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The Political Economy of Basle II: The Costs for Poor Countries

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1. INTRODUCTION

THE financial crises of the 1990s led to a debate on the design of international financial architecture. To improve the functioning of the international financial system, international bodies dealing with financial issues promulgated a range of international standards to shape and facilitate market behaviour. The new Basle capital accord (B-II), now in its (difficult) implementation phase, is part of this new international financial architecture. As with the other standards, the policy process leading to B-II largely excluded inputs from developing countries. Nevertheless, and although the accord is formally only applicable to internationally active banks of G10 countries, it is likely to become the global norm, thereby affecting the costs of domestic and international financial intermediation. B-II especially affects the cost of international bank financing for developing countries and could reduce their access to external financing. By employing B-II as a case of the skewed policy process underlying international financial architecture reform, this article seeks to achieve two different, yet interrelated, analytical objectives.

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In the first place, this article examines the process through which B-II was formulated, explaining how the particular standards were proposed and adopted. The core argument is that B-II was formulated in a relatively exclusionary and closed policy community consisting of regulators and supervisors from the G10 leading industrial nations and their private sector interlocutors. In these networks, private market interests find easy respondents in finance ministers and central bankers, allowing them to shape policy at the global level. The final rules and standards sanctioned by B-II tend to advance the interests of powerful market players with less regard for smaller, less sophisticated banks, especially in developing and emerging-market economies, despite the fact that the impact of B-II is far wider than the banking institutions and markets of G10 committee members.[1]

Second, the article discusses the likely impact of B-II on developing countries and develops several measures of its effect on capital flows to developing countries. The central claim advanced here is that the new standards are likely to exacerbate fluctuations in the costs and availability of external financing for many developing countries. This outcome is unfortunate in view of the expectation of many that the new international financial architecture in general, and B-II in particular, by enhancing the safety and soundness of the international financial system as a whole, would also provide significant benefits for the most vulnerable members of the global financial system.

The B-II accord also needs to be considered in relation to other elements of the new international financial architecture. Developing countries have had very little influence on the formulation of most of the new standards, potentially undermining their legitimacy and effectiveness. Representation of many developing countries in the IMF and World Bank is not in accordance with their share of global economic activity. While the formation of the G20 and the Financial Stability Forum might have rendered some international decision-making processes more inclusive, the membership and structural hierarchy of these and other forums leave little doubt that the global financial system continues to be run by the leading industrial nations.

[1] The Committee itself accepts that its standards should be adopted by a wide range of supervisory authorities: 'This document is being circulated to supervisory authorities worldwide with a view to encouraging them to consider adopting this revised framework at such time as they believe is consistent with their supervisory priorities' (Basle Committee, 2006a, p. 15). The Committee's own website homepage accepts that 'Over recent years, it has developed increasingly into a standard-setting body on all aspects of banking supervision, including the B-II regulatory capital framework' (web address http://www.bis.org/bcbs/index.htm). According to a Financial Stability Institute (FSI) survey, as of 2006, some 88 non-Basle Committee supervisors will adopt the framework, and by 2009 some 5,000 banks in 73 countries, representing 75 per cent of non-Basle Committee banking assets, will be subject to the standards, the principal motivation being that many of these banks are foreign controlled by G10 financial institutions (FSI, 2004, p. 5) and to which the principles of consolidated supervision apply.

At the same time, being institutionally further from the 'norms' promulgated, the costs of implementing many of the new standards are high for many developing countries. The new international financial architecture also manifests some serious missing pieces in relation to emerging markets, e.g. the lack of a predictable sovereign debt workout system exacerbates the risks of lending to developing countries, thus increasing the costs and volatility of external financing. Yet, progress on such a workout system has been stymied by, among others, the unwillingness of creditor countries and their private sectors to consider changes. In other words, the same combination of interests that has initiated and developed B-II at a cost to developing countries has blocked other reforms of special interest to developing countries. As such, this article exemplifies the shortcomings of the current institutional design for reforming the international financial system and the potential adverse impacts on developing countries. To ensure that changes to the system will benefit all, reform of the decision-making process and of the governance of the international financial system itself is needed.

The outline of the article is as follows. Section 2 examines the emergence of the B-II accord in the context of the broader changes in global financial governance in the last 15 years, in particular, post-East Asia crises. It supports the claim that G10 private financial institutions had greater influence on decision-making processes than did the constituencies of developing countries, despite the fact that the Committee's impact is clearly broader than its membership. Section 3 examines the impact of B-II on the global financial system and the costs of financial intermediation, paying particular attention to the likely effects on the cost, volume and volatility of capital flows to emerging markets and developing countries. Using data from major banks' own internal ratings systems and the Basle Committee's own Quantitative Impact Survey, this section supports the claim that B-II is likely to have negative consequences for especially the poorest countries, certainly where sovereign lending is concerned. Section 4 concludes.

2. BASLE II AND THE NEW INTERNATIONAL FINANCIAL ARCHITECTURE

The development of the B-II accord should be seen in the broad context of overall international financial architecture reform. The frequent financial crises of the 1990s – Mexico, East Asia, Russia – raised questions about the functioning of international financial markets and triggered an urgent interest in improving the design of the international financial system. In response to the crises, international institutions dealing with financial issues, such as the Basle Committee (BC), the Organisation for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), World Bank and the newly created Financial Stability Forum (FSF) promulgated a range of international standards to shape and facilitate market behaviour (e.g. Basle Committee, 2006b). Measures also included

a range of institution-building, macroeconomic and financial policies. The standards adopted to improve the functioning of markets included corporate governance, insolvency, accounting and transparency rules, all promoted and monitored by international financial institutions. The new standards were held up as models for developing and other countries to follow. They have subsequently been adopted and implemented by many national governments and their effectiveness has been assessed through various mechanisms (Financial Sector Assessment Programmes (FSAP), Report on Standards and Codes (ROSC), etc.).

This (new) set of standards and institutions has been called the international financial architecture. The basic approach was to improve the functioning of cross-border financial markets by strengthening the 'weakest links' in the system: improving market signals and transparency through better macroeconomic policy, sound exchange rate regimes, sound regulatory and supervisory practices and institutions, and so on. A consensus formed that radical change was not necessary, although this approach was not adopted without controversy. Analyses of specific policies and institutional changes have yielded debate on a number of policy issues, including the exchange rate regime appropriate for emerging markets, the benefits and risks of capital account liberalisation, the preferred framework for dealing with international financial restructuring and insolvency, or the feasibility of an international lender of last resort. There was also a range of more radical proposals for the reform of the global financial system. In the literature there are extensive accounts of these debates and of the strengths and weaknesses of various aspects of the new international financial architecture (e.g. Eichengreen, 1999; Claessens, 2003; Fischer, 2004; and Truman, 2006). It is not the intention to duplicate these analyses, and the purpose here is rather to employ the case of the B-II as a representative example of the *process* by which key elements of the new international financial architecture were put in place.

We argue that similar to some of the other international financial architecture changes, the new Basle accord, despite its broad global impact, reflects the preferences of a narrow constituency of interests and confers competitive advantage on the very internationally active banks which originally proposed it. We develop this argument by first outlining the content of and the background to B-II and then demonstrating that there was much influence of international banks in the formulation of the proposal, but little from developing countries or other constituencies affected by it.

a. From Basle I to Basle II

The motivations for the new accord (B-II) ostensibly arose from a number of technical weaknesses in Basle I (B-I), from changes in financial services provision globally, and from corresponding changes in the pattern of old and from the emergence of new risks. The main weakness of B-I was that the capital reserves

assigned to loans did not distinguish between the real default risks of different sorts of debtors (Basle Committee, 1999, pp. 8–9). One obvious distortion was the zero weighting given to loans to all OECD governments, treating capital adequacy requirements for Korea and Mexico, for example, the same as for developed countries. This lack of differentiation was probably a contributing factor to the excessive capital flows to Korea leading up to its late 1997 crisis because it lowered Korea's capital charge when it joined the OECD in December 1996. It also ignored the considerable differences between loans to major, stable and recognised companies versus risky ventures with new technologies or the uncertainty of, say, speculative minerals exploration. Nor was much attention paid to the correlations among the various risks, which ignored the potential gains from diversification. Finally, the earlier accord did not properly account for operational risks in lending and securities market activities of banks. These weaknesses skewed risk management incentives, led to inefficient use of bank capital and potentially led to poor asset composition, with, in turn, negative effects on resource allocation and systemic risks (Basle Committee, 1999, p. 9). Finally, rapid changes in financial services industries meant that supervisors were facing a constant array of new market innovations and risks which did not fit the traditional supervisory practices of B-I. The conclusion was that a major revision of the original Basle accord was necessary.

The three starting points were to measure risk exposures better, to emphasise better internal controls and risk management, and to increase the role of market discipline. In B-II this led to the so-called 'three pillars' consisting of: (1) minimum capital requirements; (2) supervisory review of capital adequacy; and (3) public disclosure and market discipline (Basle Committee, 2003). Under the three-pillar system, bank supervisors will no longer be exclusively responsible for the supervisory process and specifying levels of capital adequacy; rather bank owners and risk managers, supervisors and market forces combine to oversee banks.

