

Review of Basel II Implementation in Low-Income Countries

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Executive Summary

- 1) This study examines the implementation of Basel II in low-income countries (LICs). The aims are to assess the low-income countries' views and concerns on Basel II, whether and how they intend to implement the new Basel Capital Accord, and the challenges they may face in doing so. The study discusses in particular the possible implications of Basel II implementation for competitiveness of LIC banking sectors and financial inclusion. Access to credit by the private sector, including SMEs is a particular important issue in the context of scaling up of aid to LICs and the MDGs. This will facilitate an appropriate supply-side response to minimise possible capacity absorption problems caused by increased aid.
- 3) The study finds that most LIC countries are adopting a very cautious approach towards Basel II. Their intentions are first to understand how Basel II works and to have a better grasp of their possible implications, in order to be able to adopt an informed decision on the issue. Such countries also feel they have previous tasks to complete within Basel I more generally within banking regulation before they tackle Basel II.
- 4) The IMF and the Basel Committee say they share this caution and do not push LICs to adopt Basel II. However, there seems to be pressure from international consulting firms, rating agencies and other for countries to adopt Basel II.
- 5) Major challenges comprise the need to build long and reliable data base to run sophisticated risk assessment models, and to build supervisors' capacity to assess, validate and monitor the use of such models. But the issues facing LICs are not simply – or even mainly – technical. There are also broader issues, such as competitiveness of national and foreign banks, access to credit by SMEs, potential increased pro-cyclicality of bank lending resulting from Basel II and their macroeconomic impacts.
- 7) For many LICs foreign banks represent a large proportion of their assets. These banks intend to adopt the most complex (IRB) approaches in the countries where they operate. However, LIC regulators are likely to opt for the simplified approaches. If they let foreign banks adopt the more complex approaches, this would imply loss of supervisory power over foreign banks. The alternative of imposing the simplified approach for all banks would probably meet strong resistance from foreign banks, and the latter may even threaten to pull out if this happens. Equally seriously, foreign banks could actually pull out from countries which represent a small share of their assets and liabilities. This is an area of potential conflict between foreign banks and host regulators.
- 8) Therefore, LIC regulators may not need just technical assistance but also more 'political' support for their negotiations on regulations with international banks to ensure that their regulatory regime is consistent with national aims for both financial stability and sufficient credit, especially to SMEs and micro-finance.
- 10) Furthermore, if LIC regulators propose the simplified approach to local banks, while permitting foreign banks to adopt the more complex ones, a possible negative implication

is that foreign banks would have competitive advantage over local banks. This would happen because the more complex approaches are likely to result in less capital requirements. A competitive advantage obtained through the adoption of such approaches could, in turn, lead to banking concentration favouring foreign banks in detriment to local ones.

11) The use of such risk based IRB models by foreign banks to determine the amount of capital to be allocated for different types of borrowers is, moreover, likely to result in both more expensive and rationed credit to borrowers perceived as of higher risk, and more and cheaper credit to borrowers perceived as of lower risk. This can cause concentration in banks' credit portfolio away from small borrowers and SMEs and towards the larger companies. Furthermore, portfolio concentration implies that risk is being concentrated thereby making financial institutions more vulnerable to shocks and unexpected changing circumstances. This goes against the intended objective of regulatory measures, which is to reduce risks and vulnerabilities to which banks are normally exposed.

12) The use of risk-sensitive models is moreover bound to result in these models detecting an increase in the probability of default during economic downturns. This may lead to both increased cost and reduced quantity of credit, thus accentuating such downturns. This could be very negative for helping achieve the MDGs. In LICs, pro-cyclicality may be somewhat mitigated with the adoption of the simplified approach, but for that the host regulators would have to be able to enforce its adoption among foreign banks. There is, however, uncertainty about whether and how they will be able to do it.

13) Although LIC regulators are keen to learn about Basel II, little technical assistance is being provided – at least to those we have interviewed. However, in light of the issues raised above, higher levels of technical assistance to LICs are required, particularly in the following areas:

- (a) Specific technical aspects to train regulators to better implement Basel II in the context of improved banking regulation.
- (b) Broader analysis and understanding of the impact of different approaches to Basel II on credit creation, its cyclicity and distribution, competitiveness of domestic and foreign banks, and so forth.
- (c) Because several of these issues affect many LIC countries in relatively similar ways and raise common challenges, it would seem valuable to discuss the issue at a high level meeting, hosted for example by the African Development Bank during its Annual meeting, with participation from the IMF, Basel Committee, DFID, Bank of England and FSA and especially African Central Banks.

I. Introduction

This study examines the implementation of Basel II in low-income countries (LIC). The aims are to assess the low income countries' views and concerns on Basel II, whether and how they intend to implement the new Basel Capital Accord, and the challenges they may face in doing so. The study in particular discusses the possible implications of Basel II implementation for competitiveness of LIC banking sectors and financial inclusion.

Specifically, the study addresses the following questions:

- To what extent will Basel II be implemented by LIC regulators? What is the timetable? What approaches are being proposed for adoption? What are the main obstacles for implementing the different approaches? Are possible variations being considered?
- What are the main challenges facing regulators? Lack of human, financial resources? If a LIC is planning to implement the IRB approach (which is more complex), is there sufficient capacity to validate models? Should the focus be on other regulatory issues, which need to be done previous to implementing Basel II?
- What about banks' preferences regarding the adoption of Basel II?
- Would banks that adopt the IRB approach (usually international banks) have competitive advantage over banks that adopt, or are asked to adopt, the standardised (simpler) approach? Is it a concern that this might cause a division of labour between banks, with small and riskier borrowers migrating to banks (usually national ones) that use the standardised approach?
- What can be done to mitigate possible negative impacts of implementation of Basel II on access to credit by the poor and SMEs?
- To what extent LIC regulators/others feel Basel II should be adapted to their own needs and circumstances?
- What is the role for technical assistance? Who should provide it? How can some of the key broad unresolved issues for LICs best be discussed and tackled?

