⁸ These aspects have proven to be the reason for the failure of the British mortgage lender, Northern Rock.

- improving coordination and communication with non-BCBS member countries;
- disseminating case studies of firms' internal approaches;
- focusing on the treatment of concentrations, diversification, stress testing and the treatment of interest rate risk and liquidity risk;
- discussing different approaches to validation; and
- finally yet importantly, working on home-host coordination of the AMA for applying those aspects related to operational risk and supervisory considerations in the assessment of allocation methodologies.

The BCBS has recognised the importance of these efforts in helping to reinforce supervisory cross-border relationships more generally, seeing their longer-term benefits in areas such as crisis management during less benign financial market conditions. Unfortunately, the financial turbulence experienced by the markets in 2007 has revealed the weaknesses of these relationships when facing serious trouble.

The effectiveness of pillar 3 in terms of coordination issues is as important as pillars 1 and 2, and it should not be given less attention. Yet, nothing substantial has been produced in this area.

The BCBS has taken other steps, such as strengthening its outreach to non-member countries and promoting high-quality international accounting and audit standards, which support sound risk-management practices.

The Basel Committee recently established the International Liaison Group (ILG) to provide a forum for deepening its engagement with supervisors around the world on a broad range of issues.¹⁴⁹ It provides a platform for non-member countries to contribute to new initiatives by the BCBS early in the process and to develop new proposals that are of particular interest to ILG members. In addition, the BCBS is in the process

¹⁴⁹ The ILG has initiated several new streams of work on i) a project to assess the range of practices applied in risk-based supervision, ii) an information exchange on jurisdictions' approaches to promoting sound methods for provisioning and reserving practices and iii) an assessment of how the rapidly growing area of microfinance fits into existing supervisory frameworks.

of identifying practical ways to increase the participation of non-member countries in the work of its other subcommittees. This last initiative is of great importance because of the potentially increasing number of non-member countries around the world adopting Basel II, as surveyed by the FSI (2006) and shown in Table 10. For European non-BCBS member countries and member states of the EU, the effective implementation of Basel II will be assessed by the European institutions (European Commission) and supervisors (CEBS), whereas for the other non-member countries its successful adoption will be hard to evaluate.

Table 10. Countries intending to adopt Basel II that are not members of the BCBS

Regions	Number of Respondents	Respondents intending to adopt Basel II
Africa	17	12
Asia*	16	16
Caribbean	7	4
Latin America	14	12
Middle East	8	8
Non-BCBS Europe	36	30
Total	98	82

* Excludes Japan since BCBS members were not asked to complete the questionnaire.

Source: FSI (2006).

Finally, the efforts of the BCBS efforts to promote effectiveness and consistency in the application of Basel II across the globe are laudable, although further consideration needs to be given to non-member countries in order to provide with them incentives to contribute towards achieving this goal. Clearly, a strong and continuous commitment on the part of the national regulators is required. In essence, the new framework allows for flexibility and therefore a dose of national discretion is necessary to accommodate implementation across a wide range of jurisdictions with legal, cultural and institutional differences.

As observed by BCBS Chairman Nout Wellink in June 2007, consistency and flexibility are

not mutually exclusive...but achieving both goals can sometimes be a difficult balancing act. ...It is the unintentional divergences that the BCBS seeks to identify and minimize and will continue to make a concerted effort to reduce banks' regulatory burden by minimizing duplication, differences in supervisory oversight, and streamlining supervisory processes as much as possible. (*Global Risk Regulator*, June 2007)

4.2 Uncertainty delaying timely implementation in the US...

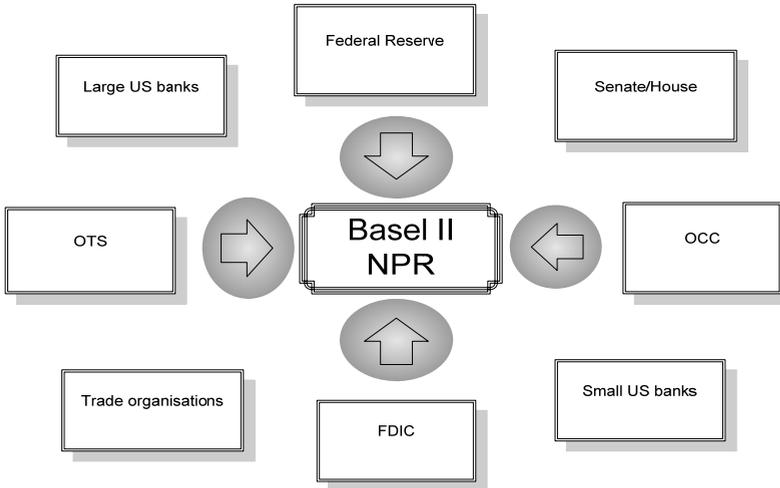
In light of Basel II developments in Europe, it is important to examine the US decision that has delayed the final publication and the adoption of the Notice of Proposed Rulemaking (NPR).^{150, 151} The examination of this decision aims at shedding light on some of the potential consequences of staggered Basel II implementation.

The debate on the controversial Basel II in the US was at its highest before its final approval in November 2007. Influential institutions – namely the Federal Reserve Board of Governors (Fed), the Office of Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC), the Office of Thrift Supervision (OTS) and the Senate – along with large and small investment banks, trade groups and other actors, mobilised to ensure that their interests were preserved. Figure 8 illustrates the main players in the adoption process of the NPR in the US.

