Implementation of Basel II: Any Role for International Financial Institutions?

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I. Introduction

The New Capital Adequacy Framework (Basel II) proposes a significant refinement of regulatory and supervisory practice and encourages increased attention to risk management practices in supervisory agencies and financial institutions and improved disclosure and market discipline. Basel II was made necessary and inevitable by the evolution of the banking sector following the introduction of Basel I, particularly the growth of internationally-active banks and improvements in their risk management practices.

In all countries, a strong financial sector infrastructure including effective risk-based banking supervision, is critical for financial stability and development and is a necessary precondition for implementation of the Pillar 1 capital requirements of Basel II. Safe and sound banking are key to financial stability which in turn facilitates economic development.

While much of the debate on Basel II has centered on the complexity and resource requirements of the advanced approaches to minimum capital

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requirements under Pillar 1, countries may benefit more, in the medium term, from implementation of Pillars 2 and 3, addressing supervisory practices and expanded market discipline and disclosure.

A good number of countries have expressed an interest in adopting Basel II for their banking systems. This interest of countries to implement Basel II may be leveraged to upgrade the quality of their banking supervision through better compliance with the Basel Core Principles (BCPs) and an increased focus on risk-based banking supervision and market discipline. International financial organisations (ITOs) should be ready to provide assistance to achieve this.

Adoption of Basel II by member countries will affect the surveillance, technical assistance (TA) and financial sector development agenda of ITOs. Surveillance of banking supervisory systems may become more complex in countries that have implemented Basel II, and cross-country comparisons will become more difficult, as countries choose different implementation options.

Meeting demands for Basel II-oriented financial sector surveillance and provision of Basel II-related technical assistance to member countries of ITOs will require:

- Building of expertise within the institutions and greater reliance on cooperating supervisory agencies to provide Basel II experts;
- A focus on strengthening baseline supervisory infrastructure and systems; and
- Managing member country expectations and setting limits to what the IFOs can deliver, in particular with regard to building quantitative risk management models for implementation of the more advanced Basel II capital adequacy approaches.

The turmoil in financial markets that resulted from the 2007 subprime mortgage crisis in the United States indicates the need to drastically transform regulation

and supervision of financial institutions. Would these institutions have been sounder if the 2004 Revised Framework on International Convergence of Capital Measurement and Capital Standards (Basel II Accord)negotiated between 1999 and 2004had already been fully implemented? Basel II represents a change in capital regulation of large banks in the countries represented on the Basel Committee on Banking Supervision: Its internal ratingsbased approaches to capital regulation will allow large banks to use their own credit risk models to set minimum capital requirements.

The Basel Committee itself implicitly acknowledged in spring 2008 that the revised framework would not have been adequate to contain the risks exposed by the subprime crisis and needed strengthening.

Basel II may lead to far-reaching changes in the regulation and supervision of banks, risk management and other aspects of banking practice; these changes may well be considered as one of the most important elements of the global financial system Basel II may prove a source of macroeconomic risks in many emerging-market countries owing to changes following its adoption in lender-borrower relations and in the way in which banks are supervised. It incorporates the fundamental assumption that the relationship between a bank and its counterparties is conducted at arms-length. A different model of borrower-lender relations in many emerging-market countries, especially in parts of Asia, has involved practices such as policy or directed lending, relationship or name lending and collateral-based lending. In this model, loans are made on the basis of criteria different from those underlying Basel II and often resemble equity investments. Too rapid a change to the new model of banking practice of Basel II would alter an economy's credit mechanism and could have adverse knock-on macroeconomic consequences if the fundamentals are not well anchored.

II.0 Rationale, Elements and Benefits of Basel II

II.1 Rationale

There is strong belief that prudent and risk-sensitive regulatory capital requirements are integral to ensuring that individual banks and the financial system have an adequate cushion against losses, particularly during times of financial or economic stress.

First, although Basel I was a major step forward in capital risk sensitivity at the time, rapid and extensive evolution in the financial marketplace has substantially reduced the effectiveness. The current Basel I regulatory capital rules are increasingly inadequate for large, internationally-active banks that offer ever more complex and sophisticated products and services in a competitive environment.

