HOW CAN BASLE BE AMENDED SO IT DOES NOT HURT POOR COUNTRIES?

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The proposed Basel Capital Accord, for which final comments are being requested by the Basle Committee by July 31st of this year, has a number of positive aspects. Its main purpose, to more accurately align regulatory capital to risks faced by banks, is a highly desirable one. More specifically, changes like eliminating the overly simplistic distinction between OECD and non-OECD borrowers in the current Basle Accord are clearly to be welcomed. From the perspective of developing economies, reducing the existing regulatory bias towards short-term lending is clearly positive, as this bias may have contributed to excessive short-term bank lending, an important factor in the East Asian crisis.

However, there are a number of broad concerns about possible unintended consequences of the new Basle Capital Accord, which the Basel Committee itself has recognised (see Overview Paper for the Impact Study – October 2002). A serious source of concern is the potential for encouraging increased pro-cyclicality of bank lending. This is a general source of concern, but is particularly relevant for developing countries, whose fragile economies are more vulnerable to strongly cyclical fluctuations of bank lending, both national and international.

The adoption of a considerably flatter risk-weighted curve and encouragement of banks to take a more forward looking view of their activities may help to diminish this somewhat, as may the encouragement by regulators for the banks to carry out stress tests. However, it is unclear that these measures will be sufficient. It therefore seems highly desirable to introduce mandatory counter-cyclical measures, such as forward looking provisions before – or at the same time – as Basle 2 is implemented, to compensate for the pro-cyclical bias which market sensitive measures of risk imply (Persaud, 2002; Goodhart, 2002; BIS, 2001).

One aspect that is of particular concern to developing countries is the risk that the introduction of Basle 2 could excessively and inappropriately increase the cost and reduce the availability of lending, both domestically and for international bank lending to them. As for bank lending within developing countries, the impact of Basle 2 will be mainly via the standardised approach, that – at least initially – the overwhelming majority of developing country banks will adopt. According to the recently published Quantitative Impact Study 3, (BCBC Quantitative Impact Study 3 – Overview of Global Results – May 2003), the introduction of the standardised approach is estimated to increase capital requirements on average by 12% in a group largely comprised of developing countries, with the maximum increase of capital reaching

103% and with a large proportion of banks seeing fairly large increases to capital. To the extent that regulatory capital is a binding constraint, banks in developing countries will either have to raise new capital (which can be difficult or costly), reduce their lending and/or increase the cost of their lending, particularly to lower-rated borrowers. Though clearly strengthening the solvency of banks in developing countries is a key and valuable policy objective, it is important that Basle 2 also considers another central policy objective, the need for sufficient bank lending to be available so as to support sufficient growth; this is particularly important as in many developing countries, there are few alternative sources of finance, to bank lending, especially, but not only, for smaller and medium companies.

But it is in the area of international bank lending to developing countries, where there is clearest evidence that Basle 2 could excessively and inappropriately increase the cost of lending and/or reduce the supply of loans. As explained below, this is because the proposed Basle 2 (in the IRB approach) would significantly over-estimate the risk of international bank lending to developing economies, by not taking account of the clear and strong evidence of the benefits of international diversification of bank lending.

Bank lending to the developing world has already fallen sharply in the past six years, stifling growth. To reinforce that trend would plainly contradict one of the aims of the G-10 richest countries (whose representatives sit in Basle), and in particular of the UK government, so committed to encouraging private financial flows to developing countries (see 1997 and 2000 HMG International Development White Papers).

Encouraged by the positive response to our ideas obtained at last year's CBC Conference (both from Daniele Nouy, General Secretary of the Basle Committee, and from senior policy-makers from developing countries), we have carried out empirical research to examine the diversification benefits of lending to developing economies. We have done so by testing differential correlations between developed and developing markets, for a number of variables, both related specifically to international bank lending, including spreads on syndicated loans and profitability, as well as in a more general macro-economic sense (see Table 1). For all the variables examined and over a range of time periods (including crises periods), we found strong statistically significant support that correlations between developed and poorer countries are far lower than correlations only within developed economies (see Table 2). For example, spreads on syndicated international loans – which reflect probability

of default – tend to rise and fall together within developed regions, significantly more than between developed and developing markets. This is the case for all variables analysed; while it could be suggested that each of the variables used was problematic in some way, the fact that all correlations show similar results indicates that the results are robust (see Table 2) overleaf.