¹⁵⁰ The NPR on the Basel II Capital Accord was published in September 2007 (retrieved from http://www.federalreserve.gov/GeneralInfo/Basel2/NPR_20060905/). The final rules were approved by the Federal Reserve Board and authorised for publication in the Federal Register in November 2007.

¹⁵¹ On 15 February 2007, the four federal banking supervisory agencies released new supervisory guidance to provide further details to help banks satisfying the qualification requirements in the NPR. (See the Joint Press Release, “Agencies Seek Public Comment on Proposed Supervisory Guidance for Basel II”, 15 February 2007, published on the website of the Board of Governors of the Federal Reserve (retrieved from <http://www.federalreserve.gov/newsevents/press/bcreg/20060905a.htm>). Its publication in the Federal Register follows a three-month public consultation.

Figure 8. The main players involved in the finalisation of the NPR



Source: Author's compilation.

Each player in this loop has its own perspective when it comes to implementing the Basel II Accord.¹⁵² Indeed, while the Fed, a supporter of the Accord, is very enthusiastic about the advanced approaches, the very conservative FDIC does not fully trust models; the OCC is equally conservative about risk management and the challenges surrounding model validation while the OTS only requires less than a handful of thrift institutions to adopt the new NPR rules. The Senate, worrying about the domestic competitiveness of small banks, supports no drop in capital requirements. Other stakeholders, such as large US banks, are concerned about their global competitiveness if Basel II is not applied consistently across jurisdictions where they operate, while investment banks are equally concerned about consistency with the rules of the Securities and Exchange Commission.

¹⁵² In an update of the US Senate on the progress of Basel II implementation in the US, a hearing organised on 26 September 2006 gathered the main players in the debate to expose their arguments for or against Basel II. All positions are freely accessible on the website of the US Senate Committee on Banking, Housing and Urban Affairs (at <http://banking.senate.gov/index.cfm?Fuseaction=Hearings.Detail&HearingID=241>).

After this remarkably uncertain process,¹⁵³ the long-awaited result was on the table on 2 November 2007. The NPR, very much aligned to the original framework¹⁵⁴ (see Box 4), transposes Basel II rules into US legislation. The advanced approaches will be applied to some 20 of the largest internationally active or 'core banks'¹⁵⁵ in the US and other banks (opt-in banks) if they meet the applicable qualification requirements.

¹⁵³ In a report published in February 2007, the US Government Accountability Office (US GAO, 2007) – the US Congressional watchdog body – urged US banking regulators to finalise the new capital regulatory framework to put an end to the long-lasting period of uncertainty, yet to “go ahead” with caution. The GAO stated that only with the use of appropriate safeguards during the transition period is it appropriate for the agencies to proceed with finalising Basel II and to commence with a parallel run and transition period. The GAO expressed concerns about a number of outstanding questions to be resolved by the agencies, such as how the agencies would treat bank portfolios that do not meet data requirements for advanced approaches, how they will calculate reductions in aggregate minimum regulatory capital, what would happen if a reduction exceeds the proposed 10% trigger, and what criteria they will use to set the appropriate average level of required capital and appropriate cyclical variation. The GAO recommended that the agencies clarify these issues prior to the proposed parallel run and transition period. The GAO criticised the agencies for lack of transparency during the Basel II rulemaking process and suggested that the agencies issue periodic public reports on the progress of Basel II implementation. The report also called on the agencies to re-evaluate the appropriateness of Basel II at the end of the transition period. The same report found that, owing to uncertainties related to the proposed rules, it was not able to assess the potential impact of Basel II on the minimum capital requirements, the actual amount of capital held by banks under the Basel II framework or the costs associated with implementing the Basel II rules.

¹⁵⁴ During the consultation process, many stakeholders (including the European Commission – as shown in the letter of Charlie McCreevy commenting on risk-based capital standards) argued that divergences generally created competitive problems, raised home-host issues, entailed extra costs and regulatory burdens, and did not necessarily improve the overall safety and soundness of banks subject to the rules.

¹⁵⁵ Core banks are those with consolidated total assets (excluding assets held by an insurance underwriting subsidiary of a bank holding company) of \$250 billion or more or with consolidated total on-balance-sheet foreign exposures of \$10 billion or more. A depository institution is also a core bank if it is a subsidiary of another

Box 4. US definition of default in relation the Basel II Accord

US regulators have adopted a definition of default for wholesale exposures in their final rule that is consistent with the international Basel II Accord following comments received about their earlier NPR on Basel II.

For retail exposures, the final rule retains the NPR definition of default. But it clarifies that a foreign subsidiary of a US bank may use the applicable host-jurisdiction definition of default for retail exposures of the subsidiary in that jurisdiction. The regulators acknowledge that one overarching issue with respect to the NPR concerned areas in which the NPR differed from the international framework, which may have created competitive problems, raised home-host issues and entailed extra costs and regulatory burdens.

Decisions on other topics include the following:

- The agencies have dropped the expected LGD risk parameter that had been in the NPR but not in the Basel II Accord. Banks will be required to estimate the LGD parameter, which reflects conditions associated with an economic downturn.
- The agencies have not adopted a specific risk-weight function for SMEs as is provided for in the international framework.
- The final rule modifies the definition of traditional securitisation to limit the scope of the IRB securitisation framework.
- The agencies have adopted the proposed treatment of equity exposures without significant change, although it does not include a 'grandfathering' provision as in the international version.
- On operational risk, the final rule will take into consideration whether a particular operational-risk mitigant covers potential losses in a manner equivalent to holding regulatory capital.
- The agencies have modified the final rule to provide flexibility regarding proprietary information after concerns were expressed that the proposed public disclosures were excessive.

