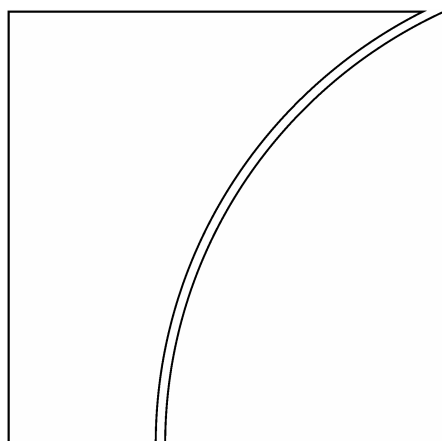


# Financial Stability Institute



## The implementation of the new capital adequacy framework in Latin America

Summary of responses to the Basel II Implementation  
Assistance Questionnaire

July 2004



BANK FOR INTERNATIONAL SETTLEMENTS



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## Summary of responses to the Basel II Implementation Assistance Questionnaire

### 1. General implementation plans

The Questionnaire was sent to 16 countries that have actively participated in FSI seminars directly related to Basel II.<sup>1</sup> Responses were received from 15 countries (collectively referred to as respondents) and are summarised in this note.

More than 70% of the respondents (11 countries<sup>2</sup>) intend to implement Basel II<sup>3</sup>. Banks in these countries control around 95% of banking assets<sup>4</sup> in Latin American respondents to the Questionnaire. The rest of the respondents (4 countries) are still undecided regarding the application of Basel II. They state that their banking institutions are not internationally active or that further analysis on the impact of Basel II in their countries is necessary.

As we can observe from Chart 1, banks controlling 85% of total banking assets in Latin American respondent countries are expected to move to Basel II between the beginning of 2007 and the end of 2009. It is also worthwhile to note from Chart 1 the role of foreign banks in the implementation of the Basel II framework in the region. Of the 85% of total banking assets moving to Basel II during 2007-09, more than a third belong to banks which are foreign-controlled<sup>5</sup> or foreign-incorporated<sup>6</sup>. It thus seems logical to conclude that foreign banks will be playing a key role in the implementation of Basel II in Latin America.

A more in-depth analysis of the responses to the Questionnaire suggests that it is appropriate not only to look at the implementation plans of respondents as a single group, but also to divide the countries into three, more homogeneous, groups:

- Group 1 respondents plan to implement Basel II between 2007 and 2009.<sup>7</sup>
- Group 2 respondents will mainly implement Basel II from 2010 onwards.
- Group 3 respondents are still undecided as to whether to apply Basel II in their countries.

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<sup>1</sup> Refer to Annex 1 for a listing of all Latin American countries that responded to the Questionnaire.

<sup>2</sup> In some countries, not all banking sector assets will be captured by Basel II

<sup>3</sup> Basel II requires the implementation of three mutually reinforcing pillars: Pillar 1 - minimum regulatory capital for credit, market and operational risks; Pillar 2 - a supervisory review process intended to ensure that banks have adequate capital to support their risks as well as sound risk management techniques; and Pillar 3 - a set of disclosures that will promote market discipline by allowing market participants to assess key pieces of information related to Pillar 1 and Pillar 2. Because the 1998 recommendations on regulatory capital for market risks remain unchanged by Basel II, the Questionnaire and this note deal only with the proposals related to credit and operational risks in Pillar 1.

<sup>4</sup> The size of banking assets was obtained from responses to question 3 in the Questionnaire. In all cases and where available, the guidance was to provide information on the size of banking assets as of 31 December 2003 in US dollars. However, we acknowledge that there may be some inconsistencies with regard to banking asset data.

All calculations in this paper, unless otherwise stated, are based on weighted averages of banking sector assets indicated by each country.

<sup>5</sup> 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.

<sup>6</sup> Defined in question 3 of the Questionnaire as local branches of foreign banks

<sup>7</sup> One respondent in this group plans to adopt Basel II at year-end 2006.

