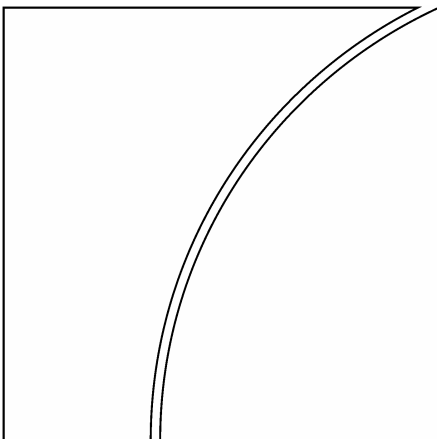


# Financial Stability Institute



## The implementation of the new capital adequacy framework in non-Basel Committee member countries in Europe

Summary of responses to the Basel II Implementation Assistance Questionnaire

July 2004



BANK FOR INTERNATIONAL SETTLEMENTS



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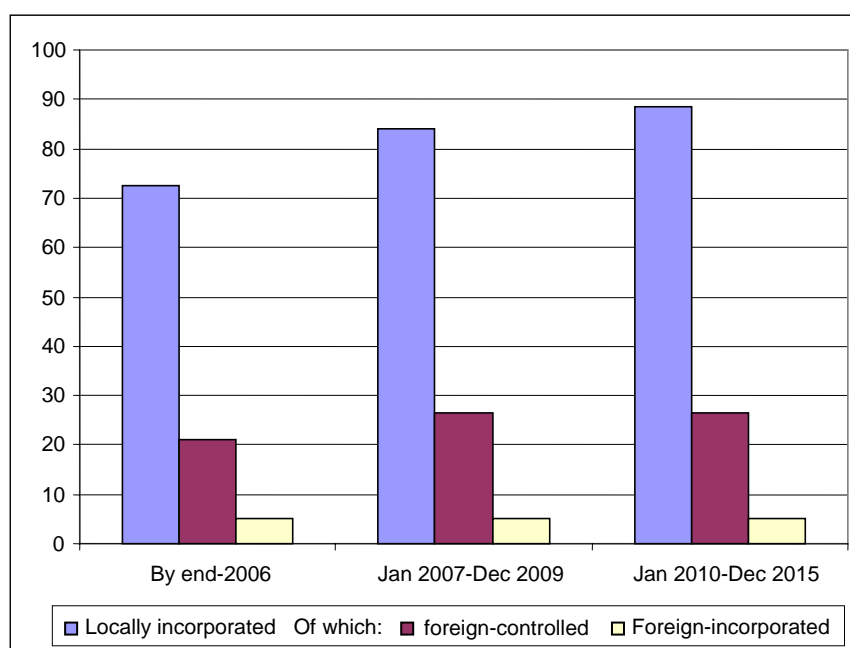
## Summary of responses to the Basel II Implementation Assistance Questionnaire

### 1. General implementation plans

In Europe, the Basel II Implementation Assistance Questionnaire (Questionnaire) was sent to 39 countries (collectively referred to as respondents) that are not members of the Basel Committee on Banking Supervision (BCBS), but have actively participated in FSI seminars directly related to Basel II. Responses were received from 37 jurisdictions<sup>1</sup> and are summarised in this note.

Chart 1

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



Thirty-four out of the 37 (92%) countries that responded to the Questionnaire indicated that they will implement Basel II.<sup>2</sup> The countries that confirmed implementation of Basel II, however, differed in their views on the timing of the implementation. For example, 15 of the respondents are members of the

<sup>1</sup> Refer to Annex 1 for a listing of all non-BCBS member European countries that responded to the Questionnaire.

<sup>2</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.

European Union (EU) and as such will be required to implement Basel II at year-end 2006<sup>3</sup>. On the other hand, a number of respondents had not yet determined when they would implement Basel II or indicated that because of other supervisory priorities it would be implemented at some point after 2006.

As can be seen in Chart 1, 78%<sup>4</sup> of the banking assets in the 37 respondent countries will be covered by Basel II at year-end 2006. The percentage increases to 89% by year-end 2009.

A more in-depth analysis of the responses to the Questionnaire suggests that it is appropriate not only to look at the implementation plans for respondents as a single group, but also to divide the countries into two, more homogeneous, groups. A first subset of the respondent countries (hereinafter referred to as Group 1) consists of non-BCBS member countries that are either members of the EU, have announced plans to implement Basel II at year-end 2006, or have banking system assets in excess of USD 50 billion. Group 1 consists of 22 respondent countries. A second subset of countries (hereinafter referred to as Group 2) consists of the remaining 15 respondent countries. Table 1 illustrates the implementation plans for banks in both Group 1 and Group 2.

