Financial Stability Institute

The implementation of the new capital adequacy framework in Africa

Summary of responses to the Basel II Implementation Assistance Questionnaire

July 2004

BANK FOR INTERNATIONAL SETTLEMENTS

The implementation of the new capital adequacy framework in Africa

Summary of responses to the Basel II Implementation Assistance Questionnaire

1. General implementation plans

The Questionnaire was sent to 25 jurisdictions. Responses were received from 22,[1] of which 20 fully completed the Questionnaire and the other two provided short notes on general preparatory work without responding to the specific issues raised in the Questionnaire.

Most of the respondents recognise the important role that Basel II will play in strengthening their financial systems. Sixteen of the 22 jurisdictions that responded (72%) intend to implement Basel II between 2006 and 2009. Five jurisdictions were undecided and one had taken the decision not to implement the framework in the near future. Most of those which had decided to adopt Basel II indicated that they would do so in progressive stages. They underscored the need to move at a measured pace, gradually adopting the less sophisticated approaches and then moving to the more advanced approaches. Also, most jurisdictions recognise the need for proper sequencing to achieve an appropriate balance between implementing Basel II and addressing other, equally important but competing challenges such as adopting effective risk-based supervision. Jurisdictions that were undecided were actively engaged in this process and had planned senior management strategic retreats or workshops to determine the appropriate implementation strategy. Nine of the respondents were, however, undecided on the scope of implementation. The majority, once again, underscored progressive implementation, from the simple to the more sophisticated, over a period extending beyond 2009.

Except for one jurisdiction, none of the respondents anticipate being able to implement Basel II at end-2006. Charts 1 and 2 show the relative size of the total banking assets[2] that would be covered by Basel II in different timeframes, divided between locally incorporated banks and banking assets controlled by foreign banks[3] operating in the region. A significant number of jurisdictions intend to implement Basel II between 2007 and 2009 and, more importantly, 65% of banking assets will be covered during this period (Table 1). As indicated earlier, only one respondent does not intend to implement the framework, citing costs associated with anticipated systems development and staff training for a financial system without internationally active banks, as well as rudimentary money and capital markets.

---

[1] Refer to Annex 1 for a listing of the African jurisdictions that responded to the Questionnaire.

[2] Throughout this paper, simple and weighted averages are used. This is to isolate the impact of one large jurisdiction which would otherwise dominate the weighted averages and distort the results for this region. For example, as shown in Table 1, total banking assets scheduled to be covered by Basel II at end-2006 is 58% on a weighted average basis, but drops to 16% using the simple average.

[3] Recognising that there is no common definition for foreign-controlled banks, the Questionnaire allowed each authority to provide information about foreign-controlled assets in its system according to its own rules and definitions. However, when guidance was requested, our advice was to include subsidiaries of foreign banks and, in general, to focus on the decision-making process within banks.

Chart 1

Banks adopting Basel II by percentage of total banking assets (simple average)