The implementation of the NPR is expected to be gradual. The first opportunity for internationally active US banking institutions to conduct parallel runs was in January 2008. It will subject to a minimum three-year

depository institution or bank holding company that uses the advanced approaches.

transition period starting from January 2009 to January 2011. During this period, the agencies are to apply limits or floors on the amounts and timescales by which each institution’s risk-based capital could decline with the application of Basel II, which would be limited to 5% in the first year, 10% in the second year and 15% in the third.¹⁵⁶ The transitional period and floors are more conservative than are those in the Basel II framework (Table 11).

Table 11. Basel II Accord and US implementation timelines

Basel Accord implementation timeline	US Basel II implementation timeline
<ul style="list-style-type: none"> • <i>From YE 2006:</i> First possible year for parallel calculation and impact studies on advanced approaches; standardised and foundation approaches to be implemented • <i>From YE 2007:</i> Second parallel calculation year for advanced approaches • <i>From YE 2009:</i> Second possible year for implementation of advanced approaches - transitional floor of 80%. 	<ul style="list-style-type: none"> • <i>27 March 2007:</i> Final comments due on Basel II and Basel IA NPR • <i>01 January 2008:</i> First possible year for parallel run of Basel II advanced approaches • <i>01 January 2009:</i> First possible year for first transitional floor of 95% • <i>01 January 2010:</i> First possible year for second transitional floor of 90% • <i>01 January 2011:</i> First possible year for third transitional floor of 85%.

Source: Author’s elaboration.

The final compromise agreement¹⁵⁷ between the US agencies also emphasised the importance of a joint effort to conduct a post-adoption study on the impact of the Basel II rules on US banks. The study will be conducted at the end of the second year of the transition period to evaluate

¹⁵⁶ For further details, see Attachment 1, Risk-based Capital Standards: Advanced Capital Adequacy Framework – Basel II, available on the website of the Federal Reserve (retrieved from http://www.federalreserve.gov/generalinfo/basel2/FinalRule_BaselII/FinalRule_Draft.pdf).

¹⁵⁷ See the Fed’s Press Release, “Banking Agencies Reach Agreement on Basel II Implementation”, 20 July 2007 (retrieved from <http://www.federalreserve.gov/newsevents/press/bcreg/20070720a.htm>).

whether there are any material deficiencies in the system. If material deficiencies are found, the agencies will have the right to determine whether to withdraw or proceed with implementation of the new rules.

The cautious and somewhat conservative decision by the US is the result of the worrying findings of the QIS4, which showed an overall drop (of 13%) of regulatory capital requirements for the participating internationally-active US banks, with a high degree of dispersion.¹⁵⁸ This drop was not anticipated by the US supervisory agencies. As a response, they delayed the issuance of the NPR and introduced additional prudential safeguards in the legislation, while retaining the prompt corrective action and leverage ratio requirements, to address concerns identified in the analysis of the QIS4 results.

The rest of the US banking system, composed of some 8,900 or more regional and community banks, will be allowed the option to operate under the simpler standardised approach^{159, 160} or remain under Basel I with the approval of their regulators. Before reaching this decision, the US regulators proposed Basel IA, which would upgrade Basel I capital rules (without accounting for operational risk). Yet they then decided to drop this option in the course of 2007 as a result of pressure from the thousands of regional and community banks, which feared they would lose competitiveness to the large US banks.¹⁶¹

¹⁵⁸ These results were not explained by differences in risks, but were rather attributed to the fact that internal banking systems are not all developing at the same pace, partly because of the lack of definitive rules and guidance. Consequently, it was not clear whether the QIS4 results understated or overstated the minimum capital requirements.

¹⁵⁹ This approach will also be available for opt-in banks.

¹⁶⁰ The US rules on the standardised approach will be published in the course of 2008 and adopted in 2009.

¹⁶¹ Basel IA allowed more granularity by increasing the number of risk weights, an expanded use of external risk ratings as indicators of credit risk, a wider list of eligible guarantees and collateral, modified risk weights for residential mortgages and lower risk weights for certain small business loans. Also, Basel IA foresaw a capital charge for certain securitisations with early amortisation provisions, higher risk weights for past due loans and high volatility commercial real estate, and increased credit conversion factors for certain short-term commitments. But, as

The uncertain outcome of the post-adoption study and the subsequent consequences of its conclusions on the future decisions of the US agencies lead to the observation that the Basel II journey is far from over and new developments are expected to emerge during the transition period. In addition, there are still a number of other significant unresolved issues for US banks subject to the final rules of Basel II. The US regulatory agencies have yet to issue final rules covering market risk, which were proposed in September 2006.¹⁶² Nor have the agencies finalised three supervisory guidance proposals issued in February 2007,¹⁶³ which are

previously noted, it did not cover operational risk. The joint NPR to revise the existing risk-based capital framework for banks applying Basel IA was published by the Fed on 26 December 2006 (retrieved from <http://www.federalreserve.gov/generalinfo/basel2/default.htm>).

¹⁶² For more details, see the Joint Press Release, "Agencies Seek Public Comment on Basel II and Market Risk Proposed Rulemakings", 5 September 2007, published on the website of the Board of Governors of the Federal Reserve (retrieved from <http://www.federalreserve.gov/newsevents/press/bcreg/20060905a.htm>).