The flaws of the existing Basel I rule for large, complex banks are fairly well-known. The simple risk-bucketing approach, for example, creates perverse incentives for risk-taking. This approach--in which (1) the same amount of regulatory capital is assessed against all unsecured corporate loans and bonds regardless of actual risk, (2) all unsecured consumer credit card exposures are treated equivalently, and (3) almost all first-lien residential mortgage exposures are deemed equally risky--provides incentives for banking organizations to shed relatively low-risk exposures and acquire relatively high-risk exposures within each of these asset classes. The existing Basel I rule also ignores important elements of credit-risk mitigation--such as most forms of collateral, many guarantees and credit derivatives, and the maturity and seniority of an exposureand, thus, blunts bank incentives to reduce or otherwise manage risk.

Moreover, Basel I is particularly inadequate for dealing with capital markets transactions, such as repurchase agreements, securities borrowing and lending, margin loans, and over-the-counter (OTC) derivatives. For example, it only

imposes capital requirements on one side of a repurchase agreement, even though counterparty credit risk is present on both sides. For these reasons, a large and complex bank operating under Basel I can easily and significantly increase its credit risk, without increasing its regulatory capital.

Second, the advanced approaches of Basel II are designed to substantially reduce the perverse incentive effects and opportunities for regulatory capital arbitrage present in Basel I. Basel II significantly increases the risk sensitivity of the capital rule. Under the advanced approaches, capital requirements for an exposure will vary on the basis of a bank's actual risk experience. If a bank increases the credit risk of its portfolio, its regulatory capital requirements will also increase and vice versa. The enhanced risk sensitivity of Basel II will thus ensure that banks have positive incentives for lending to more creditworthy counterparties, for lending on a collateralized basis, for increasing loan seniorities and for holding a larger capital cushion for higher-risk exposures. Basel II also includes sophisticated methods to address capital markets transactions.

Third, the Basel II regulatory capital framework has three pillars--minimum capital requirements, supervisory review of capital adequacy, and market discipline through disclosure--that build on the economic capital and other risk-management approaches of sophisticated banks and competing institutions. As a result, Basel II will be better able than the current system to adapt over time to innovations in banking and financial markets. The new framework should also establish a more coherent relationship between regulatory measures of capital adequacy and the day-to-day risk management conducted by banks.

Additionally, I would argue that one of the key benefits of the Basel II process is that it has prompted banks to make substantial progress in developing much more sophisticated risk-measurement and -management processes. For example, most international banks have adopted detailed rating systems for credit risk that assess both borrower and facility characteristics. That is, the banks assign one rating that

reflects a borrower's overall creditworthiness and another for each individual exposure that takes into account collateral, seniority and other factors that affect how much a bank is likely to lose on that specific exposure if the borrower defaults. In addition, large banks are increasingly using common credit-risk measurement concepts, such as probability of default (PD), loss given default (LGD) and exposure at default (EAD). Together, these concepts help banks take a more granular approach to assessing the various drivers of credit risk, which in turn helps them to make more informed decisions about extending credit, mitigating risk and determining capital needs. Another example of industry progress is in the measurement and management of operational risk. Under Basel II, banks are expected to weigh both quantitative and qualitative factors in order to assess potential future operational losses. As a result, Basel II has already helped the industry improve its methods for identifying and measuring risks--and for estimating the capital needed to support those risks.

II.2 Key Elements of Basel II

The Basel II framework is not a 'one-size-fits-all' standard and offers a variety of options. The new capital adequacy framework has been crafted following a lengthy and inclusive consultation process, and offers several approaches of varying degrees of sophistication aimed at being applicable to diverse banking and supervisory systems.

Basel II consists of three "pillars:"

- Pillar 1 revises the 1988 Accord's guidelines by aligning the minimum capital requirements more closely to each bank's actual risk of economic loss. It requires higher levels of capital for those borrowers estimated to present higher levels of credit risk and vice versa. Pillar 1 provides four basic variants for determining capital adequacy requirements for banks:

a) the "simple standardized approach," broadly based on the Basel I Accord

of 1988;

b) the "standardized approach," using external credit ratings as a basis for setting capital adequacy charges for various asset classes;

c) the "foundation internal ratings-based approach;" or

d) the "advanced internal ratings-based approach."