Chart 1

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

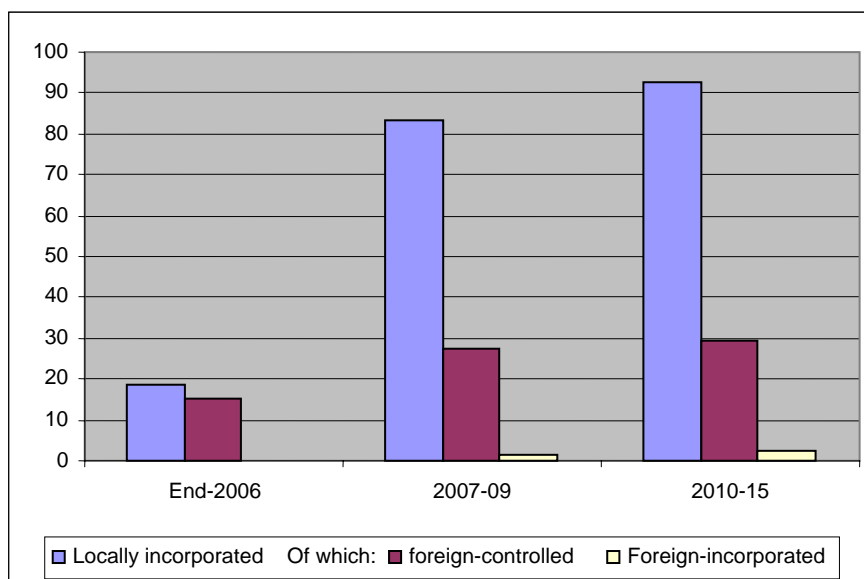


Table 1

**Percentage of total banking assets<sup>1</sup> expected to be subject to Basel II in different timeframes**

	End-2006	2007-09	2010-15
Group 1 (six countries)	23	100	100
Group 2 (five countries)	0	20	94

<sup>1</sup> The calculations are based on weighted averages of banking sector assets indicated by countries included in each group.

## 2. Specific implementation plans

### 2.1 Pillar 1 - minimum capital requirements

In order to allocate capital for credit risk purposes,<sup>8</sup> banks controlling close to 50% of banking assets in Latin American countries responding to the Questionnaire will be applying the foundation internal ratings-based (IRB) approach between 2007 and 2009. During the same time period, banks controlling

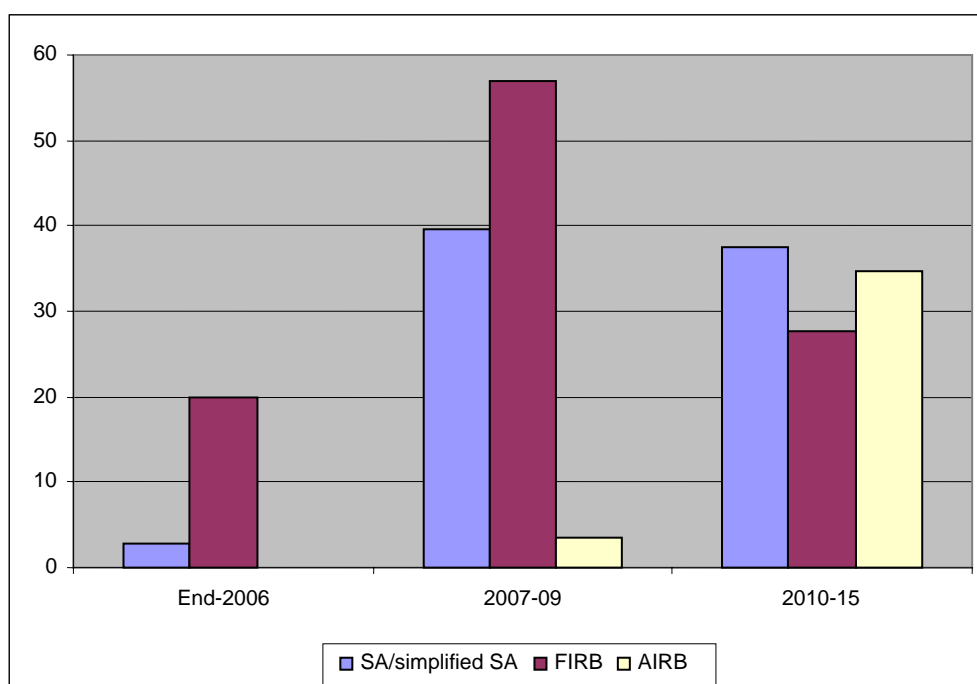
<sup>8</sup> With regard to calculating regulatory capital requirements for credit risk, Basel II offers a choice between two broad methodologies. One alternative, the standardised approach, proposes to measure credit risk based on external credit assessments provided by rating agencies, export credit 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.