Pillar 1 maintains the basic provisions of B-I but introduces important changes in the way aspects of risks are to be calculated and expands the range of risks to include operational risks. Three different options for measuring required capital are available to banks under the proposals. The Standardised approach for 'less sophisticated' institutions is based on B-I but enhances risk sensitivity, with differential 'risk weightings' for sovereign and corporate exposures, to be calculated according to external credit assessments by such bodies as the OECD or commercial ratings agencies (e.g. Standard & Poor, Moody's, etc.). Option 2, the 'Foundation' version of the 'internal ratings based' (IRB) approach to risk management, allows for (limited) use of internal value at risk (VaR) and other models. Option 3, the 'Advanced' IRB approach, is meant for the largest and most sophisticated financial institutions. In the Foundation version, only the probability of default is calculated by the bank, and all other capital ratios are specified by the supervisor. In the Advanced IRB version, all aspects of credit

risks are estimated by the bank itself. The Committee characterises the advanced approach as '. . . a point on the continuum between purely regulatory measures of credit risk and an approach that builds more fully on internal credit risk models', with further movement along the continuum as 'foreseeable' (Basle Committee, 2006a, p. 17). Collateral and loan guarantees are to be taken into account in all approaches.

Essentially, option 3 is a 'self-supervision' approach, but qualified by the compliance provisions of Pillar 2. Banks' internal risk management standards must qualify for the internal ratings approach. Supervisors must also approve and regularly assess ('stress test') the internal application of risk management models. Pillar 3 stresses 'market discipline' in the form of public disclosure of, among others, bank risk profiles and capitalisation, and is a *complement* to the first two pillars. This approach is based on claims by the industry itself that market discipline is the best guarantor of sound risk management, and that supervisory oversight is essentially redundant in a soundly functioning system of market discipline.[2] The new accord has been subject to criticism on a number of grounds, and these are best revealed by an analysis of the B-II policy process from its conception to its current implementation phase (which was expected to start toward the end of 2007).

b. The Basle II Policy Process

The Basle Committee on Banking Supervision (initially 'Basle Committee on Banking Regulations and Supervisory Practices') was founded in 1974. The Basle Committee (BC) was an initiative of the G10 central bank governors, who were spurred into action following the twin collapse of the Franklin National Bank and the Bankhaus Herstatt in eurocurrency trading, both of which risked toppling the global financial system at the time.[3] The BC reports to the G10 central bank governors, and its membership (currently, in fact, 13 countries[4]) consists of one representative from each country.[5] The initial policy question under consideration was one of supervisory responsibility for internationally active banking institutions: who precisely was responsible for supervising bank branches and subsidiaries across borders – home or host country? The first result was the Basle Concordat

[2] And therefore the claim is surely suspect as deriving from narrow self-interest, also given the negative externalities associated with financial crises. Recent corporate scandals also cast some doubt on the sufficiency of public disclosure for proper management.

[3] For more on the history of the BC, see Wood (2005).

[4] Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States.

[5] The national central bank, and if this is not the banking supervisor, then in addition a representative of the national supervisory agency; this does not add an extra 'vote' and the committee does not vote anyway, operating on a consensus basis.

of 1975 guiding cross-border supervisory cooperation, which has since undergone numerous refinements and amendments.[6]

The BC quickly gained a reputation for 'Olympian' detachment as a guardian of the public, essentially state, interest.[7] The BC operated under conditions of strict secrecy and relative insulation from public and private institutions of government and market. The institutional culture of its earlier years contributed to this impression: global financial integration was in its early stages and the strong 'public domain' of the Bretton Woods post-war era in financial systems governance underpinned the Committee's role and decision-making processes. The negotiation of B-I in 1988 was the crowning achievement of the BC, and occurred with little formal consultation with 'outside' interests.

There is no doubt that up until the negotiation of the Market Risk Accord amending the 1988 B-I agreement (Basle Committee, 1996), the Committee did operate in a considerably more detached manner than is the case today. However, Olympian detachment and insulation from the traditional politics of government lobbies obscured a more prosaic reality. Financial policy making has historically taken place in relatively closed and exclusionary policy communities with central banks and autonomous regulatory agencies at the core of the system. These policy communities have often been characterised by 'business corporatism' and the delegation of public authority to private agencies via self-regulation (Coleman, 1996; and Moran, 1986), which continues to be a primary instrument in the regulatory process today. This close relationship between regulatory/supervisory agencies and their constituencies in the financial services industry is, in fact, enhanced by the 'Olympian' distance of central banks and other autonomous agencies with regulatory and supervisory responsibilities from the rough and tumble of traditional policy making in democratic governments, such as in trade negotiations. The politics of financial governance, at both the national and the transnational levels, takes place in relatively closed communities between financial sector private interests and autonomous public authorities who share skills and knowledge. This in turn enhances these interests' power and effectiveness in controlling the policy agenda and outcome.[8]

While the BC might appear to deliberate in Olympian detachment, national central banks and financial supervisors never did. Regulatory policy in national financial systems was developed in close cooperation with a small community of private interests which shared more with central banks and supervisors than with other sectors of the economy and society. The process of international financial integration meant supervisory and regulatory bargains reached at the national level had to be adapted. B-I was the first attempt to achieve this in

[6] See the analysis in Underhill (1997, pp. 23–28).
[7] See the state-centric account of Basle by Kapstein (1994).
[8] These points are developed and supported empirically in Underhill (1995 and 1997).

relation to capital adequacy. The outcome of the agreement meant some national banking sectors had to raise substantial amounts of new capital, sharply affecting the cost of their lending (Oatley and Nabors, 1998). Calls emerged for the BC to consider more closely the impact of its decisions on the banking sectors. The result was the emergence of more BC consultation with the private sector, including with the Institute for International Finance (IIF)[9] based in Washington. This consultation process expanded further with the Committee's 1993 proposals to amend B-I to include securities markets risks as applied to banks (Basle Committee, 1993).

This at first informal and until then unprecedented consultation process began when the IIF issued a position paper sharply criticising the 1993 BC document: the proposals 'fail[ed] to create sufficient regulatory incentives for banks to operate more sophisticated risk measurement systems than those necessary to meet the regulatory minimum',[10] meaning it failed to stimulate the use of VaR models. A well-circulated and authoritative paper by Dimson and Marsh (1994) of the London Business School, arguing that VaR models were more effective than the Committee's proposed approach, added to the pressure to revamp the proposal. Two consecutive new BC consultative documents embraced the approach advocated by the IIF (Basle Committee, 1995a and 1995b). The pressure had worked, but the Committee's new and soon to become formal interlocutor was hardly representative of the range of interested parties which would be affected by the amended accord or its successor, B-II. There was no emerging market representation in the BC[11] and the process did not extend beyond the traditionally close relationships between banks and supervisors/regulators. Situated at the transnational level, one may argue, the emerging policy community was even further removed from traditional lines of democratic accountability in the policy process.

Following the successful translation of IIF preferences into Committee policy, the IIF–BC relationship became regular practice as the Committee began to consider B-II in the face of ongoing criticisms of B-I treatment of credit risk, which had remained so far unchanged. In fact, the private sector began playing an even stronger agenda-setting role than in the past. The review of B-I began with a study group of the Group of Thirty, a private think-tank-like body of members drawn from the public/official and private institutions in the financial sector alike, many of whom had held prestigious appointments in both. The

[9] The IIF was originally formed as a consultative group of major US and European banks during the debt crisis of the 1980s, and became a more broadly based organisation representing some 350 member banks worldwide. See website for membership, http://www.iif.com/about/member_list.quagga.

[10] Institute for International Finance, *Report of the Working Group on Capital Adequacy* (Washington, DC: IIF, 1993), cited in *Financial Regulation Report*, December 1993, p. 3.

[11] Although the IIF membership did eventually include some emerging market financial institutions.

group formed a study group and issued a report on systemic risk in the changing global financial system (Group of Thirty, 1997).[12] As Paul Volcker, chairman of the G30 stated in the 'Foreword' to the report (p. ii),

> The report concludes that an ambitious effort to produce an international framework to serve as a guide to the management, reporting and supervision of major financial institutions and markets is justified and even imperative, beginning with the global commercial and investment banks. A collaborative effort between financial institutions and their supervisors would be most likely to be effective and broadly acceptable over a wide range of institutions and countries.

The report observed that management controls should play a central role in the supervision of financial systems, and that 'core' financial institutions should take the initiative to develop a new system along with 'international groupings of supervisors'. In essence, financial globalisation had rendered the supervisory process increasingly difficult and beyond the reach of national supervisors. The conclusions of the report (p. 12) implied that,

> Supervisors will be readier to rely on the institutions that they supervise, and that the institutions themselves will accept the responsibility to improve the structure of, and the discipline imposed by, their internal control functions.