- The latter two methodologies are based on probability of default and othe components of credit risk derived from banks' own internal risk analysis systems. Pillar 1 also establishes an explicit capital charge for a bank's operational risk.
- Pillar 2 reinforces and expands many of the principles in the Basel Core Principles for Effective Banking Supervision (BCP) and recognizes the necessity of supervisors reviewing banks' internal assessments of their overall risks and capital needs. Supervisors will evaluate the activities and risk profiles of banks to determine whether the banks should hold higher levels of capital than what is specified under Pillar 1. In addition, it suggests how banks could deal with risks not covered in Pillar 1, e.g., concentration risk and interest rate risk in the banking book.
- Pillar 3 enhances the degree of transparency in bank's public reporting with the expectation that this will provide a basis for more informed analysis by markets and customers on banks' financial condition and risk management. Such information will encourage market discipline which, in turn, will support the efforts of bank supervisors to encourage prudent management by banks.

II.3 Benefits

Basel II is an important step forward in an evolving process toward improved banking supervision in countries. It encourages increased attention to operational risk and risk management practices in financial institutions and supervisory

agencies as well as improved disclosure and market discipline.

Basel II attempts to incorporate many aspects of these advances in risk management and has thus raised the bar for banking supervision in countries. In particular, it:

- provides a more risk-sensitive approach to capital adequacy;
- underlines banks' own responsibility for ensuring they maintain sufficient capital;
- provides guidance for better supervisory practices;
- provides a stronger basis for the role markets can play in identifying and discouraging excessive risk-taking by banks.
- enable the alignment of capital requirements more closely with the risks actually assumed by banks
- continuously prompt banks to adopt the best-available risk management practices

III.0 Implications of Basel II and the Role of International Financial Institutions

III.1 Implications

- Pressure to implement Basel II. Some countries report pressure from their major banks and from the market to adopt Basel II promptly. As Basel II is viewed by many as the new global capital standard, it may be difficult for countries to explain to market analysts why they are not immediately moving to implement it. Hurried implementation, however, may lead to weaker rather than stronger supervision. The more sophisticated variants of Pillar 1 require data, skills and systems that are lacking in many developing countries; applying models with parameters that are borrowed from other countries could provide a misleading indication of required capital. Therefore, the Basel Committee on Banking Supervision (BCBS)

has emphasized that Basel II "may not be a first priority for all non-G10 supervisory authorities in terms of what is needed to strengthen their banking supervision, and should adopt Basel II only in a timeframe consistent with national priorities and capacities.

- A strong supervisory foundation should be a precondition for Basel II implementation. The IMF's "Gaps Paper" reports weak compliance with many of the BCPs across countries that are important to the effective implementation of Basel II. A solid infrastructure for financial services needs to be in place before a country embarks on implementing Basel II. Banking, as well as banking supervision, can only function properly in an environment of good accounting and auditing rules and practices, a functioning legal framework for financial transactions and banking supervision, including reliable financial information, contract enforcement, loan performance data, data sharing, market transactions disclosure and collateral execution. BCPs with which compliance is often weak include standards on adequate supervisory resources, capital adequacy regimes, loan evaluation and provisioning, internal controls, consolidated supervision, and cross-border supervision.
- Higher capital requirements likely for loans to emerging markets. For many emerging and developing countries, the increased risk sensitivity in Basel II may lead to higher bank capital requirements for loans to these countries. The BCBS' Third Quantitative Impact Study showed that banks lending to emerging and developing markets will face higher capital charges for credit risk and operational risk. This could result in higher borrowing costs as well as reduced capital flows to higher risk countries. The effect of Basel II on banks' lending rates, however, is not straightforward. Banks lending to emerging markets may already incorporate the higher risk in their current lending rates. Moreover, many other factors besides the cost of capital determine bank lending rates,

including competitive pressures and strategic considerations. Even if bank-intermediated flows to emerging markets declined, nonbank flows might well offset some or all of the decline.