a third of banking assets in respondent countries will be implementing the (simplified) standardised approach. In the longer run, ie from 2010 onwards, banks beginning to implement Basel II will mainly apply the standardised approach, whereas it appears that around half of foundation IRB banks will be moving to the advanced IRB approach.

The percentages described above are driven mainly by Group 1 respondents. As can be observed from Chart 2, close to 60% of Group 1 banking assets will be under the foundation IRB approach during 2007-09. It should also be mentioned that the (simplified) standardised approach will be applied, during the same period, by banks controlling around 40% of banking assets in this group. On the other hand, it is clear from Chart 3 not only that banks in Group 2 have chosen to apply Basel II from 2010 onwards but also that the preferred choice is the (simplified) standardised approach.

Chart 2

**Basel II credit risk approaches expected to be adopted by Group 1 banks by percentage of total banking assets in this Group (weighted average)**

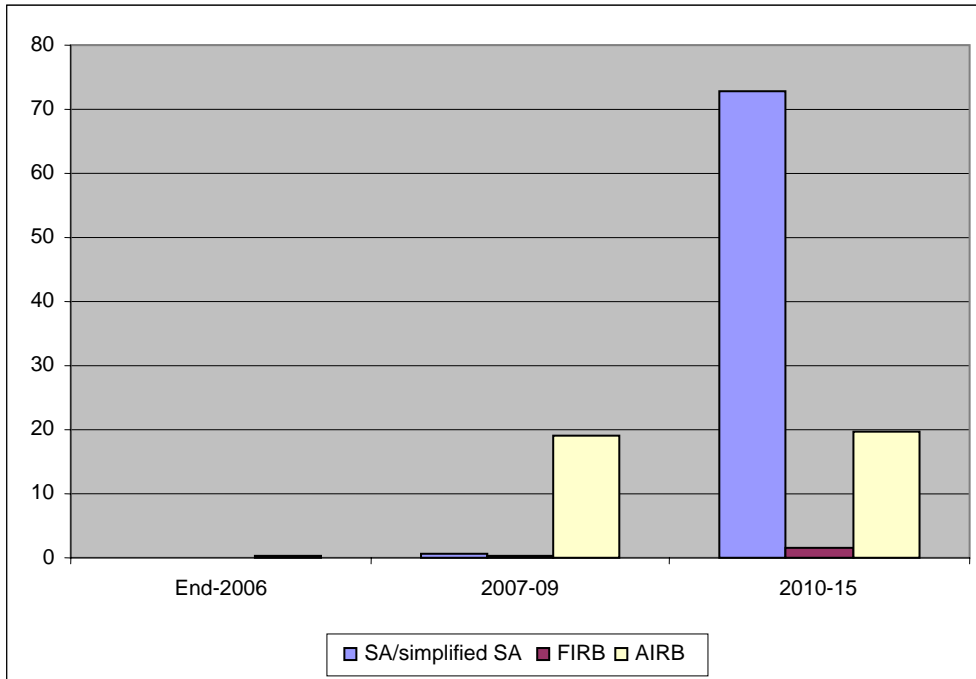


Regarding capital allocation for operational risk,<sup>9</sup> banks controlling close to 60% of banking assets in Latin American countries responding to the Questionnaire will be adopting the (alternative) standardised approach during 2007-09. From 2010 onwards, most banks beginning to implement Basel II seem to be leaning towards the basic indicator approach and it appears that around half of the banks applying the standardised approach will be moving to the advanced measurement approaches (AMAs). As a result, the three methodologies for calculating operational risk under Basel II will be used equally (around 30% of banking assets each) in the long term.