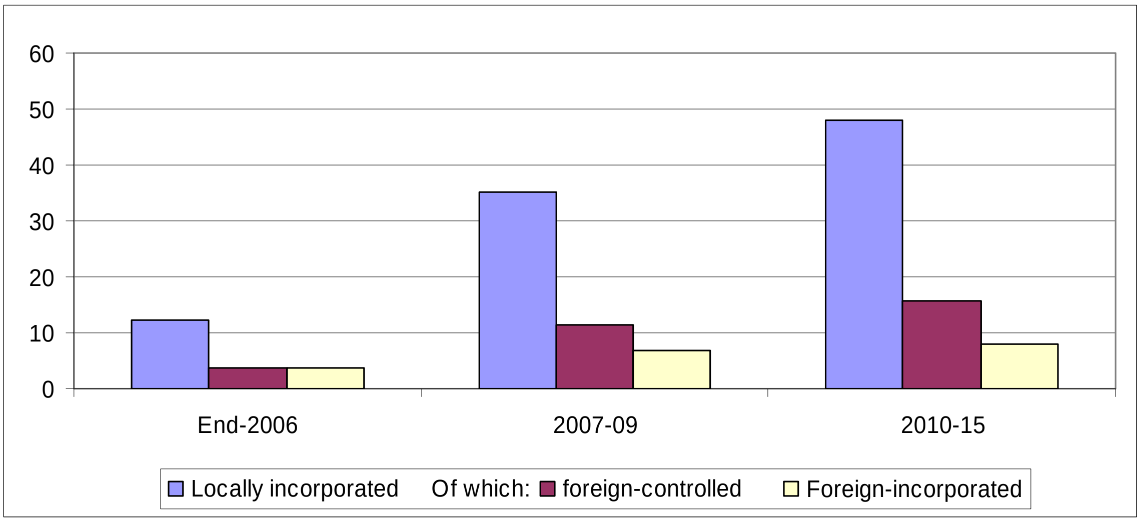


Chart 2

Banks adopting Basel II by percentage of total banking assets (weighted average)

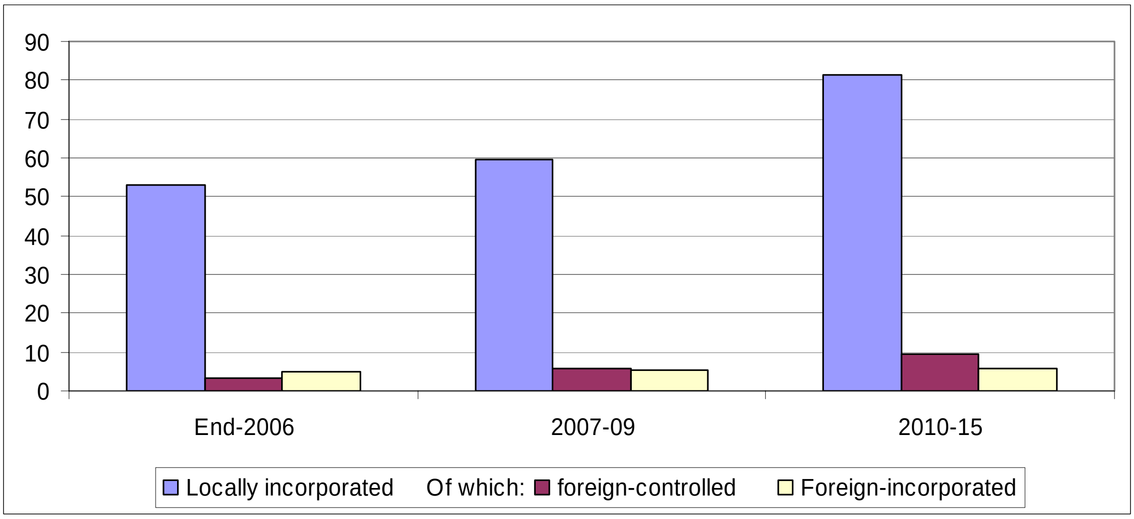


Table 1

Percentage of total banking assets expected to be subject to Basel II in different timeframes

	End-2006	2007-09	2010-15
Simple averages	16	42	56
Weighted averages	58	65	87

2. Specific implementation plans

2.1 Pillar 1 - minimum capital requirements

Most of the respondents expect that their banks will use the standardised approach or simplified standardised approach during the period 2007-09 for calculating the capital charge for credit risk.[4] However, one major player intends to adopt the foundation internal ratings-based (IRB) approach for credit risk and the standardised approach for operational risk[5] at end-2006. It is estimated that 58% and 79% of the banking assets in Africa (Table 2) will be covered by Basel II at end-2006 and during 2007-09, respectively. However, these numbers change significantly if one major player in the region is excluded from the analysis. For example, the proportion of banking assets that will fall under the Basel II requirements for credit risk declines to 21% for end-2006 and 61% for 2007-09. Further, as can be observed from Table 2 and Chart 4, the foundation IRB approach for calculating the capital charge for credit risk will be adopted for the majority of banking assets in the region. The major driver for this trend seems to be the significant amount of banking assets attributed to one large jurisdiction and, to a lesser extent, banking assets controlled by internationally active banks operating in the region. As can be observed from Table 2, the rest of the banking assets will fall primarily under either the simplified standardised or standardised approach for credit risk (about 30% in 2007-09).