- Portfolio adjustments arising from Basel II. The application of different capital charges based on the credit risk of a type of loan (e.g., residential mortgage loans) or borrower may lead banks to change the composition of their asset portfolios. Banks may tend to increase their holding of low risk assets (with lower capital charges) and may reduce their holdings of those assets, which under Basel II, generate a higher capital charge and put upward pressure on lending rates. These factors could shift the flow of credit from higher risk sectors (e.g., commercial real estate), to less risky sectors (e.g., residential housing). More work needs to be done to assess the likelihood of the occurrence of such portfolio shifts and their potential macroeconomic consequences.
- Increased procyclicality. In addition to higher provisions against corporate loans, triggered by deteriorating corporate performance, Basel II may require banks to assign higher risk weights in an economic downturn. This raises banks' cost of extending credit, which may in turn have the effect of further restricting bank lending. While this is arguably an inherent part of a risk-based capital regime, and can lead to more accurate pricing of risk, it may also have the effect of exacerbating business cycles. A more risk-sensitive and forward-looking capital framework may, on the other hand, also provide incentives for banks to better analyze risk and avoid excessive "herd" behavior.
- Risk of selective implementation of Basel II. Basel II offers a large number of options, starting with legitimate choices between the simpler and the more advanced approaches to capital adequacy. However, some countries may wish to exercise national discretion to adopt lower risk

weights for certain asset categories permitted under Basel II, without meeting the Basel II requirements of a safe lending environment and without taking into account the loss experience of their countries. Such practices, such as application of lower risk weights for residential mortgages, retail and SME lending should not be authorized by supervisors unless countries have the historical loss data and appropriate legal judicial and accounting environment to justify these lower risk weights. To do otherwise could lead to unwarranted reductions in bank capital and increased systemic vulnerability.

- Incentives to develop credit rating agencies. Basel II may create an incentive for countries to facilitate the development of credit rating agencies and foster an improved credit culture. For instance, implementation of the Standardized Approach under Pillar I allows the use of borrower ratings issued by rating agencies to determine asset risk weights. This is only feasible, however, in countries with sufficient rating agency penetration. If rating agency penetration is low and ratings are not available for major borrowers, then the standard risk weights of Basel I will be applied. For ratings to qualify for use under Basel II, supervisors are expected to assess the quality of the rating agencies, based on criteria of objectivity, independence, availability to foreign and domestic institutions, disclosure of methodologies, adequacy of resources and credibility. Such evaluations will require additional resources and expertise.
- Increased resource pressures to build financial infrastructures. Supervisors and banks wishing to implement Basel II and, particularly, the IRB approaches, may need to build considerable additional infrastructure, i.e., data and reporting systems, and verification and validation capacity. The advanced approaches to measuring credit risk require a minimum of reliable five-year data sets on credit performance,

according to the Basel Committee. Other experts argue that five years is insufficient to obtain an accurate estimation of risk; if the time series of data available is less than that of a typical business cycle, then the models will exacerbate cyclical swings more than an approach that looks at risk over the entire cycle. Such data sets are currently only partially available in many countries. Where neither banks nor supervisors have developed their own databases, credit registries or data pooling arrangements can be used.

- Shortage of trained supervisors. To build their supervisory capacity, countries will need to recruit additional specialized staff and provide extensive training to existing staff on Basel II. The FSI Survey on Implementation of the new capital adequacy framework estimates that responding countries could require training of over 9,000 supervisors. Demand for expertise in risk-based supervision, credit and operational risk management is likely to increase significantly in the next few years. In most countries, supervisory agencies, operating under government pay scales, will be disadvantaged in competing against the private sector for these skills. The prospect of a "brain drain" of Basel II-trained supervisors to the private sector is very real, further challenging the ability of supervisory agencies to build the necessary capacity to implement Basel II.
- The role of the host supervisor. For foreign banks operating under the more advanced versions of Basel II, host supervisors are responsible for deciding to what extent they wish to rely on home country supervisors to validate the systems and policies of the parent banks' major foreign subsidiaries. For instance, if a home supervisor authorizes one of its large international banks to operate under advanced-IRB, it will expect the bank to operate all of its major subsidiaries, both domestic and foreign, under Advanced-IRB. Such arrangements could raise a number of home-host

issues. For instance, is it feasible for the supervisors in every country in which that bank has major subsidiaries to require each subsidiary to go through an approval/validation process? Alternatively, should the host supervisor of a foreign bank subsidiary rely, in essence, on the home supervisor to judge the adequacy of that subsidiary's capital adequacy? In the event that the foreign subsidiary encountered capital problems, what would be the accountability of the home supervisor to the host authorities and legislature? These are difficult questions that are being discussed between a number of home and host regulators, and the banks operating in their jurisdictions. Ultimately, the host supervisory agency has the responsibility for maintaining a safe and sound banking system in its country and can be expected to retain the authority to impose the "rules of the house" upon foreign banks' local subsidiaries. Host supervisors will in any case need to develop resources to dialogue effectively with home supervisors on Basel II implementation and, will in this context, where applicable, also need to be able to assess the quality of implementation of more advanced Basel II systems in the host country.