¹⁶³ On 15 February 2007, the US agencies cleared for public release and comment three long-awaited, interagency supervisory guidance proposals detailing how the agencies intend to implement the Basel II NPR and setting forth their expectations for banks adopting the credit risk and operational risk approaches under the proposed Basel II framework. The first proposal relates to the advanced IRB approach for calculating credit risk. The advanced IRB guidance updates and consolidates the 2004 proposed guidance on corporate and retail credit exposures, and it includes new discussions on securitisations, counterparty risk and banking-book equity exposures. The second proposal sets forth supervisory guidance on the AMA for operational risk. The AMA guidance updates the 2003 proposed guidance and provides additional context and detail to help banks meet the qualification requirements identified in the Basel II NPR related to operational risk. The third proposal, being issued for the first time, outlines guidance on the supervisory review process (pillar 2) under Basel II. It addresses the pillar 2 ICAAP, which is one of the most contentious Basel II issues. According to the agencies, the proposed supervisory guidance documents are companion guidance to the Basel II NPR and, as such, are designed to be consistent with the NPR. The agencies believe the documents, which seek to provide clarity and practical examples, are necessary to supplement the NPR with standards to promote safety and soundness and to encourage comparability across banks. For more details, see

intended for use in conjunction with the final Basel II rules. Moreover, the 2007 market turmoil has added further complexity to the process, particularly given that a number of internationally active US banks have been badly hit (see Appendix 1) as a result of insufficient internal risk measurement and management systems. Hence, the reliance on banks' internal models for regulatory purposes is expected to be questioned even more by the US regulators¹⁶⁴ and Congress.

Because of the uncertainty surrounding the implementation process of Basel II in the US, many observers have voiced concerns, which include the potential ramifications of staggered adoption dates alongside those of other countries (especially European ones) and inconsistencies in the application of the new rules. On the former issue, several commentators believe that European banks will benefit from a competitive advantage in adopting the new banking rules in advance of their US counterparts. The counterargument is that this competitive advantage is only temporary and is likely to be counterbalanced by the threat of additional compliance costs and regulatory burdens stemming from different implementation dates in the EU and the US. Moreover, the ambiguity of supervision on a solo versus consolidated basis and the role of the consolidating supervisor for European banks operating in the US¹⁶⁵ and US banks operating in the EU will continue to increase. In practice, at least for one year, large European banks with substantial operations in the US will have to comply with Basel II rules in Europe and the current Basel I rules in the US and the reverse situation will hold for US banks with European operations. These circumstances will entail extra resources, extra compliance costs and so forth. Internationally active banks represented by the IIF have expressed

the Joint Press Release *supra* (retrieved from <http://www.federalreserve.gov/newsevents/press/bcreg/20070215a.htm>).

¹⁶⁴ Sheila Bair, Chair of the FDIC, said she still had "serious questions and serious reservations about the advanced approaches to measuring credit and operational risks under Basel II and determining the minimum capital banks need to absorb shock losses". Her fears are that "the advanced approaches could result in a dangerous fall in the level of capital kept by banks to absorb shock losses" (*Global Risk Regulator*, July/August, 2007).

¹⁶⁵ According to ECB (2005), these are HSBC, ABN Amro, Deutsche Bank, Royal Bank of Scotland, Barclays Bank and BNP Paribas.

their concerns over the growing risk of competitive inequities and costly inefficiencies resulting from the uneven adoption of Basel II.¹⁶⁶ Finally, if not implemented promptly, the NPR will lose the opportunity to be revisited in light of the ongoing work of the Basel Committee.¹⁶⁷

4.3 Conclusions

Undoubtedly, the Basel II developments in the US (different US agency perspectives, staggered implementation dates, divergences in interpretations of rules and guidance, etc.) clearly undermine a consistent application of the new rules across the globe.¹⁶⁸

The implications are that not only do internationally active banks have to deal with the disastrous consequences of the 2007 summer subprime crisis, they will also have to identify and cope with more problems arising from the uneven implementation of Basel II in the US as well as other countries (whether or not such countries are members of the BCBS). Hence, given the systemic importance of the world's major banking

¹⁶⁶ See IIF (2005). This message was made even clearer when Peter Wuffli, Group Chief Executive of Swiss bank UBS and Co-chairman of the Special Committee orchestrating the IIF's Strategic Dialogue on Effective Regulation, said there was concern about the "growing complexity and uncertainty of the current regulatory landscape, combined with significant inconsistency between jurisdictions and often excessive detail in regulation" (*Global Risk Regulator*, June 2007).

¹⁶⁷ See the BIS Press Release, "Basel Committee on Banking Supervision announces steps to strengthen the resilience of the banking system", 16 April 2008 (retrieved from <http://www.bis.org/press/p080416.htm>).

¹⁶⁸ Responding to bankers' worries in June 2007, Basel Committee Chairman Nout Wellink claimed that regulators

had gone a long way towards achieving the goal of a level playing field for internationally active banks. However, he recognized that banks continued to have concerns about the "potentially inconsistent application of Basel II across jurisdictions. I really do understand these concerns, and the Basel Committee takes them seriously". Some of the inconsistencies "are the natural bi-product of developing a global standard," he argued, referring, specifically, to many of the national discretions that are incorporated in the Basel II framework. (*Global Risk Regulator*, June 2007).

groups, it is crucial that Basel II is properly implemented by financial institutions and national authorities and done so in a timely manner, and that all problems (when they surface) are solved adequately and swiftly. A further challenge is to define an explicit quality-assessment framework for the implementation of Basel II. In this respect, the role of the AIG in assessing adequacy and consistency in the application the new rules is paramount. Finally, in addition to advanced discussions at multilateral¹⁶⁹ and bilateral¹⁷⁰ levels, international regulators will have to further coordinate their efforts and actions, and seek solutions in mutual recognition. And indeed, 'why not' rethink the building blocks of 'global regulatory and supervisory convergence'¹⁷¹ in order to provide tangible, quick, pragmatic, efficient and workable solutions, particularly for supervising complex cross-border banking groups.