Table 1  
**Percentage of total banking assets expected  
to have implemented Basel II by the following dates**

	Year-end 2006	2007-2009	2010-2015 <sup>1</sup>
Group 1 (22 jurisdictions)	80	90	94
Group 2 (15 jurisdictions)	0	73	74

<sup>1</sup> In some jurisdictions, not all banking sector assets will be captured by Basel II.

As can be seen from the table, the requirements of the EU cause many Group 1 banks (although not all Group 1 countries are members of the EU) to implement Basel II at year-end 2006. Conversely, most supervisory authorities in Group 2 will require their banks to adopt Basel II in the period between 2007 and 2009. In this period, 73% of Group 2 banking assets will be captured by Basel II, and 49% of these assets are controlled by foreign institutions<sup>5</sup>. This fact illustrates the strong presence of foreign banks in Group 2 countries.

## 2. Specific implementation plans

### 2.1 Pillar 1 - minimum capital requirements

Pillar 1 establishes explicit capital requirements for three types of risk: credit risk, operational risk and market risk. As the rules for market risk remain largely unchanged, the Questionnaire only addressed credit and operational risk.

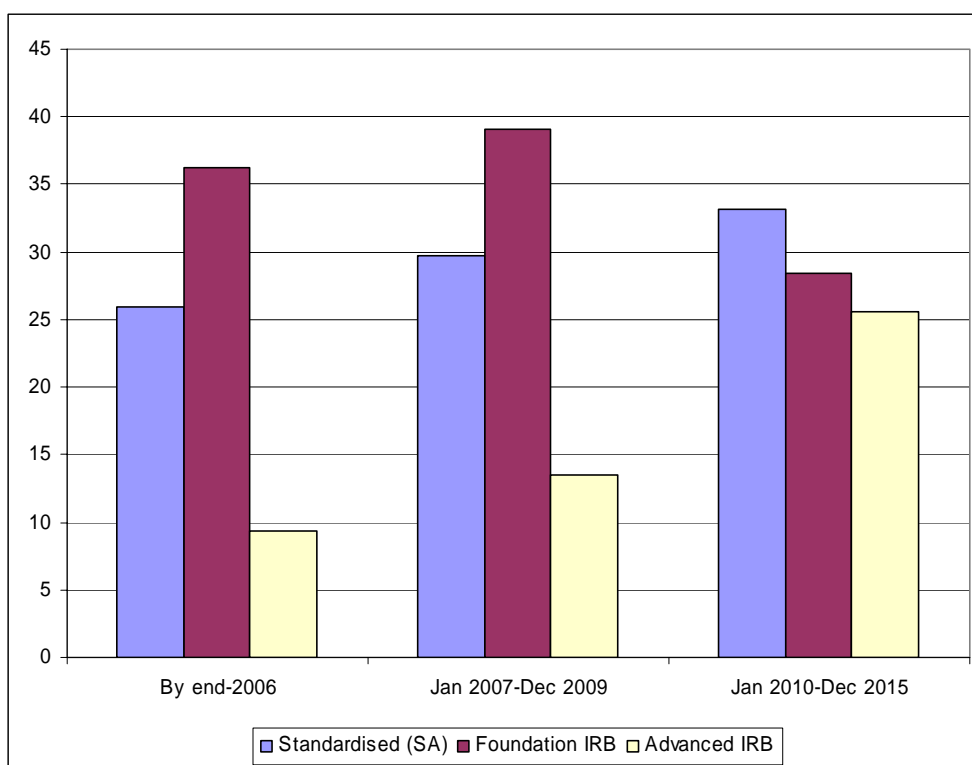
<sup>3</sup> Some EU member countries indicated that they would implement Basel II in stages or partially as opposed to in its entirety at year-end 2006.

<sup>4</sup> All calculations in this paper, unless otherwise stated, are based upon weighted averages of banking sector assets as indicated by each jurisdiction. Banking asset figures were obtained in response to question number 3 wherein respondents were asked to provide data as of 31 December 2003 and in US Dollar equivalent amounts. In spite of this, we acknowledge that there may be some inconsistencies with respect to banking system data.

<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.