Table 2

Percentage of total banking assets expected to be subject to the various approaches for capital calculation for credit risk

Approach	End-2006	2007-09	2010-15
SA/simplified SA	11	30	28
Foundation IRB	43	36	35
Advanced IRB	4	13	25

Charts 3 and 4 provide an overview of the scope of implementation of the various approaches for credit risk.

4 With regard to calculating regulatory capital requirements for credit risk, Basel II offers a choice between two broad methodologies. One alternative, the standardised approach, proposes to measure credit risk based on external credit assessments provided by rating agencies, export credit agencies, etc. The simplest options for calculating regulatory capital are contained in the simplified standardised approach. The alternative methodology, the internal ratings-based (IRB) approach, would allow banks to use their internal rating systems, subject to supervisory approval, to calculate their capital requirements for credit risk. Within the IRB framework, the BCBS is offering two options: the foundation IRB and advanced IRB approaches. Banks using the foundation IRB approach should calculate the probability of default associated with each of their borrowers' grades and rely on supervisory estimates for other risk components, eg exposure at default (EAD). Banks using the advanced IRB approach should be able to provide all risk components related to their borrowers.

5 With regard to calculating regulatory capital requirements for operational risk, the BCBS proposes a choice between three broad methodologies. The first, the basic indicator approach, proposes that a single indicator, ie gross income, be used for calculating the bank's regulatory capital for operational risk. The second, the standardised approach, would allow banks to calculate their capital requirements for each business line, again using gross income, though on a business line basis. An alternative standardised approach would allow banks applying the standardised approach to use a different indicator, ie loans and advances for two specific business lines: commercial and retail banking, respectively. Finally, the advanced measurement approaches (AMAs) would allow banks to use their internal measurement systems, subject to supervisory approval, to calculate their regulatory capital requirements for operational risk.

Chart 3

Basel II credit risk approaches adopted by banks by percentage of total banking assets (simple average)