The study finds that most LICs are adopting a very cautious approach towards Basel II. Their intentions are first to understand better how Basel II works and to have a better grasp of their possible implications, in order to be able to adopt an informed decision on the issue. It is a 'better wait' approach. Furthermore, several LIC countries feel that they have previous tasks to complete within Basel I or more generally within banking regulations before they tackle Basel II. The IMF and Basel Committee say they share this caution and do not push LICs to adopt Basel II. However, there seems to be pressure

from international consulting firms, rating agencies and others for countries to adopt Basel II.

A few other LICs are already signalling a move towards Basel II. However, they intend to do so in a gradual fashion. For some countries, gradualism means starting with Pillars II and III, and later moving to Pillar I. For other countries, it means adopting first a simplified version of the standard approach under Pillar I, with no clear timetable for moving on to more sophisticated approaches later on.

The LICs' cautious attitude reflects their awareness about the complexities that Basel II involves, and their lack of human and financial resources to deal with these complexities. Major challenges comprise the need to build long and reliable data bases to run sophisticated risk assessment models, and to build supervisors' capacity to assess, validate and monitor the use of such models. But the challenges LICs face are not exactly the same. They can differ across countries according to the country's size (population, absolute GDP) and whether the country harbours foreign banks in its jurisdiction.

Regarding size, obviously large countries such as India do not face extremely serious human capacity constraint and thus are able to consider adopting Basel II soon (although through starting with the less complex approaches) – than for example Lesotho, which for being so small face acute human capacity limitation and therefore has not decided yet whether to implement Basel II, even though its per capita income may be higher than India's.

As for the presence of foreign banks, a continuum among LICs can be found as regards the presence of foreign banks in their jurisdictions. At the one end we can find countries with no foreign banks while at the other end there are countries where all banks are foreign. Ethiopia for example has no foreign banks, which implies it does not face the pressing issue of how to deal with foreign banks keen to adopt the most sophisticated approaches, and therefore can take the time to build capacity for Basel II implementation. At the other end one can find Botswana and Lesotho, where all commercial banks are foreign. These countries have therefore to deal with Basel II issues even if they decide not to adopt the new capital accord in the foreseeable future, as foreign banks will be wishing to adopt this approach globally. Though formally LIC regulators have the freedom to require all banks in their jurisdiction to follow a certain regulatory approach, foreign banks have great deal of leverage given their option of pulling out, if national regulations are not convenient for them. This could become a serious problem for LIC economies.

Given the pressing need for building up capacity to deal with Basel II, at present LICs' efforts are concentrated on building such capacity through participation in various activities and events such as local and foreign seminars, and training programmes. This leaves little space for discussion on possible broader negative implications of Basel II for their banking systems. This is the case even when LIC regulators are aware of these implications as a result of their own reflections and learning process. It may therefore be useful to provide support to individual countries to allow them to analyze their own situation and reflect on what regulatory regime is most appropriate for them. Furthermore, regional seminars where these broader issues are discussed and options on

how best to overcome them seem highly desirable. Seminars hosted, for example, by the African Development Bank, with the participation of the IMF, Basel Committee, DFID, and high level participation from African Central Banks and regulators would seem an important initiative. The Annual Meeting of the African Development Bank could, for example, be an appropriate occasion for such a seminar, as it would put the analysis of Basel II, and banking regulation, in the broader context of its' impact on macroeconomic policy and on long-term development prospects.

Further important findings of this study are that, first, in countries with foreign banks there is scant evidence of collaboration between home and host regulators. This despite the fact that host regulators know collaboration is crucial and that Basel II documents emphasise the need for such collaboration; and second, that very little technical assistance (TA) is being provided at present.

The remainder of this study is organised as follows. Section 2 provides brief information on what Basel II is followed by an overview of the current discussion on Basel II. The aim is to show that even among the G-10 countries Basel II implementation is far from consensual yet, due to concerns in certain jurisdictions about its implications in terms of costs, competitiveness and even systemic stability. Section 3 discusses what options that are being considered by LICs regarding Basel II implementation. The section starts with providing a global picture on what countries intend to do, which is then contrasted by Africa's picture and country-specific information. Section 4 presents what the main issues facing LICs are. Section 5 concludes, with suggestions on how LICs should deal with Basel II, and discusses possible TA in support of Basel II implementation.

II. Basel II and Overview of Current Debate

II.1. Background information: What is Basel II?

The main purpose of the New Basel Capital Accord (or Basel II) approved by the Basel Committee on Banking Supervision in June 2004 is to further strengthen the soundness and stability of the international banking system, through encouraging banks to improve their risk management practices. This is a very positive objective, as are incorporating new risks into allocation of capital and enhancing transparency.

But the main novelty and challenges for banks and regulators world-wide concern the new rules under Pillar I for capital requirements. The minimum capital adequacy level at 8 per cent recommended by Basel I is maintained, but there is an increased differentiation of risk through the recommendation of three alternative approaches for determining risk for different types of assets: the standardised approach, the foundation internal risk based (F-IRB) approach and the advanced IRB (A-IRB) approach. Under the standardised approach, different risk levels can be assigned to different categories of assets, and the approach allows for external rating agencies to determine risk levels. The basic and advanced IRB approaches differ from the standardised approach in that they require the use of internal modelling techniques to measure risk. The difference between the latter two approaches is that under the foundation IRB approach banks can use their own

models to determine default risk, but the parameters for loss given default is furnished by the regulatory authorities. In the case of the advanced IRB approach, banks are allowed to determine through their modelling techniques and data base both default risk and loss given default.

In addition, the new accord requires the allocation of capital for operational risk (in addition to credit and market risks, international exposure and other risks), and proposes three methods for measuring this type of risk: the basic indicator method (BIM), the standard indicator method (SIM) and the advanced measurement method (AMM).