Considering credit risk<sup>6</sup> first, as exhibited in Chart 2, region-wide assets will principally be subject to the foundation internal ratings-based approach (IRB) when Basel II is implemented at year-end 2006.<sup>7</sup> In contrast, the advanced IRB approach is expected to be used by only 12 banks. In the period 2007-09, more assets will be subject to Basel II, thus the overall increase in the volume of assets for which capital is being held for credit risk using the rules set forth in Basel II. At the same time, there is a shift to use the advanced IRB most probably caused by advances in risk management methodologies employed by banks in the region. In the final period covered by the Questionnaire, the percentage of assets covered by Basel II does not change significantly; importantly, however, there is a continuation of the trend to use the more advanced approaches to measure credit risk. As discussed below, this trend is caused by the significant volume of region-wide assets held by banks in Group 1 countries.

Chart 2  
**Overall percentage of banking assets in all non-BCBS European countries expected to be subject to credit risk approaches in Basel II (weighted average)**



Banks controlling a operating of assets in Group 1 are expecting to hold capital for credit risk using the foundation IRB approach in Basel II upon its implementation at year-end 2006 (Chart 3). The figure for

<sup>6</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 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.

<sup>7</sup> The Questionnaire was completed prior to the Committee's decision to defer implementation of the most advanced approaches of Basel II from year-end 2006 to year-end 2007. This may have an impact on responses regarding the implementation of the advanced IRB approach.

Chart 3

**Overall percentage of banking assets in Group 1 non-BCBS European countries expected to be subject to credit risk approaches in Basel II (weighted average)**

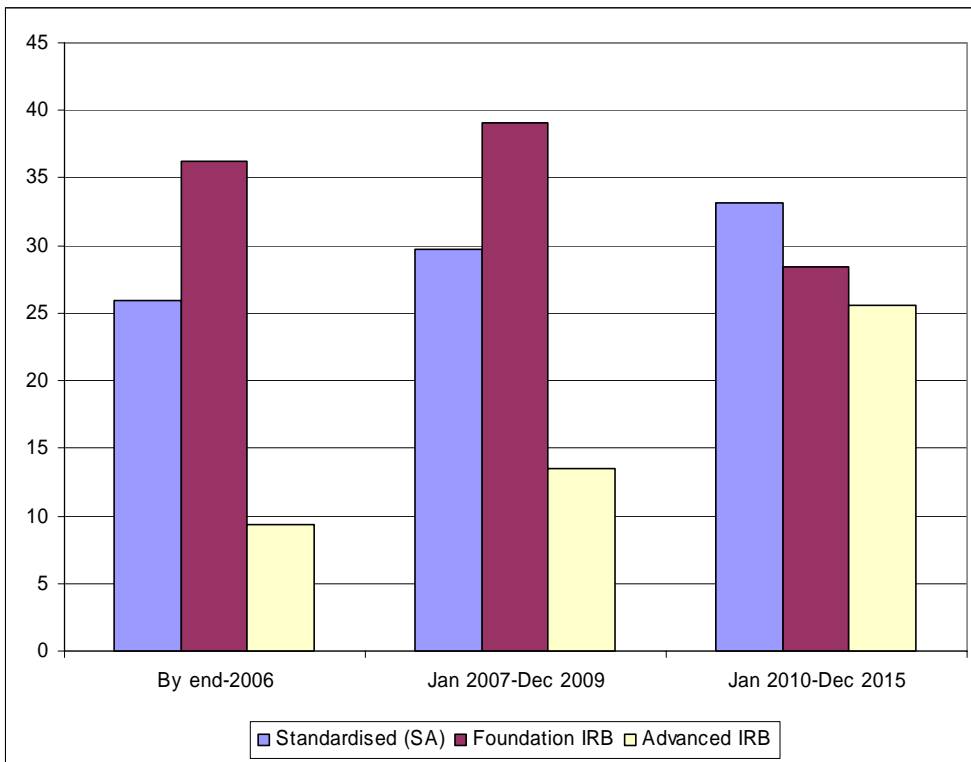
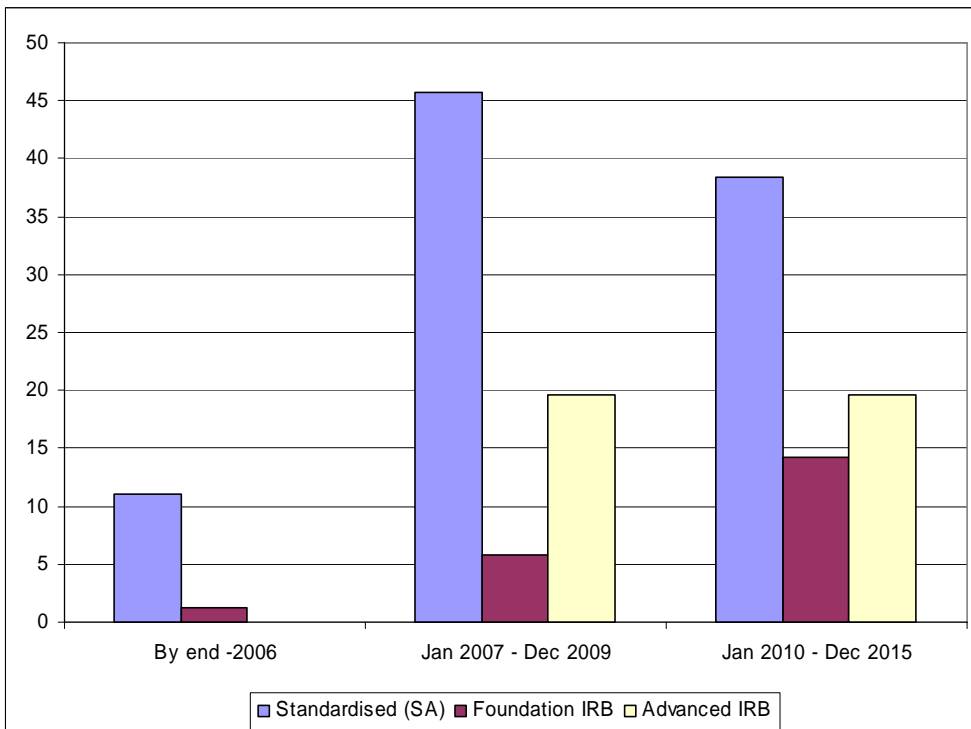