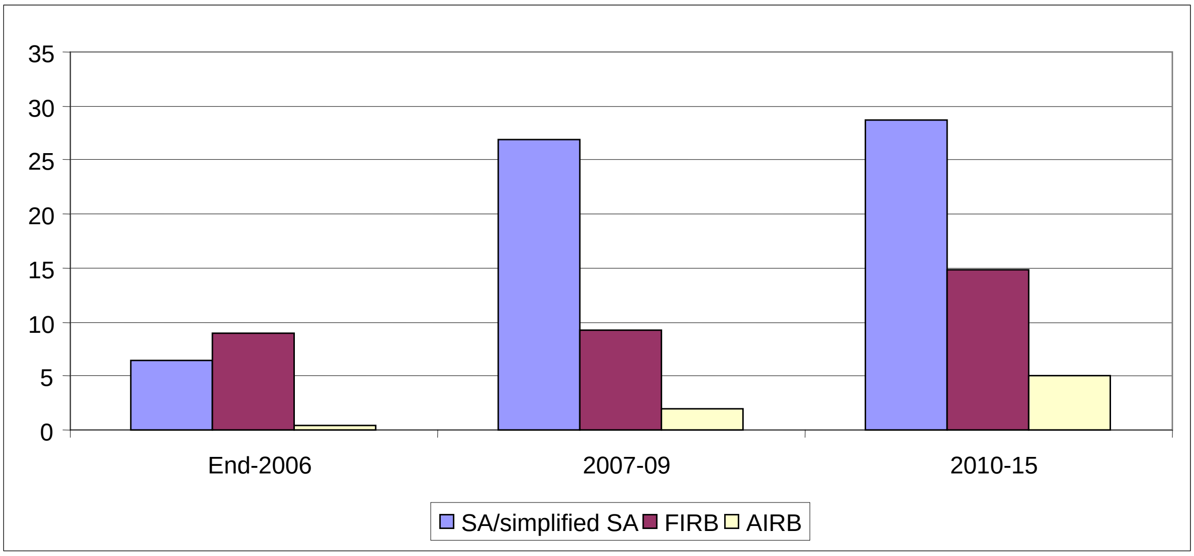
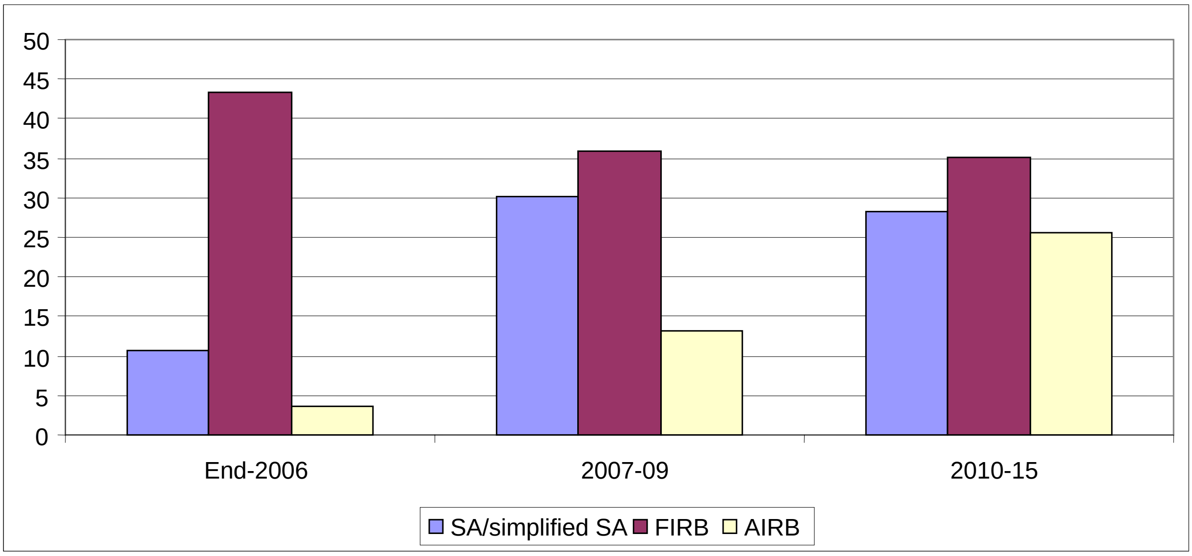


Chart 4

Basel II credit risk approaches adopted by banks by percentage of total banking assets (weighted average)



Charts 5 and 6 provide an overview of the scope of implementation of the various approaches for operational risk. It is envisaged that both the basic indicator and standardised approaches will be adopted by the majority of the banks in the region. As can be observed from Chart 6, the standardised approach will be the most used method for calculating the capital charge for operational risk at end-2006. However, if the simple averages are used (as in Chart 5), thus minimising the impact of the largest banking system, the basic indicator approach will be more common for the period up to 2009.

Chart 5

Basel II operational risk approaches adopted by banks by percentage of total banking assets (simple average)