Here lie the origins of the market-based supervisory approach contained in the three pillars of B-II. In 1998 the IIF issued its own report specifically urging the BC to update B-I on the basis of banks' market-based internal control mechanisms (IIF, 1998). Although the BC invited consultations on its three sets of proposals for B-II, the IIF remained the principal interlocutor, and comments came overwhelmingly from financial institutions in Europe and North America, and to a lesser extent from officials from agencies, a few academics, chambers of commerce and industry producer associations.[13]

While a claim that the BC in the mid/late-1990s was a victim of policy capture might be exaggerated, there is little doubt that *it is far more likely the BC and its member institutions will take into account the articulated preferences of private sector interlocutors in developed countries than the interests of developing country supervisors and their corresponding financial sectors*.[14] The long-institutionalised relationship between regulators and the regulated in financial supervision, which approximates conditions of capture, had developed at the transnational level by the mid-1990s, and B-II derived directly from the proposals of the private sector.

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[12] The report includes the names of study group participants (pp. ix–x), and members of the G30 itself (pp. 47–48).

[13] See Committee website section on comments on proposals at http://www.bis.org/bcbs/cacomments.htm (comments on second consultative document) and http://www.bis.org/bcbs/cp3comments.htm (comments on third consultative document).

[14] This claim is well supported in Underhill (2000 and 2003, esp. pp. 771–74).

While consultation meant that the BC was opening up somewhat, there were very few submissions to the BC from developing country financial institutions, and comments from the official sector in developing countries were usually brief,[15] though developing countries observed that they would have to submit to the new standards. Besides the financial sector, a few other interested associations also commented on B-II and the proposals did change over time in response. Limited as these comments as attempts at influence were, they are nonetheless revealing. Concerns were raised by constituents in a range of countries regarding the effects of B-II on the competitive position of small and unrated banks, and regarding the cost of credit under B-II for small and medium-sized corporate clients. The consultation debate and ongoing criticisms of the final accord leave little doubt that the primary beneficiaries of the accord in competitive terms are precisely the major financial institutions which proposed it in the first place. The next section analyses in more detail the winners and losers of the accord, and who turn out to be the most politically influential in the policy process.

c. B-II: Winners and Losers

There are clear distributional conflicts and level playing field issues surrounding B-II, and the extensive comments on the proposals have reflected these. A first cleavage concerns conflicts over the effects of B-II on the terms of competition between large, internationally active and smaller banks. The American Community Bankers (ACB), representing small US banks and 'thrift' institutions, put it most bluntly: 'Many community banks will end up holding higher capital under the accord as compared with global and potentially more risky institutions' (ACB, 2003, p. 3). This point was echoed by the German *Bankenfachverband* (small consumer financing banks) and a range of other national and EU-level associations.[16] Their concern is that, given high development and compliance costs, smaller banks are in no position to employ the Foundation and certainly not the Advanced IRB approaches and that use of the Standardised approach would lead to either relative or absolute increases in capital charges (relative to B-I and to Advanced IRB banks under B-II) for these banks, and thus to potential competitive disadvantages. This also applies to most banks in developing countries that have limited capacity and cannot use the Foundation and certainly not the Advanced IRB approaches.[17]

Of course, smaller banks and banks from developing countries are by nature less likely to have sophisticated risk management systems: as such, they will already have a competitive disadvantage in cross-border markets in this respect,

[15] Of 186 comments for the third consultation exercise, only 31 came from developing countries *including* Taiwan and Korea and offshore financial centres.
[16] These and subsequent citations to position papers are available on the BC websites listed in note 13.
[17] Many developing country supervisors were in no position to implement the IRB approaches anyway.

and will now face higher capital charges under B-II. It may also be argued that their weaker internal control systems render them more risky as institutions. These banks may, however, compensate with other advantages which offset risks: smaller banks can take advantage of the 'softer' information on their clients only available in close, relationship-based banking practices, rendering their lending less risky in this regard. As such, both large and small banks have their own advantages in terms of risk management. However, B-II places little value on the soft information used in traditional relationship banking, creating a competitive bias against lending to (unrated) SMEs. As small banks pointed out, the evidence suggests that B-II gives the large banks an unfair competitive advantage as potential reductions in capital requirements under the new system are greater for large than for small banks, and for some small banks and/or their clients' capital requirements would rise.

The BC's own study reinforces the point of differential impact: the reductions in capital required by moving to the Advanced IRB approach relative to B-I are much greater than by moving to the Standardised or Foundation IRB approaches (BC, 2006c, 5–11, p. 10, table 5).[18] Note that none of the G10 large internationally active (so-called 'Group 1') banks is expected to use the Standardised approach anyway, whereas 33 of the 153 smaller G10 banks ('Group 2') are planning to do so. The situation is even starker for the non-G10 countries where 49 of 54 banks in *non*-G10 'Group 2' (smaller) banks are planning to employ the Standardised approach (p. 7, table 3).[19] For these non-G10 Group 2 banks, the Standardised approach would yield a 38.2 per cent *increase* in capital charges relative to B-I, the Foundation IRB approach an increase of 11.4 per cent, and the Advanced IRB approach a modest reduction of 1 per cent (p. 10, table 5). The impact is clear: substantial competitive and cost advantages to those large banks (mostly in developed countries) who could apply the (Advanced) IRB approach.

As banks globally began to realise the likely impact, there emerged level playing field concerns among banks at both the national and international levels. Lobbies were also concerned that non-bank financial services firms should not gain advantages as a result of the accord. The American small banking lobby bore fruit when the US decided to apply the new accord to only the 10–20 largest internationally-active American banks (a choice the agreement allows national supervisors to make). Meanwhile, and in the face of opposition, the EU stuck to its position that the accord would apply to all banks.

[18] The accord stipulates that B-II should not lead to an overall increase in capital requirements compared to B-I; but this is a requirement at the overall banking system level, not at the individual bank level.

[19] 'Non-G10' included Australia, Singapore and seven developing countries. There were only six non-G10 Group 1 banks; the survey was anonymous, but it is highly likely that these were Australian and Singaporean as the criteria for Group 1 banks are: the bank has at least €3 billion in capital, is diversified and internationally active.

Further fears were expressed by those small banks and their SME clients stuck with the Standardised approach. This approach relies only on so-called external credit assessment institutions (which includes external rating agencies, but also qualified export credit agencies), with claims on highly rated clients (both financial and non-financial corporations) receiving lower capital charges (e.g. AAA to AA–, only 20 per cent; A+ to A–, 50 per cent). Most small credit institutions and their SME clients, however, have no ratings (obtaining a rating can be expensive), but are not necessarily more risky, especially when considering their smaller size: given diversification, keeping risk per loan constant, a large pool of SME loans will be less risky than a small number of large corporate loans. However, loans to unrated (SME) corporate clients are subject to a B-II 100 per cent charge (Basle Committee, 2006a, pp. 19–23), identical to B-I (wherein all claims on the private sector were assigned a 100 per cent charge), but certainly higher than lending to highly-rated corporate borrowers under B-II.[20] B-II thus implies a clear relative capital cost disadvantage for both rated and unrated banks specialising in lending to SMEs. This final outcome was actually an improvement on earlier proposals. Earlier proposals had included a 150 per cent charge for low (BB– and below) *and* unrated corporations, but strong lobbies in the EU spearheaded by smaller German banks had been effective in obtaining more favourable treatment for SMEs and banks specialising in small-scale lending. So the 100 per cent charge for unrated SMEs was a small victory for the lobby, but still means higher (relative) costs for the smaller banks and their clients, and important competitive advantages for those who can take advantage of high external ratings or either of the IRB approaches.

The situation for unrated banks or their clients in developing countries was worse: many sovereigns would attract a 100 per cent (BB+ to B–) or a 150 per cent (below B–) charge, and under the rules *no unrated bank or corporate client could have a charge lower than the weighting of the sovereign in which they were incorporated* (Basle Committee, 2006a, pp. 21–23). For otherwise creditworthy entities within those countries, capital costs are thus set to rise relative to Basle I. Developing country submissions to the BC identified this as a problem, arguing that some banks and corporations in developing countries were sounder than the sovereign and that the ratings of the bank and corporations should be considered separately from that of the sovereign and based on the real risks of lending to the bank or corporation itself.[21] Yet their pleas were ignored. B-II thus has particular implications for the cost of capital for developing countries: the differential risk

[20] See e.g. submissions on http://www.bis.org/bcbs/cp3comments.htm by Austrian Banking Industry, the German *Bankenfachverband*, the European Co-operative Banks, the World Council of Credit Unions, or the Kredittilsynet-Norges Bank (Norwegian central bank) submission.