<sup>9</sup> 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, although 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 expected to be adopted by Group 2 banks by percentage of total banking assets in this Group (weighted average)**



It is clear from Chart 4 that most banking assets belonging to Group 1 respondents will be implementing the (alternative) standardised approach during 2007-09. On the other hand, Chart 5 shows that banks belonging to Group 2 respondents seem to be planning to apply the operational risk proposals from 2010 onwards, and the basic indicator approach appears to be the preferred methodology in this group.

Chart 4

**Basel II operational risk approaches expected to be adopted by Group 1 banks by percentage of total banking assets in this Group (weighted average)**

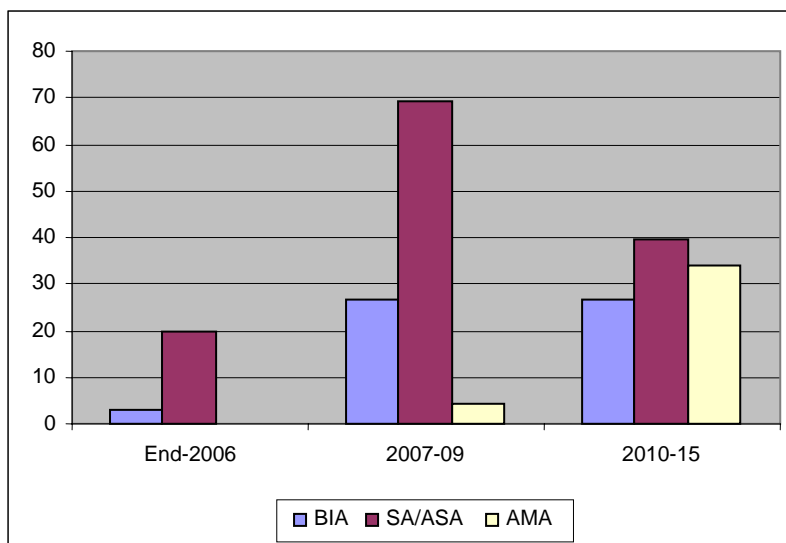
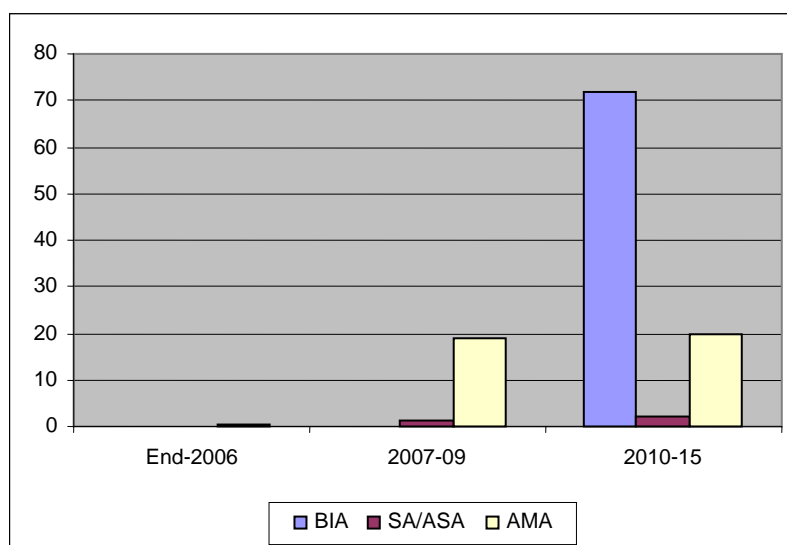