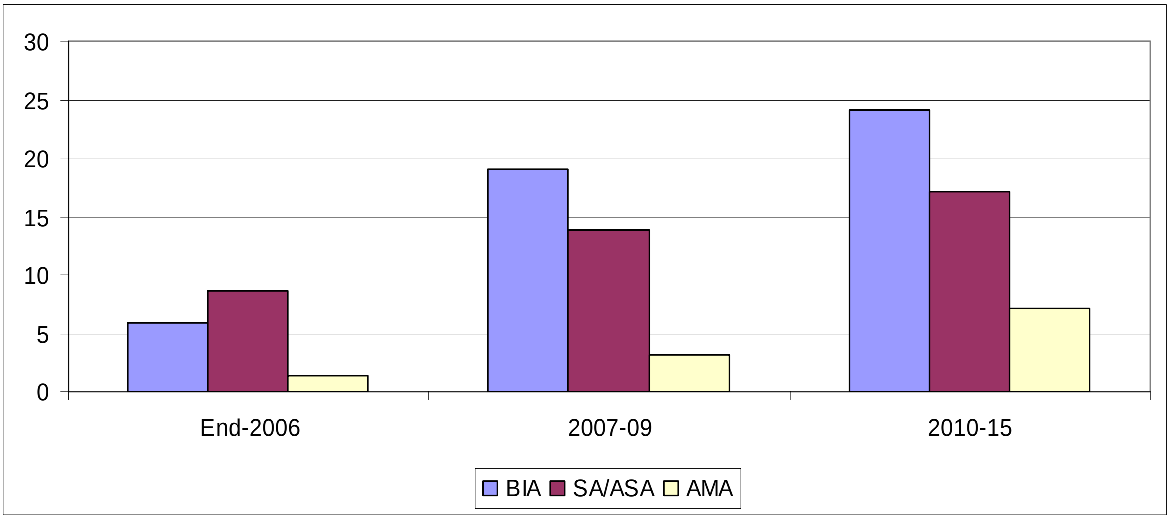
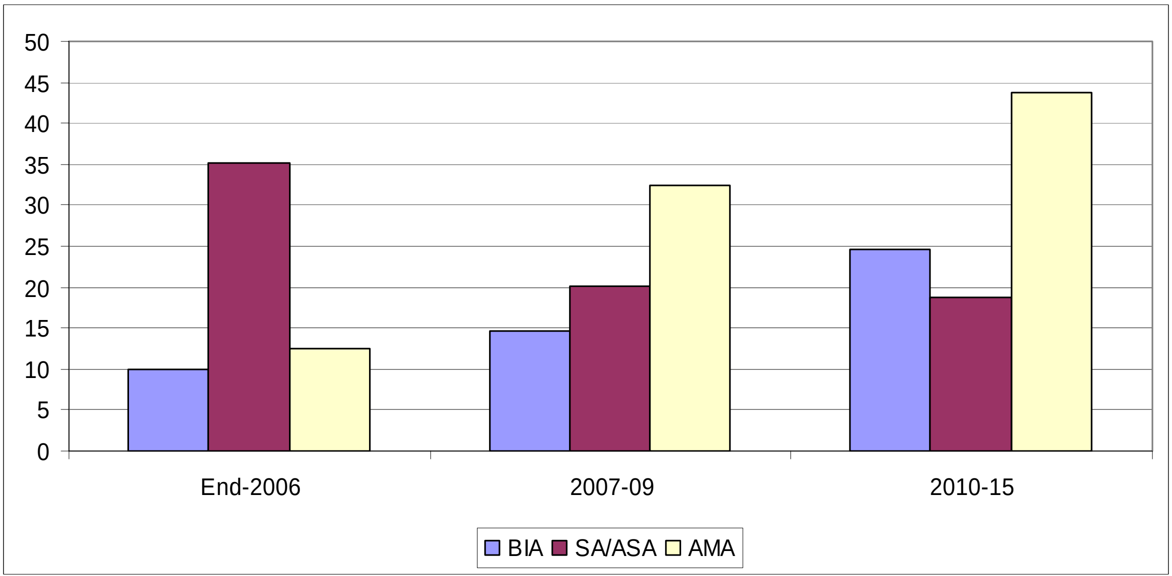


Chart 6

Basel II operational risk approaches adopted by banks by percentage of total banking assets (weighted average)



2.2 Pillar 2 - supervisory review process

Most respondents cited lack of supervisory skills and/or inadequate supervisory resources as the most serious challenges in implementing Pillar 2. In this regard, many observed that there would be considerable practical challenges relating to approval and validation of internal capital allocation models for banks. Lack of data warehouses and a general paucity of data on historical default rates was also considered a major issue. Some respondents noted that there was still a need to move towards proper risk-based supervision and to ensure sufficient authority for supervisors to require capital above the statutory minima, if warranted by the risk profile of a bank.