¹⁶⁹ The multilateral discussions are fostered by the AIG.

¹⁷⁰ Bilateral discussions are considered an effective means to address cross-border issues.

¹⁷¹ The recent financial market experience shows the remarkable speed of financial crisis and contagion globally; it is therefore legitimate to wonder whether global convergence is a still a 'chimera'.

POSTSCRIPT

Jaime Caruana, Director of the capital markets department at the International Monetary Fund and a former chairman of the bank standard-setting Basel Committee said, “[P]olicy makers face a delicate balancing act. They must re-evaluate prudential standards so that investors are encouraged to maintain high-grade standards and strengthen risk management systems in good times as well as bad times. At the same time, they must be careful not to discourage financial innovation.” [Meanwhile], Nout Wellink, the current chairman of the Basel Committee, emphasised *the key role of pillar 2, within the Basel II framework*. (*Global Risk Regulator*, October 2007; emphasis added)

In light of the recent financial market turbulence, regulators on both sides of the Atlantic face the challenge of re-evaluating prudential standards to restore investor confidence and obviously to prevent further turmoil from erupting, while not discouraging financial innovation.

This CEPS Task Force report offers a critical analysis of Basel II implementation in the midst of turbulence. It supports a regulatory paradigm shift, based on setting the right incentives to establish an integrated risk-assessment, management and governance culture at an institution-wide level. Towards this end, it stresses the need to strengthen the roles of pillars 2 and 3 and to avoid solely relying on the outcomes of easily manipulated, sophisticated internal models and a ‘box-ticking’ approach to determining capital requirements, which may produce perverse incentives in the future that are difficult to predict. The thrust of pillar 1 is to regulate banking capital, somehow ignoring that often banks fail because of poor liquidity management. The evidence from the UK market (in the case of Northern Rock) has shown that liquidity problems may translate into solvency problems and eventually into failure. Indeed, a stronger emphasis should be put on pillar 2 principles. The role of

supervisors is crucial for ensuring that capital and liquidity (market and funding) levels can adequately buffer financial institutions against the rapidly evolving risks, and where needed, that those buffers are replenished.

One of the ambitions of Basel II has been to fill the void in regulating **securitisation** under Basel I. The several years it has taken for this regulatory ambition to become a reality has meant that it was probably too late to mitigate the 2007 chaos in the financial market.

Thus, the following question arises: What would have been the consequences if Basel II had been implemented before any problems were detected? Answering this question would involve pure speculation, but such conjecture might be more robust if linked to the root of the matter – financial innovation.

Notwithstanding the economic benefits of current financial innovations in the market, their changing nature and unknown future trends, it is important to reflect upon several further questions:

- 1) What are the limits of financial innovation in general and securitisation in particular? How can the adverse consequences of any related changes in the incentive structure be prevented?
- 2) Should regulators intervene voluntarily in order to foster or impede financial innovations? What might be the ramifications of such intervention?
- 3) How can transparency and the valuation of complex innovative products be enhanced, as well as principles and practices for the consolidation of related off-balance-sheet entities?

Responding to the market turmoil, international and European regulators have embarked on far-reaching regulatory changes that have signalled the start of a new era in the financial industry. Consultations will be undertaken in 2008–09. There is an international consensus corroborating the need to strengthen the resilience of the banking system and they enumerated the steps to reach such an objective.

First, various aspects of the Basel II framework will be enhanced, including the capital treatment of complex, structured credit products, liquidity facilities to support ABCP conduits and credit exposures held in the trading book.

Second, liquidity risk management and supervision will be revisited, taking into account the weaknesses experienced by the market since summer 2007 in areas such as stress testing, contingency funding plans and management of on- and off-balance-sheet activities as well as contingent commitments.

Third, efforts will be initiated to strengthen banks' risk management and supervision in relation to stress testing, off-balance-sheet management and valuation practices, among others.

Fourth, market discipline is to be improved through measures to improve better disclosure and valuation practices.

In Europe, following the conclusions of the Economic and Financial Affairs Council in October 2007 (which were broadly in line with the previously mentioned international principles), the European Commission launched its work on the transparency of securitisation exposures, valuation standards, the prudential framework, risk management and supervision of the financial sector and market functioning, as well as the role of credit agencies.

All these measures are welcome and if implemented adequately they will largely correct some of the limitations of Basel II. Yet, this somewhat 'quick fix' may not be sufficient to overcome the two main causes of the problems: 1) unsatisfactory risk-assessment, management and governance systems within the banking industry and 2) the incapacity of regulators to keep pace with financial innovations.

In the US, banks are running behind in the implementation of Basel II; uncertainty is lingering and its duration will be influenced by the results of the joint federal agencies' study to be published in the near future.

In a nutshell, today's banking regulation is not perfect but it is evolving, prompted by the speed of financial innovations and market crises. If, however, the aspiration is to beat the speed of the market and to prevent financial crises a regulatory paradigm shift is essential.

