

INTRODUCTION OF BASEL 2: THE CURRENT STATE OF PLAY

by Andrew Cornford

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Data concerning the introduction of Basel 2 in a large number of countries are contained in a survey of the Financial Stability Institute (FSI) published in October 2006. In this survey responding countries were anonymous. The survey none the less provides an overview of the introduction of Basel 2 by region. These data can be supplemented by country-level information which does not follow a uniform format but in many cases is more up-to-date than that of the FSI survey.

FSI survey: figures and commentary

The October 2006 survey of the FSI on the introduction of Basel 2 followed a similar exercise in 2004. Like its predecessor the 2006 survey is based on a questionnaire sent to 115 countries, of which 98 (85 per cent) responded in comparison with 107 (93 per cent) for the 2004 survey.

- Of the respondents 82 or 84 per cent intend to introduce Basel 2 in comparison with 82 per cent for the 2004 survey. When a country's intends to introduce the approaches, options, and other rules Basel 2, this means that the country's regulators will make them available to financial firms in their jurisdictions. (See Box 1.)
- The data in the 2006 survey are in the form of numbers of countries intending to introduce Basel 2 in six regions (Asia, Africa, Caribbean, Middle East, and non-BCBS Europe) rather than as in the 2004 survey the proportion of banks' assets in these regions expected to be covered by the introduction of Basel 2.
- The data include not only the numbers of countries intending to introduce Basel 2 at the time of the 2006 survey but also the corresponding figures for 2004 (which were not published in the 2004 survey).
- A new feature of the 2006 survey is the quantitative coverage of the introduction of Pillar 2 (supervisory review) and Pillar 3 (market discipline or transparency) of Basel 2. The reviews of progress and outstanding problems under these two Pillars in the 2004 survey were limited to qualitative considerations.

Box 1. Basel 2: approaches, options and rules

Under Pillar 1 of Basel 2 requirements for minimum regulatory capital for credit risk are calculated according to two alternative approaches, the Standardised and the Internal Ratings-Based.

- Under the Standardised Approach (SA) the measurement of credit risk is based on external
 credit assessments provided by external credit assessment institutions such as credit rating
 agencies or export credit agencies. The Simplified Standard Approach (SSA) assembles under
 one heading only the simplest options available under the SA.
- Under the Internal Ratings-Based approach (IRBA), subject to the satisfaction of certain
 conditions, banks use their own rating systems to measure some or all of the determinants of
 credit risk. Under the Foundation version of the Internal Ratings-Based Approach (FIRBA)
 banks calculate the probability of default on the basis of their own ratings but rely on their
 supervisors for measures of the other determinants of credit risk. Under the Advanced
 version of the Internal Ratings-Based Approach (AIRBA) banks estimate their own measures
 of all the determinants of credit risk, including loss given default and exposure at default.

Basel 2 also sets minimum capital requirements market risks (MR) - i.e. those due to the impact on a

¹ Financial Stability Institute, *Implementation of the New Capital Adequacy Framework in non-Basel Committee Member Countries. Summary of the Responses to the 2006 Follow-Up Questionnaire on Basel II Implementation*, Occasional Paper No. 6 (Basel: BIS, September 2006); and id., *Implementation of the New Capital Adequacy Framework in non-Basel Committee Member Countries. Summary of the Responses to the Basel II Implementation Assistance Questionnaire*, Occasional Paper No. 4 (Basel: BIS, July 2004)

bank's portfolio of tradable assets of adverse changes in interest and exchange rates and in the prices of stocks and other financial instruments - according to rules which follow closely the 1996 amendment of Basel 1 for this purpose. This amendment accommodated two alternative ways of setting minimum capital levels for market risk. One involved the use by banks of their own internal risk-management models (IM), and the other a standardized methodology under which capital requirements are estimated separately for different categories of market risk.

To meet the Basel 2 regulatory capital requirements for operational risk there are three options of progressively greater sophistication.

- Under the Basic Indicator Approach (BIA) the capital charge is a percentage of banks' gross income.
- Under the Standardised Approach (SAOR) the capital charge is the sum of percentages of banks' gross income from specified business lines (or alternatively for two of the business lines, retail and commercial banking, of percentages of loans and advances).
- Under the Advanced Measurement Approach (AMA), subject to the satisfaction of more stringent supervisory criteria, banks estimate the required capital with their own internal systems for measuring operational risk.

Pillar 2 of Basel 2 sets rules for supervisory review of capital adequacy. These include setting supplementary levels of minimum regulatory capital for risks which are not covered, or which are inadequately covered, under Pillar 1. Pillar 3 contains rules for disclosure which are intended to strengthen banks' risk management through market discipline.