Chart 5

**Basel II operational risk approaches expected to be adopted by Group 2 banks by percentage of total banking assets in this Group (weighted average)**



## 2.2 Pillar 2 - supervisory review process

Although Group 1 and Group 2 respondents recognise the importance of Pillar 2 in improving their supervisory regimes, a wide range of challenges are anticipated for the adequate implementation of this pillar. The main challenge mentioned by most respondents relates to acquiring and/or developing the human and technical resources necessary to review banks' responsibilities under Pillar 1. Challenges expressed by countries in this area are mostly related to the implementation of the most sophisticated proposals in Pillar 1, the IRB approaches and AMAs. A closely related matter noted by the majority of respondents refers to the supervisory validation of internal capital allocation techniques for credit and operational risk. A third area of common concern is the cross-border implementation of Basel II by some banks and the corresponding interaction between these banks' home and host supervisors. In addition, several Group 1 respondents highlight the need to develop an objective methodology to require individual banks to maintain capital at a level above that stipulated under Pillar 1.

## 2.3 Pillar 3 - market discipline

Several respondents in Groups 1 and 2 indicated that they have already done important work in promoting transparency and market discipline in their financial systems. However, both groups seem to agree on some of the key challenges for implementing the Pillar 3 proposals. The first is finding a proper balance between transparency and dealing with proprietary and confidential information. The second relates to the cultural change represented by disclosure of relevant and timely information on a continuous basis. The third challenge concerns supervisory responsibility in assessing the adequacy and accuracy of the information disclosed to the markets.

## 3. Capacity building

Overall, 80% of respondents have not developed internal plans to prepare their staff to implement Basel II. Having said that, 50% of Group 1 respondents have formulated internal plans for implementing Basel II in their countries. With regard to Group 2 respondents, no supervisory authority has an internal plan for implementing Basel II.

All respondents recognise that they will need to focus on upgrading the expertise of their staff. In this regard, Group 1 respondents expect to provide training on Basel II issues to around 900 supervisors.

This number represents more than 60% of the total number of supervisory staff in this group. Group 2 respondents expect to offer Basel II training to more than 400 supervisors, representing more than 45% of the total supervisory staff in this group. In total, including responses from Group 3 respondents, around 1,700 supervisors in Latin America are expected to need training on Basel II-related issues. This number represents just over 55% of banking supervisory staff in the respondent countries.

Table 2  
**Supervisory staff requiring training on Basel II  
 implementation issues in Latin America**

	Number of supervisory staff	Number of supervisory staff to be trained on Basel II
Group 1	1,459	906
Group 2	898	423
Group 3	414	338
<b>Total</b>	<b>2,771</b>	<b>1,667</b>

More than 85% of respondents consider that training is most needed for Pillar 2. However, as with the areas of concern expressed in Section 2.2, the specific needs for assistance are closely related to the implementation of the most sophisticated methodologies in Pillar 1. As such, it is not surprising that 100% of Group 1 respondents assign the highest importance to assistance on implementing the IRB approaches. Eighty per cent of Group 2 respondents assign the highest priority for training to areas related to the implementation of the IRB approaches and Pillar 2. Group 1 and 2 respondents assign the next level of priority to training related to the implementation of the AMAs. In addition, Group 2 countries assign similar priority to other areas such as the standardised approach for credit risk and the application of the basic indicator and standardised approaches for operational risk. Only a third of respondents considered training related to Pillar 3 to be very important. Specific training needs expressed by respondents are included in Annex 2 to this note.

The results of the Questionnaire show strong demand for opportunities to share information, practices and experiences. All respondents believe that discussion forums would greatly facilitate the Basel II implementation process. This supports the view expressed by the Basel Committee that such information sharing mechanisms would be critical to the successful implementation of the new framework.