Chart 4

**Overall percentage of banking assets in Group 2 non-BCBS European countries expected to be subject to credit risk approaches in Basel II (weighted average)**

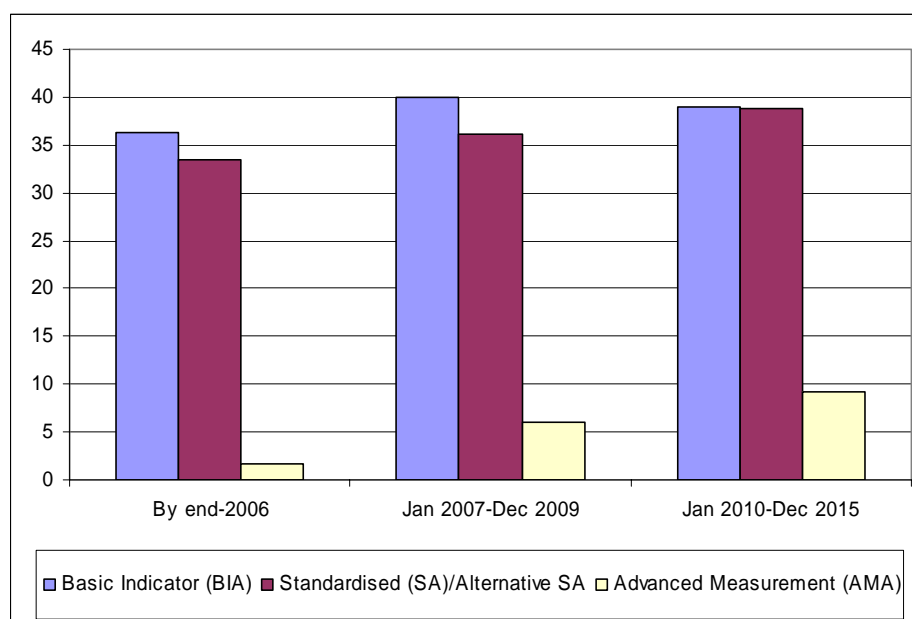


all approaches increases proportionately during the period 2007-09 because some countries in Group 1 choosing not to implement Basel II at year-end 2006 will do so during this period. More specifically, the overall volume of assets in Group 1 countries covered by any of the approaches, is expected to increase from 73% at year-end 2006 to 83% by year-end 2009. The trend for more assets to be captured by Basel II continues in the final period, reaching 88% by year-end 2015. The decline in the use of the foundation IRB approach in the final period may be attributed to banks shifting from foundation IRB to advanced IRB. The influence of Group 1 banks and their assets on the region as a whole can be clearly seen when comparing Charts 2 and 3. More specifically, the trend to use the more advanced approaches to credit risk in Group 1 is carried over to the results of the entire region.