Box 1. The Three Pillars of Basel II

The new framework has three mutually reinforcing pillars: 1. The minimum capital requirement, 2. The supervisory review and 3. Market discipline. Pillar 1 is about setting the minimum capital requirement for credit, market and operational risks. Pillars 2 and 3 relate closely to the Basel Committee's Core Principles for Effective Banking Supervision (BCP), but in this new context in which new risk management systems are encouraged for adoption, emphasis is put on supervising the quality of banks' new systems for risk assessment (Pillar 2), and on disclosure of information on risk management practices and on different types of risk exposures, along with disclosure of other types of information, such as banks' financial performance and financial position (Pillar 3; Basel, 2004).

The new framework has been designed primarily for adoption by the G-10, and the Basel Committee originally expected this group of countries to be ready to implement the framework by the beginning of 2007. At the same time, the Basel Committee recognises that many non-G-10 countries world-wide may wish to adapt the new framework to their own national realities and circumstances, and to have their own timetable for adopting the new rules. The Committee goes further to say that national regulators should aim to ensure the regulatory systems in their countries meet certain pre-conditions before attempting to implement the new framework in its entirety. The Basel Committee specifically recommend a sequencing approach, in which national regulators should aim for strengthening the country's regulatory infrastructure through the implementation of Pillars 2 and 3, which deal with supervisory systems and market discipline (see Box 1); only when these Pillars are firmly in place, should they focus on Pillar 1. This suggested approach reflects a major concern that many countries face limited resource capacity (human, financial) to implement Basel II, and that efforts to adopt the Pillar 1 may have the undesirable effect of diverting resources needed to ensure a satisfactory level of compliance with the Basel Core Principles (BCP), many elements of which are embodied in the Pillars 2 and 3. Furthermore, bodies like the IMF – which provides technical assistance to countries in banking regulation, as well as evaluating their financial systems through FSAPs, etc – insist that it will not press countries to adopt Basel II or the more advanced approaches within Basel II.

II.2. Current developments and where the debate stands

As the January 2007 deadline approaches, developments on the ground are somewhat different from what the Basel Committee has recommended. Countries from the European Union (EU) are set to comply with the new Basel rules from January 2007, as they are legally bounded to that after the EU passed a Capital Requirements Directive in September 2005. The same deadline applies to other advanced countries in Asia.

However, banking regulators in the US decided to delay adoption at least until January 2009. At the same time, they are proposing adoption of different approaches for the US banks. In September 2006, the four American regulators proposed that the IRB approach should apply to the largest and internationally active banks only (26 in total). For the remaining banks, the US regulators are proposing a revised version of the existing capital rules known as Basel IA.

Moreover, whichever option proposed by the US regulators is adopted, banks will have to observe a 3 per cent 'tier 1 leverage ratio' (core capital as a percentage of non-risk weighted assets) as a supplementary safety measure, a leverage ratio that has been in place since 1992 following the housing-loan crisis in 1991. The purpose is to establish a floor for capital requirements to avoid the possibility that in some cases the internal risk models may result in too low capital allocation by banks. This move has, to an important extent, been a response to the fourth quantitative impact study (QIS-4) conducted in 2005, which showed a significant drop in the amount of minimum regulatory capital by banks and a wide variation in impact on individual banks. This raised fears of banks' under-capitalisation and potential risks to banks' stability of implementing the IRB approach. Furthermore, there had been pressure from the smaller US banks for a more even playing-level field, given they would not adopt the IRB approach and would therefore not have these major savings of capital, finding it difficult to compete with the large banks.

The largest US banks have reacted strongly to the maintenance of the leverage ratio, by threatening to abandon Basel II altogether. This is because they have incurred high costs in their preparations for Basel II, and in their view the leverage ratio works as an impediment for capital relief when they reduce risk in their portfolios, which was their aim in supporting the development of Basel II (Bank Risk Regulator, 2006). Even in Europe Basel II as currently proposed by the EU is being contested. The European Shadow Financial Regulatory Committee (ESFRC), which is formed by finance professors, strongly supports some sort of US-style leverage ratio to avoid that capital falls below a minimum level which could compromise financial stability. Also, European central bankers and regulators are raising related issues of concern. Economists from the Swiss National Bank affirm that

'risk-measurement and information-asymmetry issues, which are inherent to banking activities, prevent the implementation of first-best capital adequacy rules, ie capital requirement that fully and exactly reflects banks' risks' (Global Risk Regulator, 2006, p. 21).

and Alastair Clark, adviser to the governor of the Bank of England, alerts to the fact that at least in principle Basel II might increase pro-cyclicality of credit provision due to the fact that not only banks' capital tend to fluctuate over the business cycle but also the measures of risk-weighted assets (Global Risk Regulator, 2006, p. 15). This concern is similar to that expressed by well known academics in the UK, such as Charles Goodhart, concern which was supported by empirical evidence in some of our previous work on Basel II funded by DFID (*see below section* on pro-cyclicality for more details).

The lack of consensus in the developed world and especially in the US, and the resulting different paths countries within the G-10 are adopting, are in turn creating tensions amongst the banks themselves, partly because the existence of different rules across jurisdictions raises competitive issues, partly because their subsidiaries in other jurisdictions will have to comply with different rules, thus creating challenges in reconciling numbers to be provided to the foreign jurisdiction (The Economist, 4th November, 2006). More specifically, for example, home-host relations in concrete technical matters, such as validation of models, differ amongst different European countries. All this suggests that Basel II comprises a complex set of rules on which consensus is far from being reached, particularly due to their possible implications for competitiveness and financial stability.

In light of the current level of discord, there is no reason why countries outside the G-10 and particularly LICs should be pressured to implement Basel II. Notwithstanding this and the fact that the Basel Committee itself recommends a measured, sequenced approach to many non-G-10 countries, as does the IMF, it will be seen below that a vast majority of countries world-wide intend to implement Basel II at some point soon partly because they may feel explicit or implicit pressure to do so coming from international consultants, rating agencies and large international banks when these are active in their countries.