GLOSSARY

ABCP	Asset-backed commercial paper
AIG	Accord Implementation Group
AMA	Advanced measurement approach
ASRF	Asymptotic single risk factor
BCBS	Basel Committee on Banking Supervision
BIS	Bank of International Settlements
CCR	Counterparty credit risk
CDOs	Collateralised debt obligations
CDS	Credit default swap
CEBS	Committee of European Banking Supervisors
CLN	Credit linked note
CP	Consultation Paper
CRD	Capital Requirements Directive
CRT	Credit risk transfer
DvP	Delivery versus payment
EAD	Exposure at default
EBC	European Banking Committee
ECAI	External credit assessment institutions
EPE	Expected positive exposure
FDIC	Federal Deposit Insurance Corporation
FSF	Financial Stability Forum
IAA	Internal assessment approach
ICAAP	Internal capital adequacy assessment process
IFRS	International Financial Reporting Standards
IIF	Institute of International Finance
ILG	International Liaison Group
IOSCO	International Organisation of Securities Commission
IRB	Internal ratings-based
LGD	Loss given default

m	Remaining maturity of the exposure
MRC	Minimum required capital
NPR	Notification of Proposed Rulemaking
OCC	Office of Comptroller of the Currency
OTS	Office of Thrift Supervision
PD	Probability of default
QIS	Quantitative Impact Study
RBA	Ratings-based approach
rho	Degree of diversification and correlation
	RMBS Residential mortgage-backed security (a type of security whose cash flows come from residential debt such as mortgages, home-equity loans and subprime mortgages, instead of commercial debt)
RWA	Risk-weighted assets
SDTs	Short dated transactions
SF	Supervisory formula
SMEs	Small and medium-sized enterprises
SPV	Special-purpose vehicle
SREP	Supervisory review and evaluation process
SRP	Supervisory review process
US GAAP	Generally Accepted Accounting Principles
VaR	Value at risk (modelling approach)

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APPENDIX 1. IMPACT OF THE RECENT MARKET TURBULENCE ON SELECTED BANKS

	Write-downs (\$ million)	Description	Losses related to US residential mortgage markets (\$ million)	Net profit from continuing operations before taxes (\$ million)	Market cap (\$ million)	Market cap (\$ million)	Market cap (\$ million)	Location corresponding to capital requirements	Tier 1 ratio (%)	Tier 1 ratio (%)	Total BIS (%)	Total BIS (%)
			Q4-2007	Q4-2007	2006	2007	Mar 2008		2006	2007	2006	2007
UBS	18,400	Positions in US subprime and Alt-A mortgages, subprime-related assets through reference-linked notes and risk relating to monoline credit insurers	13,700	-11,250	126,500	95,900	63,800	Switzerland	11.9	8.8	14.7	12.0
Citi	18,100	Pre-tax write-downs and credit costs on subprime-related direct exposures in fixed-income markets	11,632	-9,833	274,000	147,000	123,720	US	8.6	7.1	11.7	10.7
Merrill Lynch (ML)	14,456	Write-downs on collateralised debt obligations (CDOs) and subprime mortgages, adjustments to financial guarantor hedges, commercial real-estate losses and leveraged finance commitments	11,500	-14,920	80,810	50,400	45,280	ML Banking (US)	9.2	10.8	10.8	12.2
								ML Banking and Trust - FSB (US)	8.4	9.2	11.7	12.1
								ML International Banking (Ireland)	-	-	11.1	11.2

Morgan Stanley	9,400	Total write-down of subprime and other mortgage-related exposures \$5.7 bn more than pre-announced on 7 November 2007	7,800	-5,804	85,400	55,120	57,500	Morgan Stanley Bank (US)	9.4	6.97	11.4	10.3
Bank of America	5,680	Write-downs related to CDOs, securities purchased to support certain cash funds \$1.8 bn more than pre-announced on 12 December 2007	5,600	-915	238,340	182,430	44,350	US	8.64	6.87	11.88	11.02
Deutsche Bank	4,000	Expected markdowns in the first quarter of 2008 of around €2.5 bn related to leveraged loans and loan commitments, commercial real estate and residential mortgage-backed securities	-	2,098	70,200	69,200	58,100	Germany	8.5	8.6	12.5	11.6
Société Générale	3,500	Write-downs relating to super-tranches of unhedged CDOs, counterparty risk on monoline insurers and RMBS trading portfolio	-	-6,934	78,250	67,500	54,000	France	7.82	6.62	11.11	8.87

Credit Suisse	2,850	Markdowns on subprime positions	-	1,632	81,900	67,100	53,500	Switzerland	13.9	11.1	18.4	14.5
Bear Stearns	1,900	Total net inventory write-downs	1,500	-1,371	23,720	10,750	1,550	US	-	-	-	-
Wachovia	1,700	Write-downs on CDOs, commercial mortgage products, and consumer mortgage-structured products	1,000	-190	108,450	75,300	54,000	US	7.42	7.35	11.33	11.82
JPMorgan	1,300	Markdowns on subprime positions, net of hedges	-	2,971	167,200	147,000	161,400	US	8.6	8.4	12.3	12.6
Northern Rock	835	Write-down on credit market-related assets, more than the \$500 mn figure announced in December 2007	-	-328	9,500	650	-	UK	11.7	7.7	17.5	14.4

Source: Authors' compilation based on annual reports.