**Annex 1:  
Respondents to Basel II  
Implementation Assistance Questionnaire**

Argentina  
Bolivia  
Brazil  
Chile  
Columbia  
Costa Rica  
Dominican Republic  
Ecuador  
El Salvador  
Guatemala  
Honduras  
Mexico  
Panama  
Peru  
Uruguay  
Venezuela

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

<b>Pillar 1</b>	
<b>Credit risk</b>	
General	<ul style="list-style-type: none"> <li>– Relationship between capital and provisioning in assessing capital adequacy of banking institutions</li> <li>– Implementation of credit risk methodologies in small banks and development of transitional procedures for these entities</li> <li>– Partial implementation of credit risk methodologies across countries</li> <li>– Treatment of Latin American small and medium-sized enterprise (SME) exposures</li> <li>– Rollout of quantitative impact studies</li> </ul>
Standardised approach/ simplified standardised approach	<ul style="list-style-type: none"> <li>– Credit risk mitigation               <ul style="list-style-type: none"> <li>• Practical use</li> <li>• Operational requirements</li> <li>• Adaptation of haircuts to domestic markets and their supervisory validation</li> </ul> </li> <li>– External ratings               <ul style="list-style-type: none"> <li>• Treatment of short-term (trade-related) credit lines</li> <li>• Treatment of (higher-risk) sovereigns</li> <li>• Development of eligibility criteria for external credit assessment institutions (ECAIs) and how supervisors should assess compliance with these requirements</li> <li>• Mapping of external ratings to risk weights</li> </ul> </li> <li>– Securitisation framework</li> </ul>
IRB approach	<ul style="list-style-type: none"> <li>– Rating systems (model development, implementation and validation)               <ul style="list-style-type: none"> <li>• Credit risk modelling (available methodologies as well as their strengths and weaknesses)</li> <li>• Data requirements</li> </ul> </li> <li>– IRB concepts               <ul style="list-style-type: none"> <li>• PD, LGD and EAD estimation techniques</li> <li>• Derivation of supervisory IRB inputs (LGD, EAD)</li> <li>• Derivation of IRB formulas</li> <li>• Application of credit risk mitigation techniques</li> </ul> </li> <li>– Supervisory assessment and validation of internal models               <ul style="list-style-type: none"> <li>• Review process of internal rating systems and compliance with IRB minimum requirements</li> <li>• Assessment of PD/LGD/EAD estimations</li> <li>• Validation of databases</li> <li>• Review of statistical models</li> </ul> </li> <li>– Securitisation framework</li> </ul>
<b>Operational risk</b>	
Basic indicator approach/ standardised approach	<ul style="list-style-type: none"> <li>– Operational risk management requirements for banks intending to adopt these two approaches</li> <li>– Gross income               <ul style="list-style-type: none"> <li>• Definition and calculation of gross income</li> <li>• Banking accounts and mapping of gross income into eight business lines</li> </ul> </li> <li>– Practical application of the alternative standardised approach</li> </ul>

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**Pillar 1 (cont)**

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**Operational risk**

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Advanced measurement approach

- Operational risk loss database development
    - Mathematical techniques to overcome lack of data
  - Development of appropriate methodology and approach for measurement of operational risk
    - Modelling techniques
    - Practical application of scorecard and scenario approaches
    - Development and relevancy of key risk indicators
    - Implementation of business environment and internal control factors
    - Integration with techniques for managing and measuring other banking risks
  - Supervisory validation
    - Model and data validation
    - Coverage of expected losses through reserves, provisions, etc
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**Pillar 2**

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- Home-host supervisory coordination
  - Implementation of Basel II on a cross-border basis
  - Other banking risks captured under Pillar 2 and the assessment of these risks, eg interest rate risk in the banking book
  - Objective methodology for providing additional capital charges
  - Review of banks' capital adequacy assessment process
    - Supervisory review techniques and validation of internal ratings and risk management systems
    - Benchmarking supervisory models
    - Tools to evaluate consistency of procedures and methodologies
  - Stress testing
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**Pillar 3**

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- Guiding principles on implementation of Pillar 3
    - Best practices on effective disclosure requirements
  - Guidance on interaction between Basel II requirements and international accounting standards
  - Consolidated disclosures
-