However, it should be mentioned that even though many countries say they will implement Basel II quite soon (see section immediately below), *in practice they often postpone several times actual implementation (interview material)*; this gives a somewhat false sense of rapid compliance with Basel II.

III. What do Countries intend to do in terms of Basel II implementation?

III.1. Global versus Regional Pictures

The Financial Stability Institute (FSI) has conducted a survey in 2004 and a follow-up survey in 2006 on implementation of Basel II in non-Basel Committee member countries (see Financial Stability Institute, 2006). The survey shows that 84 percent of all respondents worldwide intend to adopt Basel II between 2007 and 2015 – see Table 1. As discussed above, these intentions seem somewhat overoptimistic as countries often postpone Basel II implementation beyond their initial timetable due to technical obstacles and other considerations.

Table 1: Number of Countries intending to adopt Basel II

Regions	Number of Respondents	Respondents intending to adopt Basel II	Percent % in total
<i>Africa</i>	<i>17</i>	<i>12</i>	<i>71</i>
Asia ¹	16	16	100
Caribbean	7	4	57
Latin America	14	12	86
Middle East	8	8	100
Non-BCBS Europe	36	30	83
Total	98	82	84

¹ Excludes Japan as BCBS member-countries were not included in the survey.

As can be seen from Table 1, the results are aggregated on a regional basis and do not distinguish among countries with different levels of development.

Under Pillar 1, the standardised approach is expected to be the most widely used option of the three credit risk methodologies available for calculating capital ratios – 85 per cent of respondents planning to adopt Basel II intend to use this approach, while 67 and 55 per cent of all respondents intend to adopt the FIRB and AIRB approaches respectively. As regards operational risk, the basic indicator method is expected to be the generally adopted framework. Moreover, many countries are expected to implement Pillar 2 and 3 before the end of 2015 (Financial Stability Institute, 2006).

Basel II by regions

In Asia, 100 per cent of respondents intend to implement Basel II at some point over 2007-2015. This is quite striking given that a fairly large numbers of low-income countries are located in Asia. But more detailed information from the FSI survey shows that intention of adopting Basel II does not necessarily mean doing it now. According to the survey, only 7 out of a total of 16 respondents intend to adopt the standardised approach by 2007, while 3 intend to adopt the FIRB approach and 1 the AIRB approach in that year. This means that 11 countries at the maximum (but probably less than that) out of 16 intend to implement Basel II in 2007 through adopting one of the three options offered under pillar 1. However, a big jump in numbers can be observed for the year 2008, when 14 respondents expressed intention of adopting the standardised approach, 7 the FIRB approach, and 5 the AIRB approach.

In Latin America, 86 per cent of respondents intend to implement Basel II between 2007 and 2015. The lowest adherence rate is observed in the Caribbean, where only 57 per cent of respondents expressed plans to implement Basel II until 2015. This considerably lower rate is probably due to the small size of Caribbean countries and therefore their lack of human resources to deal with Basel II, even though they are either middle- or high-income countries.

Basel II in Africa

In Africa, 71 per cent of respondents intend to implement Basel II. This figure is lower than the other regions (except the Caribbean), but still fairly high.

However, looking more carefully at the results from the FSI survey, we can see that implementation of Basel II in Africa will be very gradual. In 2007, only two countries intend to move to Pillar 1, and both countries plan to do so through adopting the standardised approach. The two countries account for just 12 per cent of the total number of respondents in the continent. This implies that the 10 other countries that intend to adopt Basel II will either start later than 2007 or will start that year through implementing Pillars 2 and 3 first. The number of countries adopting the standardised approach then increases gradually to nine – or 53 per cent of the total – in the period 2010-2015 (see Table 2). Adoption of the FIRB and AIRB approaches are intended to start in 2008, with a total of respectively 6 and 4 countries adopting them until 2015 (see also Table 2).

Table 2. Number of countries adopting the different credit risk approaches over 2007-2015

	2007	2008	2009	2010-2015
Standardised	2	6	7	9
FIRB	0	2	3	6
AIRB	0	1	1	4

Source: Financial Stability Institute (2006).

The FSI results are fairly consistent with our own survey, based on selected interviews with banking regulators in Sub-Saharan Africa and information available on their websites.

Those banking regulators from Africa we interviewed that intend to implement Basel II in the near future will start either with pillars 2 and 3 first, or will start with pillar 1 by adopting first the standardised approach. It will be seen below that the possibility of moving to the more advanced approaches under pillar 1 is left for the very long term.

A more complete study conducted by the FSI in 2004 shows that the main reason pointed by banking regulators for this cautionary approach is lack of capacity and that therefore building capacity through expertise upgrading and information sharing are seen as very important for effective Basel II implementation.

III.2. Findings from our country interviews

Our findings are based on interviews conducted with 8 countries in total, all from Sub-Saharan Africa. These were: Botswana, Ethiopia, Ghana, Kenya, Lesotho, Tanzania, Uganda and Zambia. In addition, detailed information has been obtained on India by drawing on previous studies and press reports, and an interview was conducted with an ex-banking regulator from the Caribbean, who reported the current thinking in the region and challenges for implementing Basel II. Furthermore, we have had extensive interviews with IMF officials involved in assisting countries with bank regulation.

What have we found?

On the basis of our sample of countries, it is possible to affirm that one of the biggest challenge facing LICs is lack of human skills and resources to deal with Basel II issues. In light of that, most bank regulators have not decided yet when or how they are going to implement Basel II in their countries. At present, they are still trying to understand how Basel II works and to have a better grasp of their possible implications, in order to be able to adopt an informed decision on the issue. It is a 'better wait' approach.