What follows is a review of the data in the FSI survey by region. For this purpose the focus is mainly on the two years, 2007 and 2009. If a country intends to introduce an approach or option under Pillar 1 or Pillar 2 or 3 by the first of these dates, 2007, it is reasonable to assume that progress towards implementation is already well advanced.

In the data below the number of countries intending to adopt an approach, option, or Pillars 2 and 3 by 2009 is a cumulative figure that includes not only the totals for 2007 but also other countries with less advanced plans for introduction than those already included in the data for 2007.

The 2006 FSI survey also contains data for countries intending introduction by 2008 and 2010-2015. The group intending introduction by 2008 has been omitted from the discussion in the interests of clarity. Countries' plans for introduction during 20110-2015 are assumed to be still preliminary, so that the data for this period is deployed only as needed in particular contexts.

The review below pays particular attention to the following subjects:

- 1. the frequency of the intended introduction of different approaches, options, and rules by 2007 and 2009;
- 2. deferment and abandonment of the introduction of intended approaches and options between the 2004 and 2006 FSI surveys;
- 3. the timing of the intended introduction;
- 4. issues specifically related to the introduction of Pillars 2 and 3.

The problems posed by introduction of the rules of Pillar 2 and 3 vary with the development of countries' financial sectors and supervisory regimes. To quote the text of Basel 2 on Pillar 2, "The supervisory review process of the Framework is intended not only to ensure that banks have adequate capital to support all the risks of their business, but also to encourage banks to develop

and use better risk management techniques in monitoring and managing their risks."² Thus the responsibilities of supervisors under Pillar 2 are not restricted to ensuring mechanical compliance by financial firms with levels of minimum required capital for credit and operational risks but also entail assessment - and thus understanding - of major parts of their governance and systems for internal reporting and control. These responsibilities include setting levels of supplementary capital for risks not covered, or not adequately covered, under Pillar 1. The burden of these responsibilities will obviously be greater for countries with limited supervisory capacity.

In countries where the shares of banks are listed on the stock exchange fulfilment of the transparency requirements of Pillar 3 will generally overlap to a significant extent with the exchange's disclosure rules. Technical problems involving reconciliation of accounting standards and Pillar 3 requirements may still have to be addressed as part of Basel 2 implementation. Moreover, where Pillar 3 is not fully covered by the exchange's disclosure rules, banks will have to deploy alternative means to comply with Pillar 3 such as providing the information on a publicly accessible internet website or including it in public regulatory reports to bank supervisors. Nevertheless in countries with disclosure linked to listing on the stock exchange much of the legal and institutional infrastructure for meeting Pillar 3 requirements already exists.

On the other hand in many developing countries and other countries with still undeveloped financial sectors disclosure may be less developed.

- Banks may not be listed on the local stock exchange owing either to private ownership or to ownership by foreign banks (which themselves may not be not so listed).
- Moreover, more rudimentary accounting standards may also contribute to disclosure falling well short of Pillar 3 transparency.

Ways of tackling these problems exist. Foreign banks' ownership can be limited to a specified percentage of its local subsidiary's equity, thus leaving a residual amount which is listed on the local stock exchange. Alternatively the foreign banks owning local banks can be subject to the requirement that they themselves be listed. Accounting standards and disclosure rules can be upgraded to deal with the second deficiency.

It would probably still be a mistake to read too much into the precise dates given in the regional summaries below. In many countries adoption of Pillars 1 and 2 will be a strain on supervisory capacity to a not foreseeable degree for a considerable time to come, so that postponements and delays are still possible. Moreover further legal changes may still be required for the introduction of Basel 2. However, once the 13 member countries of the BCBS are added to the 82 countries which responded to the FSI's 2006 survey, the sheer scale of the global plans for introduction of Basel 2 is evident

Africa

12 of the 17 respondents to the FSI survey intend to adopt Basel 2

² BCBS, International Convergence of Capital Measurement and Capital Standards A Revised Framework Comprehensive Version (Basel: Bank for International Settlements, June 2006), para. 720.

Percentages of respondents planning introduction

Credit risk	SA	FIRBA	AIRBA
2007	17	0	0
2009	58	25	8

Operational risk	BIA	SAOR	AMA
2007	17	17	0
2009	42	33	17

Pillar 2		
	2007	25
	2009	75

Pillar 3	
2007	17
2009	75

Overall intentions as to introduction of Basel 2 have not radically changed between the 2004 and 2006 surveys. The percentage of respondents intending to adopt Basel 2 remains at a little above 70 per cent. The SA for credit risk and the BIA for operational risk remain the approaches and options likely to be most widely adopted.