APPENDIX 2. BASEL II: OVERVIEW OF STRENGTHS AND REMAINING CONCERNS

Strengths	Weaknesses
<ul style="list-style-type: none"> • Improvement over the existing Accord • Addresses the capital arbitrage that was prevalent under Basel I <p>Brings regulatory capital closer to the underlying risk-based economic capital</p> <p>Reinforces trends already firmly in place:</p> <ul style="list-style-type: none"> • Scientific portfolio risk-management, increasing use of risk-mitigation and risk-transfer techniques • Increased public disclosure • Incentives to shift to retail, high-quality corporate lending and potentially that to SMEs • Incentives to underwrite, sell and trade corporate risk (with more use of credit derivatives or credit risk-mitigation techniques to hedge risk and free up economic and regulatory capital) • Better pricing of risk for specialised lending • Impact on securitisation market and selling of equity tranches or moving towards covered bonds 	<ul style="list-style-type: none"> • Takes a silo approach to risk management and measurement, which poorly reflects the reality of complex banking business • Major banking risks are not reflected in pillar 1: interest rate risk in the banking book; concentration risk; strategic business risk; reputation risk; and structural interest rate risk that is not covered by capital requirements, but which is included in pillar 2 and subject to national discretion • There are differences in views of relative risk profiles of certain business lines: high-risk corporate banking, mortgage banking and consumer lending • The standardised approach is a mere improvement of the Basel I framework • Weak incentives to approve and monitor complex structured products • Heavy reliance on external and internal ratings although these are based on weak and somewhat unreliable models • Does not address the potential conflict of interest between credit rating agencies, originators and issuers of structured products • Pro-cyclicality – the Basel II framework may give rise to pro-cyclical effects owing to the fact that the three main components of the IRB system are themselves influenced by cyclical movements. In particular, the higher risk sensitivity of banks’ ratings systems may lead to increases in regulatory capital requirements in an economic downturn

<p>The banking industry already uses advanced credit risk management; operational risk models are being developed</p>	<p>There is a reliance on institutions' internal models and external risk metrics – these instruments may be powerful tools but they involve unrealistic hypothesis</p>
<p>Pillar 1 includes credit risk, market risk and operational risk</p>	<p>Although it is complex, Basel II still contains some fundamental flaws, i.e. integrated risk management and measurement are absent</p>
<p>Pillars 2 and 3 reinforce pillar 1</p>	<ul style="list-style-type: none"> • The links between pillar 1 and 2 are not sufficiently defined • The links between pillars 2 and 3 are inexistent • Pillar 3 is poorly defined and its impact is barely recognised • The implementation of the three pillars implies high implementation costs
<p>Increased emphasis on stress testing</p>	<p>Total capital ratio remains at 8%, although no rationale has been provided for why the ratio is set at this level, and there are no changes to the definition of capital (although this is planned for review in both Basel and EU forums between now and 2009)</p>
<p>The philosophy of Basel II is more in tune with the industry:</p>	<p>Newly calculated capital ratios under Basel II will be difficult to compare among banks, unless extensive disclosure is required; nevertheless, even if disclosure were extensive, the investment community may not have the expertise or resources to analyse such complex data</p>
<ul style="list-style-type: none"> • Pillar 1 embodies a more economic view of credit risk • Pillar 2's guiding principles are aligned with the industry rating criteria • Pillar 3 emphasises disclosure and increased transparency 	
<p>Basel II promotes modern and effective risk management</p>	<p>An insufficient history in the calculation of IRB variables may lead to incorrect assumptions for LGD and other variables in a recessionary scenario</p>

Source: Author's compilation.

APPENDIX 3. FUNDAMENTAL DIFFERENCES BETWEEN BASEL II AND THE CRD

Item	Basel II (revised framework)	EC Directives (formal Commission draft)
Nature of the provisions - Binding force	Non-legally binding recommendation for internationally active credit institutions, but effectively applicable worldwide	Obligatory law for all member states, which is to be implemented for all credit institutions and investment firms in the EU
Scope of application - Institutions affected	Large, internationally active banks	All credit institutions and investment firms
Pillar 1 Standardised approach - <i>Pfandbriefet</i>	No individual treatment: <i>pfandbriefe</i> are assigned the same risk weighting as the issuing bank.	<i>Pfandbriefe</i> are assigned a more favourable risk weighting than the issuing bank: - 10% if exposures to the issuing bank have a weighting of 20%; - 20% if exposures to the issuing bank have a weighting of 50%; - 50% if exposures to the issuing bank have a weighting of 100%.
IRB approach - Permanent partial use	Asset classes that are insignificant with respect to size and risk profile Certain shares/equity holdings (e.g. as part of state development schemes)	Asset classes that are insignificant with respect to size and risk profile Certain equity holdings (e.g. as part of state development schemes) In addition, - exposures to sovereigns, central banks or financial institutions if the number of relevant borrowers is small and it would be unduly burdensome to implement a rating system just for them

<p>- Shares/equity holdings</p>	<p>Simple approach 300% risk weight for publicly traded shares/equity holdings 400% risk weight for all other shares/equity holdings</p> <p>PD/LGD approach LGD 90% Lower limits for risk weightings of 100%, 200% or 300%</p> <p>Internal model approach: lower limit for risk weightings according to the simple approach</p>	<p>- exposures to central governments of the home member state or to their regional governments, local authorities and administrative bodies provided that exposures to the central government are associated with credit quality assessment step 1 (0% risk weighting) and the public sector entities do not pose a greater risk than the central government owing to specific arrangements</p> <p>- intra-group exposures</p> <p>Simple approach 190% risk weight for sufficiently diversified portfolios 290% risk weight for publicly traded shares/equity holdings 370% risk weight for all other shares/equity holdings</p> <p>PD/LGD approach LGD 65% for sufficiently diversified portfolios LGD otherwise 90% Lower limits for PDs (0.09%, 0.4% or 1.25%)</p> <p>Internal model approach: lower limit for risk weightings according to the PD/LGD approach plus expected loss. Risk weighting of 100% for shares/equity holdings to banking service providers may be permissible.</p>
<p>- High-volatility commercial real estate (HVCRE)</p>	<p>Separate risk weights</p>	<p>Treated as ordinary project finance exposures</p>