[21] See e.g. submission of the central bank of Belize (http://www.bis.org/bcbs/cp3/belcenban.pdf) and of Burundi (http://www.bis.org/bcbs/cp3/burcenban.pdf).

weightings of B-II compared to B-I led to a significant increase in capital requirements for loans to lower rated borrowers which tend to be developing country sovereigns or banks and firms in those economies, likely reducing the quantity of lending to these borrowers.[22]

A related but more technical aspect of particular relevance for developing countries concerns the risk reduction effects of (international) portfolio diversification. As risks are not perfectly correlated, the individual capital adequacy requirements as determined by economic models applied to *individual* credits, do not add up to the overall need for capital in respect to the *overall* credit portfolio. Banks not only benefit from this diversification, but in fact in part exist as intermediaries for this very reason, as their diversified portfolios reduce their overall capital needs. B-II acknowledges this diversification effect, but only in the IRB approaches, where it allows banks to use an average correlation varying by asset class, e.g. between 0.12 and 0.24 for corporations.[23] The capital reductions from using (low) correlations are significant and are one of the main reasons why the IRB approach requires less capital than the Standardised approach.

Even within the IRB approach, B-II (and earlier B-I) may, however, place insufficient emphasis on the potential risk reduction effects of diversifying international investment portfolios to include both developed and developing countries. Developing countries as a group exhibit a lower correlation with developed countries than the correlations among most assets within countries or from different developed countries. The potential diversification benefits from lending to developing countries may be large, justifying lower capital adequacy requirements. Such inattention raises the cost of capital and lowers access to external financing for developing countries. Griffith-Jones et al. (2002b) show that the chance of unexpectedly large losses on a portfolio evenly distributed across developed and developing countries is some 25 per cent lower than that of a portfolio distributed only among developed countries. Consequently, the capital adequacy charges should be set lower for a well-balanced portfolio that includes developing countries. An additional aspect is that by not accounting sufficiently for the risk reduction effects of portfolio diversification, B-II may lead to a higher concentration of lending in less risky, but more correlated segments of the economy or of the world, thus leading to higher systematic risks.

This argument about the possible negative effects of B-II is, however, like the other ones, only relevant if capital adequacy requirements are binding. If banks

[22] For additional literature reinforcing these points, see e.g. Persaud (2002) and Griffith-Jones et al. (2002a and 2002b).

[23] It also allows lower correlations for assets more subject to probable default since an increase in the asset default risk is argued to indicate a more idiosyncratic nature of the asset, thus justifying a lower correlation. Current correlations to be used for other asset classes are, for example, 0.15 for mortgages, 0.03 and 0.16 for retail exposures, etc., with further adjustments for maturity.

already can, and do, allocate capital according to economic criteria without regard to formal capital constraints, then B-II would have no effects. Evidence suggests, however, that especially for small banks, capital adequacy requirements *are* binding, whereas large banks determine their capital adequacy more in line with risks and market forces alone (Gropp and Heider, 2007). The diversification argument may be less relevant when there is already a supply of assets within developed countries that also have low correlations with other assets and thus also could provide the diversification benefits sought. A complete test would require comparing the diversification benefits from investing in emerging markets with those available from investing in all types of assets. Nevertheless, it does not seem that in the formulation of B-II this portfolio diversification issue was properly considered.

That B-II enhances the procyclicality of lending is another criticism of particular relevance for developing countries. B-II relies more than B-I on market signals, in the form of both asset prices as well as ratings. This can be beneficial as it avoids relying on (more) subjective judgments, but whether the aggregation of good practices in individual institutions leads to stability at the systemic level (one of the reasons for capital adequacy requirements) is more doubtful. B-II sensitivity to market signals – via VaRs and to some extent also via rating agencies (although the latter claim to rate borrowers across business cycles on relative, not absolute terms) – may enhance the very procyclicality already inherent in markets and prices. If a wide range of banks responds simultaneously and in the same way to perceived risks – as reflected in prices and ratings in the market – downturns and upturns may be reinforced as banks downgrade or upgrade clients on a large scale. This issue may be of particular concern for emerging markets whose asset prices and ratings are already more volatile than those of developed countries. It could make emerging markets' external financing more volatile and domestically lead to more severe business cycles.

A few other criticisms of B-II have been raised, again with specific implications for developing countries. The hallmark of B-I was its simplicity, at the cost of some insensitivity in terms of credit risk. The hallmark of B-II may be its complexity. Satisfying this complexity raises relative compliance costs more for smaller and less sophisticated banks, erecting barriers to entry and hindering competition. Again, this especially affects banks in developing countries that tend to be smaller and less sophisticated, putting them at a competitive disadvantage relative to large banks from developed countries yet where risks are not necessarily higher.

Another, more subtle effect of B-II's complexity and stress on sophisticated use of market data, internal models and rules, is that they can generate a false sense of security irrespective of real market conditions. Furthermore, they can facilitate regulatory capture as supervisors 'hide' behind technical complexity or are overwhelmed by bank-based information. Again, this may affect developing countries in particular because financial institutions tend to be less well managed. At the same time, supervisors in developing countries have fewer resources to

oversee banks and, often being less independent, are more subject to capture in the first place. The next section considers the quantitative importance of some of these criticisms as they affect developing countries.

3. THE IMPACT OF BASLE II ON DEVELOPING COUNTRIES

If one concludes from the analysis so far that B-II has largely been negotiated with the interests of developed country financial systems and institutions in mind, it remains to be determined more precisely what the impact on developing countries' economies and financial systems will be. It is well established that the typically low-rated, developing country sovereigns and the banks and firms in these countries already suffer from limited access to financial services and from procyclical lending patterns. At the same time, the level and stability of financial flows to developing countries and the growth of firms within these countries are closely associated with these countries' development prospects. As argued in the previous section, B-II will affect capital flows to developing countries through the cost and volume of developed country bank lending and through the procyclicality of international lending. The shift in costs will be especially significant for OECD emerging markets with B-I zero weightings (currently Czech Republic, Hungary, Mexico, Poland, Slovak Republic, South Korea and Turkey). For those developing countries implementing B-II domestically or which have a large presence of foreign banks that will apply B-II, the cost of capital for lending locally to firms and the procyclicality of lending within the country may be adversely affected.

Both international and domestic effects need to be evaluated relative to the B-I regime, to the extent the current regime is already binding on international and local banks. The impact of B-II on bank capital adequacy requirements and associated lending conditions has been the subject of a number of investigations, including BC's own quantitative surveys (the latest being Quantitative Impact Study Five (QIS 5), Basle Committee, 2006c). These QIS results are discussed here only as they relate to developing country economies' local lending conditions. The main part of this section, however, is devoted to presenting new data on the effects of B-II on international capital flows, employing a set of actual bank internal ratings and comparing those with data from rating agencies. Analysis of this data significantly enhances the understanding of the impact of IRB models relative to the Standardised approach.[24]

[24] Remembering that most developed country lending to developing countries will be carried out by large banks employing the Advanced IRB approach, not the Standardised approach where increases in capital costs are more obvious.

a. Effects on Local Financial Conditions

The BC's QIS analysis (Basle Committee, 2006c) provides some, albeit limited, indication concerning the effects of B-II on lending within developing country financial systems. The QIS 5 study shows that the Standardised approach is the most likely approach to be adopted by the smaller banks in the non-G10 countries, and these banks will also experience the highest rise in capital relative to B-I. It also shows that even the Foundation IRB approach will have negative effects for smaller banks in developing countries, although not as serious as some have claimed. In turn, these increased capital adequacy requirements will lead to a higher cost of capital for borrowers.[25] Other analyses confirm these potentially adverse impacts of B-II for developing countries. Using data from Argentina, Majnoni et al. (2004), for example, show that the Foundation IRB (notwithstanding its benevolent risk calibration) leads to an average capital adequacy requirement of about 15 per cent, higher than B-I. In the case of Mexico and Brazil, the Foundation IRB approach would, according to their simulations, yield requirements of around 10 per cent and 14 per cent, respectively – higher than the B-I 8 per cent and higher than current required levels in Mexico (8 per cent) and in Brazil (11 per cent). This increase in capital adequacy requirements will, in turn, translate into higher lending rates for locally-based firms and households. Indeed, Shin and Chang (2005) demonstrate that the adoption of higher capital adequacy ratios in Korea following the 1997–98 economic crisis created a severe credit crunch and damaged the growth prospects for the Korean economy.

b. The Cost of External Financing

Several papers have argued that B-II will increase the costs of external financing for many developing countries (Griffith-Jones et al., 2002b; Reisen, 2001; and Weder and Wedow, 2002). On the basis of the proposal as of November 2001, Weder and Wedow (2002) show that, by simply applying B-II versus B-I and using publicly available rating agency data, spreads charged by banks could rise from between 40 basis points for A-rated borrowers to 2,000 basis points for CCC-rated borrowers under the Foundation IRB approach, and between 40 basis points for A-rated borrowers and 350 basis points for CCC-rated borrowers under the Standardised approach.

These effects are significant. Their results also imply that countries rated less than BB− could see their cost of capital go up under the IRB approach. But, for the Standardised approach only borrowers rated worse than B− would see their spreads increase, facing a 150 per cent charge under B-II. As of 2001, 10 out of

[25] It must be remembered that B-II will lead to significant *reductions* in the cost of capital for borrowers of Advanced IRB institutions in developed economies.

the 26 developing countries (countries with income per capita less than $10,000) rated by S&P were below BB–, but only three out of these were rated below B–. As of October 2006, 55 developing countries were rated and, of these, 25 countries were rated below BB– and two countries were rated below B–. This shows that some, but not the majority of, *rated* developing countries would see an increase in spreads on the basis of a mechanical application of B-II.