- There have been increases since 2004 in the percentages of countries intending to introduce both the SA and the FIRBA for credit risk, and the BIA and the SAOR for operational risk by 2009. The same is true for Pillars 2 and 3.
- A higher percentage of countries is intending introduction of Pillars 2 and 3 by 2009 than of
 the approach for credit risk and the option for operational risk (SA and BIA) expected to be
 most widely introduced by the same date. This suggests a widespread tendency to give
 priority in plans for the implementation of Basel 2 to strengthening supervisory capacity and
 disclosure standards.
- In the 2004 FSI survey under Pillars 2 and 3 concern was expressed by African respondents concerning limitations on supervisory capacity, banks' lack of the historical data (an impediment to the adoption of the IRBA as well as to risk-based supervision and capital management more generally), and to problems regarding transparency and financial reporting.
- The increases found by the 2006 survey in the percentages of countries intending to adopt the FIRBA for credit risk and Pillars 2 and 3 by 2009 point to the efforts of African respondents to tackle these difficulties.

Asia

All the 16 respondents to the FSI survey intend to adopt Basel 2

Percentages of respondents planning introduction

Credit risk	SA	FIRBA	AIRBA
2007	44	19	6
2009	88	50	38

Operational risk	BIA	SAOR	AMA
2007	44	25	6
2009	81	63	25

Pillar 2		
	2007	50
	2009	94

Pillar 3	
2007	38
2009	94

The percentage of respondents intending to introduce Basel 2 has increased between the 2004 and 2006 surveys from 83 to 100 per cent. However, introduction is now expected to take place in accordance with a more gradual timetable.

- The percentage of countries intending to introduce the SA in 2007 has fallen from 67 to 44 per cent between the two surveys, while that of those intending adoption in 2009 has increased from 67 to 88 per cent, and a similar pattern of deferment until 2009 is also evident for most of the other approaches and options as well as for Pillars 2 and 3.
- A significant proportion of respondents intend to offer the most advanced approach and option for credit and operational risk by 2009.
- The great majority of respondents (94 per cent) intend to introduce Pillars 2 and 3 by 2009. This percentage is even higher than the percentage for those intending to adopt the SA by the same date and indicates that in at least some Asian countries more immediate priority in plans for implementation of Basel 2 is being given to strengthening supervisory capacity and disclosure standards than to setting levels of minimum capital for credit and operational risk.
- In the 2004 survey major challenges mentioned under Pillar 2 were the development of supervisory techniques and skills for such purposes as setting levels of minimum capital to supplement those under Pillar 1 in response to local requirements. Major challenges mentioned under Pillar 3 included the introduction of enhanced disclosure in countries unfamiliar with such transparency.
- The substantially increased percentages of countries intending to introduce Pillars 2 and 3 by 2009 in the 2006 survey in comparison with that of 2004 suggests that progress is being made towards achievement of these objectives.

Caribbean

Four of the seven respondents to the FSI survey intend to introduce Basel 2

Percentages of respondents planning introduction

Credit risk	SA	FIRBA	AIRBA
2007	0	0	0
2009	50	25	25

Operational risk	BIA	SAOR	AMA
2007	25	25	25
2009	50	75	25

Pillar 2		
	2007	25
	2009	100

Pillar 3		
	2007	0
	2009	75

The number of countries in a sample of seven intending to introduce Basel 2 has decreased by one between the 2004 and 2006 surveys. The percentage of respondents involved (57 per cent) is the smallest amongst the six regions covered by the surveys. The low level of intended introduction may be due to the importance to the region of offshore banking, a substantial proportion of whose operations consists of fiduciary services which are not especially well adapted to the rules of Basel 2³.

- The figures indicate widespread deferment between the two surveys of the dates at which levels of minimum required capital for credit risk are likely to be introduced.
- The percentages of respondents intending to introduce Pillars 2 and 3 by 2009 increased between the 2004 and 2006 surveys, suggesting the greater priority the majority of respondents are now according to strengthening supervisory capacity and disclosure standards as part of plans to introduce Basel 2.
- In the 2004 survey under Pillar 2 the challenges mentioned included recruiting and training high-quality supervisors, coordination between the supervisors of banks' home and host countries, and implementation of Basel 2 on a consolidated basis. Under Pillar 3 mention was made of the need to promote a culture of transparency in countries where this was still underdeveloped.
- The 2006 survey points to progress under both headings.