But some countries have already undertaken the decision on how to move forward. Basically, they are intending to adopt a gradual approach. This approach reflects a cautious position, due to the difficulties and challenges that implementation of Basel II will involve.

Zambian regulators, for example, have informed us that they will start with pillars II and III, and in a second phase move to pillar 1 with the adoption of the simplified standardised approach. Moving to the IRB approach will only happen once they have built a data base and capacity within the Central Bank. A timetable for adoption of the various phases has not been set yet.

Box II. Basel II Implementation in the Caribbean Region

An interview was also conducted with a former Caribbean regulator. Although the Caribbean countries are not low-income countries, they are small economies and therefore face similar challenges such as acute resource limitations. It is interesting that countries such as Trinidad and Tobago are also only thinking of implementing the standardised approach and have deferred implementation until 2010 at the earliest. They also believe foreign banks may make dual calculations, one for their home regulator and one for the host country.

A Caribbean concern is that they also do not have a tradition of rating agencies. It is interesting that Central Banks have allied themselves with banks and Standard and Poor (as shareholders) to create a rating agency that fits with the Basel process. The existence of rating agencies would help deepen capital markets in the region, by facilitating rating of corporates, essential for bond issuance. More generally, Caribbean regulators are trying to collaborate regionally via the Caribbean Group of Regulators to do studies to try to implement Basel II in a uniform way. The approach to developing a public-private rating agency and especially regional collaboration could also be valuable initiatives for African countries. Indeed, countries like Kenya, Tanzania and Uganda are attempting to collaborate for analysing Basel II implementation. However, they face resource limitation for that. Unfortunately, even in the Caribbean, there are not enough staff and resources to do it properly.

Developing and strengthening regional groupings of regulators seems particularly important as reportedly the Basel Committee is attempting to increase consultation and involvement with developing countries via such regional bodies (for example, ASBA¹ in Latin America). Two concerns emerge about this. Firstly, African regulators interviewed had not heard about such regional links with the Basel Committee. Secondly, and more

¹ ASBA stands for *Asociacion de Supervisores Bancarios de las Americas*.

broadly, consultation is not enough, and representatives from developing countries – including LICs – need to be brought into the decision process.

A noteworthy feature in the Caribbean countries is that banks lend a great deal to each others' governments; this has ratings implications, as sovereigns are highly rated.

It was confirmed that in the Caribbean the IMF and World Bank do not put pressure on countries as to when to implement Basel II, nor through what modality. However, rating agencies and consultants – keen for business – are putting pressure on countries.

The type of training required by Caribbean regulators is very practical and targeted. It was also emphasised that it is important to train trainees who can then help train others.

Other countries have set a date for implementing the simplified standardised approach – Ghana regulators for example, have informed that they intend to adopt the simplified approach in 2008. Table 3 below reports the timetable for implementation of Basel II for selected low-income countries.

Table 3: Timetable for implementation of Basel II in low-income countries

Country	Credit Risk			Operational Risk		
	<i>STA</i>	<i>FIRB</i>	<i>AIRB</i>	<i>BIA</i>	<i>SA</i>	<i>AMA</i> ¹
Vietnam	End-08	Q4-08	End-08	Q4-8	Q4-08	Q4-08
Bangladesh	Jan-09	Not decided	Not decided	Jan-09	Not decided	Not decided
Botswana ²	Not decided	Not decided	Not decided	Not decided	Not decided	Not decided
India	Apr-09	Not decided	Not decided	Apr-09	Not decided	Not decided
Nepal	Jan-07	Not decided	Not decided	Jan-07	Not decided	Not decided
Pakistan	Jan-08	Jan-10	Jan-10	Jan-08	Jan-08	Not allowed
Ethiopia	Not decided	Not decided	Not decided	Not decided	Not decided	Not decided
Ghana	2008	Not decided	Not decided	End-06	End-09	Not decided
Kenya	Not decided	Not decided	Not decided	Not decided	Not decided	Not decided
Lesotho ²	Not decided	Not decided	Not decided	Not decided	Not decided	Not decided
Sierra Leone	Not decided	Not decided	Not decided	Not decided	Not decided	Not decided
Tanzania	Not decided	Not decided	Not decided	Not decided	Not decided	Not decided
Uganda	End-10	Not decided	Not decided	End-10	Not decided	Not decided
Zambia	End-08	Not decided	Not decided	End-08	Not decided	Not decided

Sources: Standard Chartered Bank; Central Banks' websites; interviews and email communication.

¹ Standardised Approach (STA); Foundation Internal Ratings Based (F-IRB) Approach; Advanced Internal Ratings Based (A-IRB) Approach; Basic Indicator Approach (BIA); Standardised Approach (SA); and Advanced Measurement Approach (AMA). ² Middle-income country.

IV. What Are The Issues?

The vast majority of countries are adopting the ‘better wait’ and the gradual approaches, in face of the huge challenges posed by Basel II.

1) Capacity to validate models and monitor their use

A major challenge facing LIC regulators is their insufficient technical capacity to validate the more complex models (F-IRB and A-IRB models) that Basel II proposes for use, and to monitor their use. Related to this is the lack of sufficiently long and reliable data base available to banks, including international ones, to be able to run the models adequately. This is the main reason why LIC regulators, if and when they implement Basel II, do not intend to adopt the more complex approaches.

In addition to the more complex models, the Basel Committee also proposes the use of the standardised approach. This approach differs from the more complex ones in that it relies on credit rating agencies to determine the risk level for different categories of borrowers. But because LICs do not have domestic rating agencies (and if they have them their penetration is very low) and the process of establishing credit bureau systems is only at the initial stages, they are not even considering adopting the standardised approach. Instead, their intention is to adopt a simplified version of such an approach – the so-called simplified standardised approach – in which the risk weights for different categories of assets are fixed and pre-determined by the regulatory authorities. This latter approach, which can be found in Annex 11 of Basel II documents – see Basel (2006), is very similar to Basel I, but differs from it for having more risk buckets.