That said, the remaining developing countries are not rated at all, and many have limited access to international bank financing in the first place. Those unrated economies (attracting a 100 per cent charge under B-II) which do attract bank finance will likely see some increase in costs as well. In addition, QIS 5 claims that the Advanced IRB approach will lead to some significant reductions in capital requirements to less risky loans in developed countries. As a consequence, incentives for portfolio reallocation away from the riskier economies may themselves also add to the rise in the cost of capital there.

The above discussion of spreads has demonstrated some of the potential impacts of the greater use of ratings by B-II on the cost of capital for developing countries. These results are, however, based on simulations assuming that internal ratings (IRs) are the same as external ratings (ERs). The actual use of IRs by financial institutions might alter this conclusion, depending on whether the use of IRs would yield a higher share of lower-rated borrowers than the use of ERs, on how IRs evolve relative to ERs, and on the degree of usage of the B-II Standardised versus IRB approaches.

The use of IR data from a major, internationally-active Dutch bank permits more detailed analysis. The data cover a longer period of country ratings than ER agencies such as S&P or Moody's, and also covers many countries which have not had (or sought) such ratings. As such, the analysis also provides a better perspective on the use of ratings in general.[26] The first comparative step is to map IRs from the bank with ERs of S&P and Moody's, converting all ratings to an ordinal scale from 1 to 20 (Table 1). The table also provides the default probabilities as calculated by S&P and Moody's for equivalently rated corporate sector borrowers, so as to calculate the capital adequacy requirements and resulting spreads.[27]

We next recalculate the results for the changes in spreads for the various credit classes using our IRs instead of the usual ERs. Table 2 provides the results for default probabilities from S&P (results from Moody's are very similar).

[26] For a full description of the data, see Claessens and Embrechts (2003). Data were also obtained from another large Dutch bank. While these data confirm the general results, they cover a much smaller set of countries and a shorter time period. For that reason, these other data are not included here.

[27] The data on defaults of sovereigns are too few to be able to judge whether spreads on sovereign bonds in relation to ratings are justified by subsequent defaults or not.

TABLE 1
Risk Mapping between Internal and External Ratings and Default Probabilities of Moody's and S&P

S&P Ratings	*Internal Rating*	*Default prob. Moody's*	*Default prob. S&P*
AAA	18	0	0
AA+	17	0	0
AA	16	0	0
AA–	15	0.06	0.03
A+	14	0	0.02
A	13	0	0.05
A–	12	0	0.05
BBB+	11	0.07	0.12
BBB	10	0.06	0.22
BBB–	9	0.39	0.35
BB+	8	0.64	0.44
BB	7	0.54	0.94
BB–	6	2.47	1.33
B+	5	3.48	2.91
B	4	6.23	8.38
B–	3	11.88	10.32
CCC+	2	18.85	21.32
CCC	2	18.85	21.32
CCC–	2	18.85	21.32
CC	2	18.85	21.32
Selective default	1	18.85	21.32

Note:
The risk mapping assumptions are based on Table 3 from Claessens and Embrechts (2003). The default probabilities are taken from Weder and Wedow (2002, table II.2), with the modification that the C-category and SD are separately classified, although they have the same default probability.

Since the ERs and IRs map closely, the IR results show similar effects to the ERs. The cost of international bank financing for the worse-rated countries could rise under B-II by up to 1,700 to 1,900 basis points compared to B-I. The better-rated countries, however, could see their costs decline by up to some 150 to 180 basis points.[28]

According to this calculation, and considering only those 40 countries for which we have both ERs and IRs as of the end of 2000, the number of countries that would have seen their cost of external financing increase on the basis of the IRs at that time was actually less than half (Figure 1). The impact of Basle II could, therefore, be interpreted as *on average* neutral. This observation is, of course, very dependent on the time period chosen since most middle-income developing countries had then a rating higher than a scale of 6.

[28] There is, again, the assumption that the capital adequacy requirements are binding and that the required rates of return are determined in line with the observed spreads for each borrower.

TABLE 2
Adjustments in Spreads for Equivalent Rates of Return under B-I and B-II, Using S&P Corporate Sector Default Probabilities

Internal Rating	*Assumed Spread*	*Default S&P*	*BRW S&P*	*S&P cap. Req./100$*	*S&P Risk adj. Return (%)*	*S&P Spread Change (b.p.)*
18	0	0.00	0.00	0.00	NA	0.00
17	0	0.00	0.00	0.00	NA	0.00
16	0	0.00	0.00	0.00	NA	0.00
15	0	0.03	15.72	1.26	0.00	0.00
14	0.5	0.02	13.87	1.11	45.07	–43.07
13	0.5	0.05	19.17	1.53	32.60	–40.41
12	0.5	0.05	19.17	1.53	32.60	–40.41
11	1	0.12	28.82	2.31	43.37	–71.18
10	1	0.22	39.19	3.14	31.90	–60.81
9	1	0.35	49.62	3.97	25.19	–50.38
8	4	0.44	55.62	4.45	89.90	–177.54
7	4	0.94	79.34	6.35	63.02	–82.65
6	4	1.33	92.04	7.36	54.32	–31.84
5	7	2.91	126.89	10.15	68.96	188.23
4	7	8.38	215.47	17.24	40.61	808.26
3	7	10.32	242.79	19.42	36.04	999.51
2	7	21.32	362.43	28.99	24.14	1,837.03
2	7	21.32	362.43	28.99	24.14	1,837.03
2	7	21.32	362.43	28.99	24.14	1,837.03
2	7	21.32	362.43	28.99	24.14	1,837.03
1	7	21.32	362.43	28.99	24.14	1,837.03

FIGURE 1
Number of Countries which have a Positive, Neutral or Negative Spread Change due to Basle II according to Internal Ratings in October 1990, October 1996 and April 2001 (n = 40)

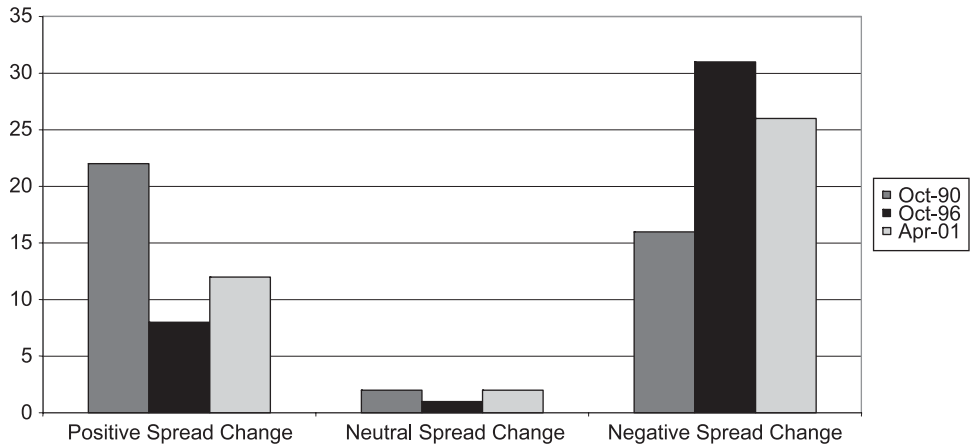
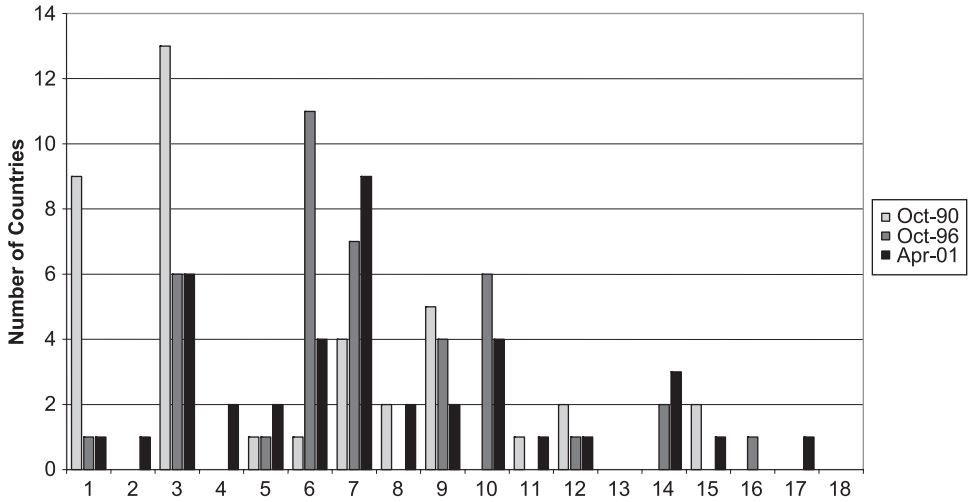


FIGURE 2
Number of Countries in each Internal Rating Class in October 1990, October 1996 and April 2001 (n = 40)