Latin America

12 of the 14 respondents to the FSI survey intend to introduce Basel 2

Percentages of respondents planning introduction

Credit risk	SA	FIRBA	AIRBA
2007	33	8	8
2009	42	17	33

Operational risk	BIA	SAOR	AMA
2007	33	33	17
2009	42	33	17

Pillar 2		
	2007	42
	2009	50

Pillar 3	
2007	33
2009	42

The percentage of respondents intending to introduce Basel 2 increased from 73 to 86 per cent between the 2004 and 2006 surveys.

³ A well known example of such services is the provision of fiduciary deposits under which a bank lends a customer's money at the customer's and not its own risk.

- There have been substantial decreases between the 2004 and 2006 surveys in the percentages intending to introduce the FIRBA in 2009 (from 45 to 17 per cent).
- There have also been decreases between the 2004 and 2006 surveys in the percentages of respondents intending to introduce Pillars 2 and 3 by 2009. Significant increases are expected during 2010-2015 in the percentages of countries intending to introduce the different approaches and options for credit and operational risk and of Pillars 2 and 3.
- In the 2004 survey under Pillar 2 attention was drawn to the widespread need in the region to strengthen supervisory capacity, especially for the implementation of the more advanced approaches and options for credit risk, and to the problems posed by Basel 2 for cross-border supervisory coordination. Under Pillar 3 various legal and cultural problems posed by requirements for increased transparency were emphasised.
- The figures under the two headings in the 2006 survey suggest that these problems continue to be a source of time-consuming difficulties.

Middle East

All respondents to the FSI survey intend to introduce Basel 2

Percentages of respondents planning introduction

Credit risk	SA	FIRBA	AIRBA
2007	63	0	0
2009	100	50	0

Operational risk	BIA	SAOR	AMA
2007	50	25	0
2009	88	75	0

Pillar 2		
	2007	63
	2009	100

Pillar 3		
	2007	50
	2009	88

One additional country declared its intention to introduce Basel 2 between the 2004 and 2006 surveys.

- There have been substantial increases between the 2004 and 2006 surveys in the percentages of respondents intending to introduce the SA and FIRBA for credit risk and the BIA and SAOR for operational risk by 2009. There also increases between the two surveys in the percentages of respondents intending to introduce the SA for credit risk and Pillars 2 and 3 by 2007.
- In the 2004 survey under Pillar 2 special attention was drawn to the need for training supervisors to enable them to set levels of additional required minimum capital to cover risks not covered or inadequately covered under Pillar 1. Under Pillar 3 the principal challenge mentioned was to achieve convergence between supervisory and accounting requirements for reporting and disclosure.

• The increases in the percentages of respondents intending to adopt Pillars 2 and 3 in the 2006 survey suggest that significant progress has been made under both headings.

Non-BCBS Europe4

30 of 36 respondents to the FSI survey intend to introduce Basel 2.

Percentages of respondents planning introduction

Credit risk	SA	FIRBA	AIRBA
2007	70	60	20
2009	87	73	70

Operational risk	BIA	SAOR	AMA
2007	67	70	23
2009	83	77	73

Pillar 2		
	2007	67
	2009	80

Pillar 3	
2007	63
2009	73

There has been a decrease between the 2004 and 2006 surveys in the proportion of respondents planning to introduce Basel 2 from 92 to 83 per cent.

- However, among the respondents planning introduction there have been increases between the two surveys in the percentages planning to introduce the great majority of different approaches for credit and operational risk and Pillars 2 and 3 by both 2007 and 2009.
- The exceptions were the advanced approaches for credit and operational risk, AIRBA and AMA. However, the decreases between the two surveys in the percentages planning introduction in 2007 have been accompanied by increases in those planning introduction by 2009, a change indicating deferment rather than an overhaul of the plans of 2004.
- In the 2004 survey under Pillar 2 attention was drawn to weaknesses in both supervisory capacity and legal authority. These were a source of especially important problems for the validation of the more advanced approaches and options of Basel 2 and for setting supplementary levels of minimum required capital for risks not covered or not adequately covered under Pillar 1. Under Pillar 3 attention was drawn to the challenges related to aligning supervisory requirements and accounting standards and to ensuring the accuracy of banks' disclosures.
- Comparison of the percentages intending to adopt Pillars 2 and 3 in 2004 and 2006 suggests that progress is being achieved under both headings.

It would probably still be a mistake to read too much into the precise dates for the different regions in this survey. In many countries adoption of Pillars 1 and 2 will continue to be a strain on supervisory

⁴ European countries which are not members of the Basel Committee on Banking Supervision.

capacity for a considerable time to come. Moreover for both these Pillars as well as for Pillar 3 legal changes may still be required in several countries. However, once the 13 member countries of the BCBS are added to the 82 countries which responded to the FSI's 2006 survey, the sheer scale of the global plans to introduce Basel 2 is evident.