Group 2 countries, for credit risk purposes, will have for the foreseeable future, the majority of their assets captured by the standardised approach (Chart 4). This is consistent with statements made by the BCBS wherein it expects most banks in most jurisdictions to begin using the standardised approach to measure credit risk. It is only during the period 2010-15 that usage of more advanced approaches begins to take hold in Group 2 countries, reaching 34% of banking system assets by the end of the period.

Considering operational risk and the approaches to it, banks in the region are not planning to adopt any of the Advanced Measurement Approaches<sup>8</sup> to measure operational risk in significant number. Instead, the basic indicator and standardised approaches will be used (Chart 5). Group 1 countries will have a larger percentage of their banking assets covered by the standardised approach, while banks in Group 2 countries will rely more heavily on the basic indicator approach.

Chart 5  
**Overall percentage of banking assets in all non-BCBS European countries expected to be subject to operational risk approaches in Basel II (weighted average)**



<sup>8</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.

## 2.2 Pillar 2 - supervisory review process

Pillar 2 will present a significant challenge for all supervisory authorities in the region. Many supervisory authorities do not have the supervisory expertise to determine whether capital in excess of regulatory minimums is necessary and, if so, the legal authority to require it is often lacking. Achieving this will require new supervisory rules and regulations, policies, practices and skills.

Group 1 respondents identified as principal Pillar 2 issues those relating to the more advanced approaches to measuring credit risk, including the supervisory authority's ability to validate IRB systems. Also of importance to Group 1 banks are issues such as cross-border application of Basel II, evaluating a bank's internal capital adequacy assessment process and determining bank specific capital levels.

In the context of Pillar 2, Group 2 respondents are clearly focused on the need to develop their supervisory capacity, and related to this, training. Although less frequently mentioned, issues such as the assessment of interest rate risk in the banking book, concentration risk and corporate governance were identified as areas needing attention.

## 2.3 Pillar 3 - market discipline

Respondents in Groups 1 and 2 share very similar challenges when it comes to the implementation of Pillar 3 proposals. In particular, the primary challenge in the region is that of aligning supervisory requirements with international and domestic accounting standards. Other areas of concern include confidentiality, placing an undue burden on the banks and ensuring the accuracy and adequacy (with respect to qualitative disclosures) of disclosures.

## 3. Capacity building

The BCBS has stated that one of the first and most important steps to the successful implementation of Basel II is the development of a formal, structured implementation plan. Of the 37 respondent countries, exactly half<sup>9</sup> have developed such a plan. For Group 1 countries, many of whom will implement Basel II at year-end 2006, it was observed that 62% have developed implementation plans. Given these responses and the importance of implementation plans, it may be appropriate for discussions to be held on such topics as assessing supervisory priorities, the state of readiness of the banking system, supervisory training, etc as a basis from which an implementation plan could be developed.

A critical part of all country's implementation plans is the training of their supervisory staff on Basel II issues. Of the 7,300 supervisory staff in the 37 respondent countries, 32% will need some level of Basel II training (Table 2). The respondent with the greatest number of supervisors is excluded from the calculation, the percentage of those needing training increases to 61%.

Table 2

### Supervisory staff requiring training on Basel II implementation issues in non-Basel Committee member countries in Europe

	Number of supervisory staff	Number of supervisory staff to be trained on Basel II
Group 1	5,888	1,208
Group 2	1,419	1,167
<b>Total</b>	<b>7,307</b>	<b>2,375</b>

<sup>9</sup> Of the 37 respondent countries, only 34 responded to the question asking whether or not they had developed a structured implementation plan.



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

The majority of respondents considered that training is most needed for Pillar 1 and Pillar 2. With respect to Pillar 1, most respondents considered training related to the standardised and IRB approaches for credit risk, as well as credit risk mitigation, as very important. Almost all respondents assigned little priority to training related to Pillar 3. Specific training needs expressed by respondents are included in Annex 2 to this note.