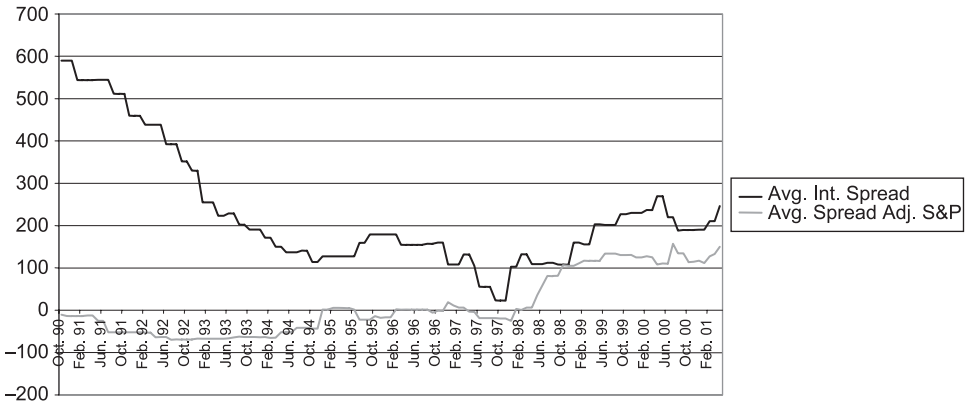


If early 1990s ratings had been used, when developing countries were generally rated lower (Figure 2), there would have been more countries with an increase in spreads than countries with a drop. The IRs (and the ERs) may have improved over time as countries' fundamentals improved, which is confirmed by the further progression since 2000 when developing countries' growth has generally been favourable, creditworthiness has increased and average ratings have increased.

Based on these results, the average impact of B-II is therefore modest. Despite this, there remain a number of countries already having difficulty obtaining financing for which B-II has adverse impacts on the cost of their external financing. Importantly, the overall impact of B-II on developing countries may be more adverse than previously noted when using ERs only. Typically, the countries without an ER are the less creditworthy countries. Indeed, the data show that the IRs are on average lower than the ERs. Figure 3 shows the increases in the average required spread under B-II using the IRB approach compared to B-I for the complete sample of developing countries for which we have either IRs or ERs.[29] Under both ratings systems, the spread change is positive. Using the IRs, however, the average increase is higher than for the ERs, largely since the bank rates more countries, including lower creditworthy countries. The studies based

[29] Note that IR includes almost all countries; only around 1997 does S&P cover as many countries as the IR. Since at the beginning of the period, S&P rated only the best, capital requirements based on ERs are lower on average, so the graph before 1997 is biased.

FIGURE 3
Average Spread Change in Basis Points under Basle II to
Produce Risk-adjusted Return under Basle I based on S&P and Internal Ratings



exclusively on ERs thus underestimate the effects on spreads as only the more creditworthy borrowers are rated by S&P and Moody's.

As several papers have pointed out, there are some weaknesses in this form of analysis since a number of factors might mitigate the impact of B-II. These mitigating factors include the fact that the simple analysis presumes that banks use the pricing models outlined above and that they want to keep their risk-adjusted rates of return the same under B-II as they were under B-I. It is likely that banks use more sophisticated models to price loans and as such the simulation of the effects of the different capital adequacy requirements on the costs of borrowing will differ from the actual effects that we may observe. This is hard to tell, of course. Yet the *ex-ante* required rates of return implied by the capital adequacy weights under B-I and using the corporate default probabilities are already quite high. For low-rated borrowers, for example, the capital adequacy requirements combined with the default probabilities of the corresponding rated class of corporations imply a three-fold increase in spreads (for B-rated assets). These very high required spreads for lower-rated borrowers are the result of applying the same *ex-ante* required rates for each credit class under B-II as under B-I. The use of a more realistic assumption, that banks use a fixed hurdle rate across all asset classes of, say, 18 per cent (as suggested by Powell, 2001), would lower the increases in required spreads to between 100 and 200 basis points for lower-rated borrowers. Of course, this hurdle rate is ad hoc and potentially inconsistent with the principles of the risk-based approach, which requires different rates as adjustments are made for risks, but it still shows some of the sensitivities.

Another mitigating factor is that developing countries do receive funds from sources other than banks that are not subject to capital adequacy requirements,

such as capital markets and non-bank financial institutions. This would reduce the impact of B-II. Access to capital markets and other financing may, of course, be more limited for lower-rated countries, thus negating this effect for them. Another mitigating factor is that banks using the Standardised approach face lower capital requirements than those using the IRB approach when lending to lower-rated borrowers (specifically in the range below BB+). Some clientèle relationships may then arise whereby banks using the IRB approach choose to lend to safer borrowers and the banks using the Standardised approach lend to riskier borrowers.[30]

These competition and clientèle effects can thus mitigate some of the impact of B-II. Still, it cannot be assumed that B-II effects will be perfectly offset (in the presence of perfect substitutes, mandatory capital adequacy requirements would never be relevant as there always would be some alternative source of financing available elsewhere). Borrowers may, for example, prefer to borrow from IRB banks rather than elsewhere, even when spreads increase. For example, these banks may better be able to assess, monitor and manage risks, and for those reasons may be able to provide financing to countries relatively more cheaply than other banks or the general capital markets.

The most important adjustment to the simple calculations, however, is that banks may not be constrained by the (new) capital adequacy requirements as they may already be adjusting their economic capital in line with the risks associated with particular countries. Of course, this argument makes B-II in a general sense irrelevant: if banks are already doing what economic capital models require, then there would not be any impact of capital adequacy regulations, even when properly based on such economic models. This goes against the general thrust of having an accord in the first place, so it is reasonable to assume there will be some binding effect of B-II and some effects on banks' costs of lending and consequently on spreads.[31]

In short, this section has demonstrated that, on balance, the cost argument is not the most important to B-II from the point of view of most developing countries.

[30] While this may mitigate the effects on developing countries, it would go against the objectives of the new Basle accord in the first place, as it introduces another distortion and may lead to risk-taking by those banks least qualified to assess risks.

[31] Weder and Wedow (2002) investigated the issue of binding in more detail by studying the relationships between actual loan volumes to emerging markets and the capital charges that would be required under B-II using the IRB. They find that the capital flows from BIS reporting banks to 25 emerging markets over the period 1993–2001 are already affected by the simulated B-II capital adequacy requirements, consistent with the interpretation that banks have already largely adjusted their claims using a model anticipating the new capital adequacy requirements. They did find that German banks may have been constrained in lending, but not so the other countries. Nevertheless, there might still be adjustment necessary for some countries, particularly if the new accord is not well calibrated; the simulation above suggests that some lower-rated countries may see their costs increase sharply under the IRB approach.

While it is likely there will be an impact on some borrowers, especially for those with limited access to market-based external financing, it need not be large on average, especially as ratings improve as they have done in the last decade. At the same time, the analysis has shown that there is little in B-II that specifically addresses the concerns of developing countries or anything that could be attributed to developing countries' specific inputs.

c. Volatility of External Financing

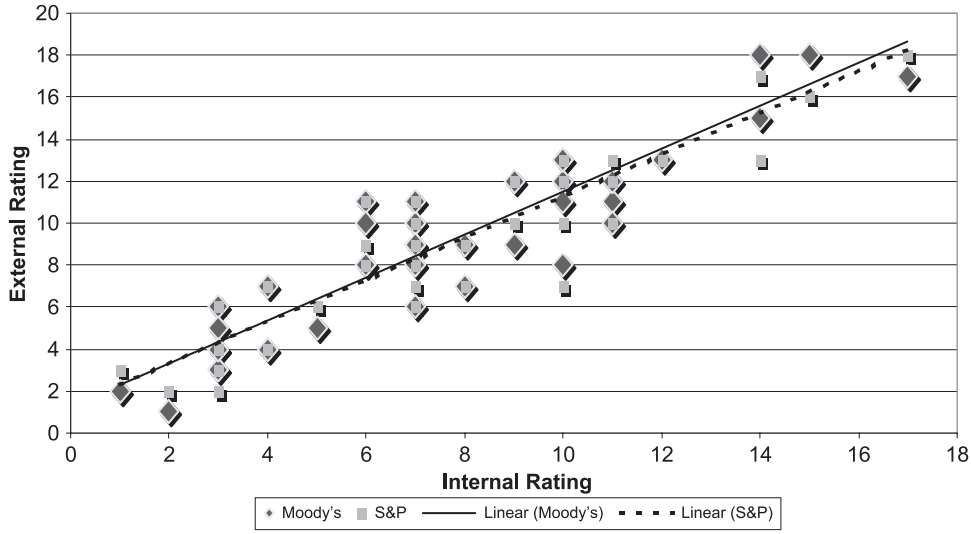
B-II may have another adverse effect through potentially reduced continuity in the access of borrowers to bank financing and increased volatility. As noted, B-II may enhance the procyclicality of lending because it encourages use of models with greater reliance on market data, including asset prices and credit rating. Since these prices and ratings are procyclical to begin with, B-II may increase procyclicality. Because of the model, banks may decrease/expand their lending at times when asset prices are already depressed/elevated, thereby further lowering/raising economic activity and asset prices. Furthermore, requiring many banks to develop similar sorts of models will induce convergence, thus increasing the risks of financial contagion as banks react simultaneously to the same or similar signals. These tendencies may be aggravated as the accord encourages greater use of ERs and IRs. Both types of ratings are arguably somewhat volatile and probably procyclical (see Lowe, 2002). Since developing country assets are already subject to more volatility and procyclicality than other asset classes are, the introduction of B-II might be particularly harmful for emerging markets.