2.3 Pillar 3 - market discipline

While Pillar 3 did not feature as prominently as Pillars 1 and 2, a number of challenges were identified, including concerns about inappropriate interpretation of disclosure requirements by analysts and lack of strong institutional arrangements for controlling the quality of reporting and disclosure. It was also observed that, given the high concentration of banking systems in the region, there was a risk of exposing business strategies of the few large banks, hence putting them at a competitive disadvantage. Further, some respondents alluded to the need for proper synchronisation of accounting disclosures with Pillar 3 requirements to avoid potential conflicts between accounting and supervisory requirements and to facilitate cross-border comparability of information.

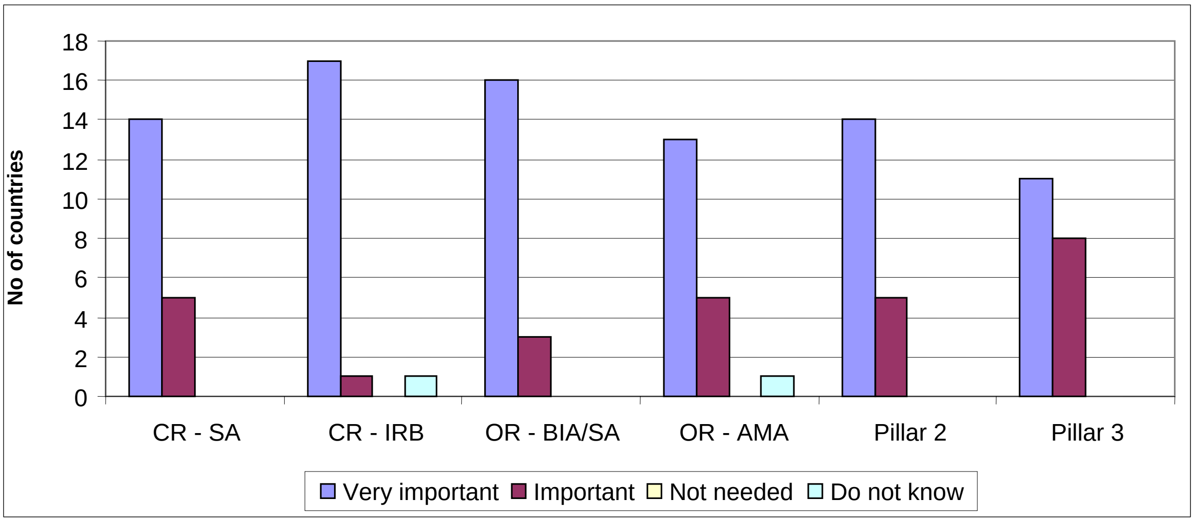
3. Capacity building

Most respondents recognise that upgrading their expertise and sharing information are crucial in order to achieve Basel II implementation objectives. However, the majority of respondents (13 jurisdictions) have not yet developed internal plans to prepare their staff to implement Basel II.

Chart 7 summarises the various training requirements indicated by the responding jurisdictions. The majority rated training on Pillar 1 (minimum capital requirements) as "very important" or "important", particularly with regard to the standardised and IRB approaches for credit risk. All jurisdictions indicated that training for all three pillars was very important, clearly reflecting the view that many African countries will require significant resources to provide the necessary human skills within the supervisory community for effective implementation of Basel II. This re-emphasises the need for enhanced attention to capacity building on the part of many supervisory agencies in Africa.

Chart 7

Important training areas



As shown in Table 3, approximately 1,269 of an estimated 1,897 banking supervisors in the region will require specific training on the various components of Basel II. The results of the Questionnaire show strong demand for training opportunities and for sharing of information, practices and experiences. Respondents believe that discussion forums would greatly facilitate the implementation process. This supports the view expressed by the Basel Committee that such information sharing mechanisms would be critical to the successful implementation of Basel II.

Table 3

Supervisory staff requiring training on Basel II implementation issues in Africa

Category	Number of supervisory staff	Number of supervisory staff to be trained on Basel II
The three largest jurisdictions[1]	1,094	661
Other Africa	803	608
Total	1,897	1,269

[1] The jurisdiction with the highest total banking assets plus two which reported a large number of supervisory staff.