Country-level information

The following summary information concerning the introduction of Basel 2 for selected countries was taken from the sources listed below. Though less comprehensive and systematic than the data in the FSI surveys the information has the advantage of identifying the countries to which it refers.

Developed countries	Date	Approaches	Market risk capital required	
Australia	1Q.2008	All	MR/IM	
Ca na da	4Q.2007	SA, IRBA	MR/IM	
European Union	1Q.2007/2008	CRD	MR/IM	
Japan	2Q.2007	SA, IRBA	MR/IM	
New Zealand	1Q.2008	SA, IRBA		
Norway	1Q.2007/2008	CRD	MR/IM	
Switzerland	1Q.2007/2008	All	MR/IM	
United States	2Q2008 (1)	SA, IRBA	MR/IM	
Developing countries/emerging-market				
with projected date				
Argentina	1Q.2010	SSA	MR	
Bahrain	1Q.2008		MR	
Bermuda	1Q.2009		MR/IM	
Brazil	3Q.2007		MR	
Chile	4Q.2007		MR/IM	
China	2010	SA, IRBA	MR/IM	
Hong Kong SAR	1Q.2007/2008	SA, IRBA	MR/IM	
India	3Q.2008/2009	SA	MR	
Indonesia	2010		MR/IM	
Jordan	1Q.2008			
Korea, Rep. of	4Q.2007	All	MR/IM	
Kuwait	1Q.2006			
Malaysia	1Q.2008/2010	SA, FIRBA		
Mauritius	3Q.2008			
Mexico	4Q.2007		MR	
Pakistan	1Q.2008/2010	SA, IRBA	MR/IM	
Philippines	3Q.2007	SA	MR/IM	
Saudi Arabia	1Q.2008			
Singapore	2008	All	MR/IM	
South Africa	1Q.2008	SA	MR/IM	
Sri Lanka	2008	SA		
Taiwan (China)	2007	6.4		
Thailand 	2008	SA		
Turkey	1Q.2008		MR/IM	

Developing/emerging-market countries without projected date

Albania, Colombia (MR/IM), Croatia, Egypt, Israel (MR/IM), Kenya, Montenegro, Nigeria, Panama (MR), Russia, Serbia, Tanzania, UAE, Uganda, Uruguay, Zambia.,

Notes

In the case of member countries of the EU the new Capital Requirements Directive (CRD) broadly follows Basel 2. The CRD is to be implemented at the beginning of 2007 for banks using the simpler, standardized approaches to capital requirements, and at the beginning of 2008 for banks using the advanced approaches.

For other countries or territories the approaches permitted or expected to be introduced are identified as follows: Standardised Approach (SA), Simplified Standard Approach (SSA), Internal Ratings-Based Approach (IRBA), Foundation version of Internal Ratings-Based Approach (FIRBA), Advanced version of the Internal Ratings-Based Approach (AIRBA), Basic Indicator Approach to operational risk (BIA), Standardised Approach to operational risk (SAOR), and Advanced Management Approach to operational risk (AMA). (See Box 1.)

If banks are subject to capital requirements for market risk according to the rules of the 1996 Amendment of the Capital Accord to Incorporate Market Risks, the country is identified by "MR." If banks are also permitted to use internal models to set these requirements, the country is identified by "MR/IM".

In the *United States* the introduction of Basel 2 will begin in 2008. Banks with consolidated total assets of at least USD 250 billion or consolidated total on-balance-sheet foreign exposure of at least USD 10 billion ("core banking organisations") will be required to introduce the AIRBA for credit risk and the AMA for operational risk. Other banks ("opt-in banks") will be permitted to adopt these advanced approaches if they meet the qualification requirements. For banks not adopting the advanced approaches two alternative options will be available: (1) to remain on Basel 1; or (2) to adopt a Standardised Approach closely based on Basel 2 but on which work is not yet complete.

In *India* foreign banks and Indian banks with an operational presence outside India are required to introduce the SA for credit risk and the BIA for operational risk as of 31 March 2008. Other scheduled commercial banks are to introduce these approaches not later than 31 March 2009.

In *China* large banks with overseas operations will be required to introduce Basel 2 by 2010. Postponements of this deadline of up to three years can be requested by other banks. Large banks are under pressure from the regulator to introduce the AIRBA:

Sources

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Andrew Cornford Geneva, July 2008