Here, further study may determine whether IR and ER volatility and procyclicality might differ over time, important because B-II allows greater use of IRs. On a cross-country basis, the differences between the two types of ratings are generally small (Figure 4; see further Claessens and Embrechts, 2003). On an individual country-by-country basis over time, however, the IRs and ERs are not perfectly correlated (Figure 5). For many countries, there is a low or even a negative correlation and the average of the correlations between the two ratings for a sample of 40 developing countries over the 1997–2001 period is only 0.42.[32]

This issue may also be analysed by comparing IR to ER volatility. If the IRs are more volatile than ERs, then there is some suggestive evidence that B-II may lead to more volatile lending. When we compare the raw volatility, we find that the average (and median) volatility of the IRs is higher than that of the ERs (Figure 6). The average variance of the IRs is 0.99, while the average for ERs is 0.48. Using an F-test, we can show that the difference is statistically significant at the 1 per cent level. On a simple comparative basis, IRs are thus much more

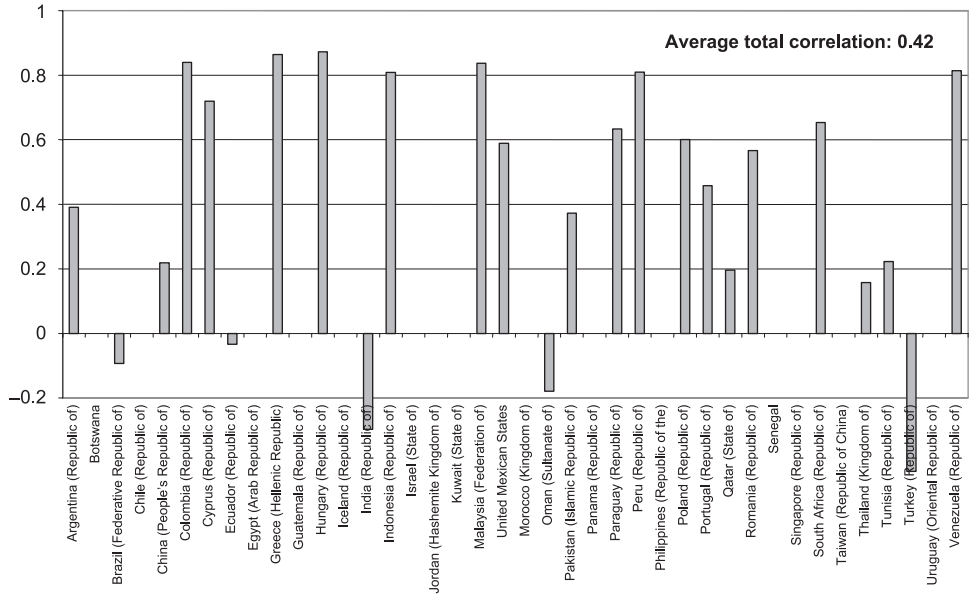
[32] The sample is small and short as few countries were rated in the early 1990s.

FIGURE 4
April 2001



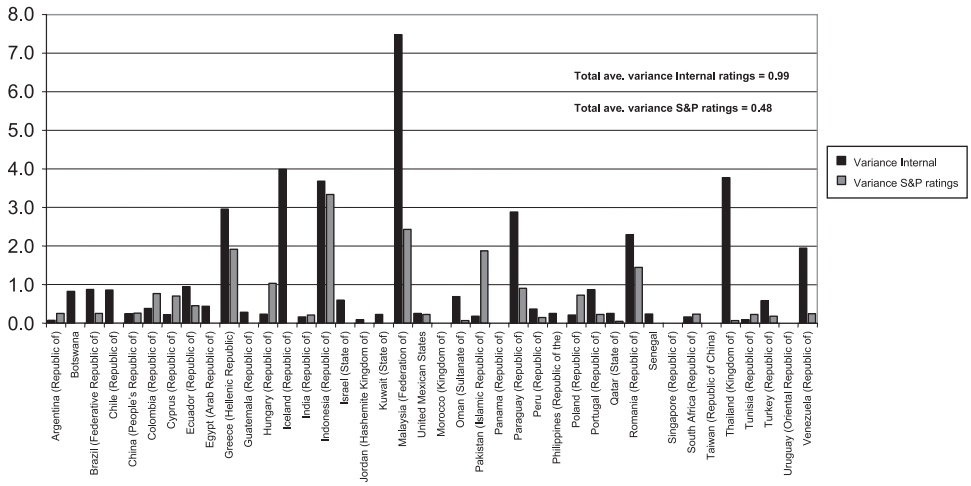
Note: Internal and external ratings compared as of April 2001, using the conversion scale of Table 1.

FIGURE 5
Correlation between S&P and Internal Ratings in the period October 1997–April 2001



Notes: Correlations refer to between internal and external ratings over period 1997–2001, on a quarterly basis. Some correlations are near zero because at least one rating series has (near) zero variance, which makes for very low correlations.

FIGURE 6
Average Variance of S&P and Internal Ratings per Country



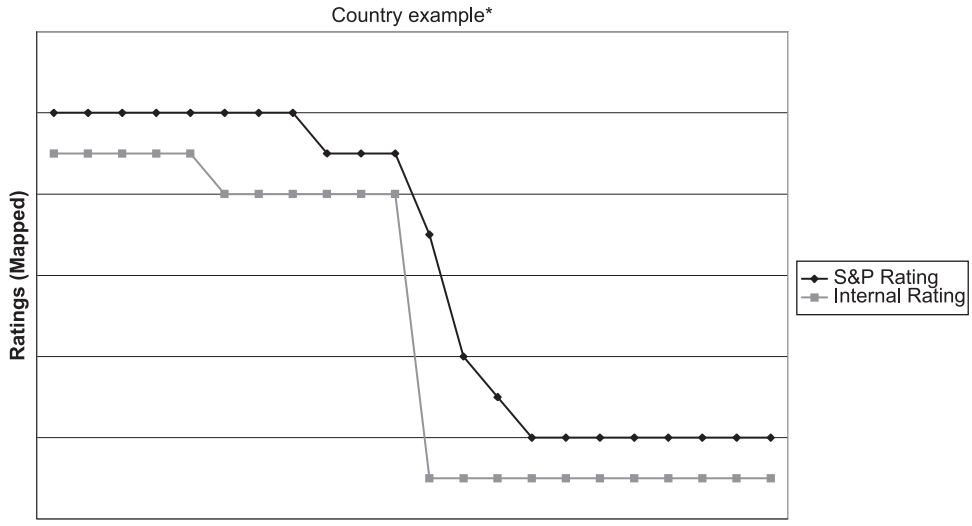
variable than ERs.[33] Assuming that the behaviour of this bank is representative of the behaviour of others, greater use of IRs could lead to an increase in the volatility and procyclicality of capital flows.

We next look at the speed of adjustment between IRs and ERs. Arguments have already been made that, while there is broad similarity, ERs are less responsive to events than IRs. There has been evidence, for example, that ERs are slower than IRs to adjust to major events, such as the East Asian countries' financial crisis. Indeed, simple graphic presentation of the data (Figure 7) shows that ERs tend to be slightly more stable and adjust downward more in gradation, whereas IRs adjust faster, show less ratchet and have more one-off effects in downgrades.

A more formal test is to look at migration from period to period in the ratings in the form of matrices of transition probabilities (Tables 3A and 3B), using the same mapping as in Table 1. The matrices show the share of ratings in this period (vertical axis) that move to a different rating in the next period (horizontal axis). The percentages add up to 100 across rows. It is clear that IRs show more and sharper migrations than ERs do. In the ER matrix, there are very few changes more than one notch away from that of the previous period. In contrast, and especially in higher rating categories, there can be sharp adjustments of IRs at some points in time, often more than two or sometimes even four notches down. Some of these moves are related to financial crises or sudden unwillingness to pay, where the bank takes quick actions and downgrades. Note, however, that the IRs

[33] We should note that the distribution of both ratings is not normal, and as documented there is considerable rigidity in the ratings, followed by sudden adjustments. This can affect the power of the tests.

FIGURE 7
Internal and External Ratings in the East Asian Financial Crisis



* Mapping is done using correlation estimates. Rating of 15th of month is considered rating of the month

also show more drastic upgrades than the ERs. In general, the comparison shows the relative willingness of banks compared to rating agencies to change their ratings.