It should be emphasised that the issues facing LICs are not simply – or even mainly – technical. There are also broader issues, such as competitiveness of national and foreign banks, access to credit to SMEs, potential increased procyclicality of bank lending resulting from Basel II and their macro-economic impact, discussed below.

These broader considerations need to be carefully analysed by LIC economic authorities; it would seem helpful for a conference to be organised on Basel II in the context of these broader issues as a basis for decision making on Basel II implementation as well as possible modifications.

2) Presence of Foreign Banks

However, postponing implementation of Basel II or opting for the simpler approaches for determining credit risk is not an easy option either. The main reason is that most LICs have foreign banks (see Table 4), and these banks intend to adopt the most complex approaches (F-IRB and A-IRB) in the countries where they operate through their subsidiaries and branches.

Table 4: Variation in ownership structure across low-income countries, where available

Mainly Govt	Mainly Foreign	Foreign+Govt	Equally Shared	Mainly Local
Eritrea	Botswana	Burkina Faso	Burundi	Benin
Ethiopia	Central Afr Republic	Congo, Dem. Rep.	Ghana	Mali
Togo	Chad	Sierra Leone	Kenya	Mauritania
	Côte d'Ivoire		Rwanda	Somalia
	Gambia, The		Senegal	Sudan
	Guinea-Bissau			Zimbabwe
	Liberia			
	Madagascar			
	Malawi			
	Mozambique			
	Niger			
	Tanzania			
	Uganda			
	Zambia			

Source: World Bank (2006)

Note: Mainly government (foreign; private) means more than 60% of total assets are held by banks which are majority-owned by government (foreign; local private) shareholders.

Foreign+Government means these two together concentrate more than 70%. Equally shared is a residual category (in Senegal, foreign plus private local add to more than 70%).

The question then is: how should LIC regulators deal with these banks?

Botswana and Lesotho (not strictly LICs) are extreme cases in that these countries have only foreign commercial banks in their jurisdictions. Neither country has decided yet whether or how to implement Basel II. They still have a number of pre-requisites to meet before they move to Basel II in a major way. Botswana for example still has to fully comply with the Basel Core Principles, put in place a risk-based supervision – Pillar 2 of Basel II – and build an adequate legal and regulatory framework.

Moreover, neither Botswana nor Lesotho has domestic rating agencies. Therefore, it is most likely that, if and when they adopt Basel II, it would seem to justify adopting the simplified approach (Annex 11). Allowing foreign banks to adopt the F-IRB or A-IRB would imply loss of supervisory power in their jurisdictions, as they still do not have the technical capacity to validate these models or monitor their use.

Of course, countries where foreign banks co-exist with local ones would face similar problems. If they adopted the simplified approach for local banks, while letting foreign banks adopt the more complex approaches, this too would imply loss of supervisory power over the foreign banks. In light of this, ***the most appropriate response might instead be to enforce the simplified approach to all banks, local and foreign. But would this be feasible?***

Compliance with the simplified approach to meet the regulatory requirements in the host country implies that foreign banks would have to have a double reporting system – one for the home regulators, the other for the host regulators. European banks are already unhappy with the lack of regulatory homogeneity between the US and Europe, as it implies higher challenges, and will certainly oppose to it happening again between their home countries and LICs where they have subsidiaries. Undoubtedly, this is an area of potential conflict between foreign banks and host regulators. Moreover, the simplified

approach is expected to require higher capital levels, thereby creating further tensions between foreign banks and host regulators as well as the competitiveness issues with national banks, discussed below.

The tension could be mitigated by the home regulators, depending on how they set the rules for global versus country allocation of capital. For example, it might be the case that if capital requirements are higher in a specific LIC due to the imposition of the simplified approach, the bank might be able to accommodate this higher requirement without an impact on the bank's global capital allocation. But this will depend on how the global allocation rules are set by the home regulator, and also on the banks' portfolios. Presumably, banks with their credit portfolios concentrated in developed countries will have more room to absorb higher capital requirements in LICs without an impact on its global capital requirement levels than banks with stronger presence in the developing world.

Although formally LIC regulators have the right to tell foreign banks which approach (e.g. standardised) they should follow, foreign banks then have the option of pulling out of the country. This may be particularly relevant for large foreign banks, mainly active in developed economies, for whom the scale of operations in an individual LIC country is very small in relation to their total operations. Reportedly, this would be less the case for international banks more concentrated in operations in LIC countries.

Furthermore, the threat of possible withdrawal, especially if the foreign bank holds an important part of the banking system's assets and liabilities, may be highly problematic and put pressure on host regulators to comply with banks' regulatory preferences (e.g. bias towards IRB). Therefore, ***LIC regulators may not need just technical assistance but also more "political" support for their negotiations on regulations with international banks to ensure that their regulatory regime is consistent with national aims for both financial stability and sufficient credit, especially to SMEs and micro-finance.*** Further research seems required. Also, institutions, like DFID, the IMF and the World Bank could potentially play a useful role in this context, both at the LIC country level, but also possibly with the Basel Committee and with the main regulators (e.g. US, UK, etc) to highlight the contradictions. The suggested conference could help clarify different perspectives and explore possible solutions that would take account of LIC needs.

It is still not clear, however, what the various home regulators – which are mainly G-10 regulators but that also can be from outside the G-10 including emerging market country regulators – will decide and even less whether they will find a common position. It is important to mention that several of the largest international banks active in very many countries – such as Citibank, HSBC, ABN-AMRO – have arranged to be basically regulated in all their operations for Basel II purposes by a College of Regulators (whose use has been intensified with Basel II). This College of Regulators is at present composed basically of around five regulators chosen from their home country and largest host countries (e.g. US, UK). Countries systematically less important (including of course LICs) are not part of the College. This will imply practically total loss of regulatory power for LIC regulators.