<p>- Credit risk control</p>		<p>Credit institutions that use pooled data can outsource some rating system monitoring tasks (e.g. the generation of information for monitoring predicative power and amendments to models).</p>
<p>- <i>Pfandbriefe</i> Credit risk mitigation techniques in the standardised approach and the IRB approach</p>	<p>PD of the issuing bank, LGD 45%</p>	<p>PD of the issuing bank, LGD 12.5%</p>
<p>- Residential real estate</p>	<p>Properties that are currently or will in future be occupied by the borrower or are rented out are recognised. There is no upper limit for risk weighting in the foundation IRB approach.</p>	<p>Properties that are currently or will in future be occupied by the owner or are/will be rented out are recognised. There is an upper limit of 50% for risk weighting in the foundation IRB approach.</p>
<p>- Commercial real estate</p>	<p>Office buildings or other multi-purpose commercial premises are recognised.</p>	<p>Office buildings or other commercial premises are recognised.</p>
<p>- Collateral</p>		<p>Unrated and unlisted bank debt securities are recognised. Life insurance policies are recognised up to the surrender value.</p>
<p>Securitisation exposures Capital requirement for the originator restricted to the amount prior to securitisation in the standardised approach</p>	<p>No</p>	<p>Yes</p>
<p>Look-through approach for unrated positions in the standardised approach</p>	<p>Only for the 'super-senior' tranche</p>	<p>Possible for all positions.</p>

<p>Operational risks</p> <ul style="list-style-type: none"> - Gross income - Treatment of trading and sales in the standardised approach - Partial use - Investment firms 	<p>Calculation of average gross income on an annual basis Possible to offset negative gross income in individual business lines in any given year in the standardised approach</p> <p>Beta factor of 18%</p> <p>Only permitted for a short time</p> <p>Not subject to the Basel regulations</p>	<p>Calculation of average gross income on a semi-annual basis Not possible to offset negative gross income in the standardised approach</p> <p>Beta factor of 15% at national discretion if 50% of the income comes from this business line</p> <p>No restrictions</p> <p>Can be exempted by the national legislator if they do not conduct underwriting business or engage in own-account trading; if they engage in own-account trading for customers or to gain access to a recognised market or clearing and settlement agent, backing for a quarter of the annual indirect costs can be demanded instead of a capital charge for operational risks.</p>
<p>Pillar 2</p> <ul style="list-style-type: none"> - Frequency and intensity of banks' own assessments and supervisory reviews - Responsibility for foreign subsidiaries 	<p>Full application every year</p> <p>Always rests with the authorities in the home country (intensive cooperation with the supervisors involved)</p>	<p>Frequency and intensity depends on the individual institution Supervisory assessment at least updated every year</p> <p>Generally rests with the authorities in the home country, but possible group-wide collegial approval of the IRB approach and AMA by all of the supervisors involved or unilateral determination by the consolidating supervisor if an agreement is not reached within six months</p>

APPENDIX 4. THE LAMFALUSSY APPROACH

Level 1. A proposal for Community legislation is advanced by the European Commission and adopted under the co-decision procedure by the Council and the European Parliament. The legislation takes the form of directives or regulations. It should be limited to framework principles and define the powers for the Commission to implement the necessary technical rules.

Level 2. The European Commission enacts legislation containing the technical details for the framework principles approved at Level 1. This requires the intervention of a regulatory committee under the 'comitology procedure'.[†] These regulatory committees are chaired by the Commission and composed of high-level representatives from member states.

The Level 2 regulatory committees are as follows: the European Banking Committee (EBC); for securities and investment funds, the European Securities Committee (ESC); for insurance and pension funds, the European Insurance and Occupational Pensions Committee (EIOPC); and for financial conglomerates, the European Financial Conglomerates Committee (EFCC).

Level 3. Committees are entrusted with the task of facilitating the day-to-day implementation of Community law with the goals of converging both supervisory practices and the application of Community legislation, and enhancing supervisory cooperation. Guidelines, interpretative recommendations, common standards or best practices may be issued, but these are not legally binding and implementation remains voluntary. Level 3 committees also assist the Commission in drafting the more technical provisions of the legislation enacted at Level 2. The supervisory committees are composed of high-level representatives from the competent national supervisory authorities.

The Level 3 supervisory committees are as follows: the Banking Committee of European Banking Supervisors (CEBS); for securities and investment funds, the Committee of European Securities Regulators (CESR); and for insurance and pension funds, the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). There is no Level 3 committee for financial conglomerates.

Level 4. The European Commission is responsible for ensuring that member states' national law complies with Community law and, if needed, to take enforcement action. Legal action against member states can be taken before the European Court of Justice. Strengthening enforcement is underpinned by enhanced cooperation between member states, the regulatory bodies and the private sector.

[†] This procedure is one in which the Commission is assisted by a committee comprising representatives from member states in the adoption of implementing measures for Community legislation. Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission specifies the types of comitology procedures governing the adoption of implementing measures.

APPENDIX 5. LIST OF TASK FORCE MEMBERS AND INVITED GUESTS AND SPEAKERS

This report does not reflect a full common position of all members of the Task Force. Accordingly, each member of the Task Force does not necessarily subscribe to every assessment contained in this report, nor does the report reflect the views of the respective institutions to which they belong.

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