These simple comparisons do not imply that either IRs or ERs are worse predictors of the true creditworthiness of countries, since correction needs to be made for the underlying volatility of countries' fundamentals. For example, ERs may not be 'volatile enough' if the external rating agencies do not adjust their ratings in line with the changes in the underlying volatility. The higher volatility of IRs may then more accurately reflect the higher volatility of the underlying fundamentals. The problem is how to take into account changes in the fundamental creditworthiness of borrowers. Measures, such as secondary market prices for debt (or spreads), suffer from the problem that spreads are endogenous to the ratings themselves (although there is some evidence that spreads are better predictors of country fundamentals than ratings are). Lowe's (2002) review of studies suggests that capital adequacy requirements derived from S&P are less cyclical than those derived from IRs, even when considering fundamentals. Whether this is also the case for country ratings remains to be determined in more detail.

4. CONCLUSIONS

This article has argued and offered evidence in support of several points. First, it argued that the debate over the reform of financial architecture has been

TABLE 3A
ER Migration Probabilities

Rating to	*18*	*17*	*16*	*15*	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
18	**100**																	
17		**100**																
16			**100**															
15			6	**88**	6													
14					**98**	2												
13						**98**	2											
12						1	**98**	1										
11							3	**93**	3	3								
10							1	2	**97**									
9									3	**97**	0							
8										1	**97**	1						
7											1	**98**	1					
6													**95**	5				
5													1	**91**	4	3		
4														2	**98**			
3																**96**	4	
2																	**93**	7
1																12		**88**

TABLE 3B
IR Migration Probabilities

Rating to	*18*	*17*	*16*	*15*	*14*	*13*	*12*	*11*	*10*	*9*	*8*	*7*	*6*	*5*	*4*	*3*	*2*	*1*
18																		
17		**100**																
16																		
15				**100**														
14					**100**													
13				4		**96**												
12					3		**90**		3		3							
11								**97**	3									
10					1			2	**95**	1								
9							1	1	2	**96**	1							
8										3	**93**	3			1			
7											1	**98**	1					
6										0		1	**95**	1		1		
5													1	**95**	3	1		
4												3		3	**92**	2		
3															2	**96**	1	1
2																25	**75**	
1													2			4		**94**

Notes:
The cells depict the fractions of countries in each rating class that see the rating confirmed in the next period, along the diagonal, with the off-diagonal cells the fractions of countries that see their rating upgraded (above diagonal) or downgraded (below diagonal). The period covered is that for which both IRs and ERs are available, with a sample of 1,369 observations and using 41 emerging countries.

disproportionately constrained relative to the frequency and depth of financial crises in emerging-market countries. The system has not been seriously adapted to the needs of developing and other emerging economies, and specific proposals to stabilise the system during debt workout processes following acute crises, such as the Fund's Sovereign Debt Restructuring Mechanism (SDRM), have been dismissed. The onus continues to be placed on developing countries themselves to address internal weaknesses and strengthen their position in the global financial system. Standards continue to be promulgated largely by developed countries and compliance monitored through the very institutions of global governance which they dominate. It is only slowly that proposals to attenuate the market-based pressures of global financial integration and its consequences for the poor in the development process find their way onto the reform agenda despite evidence that these might bring benefits.[34]

Secondly, this article analysed the political economy of the Basle 'process' and how this policy process yielded the current proposal. The evidence supported the claim that the Basle process was dominated by developed country supervisors involved in close relationships with major developed country financial institutions, suggesting capture of the policy process underpinning international supervisory cooperation. This provides a clear explanation as to why the needs of developing countries might so poorly be taken into account by the BC, despite the fact that the new accord has major implications for supervisory practices and costs in markets around the globe.

Finally, the article posed the question as to whether there is indeed evidence that the B-II will have an adverse effect on the external financing prospects for developing countries. It presented evidence from the Basle Committee itself that B-II will imply higher capital adequacy requirements for institutions employing the Standardised approach. These institutions tend to be the smaller banks located in non-G10 emerging markets and developing countries. In turn, this implies that their clients will see their cost of capital rise and access to finance decline. It was also demonstrated that B-II will have an adverse impact on the cost and volume of capital flows to some lower-rated developing countries, although the effects on *average* are small. Importantly, it found evidence that the procyclicality of capital flows to developing countries may increase with the use of internal ratings by international active banks. The increase in fluctuations in the availability of external financing would be a very unfortunate outcome, given that developing countries already suffer from volatile capital flows.

[34] See section 1 of Underhill and Zhang (2003), especially articles by Williamson ('Costs and Benefits of Financial Globalisation') and by Cohen ('Capital Controls: The Neglected Option'). One example is the 2005 report of the IMF's Independent Evaluation Office on the IMF's approach to capital account liberalisation, which suggests a much more cautious approach. This report came out, however, a decade or so after the 1990s crises that were in part due to overly rapid capital account liberalisation.

In sum, Basle II may contribute to the general efficiency of the global financial markets, and may contribute in important ways to a more comprehensive and efficient system of financial supervision and risk management in the aggregate. However, its effects appear to be skewed, and what may be efficient for the developed countries involves costs for developing countries. In the end, efficiency for *whom* is a valid issue to address, and in this sense the contribution of B-II to global financial market efficiency and to the quality of supervision may be called into question. The clear implication of our analysis is that if BC standards have such an obviously global impact as the BC itself claims and to which the evidence here attests, affecting the terms of competition among financial institutions and the cost of capital and incentives for portfolio formation world-wide, a committee more representative of the broader interests of the global community is required.

In analysing the Basle process, we address a broader point that applies equally to other aspects of the global financial architecture. The argument is that outcomes with regard to the new international financial architecture reflect input: who the key players were, who controlled the agenda, and who responded to and shaped proposals over time. For many reforms, there was little consultation between those proposing the reforms – typically the developed countries – and the majority of those who must accept and implement them – the emerging markets.

Although emerging market participation in global financial governance has increased (Germain, 2001), their role remains small. The G7/G10 governments, and the private sectors in these countries, remain in a commanding position relative to the IMF, the G20 process, the FSF, and other institutions such as the OECD or the broader 'Basle Process' based at the BIS. The establishment of the G20, including some emerging-market economies, as a consultative body to the G10/G7 process, including deliberations in the broader 'Basle Process', constitutes progress but does not represent full membership of the key bodies. In the end, the G7 developed the agenda and led the debate. Importantly, G7/G10 central banks and treasury ministries have close and long-standing relationships to their respective private financial sectors and are responsive to their preferences.[35] As a consequence, developed country private sector preferences remain far more central to the proposals than the preferences of either developing country states or the corresponding financial institutions and corporations thereof. Most architectural reforms essentially emphasise improved facilitation of market processes. This article has demonstrated that, in the case of B-II, this involves significant costs for developing countries. Given that the features of the Basle policy process

[35] For a comparative analysis of developed country state–financial sector relations under conditions of global integration, see Coleman (1996); and for an analysis of finance–government relationships relative to the negotiation of the EU single financial market, see Story and Walter (1998); for a classic characterisation of state–financial sector relations in the UK, see Moran (1986).

exposed here are common to policy making in global financial governance generally, it is likely that the outcome observed in the Basle case also applies to a wide range of reform measures.

APPENDIX. CALCULATIONS OF REQUIRED SPREADS AND REQUIREMENTS

The results for Table 2 used the following formulas, from Basle II modifications as of 5 November 2001 (so as to maintain comparability with the ratings which are also as of end 2001) (http://www.bis.org/bcbs/qis/capotenmodif.pdf, page 5):

$$\text{Correlation (R)} = 0.10 \times (1 - \text{EXP}(-50 \times \text{PD}))/(1 - \text{EXP}(-50)) + 0.20 \times [1 - (1 - \text{EXP}(-50 \times \text{PD}))/(1 - \text{EXP}(-50))]$$

$$\text{Maturity factor (M)} = 1 + 0.047 \times ((1 - \text{PD})/\text{PD}\text{\^{}}0.44)$$

$$\text{Capital requirement (K)} = \text{LGD} \times \text{M} \times \text{N}[(1 - \text{R})\text{\^{}}-0.5 \times \text{G(PD)} + (\text{R}/(1 - \text{R}))\text{\^{}}0.5 \times \text{G}(0.999)]$$

$$\text{Risk-weighted assets} = \text{K} * 12.50.$$

We assume, like Weder and Wedow (2002), LGD = 50 (see their note 6, 'In the consultative document from January 2001, the Basle Committee expressed its belief that a LGD rate of 50 per cent for senior unsecured claims').

This yields the formula used:

$$\text{Risk-weighted assets} = 625 * \text{N}[(1 - \text{R})\text{\^{}}-0.5 \times \text{G(PD)} + (\text{R}/(1 - \text{R}))\text{\^{}}0.5 \times \text{G}(0.999)](1 + 0.047 \times ((1 - \text{PD})/\text{PD}\text{\^{}}0.44)).$$

For the table, we used the Libor spreads in table III.1 of Weder and Wedow (2002), and the reported default probabilities of Moody's and S&P in table II.2 of Weder and Wedow (2002), respectively. The interpretation of the tables is similar to table III.1 of Weder and Wedow (2002).

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