3) Collaboration between home and host supervisors

It would probably help if home and LIC host regulators could try to address the issue of divergent regulatory regimes together.

However, a worrying finding in this study is that, among those LIC regulators interviewed, ***no communication or any sort of collaboration is taking place between them and their counterparts in the home countries to discuss this and other Basel II related issues***. As the above implies, collaboration is crucial even if the country decides not to adopt Basel II at all. LIC regulators know it is important to collaborate with home regulators, and have reported that although collaboration is not the case at present, they expect it will take place in the future. But it is not clear why it is not happening yet. Institutions like DFID – directly or through FIRST – or the IMF and World Bank should play a catalyzing role in this process

4) Competitiveness issue

It has been mentioned above that one main potential problem facing LIC regulators is loss of supervisory power over foreign banks in their own jurisdictions if they propose the simplified approach to local banks while permitting foreign banks to adopt the more complex ones. However, ***a further possible negative implication of such dual regulatory regime is that allowing foreign banks to adopt the F-IRB or A-IRB approaches may grant these banks competitive advantage over local banks***, which would have to adopt the simplified approach and which would be far away from being able to adopt the internal risk based approaches at some point in the future.

This would happen because, as said before, the F-IRB and A-IRB approaches are likely to result in less capital requirements. The Fifth Quantitative Impact Study (QIS 5) conducted by the BIS shows that for different groups of banks within and outside the G-10, the AIRB approach would bring the largest falls in capital requirements – by 29 per cent for one group of banks and over 26 per cent for two other groups, followed by the F-IRB approach. At the same time, the standardised approach would either imply similar levels of capital or, for at least one group of banks, a substantial increase, of nearly 40 per cent (Basel 2006b, p. 2, Table 1). ***A competitive advantage obtained through the adoption of the F-IRB and A-IRB approaches could, in turn, lead to banking concentration favouring foreign banks in detriment to local ones.***

5) Credit portfolio concentration and access to SMEs

The use of such risk based IRB models by foreign banks to determine the amount of capital to be allocated for different types of borrowers is, moreover, likely to result in both more expensive and rationed credit to borrowers perceived as of higher risk, and more and cheaper credit to borrowers perceived as of lower risk. For reasons such as information asymmetry, small borrowers and SMEs are likely to be judged as of higher risk than the larger ones, such as large companies. This can cause a concentration in banks' credit portfolio away from small borrowers and towards the larger companies. Furthermore, portfolio concentration implies that risk is being concentrated thereby

making financial institutions more vulnerable to shocks and unexpected changing circumstances. This goes against the intended objective of regulatory measures, which is to reduce risks and vulnerabilities to which banks are normally exposed (Gottschalk and Sodre, 2006).

Foreign banks using the IRB approach would have the incentive to concentrate their portfolio in the upper end of the market as this would save them capital, and thereby would have a competitive advantage to lend to “good” companies over local banks using the standardised approach. The latter group of banks would, in turn, be pushed towards lending to the riskier segments of the markets, making them potentially riskier. This trend could be further strengthened by the fact that, according to some developing country regulators and IMF officials, the Basel standardised approach may actually somewhat underestimate risk of lending to SMEs. This would create a division of labour between foreign and local banks that would not bode well for the stability of the entire financial system. It is true that such division of labour may already exist where foreign banks co-exist with local banks, (and recent empirical research at the IMF clearly seems to indicate that foreign banks seem to lend less to SMEs than other banks), but in introducing a dual regime Basel II would reinforce this pattern. Further research and policy dialogue may be needed on this important issue and on resolving possible trade-offs between banking stability and sufficient lending, especially to SMEs.

Although LIC regulators are aware of some of these possible implications, there is hardly any discussion of these within their jurisdictions, as their efforts are concentrated on trying first to improve their understanding of the technical issues on Basel II. It seems important for seminars to be held explicitly addressing this issue, and exploring possible alternative ways of dealing with the problems.

6) Pro-cyclicality

The use of risk-sensitive models under the IRB approach is bound to result in these models detecting an increase in the probability of default during economic downturns. As a consequence, the assets of a portfolio will be downgraded – what is called migration – which in turn will lead to higher capital charges. Recent empirical evidence supports the claim that the use of the IRB approach to measure risk may have the effect of a higher variation in the capital charge over the business cycle, as compared to the use of Basel I type of rules for measuring risk (see Goodhart and Segoviano, 2005; Griffith-Jones, Segoviano, Spratt, 2004). ***This in itself may lead to both increased cost and reduced quantity of credit during economic slowdowns.*** Furthermore, the fact that it is harder to raise capital during economic downturns may reinforce the tendency in credit reduction, ultimately leading to a credit crunch and a deepening of the economic downturn, with further impacts on banks' portfolios.

A reason why the measured risk by these models tends to be so much time-variant is that even when they are forward-looking, their time horizons often are limited to one year (see Borio et al, 2003 and Fitch Ratings, 2005). These models therefore result in assigning borrowers ratings in light of their current (or over a limited time-horizon) status. That is what is called the ‘point-in-time’ approach.

The potential problems of inequity (i.e. banking concentration) and access to credit by SMEs show that regulatory measures are not neutral, that they can have an important impact on competitive and equity issues. Moreover, bank regulation can exacerbate pro-cyclicality of bank credit and thereby contribute to larger swings in the business cycle. The latter problem in particular should be a concern for regulators, as it also has a bearing on the stability of the financial system. Indeed, accentuated macro-economic volatility is a major factor underlying banking crises, due to sharp variations in key prices, such as exchange and interest rates, and therefore in banks' balance sheets. Furthermore far more broadly, macro-economic volatility has important negative consequences for future investment and growth which are particularly problematic for developing economies. Declines in GDP and investment growth in LICs are particularly problematic given their negative effects on poverty reduction (Griffith-Jones and Ocampo, 2006, quote some of the relevant empirical literature on this).