- Home-host supervisory cooperation. Effective working relationships, including agreements on information sharing, need to be formed between home and host authorities. The challenge will be to strike an appropriate balance between efficient home country consolidated supervision, host country responsibility and avoidance of duplicative and overlapping regulation/supervision of foreign banks. These agreements should take account of the differences between home and host supervisory systems and capabilities and between the capital frameworks used by foreign banks and domestic banks. The Accord Implementation Group (or AIG, a subgroup of the BCBS), has developed guidance for the development of mechanisms for home-host cooperation, and is compiling materials on current arrangements between home and host regulators ("case studies").

In countries where foreign banks control a substantial portion of the banking assets, the national authorities will need to work very closely with the foreign banks' home supervisors to develop an effective supervisory process and will need staff with sufficient expertise to be able to conduct a meaningful dialogue with the home supervisors of these foreign banks. In the EU, renewed efforts are underway to address issues of home-host supervisory cooperation, in the form of multilateral arrangements with regard to conglomerate supervision and crisis management, to supplement an extensive system of bilateral MOUs among EU supervisory authorities.

- Commercial bank implementation. Basel II has reinforced the need for commercial banks to focus more on risk management and to better align capital and risk. Large internationally-active banks in developed countries have already begun to take steps to implement Basel II according to the Basel timetable. Medium-income countries have adopted a variety of approaches depending on the degree of sophistication of their banks and resources available to the supervisory authorities. Banks in lower-income countries are the most challenged by the implementation of the advanced approaches under Pillar 1, as are their supervisors.
- Integrated supervisory framework. This is necessary to enhance the ability to react quickly, effectively and more transparently to any adverse shocks that might impact the financial sector. This will contribute to ensuring continued confidence and ultimately to improving the stability of the financial system. Looking at the main areas in which efforts are now focused, there are important common elements including gradual and prudent transition to the new regulatory framework for capital adequacy, efficient and effective implementation of the new supervisory tools, also by means of quantitative and qualitative reinforcement of supervisory functions, and closer cross-sector and cross-border co-operation and

collaboration to enhance synergy in regulatory compliance. Globally, the financial structure has seen a remarkable transformation and elements such as the provision of risk capital and the strengthening of market-based elements have become more important in recent years. The clearest transformation of the financial sector has been the tendency towards integration, which is leading to positive scale and scope effects and to increased competitive pressures on financial intermediaries. This is eliminating quasi-rents, improving the allocation of capital and offering the highest possible returns and the lowest possible cost of capital. Moreover, enhanced competition among intermediaries has provided greater scope for financial innovation.

III.2 Role Of International Financial Institutions

III.2.1 Capacity Building

A large majority of countries can be expected to implement one of the variants of Basel II over time. To meet the demand for technical assistance to countries implementing Basel II and to be able to conduct surveillance of financial sectors under the changing environment, IFOs will need to build expertise on the various aspects of risk-based supervisory frameworks within their own organizations in order to provide capacity building and institutional strengthening for home country banks.

III.2.2 Surveillance

IFOs have an interest in safe, balanced and carefully sequenced implementation of Basel II. Countries should be advised to avoid overly ambitious schedules and the diversion of resources away from core supervisory and regulatory functions. In the meantime, candid assessments will need to be made of country readiness, including sufficient implementation of the BCP and the feasibility and

comprehensiveness of roadmaps to Basel II. For countries that are implementing Basel II, preparing assessments of their supervisory and regulatory systems will become more complex. There will be a need to assess the quality of implementation and the capacity to effectively exercise Basel II-based supervision. A surveillance and assessment methodology and supporting guidance materials, will need to be developed based on the text of the Basel II framework, to serve as a basis for an assessment of whether supervisors are monitoring effectively the quality of Basel II implementation by banks. Furthermore, comparability of assessments, while not the primary objective of assessments will become more difficult, as countries exercise a wide variety of implementation options.