**Annex 1:**  
**Respondents to the Basel II Implementation Assistance**  
**Questionnaire in non-Basel Committee member countries in Europe**

Albania (Central Bank)	Jersey (Financial Services Commission)
Armenia (Central Bank)	Kyrgyz (Central Bank)
Austria (Financial Market Authority)	Latvia (Financial Commission)
Azerbaijan (Central Bank)	Lithuania (Central Bank)
Belarus (Central Bank)	Macedonia (Central Bank)
Bosnia-Herzegovina (Agency)	Malta (Financial Supervisory Authority)
Bulgaria (Central Bank)	Moldova (Central Bank)
Croatia (Central Bank)	Norway (Commission)
Czech Republic (Central Bank)	Poland (Central Bank)
Cyprus (Central Bank)	Portugal (Central Bank)
Denmark (Financial Supervisory Authority)	Romania (Central Bank)
Estonia (Financial Supervisory Authority)	Russia (Central Bank)
Finland (Financial Supervisory Authority)	Slovakia (Central Bank)
Georgia (Central Bank)	Slovenia (Central Bank)
Greece (Central Bank)	Tajikistan (Central Bank)
Guernsey (Financial Services Commission)	Turkey (Agency)
Hungary (Financial Supervisory Authority)	Turkmenistan (Central Bank)
Isle of Man (Financial Supervision Commission)	Ukraine (Central Bank)
Israel (Central Bank)	

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

<b>Pillar 1</b>	
<b>Credit risk</b>	
Standardised approach/ simplified standardised approach	<ul style="list-style-type: none"> <li>– Credit risk mitigation (56%)               <ul style="list-style-type: none"> <li>• Treatment for guarantees, credit derivatives and collateral</li> <li>• Comprehensive approach</li> <li>• Recognition of collateral</li> <li>• Practical application</li> </ul> </li> <li>– External ratings (38%)               <ul style="list-style-type: none"> <li>• ECAI eligibility criteria and assessment</li> <li>• Mapping to risk weights</li> </ul> </li> <li>– Securitisation (22%)</li> </ul>
IRB approach	<ul style="list-style-type: none"> <li>– Validation of internal ratings systems and internal estimates (44%)               <ul style="list-style-type: none"> <li>• Back/stress testing</li> <li>• Supervisory requirements</li> </ul> </li> <li>– Risk components (PD, LGD, EAD) (38%)               <ul style="list-style-type: none"> <li>• Estimation</li> </ul> </li> <li>– Data (25%)               <ul style="list-style-type: none"> <li>• Requirements for IRB</li> <li>• Collection/pooling (use of credit bureau)</li> <li>• Database evaluation</li> <li>• Data robustness</li> </ul> </li> <li>– Rating system design (19%)               <ul style="list-style-type: none"> <li>• Practical implementation</li> <li>• Structure</li> </ul> </li> <li>– IRB minimum requirements (16%)</li> </ul>
<b>Operational risk</b>	
Basic indicator approach/ standardised approach	<ul style="list-style-type: none"> <li>– The business lines (38%)               <ul style="list-style-type: none"> <li>• Definition/adjusting to local context</li> <li>• Mapping/assigning gross income</li> <li>• Segmentation</li> </ul> </li> <li>– Requirements for approaches (19%)               <ul style="list-style-type: none"> <li>• Qualitative criteria</li> </ul> </li> <li>– Operational risk measurement methodologies (12%)</li> </ul>
Advanced measurement approach	<ul style="list-style-type: none"> <li>– Quantification of operational risk (31%)               <ul style="list-style-type: none"> <li>• Approaches such as scenario analysis, loss distribution, scorecard</li> <li>• Definition of OR events</li> <li>• Key risk indicators</li> </ul> </li> <li>– AMA model validation (25%)</li> <li>– AMA requirements/standards (25%)               <ul style="list-style-type: none"> <li>• Qualitative and quantitative</li> <li>• Supervisory assessment/approval</li> </ul> </li> </ul>

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## Pillar 1 (cont)

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### Operational risk

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Advanced measurement approach

- Data (25%)
    - Internal and external data
    - How to counter data insufficiency?
    - Requirements
    - Database development
    - Loss data validation
    - Incorporation of external data
  - Operational risk mitigation (13%)
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## Pillar 2

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- Supervisory review process (44%)
    - Principles of Pillar 2
    - Risk management infrastructure
    - Assessment of banks internal methods
    - Calculation of economic capital
    - Capital planning and allocation
    - Process evaluation
    - Risk-focused assessment
    - Appropriate capital targets (target vs trigger ratios)
  - Stress testing (16%)
  - Interest rate risk in the banking book (16%)
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## Pillar 3

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- International accounting standards (22%)
    - Convergence between Pillar 3 & IAS
    - Ensuring disclosures up to international standards
  - Structure of requirements (22%)
    - Presentation
    - Specimen formats
    - Materiality aspect
    - Frequency
  - Proprietary and confidential info (9%)
-