In LICs pro-cyclicality may be somewhat mitigated with the adoption of the simplified approach, but for that the host regulators would have to be able to enforce its adoption among foreign banks. There is, however, uncertainty about whether and how they will be able to do it (see discussion above).

7) Technical assistance

Although LIC regulators are keen to learn about Basel II, little technical assistance is being provided on it – at least to those we have interviewed. However, the IMF is beginning to provide advice on Basel II to some, mainly middle-income countries. There is no common view on what sort of technical assistance might be useful. But one idea floated by a LIC regulator is that they may greatly benefit from spending some time (say a month) in a home country central bank to see how things work. Furthermore, as already discussed, further research, technical assistance and meetings on Basel II and its' broader development impact on LICs would seem very important.

In the absence of TA, LIC regulators are trying to learn as much as they can through attending local and international seminars, and through organising awareness forums with their banks and counterparts in neighbouring countries. But even attending such events is not always straightforward. Informed that Crown Agents was organising a one-week workshop on Basel II in Zambia, I asked a regulator from a neighbouring country if she would attend the seminar, and the response was: 'I am aware of the seminar and would like to attend, but still don't know whether I will be able to go due to budgetary constraints'. Clearly, *more funding needs to be provided by national authorities but also by donors and institutions, like the IMF, to facilitate exchange of information for LIC regulators.*

V. Recommendations

1. It is appropriate for LIC regulators to proceed cautiously in implementing Basel II. The key priority is to strengthen banking stability and improve risk management; Basel II should be seen as a tool for this aim.
2. LIC regulators need to carefully assess the broader implications of Basel II, not just for banking stability, but also for monetary and credit policy (which have implications for macro stability and growth), and for access to credit for SMEs and microfinance (which have implications for employment, poverty reduction and equity). It is important that in a period of scaling up of aid to LICs, measures taken in other areas (in this case bank regulation) are consistent and complementary – for example in allowing sufficient credit to the private sector, so that the supply side of the economy is responsive to scaling up and therefore capacity absorption problems are minimised. This would help build on valuable initiatives like those taken by FinMark and supported by DFID, to help expand credit to microfinance and SMEs. Furthermore, issues of impact of bank regulation on competitiveness of national versus international banks and their effects on SME financing, as well as financial stability need to be carefully assessed.
3. As a result, higher levels of technical assistance to LICs are required in these areas:
 - (a) Specific technical aspects to train regulators to better implement Basel II in the context of improved banking regulation.
 - (b) Broader analysis and understanding of the impact of different approaches to Basel II on credit creation, its cyclical and distribution, competitiveness of domestic and foreign banks, etc. LIC academics and policy-makers may need financial support from institutions like FIRST to study such issues. Where appropriate, independent analysis (e.g. outside academics) could provide inputs. Such research could be an input into meeting suggested in (c). This broader analysis could help LIC economic authorities decide on pace and modality of implementing Basel II in ways most appropriate for their development objectives. For (a) and (b), greater support by institutions like FIRST, the IMF and the World Bank would seem appropriate.
 - (c) Because several of these issues affect many LIC countries in relatively similar ways and raise common challenges (e.g. regulatory treatment of foreign banks) it would seem valuable to discuss the issue at a high level meeting, hosted for example by the African Development Bank during its Annual Meeting, with participation from the IMF, Basel Committee, DFID, Bank of England and FSA and especially African Central Banks, as well as their bank regulatory agencies. It may also be appropriate to invite both national and international banks to such a meeting. It may be desirable to

follow up with a second meeting to help empower LIC supervisory authorities *vis-a-vis* large international banks; such a meeting could be held in London, where most banks are based and linked to the Central Bank of Governors' meeting at the Bank of England.

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Annex 1. Basel I and the Main Changes in Basel II

The Basel Capital Accord (Basel I) is an agreed regulatory framework for capital adequacy that the Basel Committee for Banking Regulation and Supervision recommended for implementation in 1988. Its ultimate aim was to improve the soundness and stability of national banking systems and of the international financial system. This was to be achieved through the promotion of international convergence in the rules for setting minimum capital requirements for internationally active banks (Basel, 1998).

According to this framework, internationally active banks are expected to meet a total capital requirement of at least 8 per cent in relation to their risk-weighted assets. That is, assets (and off-balance sheet exposures) are weighted according to their relative riskiness, with weights ranging from 0 to 100 per cent (applied over the 8 per cent of capital). The framework was initially designed to address credit risk. In the subsequent 10 years, it was amended to include other types of risk, including market risk and concentration risk.

The main change in Basel II in relation to Basel I is the fact that internationally active banks will be able to adopt their own risk models for risk assessment. As a result, these banks will no longer need to follow the risk-weighted system established by the Basel Committee for determining capital requirements. The new rules for capital requirements are embodied in the so-called Pillar I of the New Accord, which concerns minimum capital requirements for banks. In addition, Basel II has also Pillar 2, on banking supervision, and Pillar 3, on transparency and market discipline.

To the extent that the use of the internal models permits banks to determine their own risk-weight system, this will give them greater flexibility. But not all banks will be able to use internal models for capital requirements. For that purpose, three approaches have been proposed: (i) the standardised approach; (ii) the foundation internal rating based (F-IRB) approach; and (iii) the advanced IRB (A-IRB) approach. Under the standardised approach, a specific risk level is designated for each type of asset. As has been suggested by the Basel Committee, the rating agencies will be charged with determining the risk levels. Under the two remaining approaches, the banks themselves will measure and determine the risk levels for different categories of assets, through the use of internal models. It will be up to the regulatory authorities in each country to decide which approach banks will be permitted to adopt for determining capital requirements.

Basel II also distinguishes from Basel I in that it requires capital for operational risk, in addition to capital for credit, market and other types of risks. The need to allocate capital for operational risk may penalise in particular those banks that will adopt the standardised approach, give the lack of flexibility that this approach provides to compensate for increases in capital requirement for operational risk.