As banks implement Basel II and the risk weights are adjusted as a result of the new capital framework, the reported capital position of individual banks will change. These changes to a bank's reported capital ratios may occur even when the banks' portfolio and risk profile remain unchanged. In addition, Basel II provides countries with more than 40 options of national discretion, leading to variations in the actual frameworks among countries. As a result of such variations, assessments and comparisons of banking systems' capital positions over time will become very difficult.

For those countries with banks adopting the internal ratings-based approaches, judging the quality and effectiveness of the supervision of these banks will require assessors with a good understanding of underlying implications of implementation of Basel II, in particular the key aspects of risk management. Furthermore, in order to exercise adequate quality control, IFO staff will need a sufficient level of knowledge on Basel II and its implementation aspects. For the reason that banks adopting the internal ratings approach are likely to be

systemically important on a national if not global basis, it will be very important that the surveillance of these countries include a comprehensive review of the adequacy of Basel II implementation by the supervisory authorities.

III.2.3 Technical Assistance

Providing technical assistance related to improving supervisory capacity is an appropriate role for IFOs in the long-term development of banking sectors and banking supervision in countries. A distinction can be made between, on the one hand, "pre-Basel II" assistance to help build the necessary basis without which implementation of Basel II should not be undertaken (i.e., BCP compliance and risk-based supervision) and, on the other hand, actual Basel II implementation. They can help countries improve the quality of their banking supervision and establish the preconditions for effective banking supervision.

With regard to "pre-Basel II" technical assistance in strengthening supervisory systems, IFOs in accordance with their areas of expertise and availability of resourceswill continue to collaborate closely in supporting countries in the following areas:

(i) improving supervision consistent with the BCP, Basel I and risk-based supervision;

(ii) training of supervisory staff

(iii) strengthening banking system infrastructure and legal framework;

(iv) payment systems; and

(v) advising on insolvency frameworks.

Countries are likely to request assistance in Basel II-related areas on the following topics: (i) developing a roadmap for Basel II implementation; (ii) cost/benefit analyses of Basel II implementation; (iii) developing supervisory

skills to assess the quality of banks' risk management models; (iv) development and analysis of data sets to analyze historical loss information; (v) development of disclosure-related requirements; and (vi) qualification of external rating agencies.

IV.0. Recommendations

IFOs should focus on strengthening financial sector infrastructure, core supervisory functions in line with the BCP and including risk-based supervision, as well as conditions allowing for the exercise of market discipline. These are essential prerequisites for countries seeking to adopt the Basel II framework. IFOs will provide assistance to host countries wishing to strengthen their supervision but should, at the same time, take a neutral position with regard to the question of whether host supervisors should permit foreign banks in their countries to operate under Basel II (particularly the advanced approaches), while domestic banks remain under Basel I. Host supervisors, however, should retain responsibility for the supervision of all banks operating under their jurisdiction.

Implementation of Basel II in Nigeria is, therefore, necessary in order to ensure the safe and sound operation of our banking industry and the stability of our financial system. Basel II would promote continued improvements in bank risk management practices and would maintain capital levels in the banking system that is appropriate and risk-sensitive. As you all know, the existing Basel I capital regime has very limited risk sensitivity and is widely known to be outdated for large, complex banking organizations. If we retain Basel I for these institutions, we will be leaving in place a regulatory capital regime that could undermine the safety and soundness of our largest banking organizations by widening the gap between these banks' regulatory capital requirements and their actual risk profiles.

The role of the Central Bank of Nigeria reinforces our belief in the importance of

maintaining prudent and risk-sensitive capital requirements for financial institutions. Beyond its supervisory authority over individual banking organizations, the CBN is responsible for maintaining stable financial markets and ensuring a strong financial system. In this regard, the CBN has long required banking organizations to operate in a safe and sound manner, and to hold sufficient capital to protect against potential losses. Financial stability is enhanced when banks' regulatory capital measures adequately reflect risk as well as when banks continually improve their risk-management practices. Since the Basel II regime is far superior to the current Basel regime in aligning regulatory capital measures with risk and fostering continual improvements in risk management for our largest and most complex banking organizations, I believe it will contribute to a more resilient financial system.