Annex 1:
Basel II Implementation Assistance Questionnaire

Participating jurisdictions in Africa

Angola

Botswana

COBAC[6]

Egypt

Ethiopia

Ghana

Kenya

Lesotho

Libya

Mauritius

Morocco

Mozambique

Namibia

Nigeria

Sierra Leone

South Africa

Sudan

Tanzania

Uganda

WAEMU[7]

Zambia

Zimbabwe

---

[6] Countries represented by COBAC (Central African Banking Commission) are Cameroon, the Central African Republic, Chad, Congo, Equatorial Guinea and Gabon.

[7] Countries represented by WAEMU (West African Economic and Monetary Union) are Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo.

Annex 2:
Specific training requirements identified by national supervisors responding to the Questionnaire

Pillar 1	
Credit risk	
Standardised approach/ simplified standardised approach	– General • Application of the simplified standardised approach • Definition of higher risk categories and their risk weights • Treatment of SME exposures – Credit risk mitigation • Technical calculations • Operational requirements – External ratings • Methodologies of external rating agencies • Methodology of OECD ratings • Development of eligibility criteria for external credit assessment institutions (ECAIs) and how supervisors should assess compliance with these requirements • Mapping of external ratings to risk weights – Areas of national discretion • Definition of retail exposures • Determination of an appropriate LTV ratio for residential mortgages – Securitisation framework
IRB approach	– Rating systems (model development, implementation and validation) • Core criteria of rating system • Classification (segregation) of borrowers • Credit risk modelling (available methodologies, their strengths and weaknesses) • Data requirements – The IRB approach • PD, LGD and EAD estimation and validation techniques • Derivation of supervisory IRB inputs (LGD, EAD) • Derivation of IRB formulas • Specialised lending – Supervisory assessment of internal models • Initial IRB model approval process • Review process of internal rating systems and compliance with IRB minimum requirements • Assessment of PD/LGD/EAD accuracy • Validation of correlation • Qualitative aspects and calibration of IRB models – Securitisation framework under the IRB approach – Stress testing techniques
Operational risk	
Basic indicator approach/ standardised approach	– Operational risk management requirements for banks intending to adopt these two approaches • Detailed criteria for using the alternative standardised approach – Gross income • Definition and calculation of gross income • Allocation/mapping of gross income into eight business lines • Treatment for negative gross income – Formulas to derive alpha and beta

Advanced measurement approach	– Operational risk loss database development • Identification of risk events • Segregation according to business lines • Collection and mapping of operational risk loss data • Mathematical techniques to overcome lack of data – Development of appropriate methodology and approach for measurement of operational risk • Core criteria (qualitative and quantitative aspects of the AMA) • Approaches for model development (top-down vs bottom-up) • Optimal risk scorecard approach/scenario approach and loss distribution approach – Supervision of qualifying criteria • Requirements for supervisory validation • Model and data validation – Use of risk mitigation • Types and application
Other areas	
	– Cross-border implementation and issues – Formulation of supervisory legal documents, establishment of supervisory information systems and development of methodologies for supervision, analysis and categorisation of financial institutions

Pillar 2	
	– Implementation of Pillar 2 – Risks captured under Pillar 2 and the assessment of these risks: • Concentration risk • E-banking risk • Liquidity risk • Interest rate risk in the banking book – Methodology for providing non-Pillar 1 capital charges – Review of banks' capital adequacy assessment process • Supervisory review techniques and validation of internal ratings and risk management systems • Methods for deciding individual capital ratio requirements – Determination of appropriate prompt corrective actions – Stress testing

Pillar 3	
	– Guiding principles on implementation of Pillar 3 • Best practices on disclosure requirements • Development of skills/expertise of regulators to facilitate effective analysis and review of Pillar 3 requirements – Guidance on interaction between Basel II requirements and IAS 39 – Approaches adopted by countries for quarterly reporting requirements under Pillar 3