While much of the debate on Basel II has centered on the complexity and resource requirements of the advanced capital approaches in Pillar 1 of the Framework, countries may benefit more, in the medium term, from implementation of Pillars 2 and 3. Implementation of the more sophisticated Pillar 1 capital adequacy methodologies may be too resource intensive and unnecessary for many countries, given the current level of development of their banking systems. Premature adoption of Basel II in countries with limited capacity could inappropriately divert resources from more urgent priorities. This may ultimately weaken rather than strengthen supervision in these countries. Focusing on building supervisory capacity may avoid many of these risks.

However, none of these alternatives presents either a substantive approach or a mode of international cooperation preferable to Basel II, at least not at present. But elements of several of these alternatives may be planted firmly onto the modified Basel II. However, five recommendations with respect to capital regulation

becomes necessary:

- **Accelerate work on redefining capital.** The Basel Committee has long recognized the need to revisit the definition of capital. Although the committee decided not to address this topic in Basel II, it has included the definition of capital as part of its post- Basel II work program. Thus, this first recommendation is endorsement of the committee's agenda, rather than a call for a change of course. However, the rather deliberate pace with which the committee has begun this review should be accelerated. The fallout from the subprime crisis has again underscored the importance of ensuring that regulatory capital truly possesses the stable buffering characteristics that should define core capital.
- **Adopt a simple leverage ratio requirement.** This admittedly blunt measure of capital is highly transparent and not subject to easy evasion. It provides a kind of regulatory safety net, even though it is not highly risk sensitive. The committee should also consider implementing a minimum ratio of capital to income in order to take account of off-balance-sheet bank activities in a similarly blunt but transparent fashion.
- **Institute a requirement that complex, internationally-active banks issue subordinated debt with specific, harmonized characteristics.** While not an assured outcome, there is a reasonable chance that the market pricing of this debt would serve a "canary in a coal mine" role in alerting supervisors to potential problems at a bank.
- **Remove the detailed rules of pillar 1 (minimum capital rules) in favor of augmenting the current pillar 2 principles, which guide national agencies' supervision of complex, internationally-active financial institutions.** These principles would include (1) some form of risk-based capital requirement, (2) a requirement that banks maintain a credit risk model for use in calculating internal capital requirements and an operational risk system, and (3) more detailed expectations for supervisory

intervention when capital requirements fall below minimum levels. National implementation of these principles would be subject to regular and sophisticated peer review. While less detail is needed on the minimum capital rules, more detail would be needed on the information that banks adopting the internal ratingsbased approach would have to disclose.

- **Strengthen the monitoring role of the Basel Committee.** This should include regular and substantially more robust peer review of national regulatory activity to implement Basel rules and principles. The committee should regularly report on bank capital positions and capital supervision.

Finally, and most importantly, the committee should establish a special inspection unita supranational team of experts that conducts in-bank validations of the credit risk models used by internationally-active banks in the Basel Committee countries. This unit would serve both to disseminate expertise among the various national supervisors and to provide some monitoring of their own validation of their banks' models and attendant risk management.

Conclusion

The three pillars of Basel II provide a broad and coherent framework for linking regulatory capital to risk, for improving internal risk measurement and management and for enhancing supervisory and market discipline at large, complex and internationally-active banks. Indeed, we have already seen significant progress in risk measurement and management at many banks in the United States and elsewhere as a result of the Basel II development process. It is also important to modernize the Basel I framework to improve the risk sensitivity of capital requirements at smaller and less complex banks, without artificially creating competitive inequalities.

The CBN should continue to support efforts to implement the Basel II framework. It is critical to move forward expeditiously with Basel II implementation so that

our largest and internationally active banking organizations maintain their safety and soundness and remain competitive, our supervisors bolster their assessment capabilities and the market gains greater access to information about risk.

In closing, Basel II offers a promising new mode of international economic cooperation. The Basel Committee's work in general and Basel II, in particular, is an example of a system of structured international activities intended to make national laws and regulations more congruent or effective, implemented by national government officials with domestic regulatory responsibility.

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