Countries analysed:
Developing Countries: Argentina, Brazil, Chile, Ecuador, Mexico, Panama, Peru, Venezuela, Philippines, Korea, Malaysia, Thailand, Indonesia, Bulgaria, Poland, Russia, Nigeria, South Africa
Developed Countries: U.S. Japan, Germany, Spain, France, U.K. Italy, Canada
Others: Singapore, Ireland, Greece, Portugal, Finland

Variables analysed:

Table 1

Grouping	Code	Description	Time Period	Freq	Source
Financial Sector	**ROA**	Return on Assets (banks)	1988-2001	Annual	***The Banker***
Financial Sector	**ROC**	Return on tier one capital (banks)	1988-2001	Annual	***The Banker***
Financial Sector	**Syndicated**	Syndicated Loans Spreads	93-02	Monthly	BIS
Bonds	**GBI**[1]	Global Bond Index	87-02	Daily	JP Morgan/Reuters
Bonds	**EMBI**[2]	Emerging Market Bond Index	87-02	Daily	JP Morgan/Reuters
Bonds	**EMBI+**[3]	Emerging Market Bond Index Plus.	87-02	Daily	JP Morgan/Reuters
Stocks	**IFC G**[4]	S&P International Finance Corporation (Global)	90-02	Daily	IFC/S&P
Stocks	**IFC I**[5]	S&P International Finance Corporation (Investable)	90-02	Daily	IFC/S&P
Stocks	**COMP**	Developed countries listed above: composite stock indexes	90-02	Daily	Reuters
Macro	**GDP**	GDP Growth Rate	85-00	Six-Monthly	IMF, World Bank (Author's own calculations)
Macro	**GDP HP**	Hodrick-Prescott decomposition of GDP	50-98	Annual	National Data (Author's own calculations)
Macro	**STIR**	Short term nominal interest rate	85-00	Six-Monthly	National data (BIS) or IMF, IFS

[1] The GBI consists of regularly traded, fixed-rate, domestic government bonds. The countries covered have liquid government debt markets, which are freely accessible to foreign investors. GBI excludes: floating rate notes, perps, bonds with less than one year maturity, bonds targeted at the domestic markets for tax reasons and bonds with callable, puttable or convertible features.
[2] Included in the EMBI are US dollar denominated Brady bonds, Eurobonds, traded loans and local debt market instruments issued by sovereign and quasi-sovereign entities.
[3] EMBI+ is an extension of the EMBI. The index tracks all of the external currency denominated debt markets of the emerging markets.
[4] IFC G (Global) is an emerging equity market index produced in conjunction with S&P. The index does not take into account restrictions on foreign ownership that limit the accessibility of certain markets and individual stocks.

Table 2.

Variable	Time-Period	Frequency	Developed/ Developed Mean Correlation Coefficient	Developed/ Developing Mean Correlation Coefficient	Test Statistic (H0:Mx=My) Critical Value of 0.05% one-tailed test in parentheses
Syndicated	1993-2002	Monthly	0.37	0.14	3.33 (3.29)
ROA	1988-2001	Annual	0.10	-0.08	4.40 (3.29)
ROC	1988-2001	Annual	0.14	-0.11	6.92 (3.29)
GDP	1985-2000	Six-monthly	0.44	0.02	9.08 (3.29)
GDP HP	1950-1998	Annual	0.35	0.02	9.41 (3.29)
STIR	1985-2000	Six-monthly	0.72	0.23	11.09 (3.29)
STIRR	1985-2000	Six-monthly	0.66	0.22	10.93 (3.29)
GBI-EMBI	1991-2002	Daily	0.78	0.53	5.45 (3.29)
GBI-EMBI	1991-1997	Daily	0.90	0.74	4.64 (3.29)
GBI-EMBI	1998-2002	Daily	0.42	0.09	5.87 (3.29)
IFCI-COMP	1990-2000	Daily	0.58	-0.15	7.83 (3.29)
IFCG-COMP	1990-2000	Daily	0.58	-0.17	8.06 (3.29)

This implies an international loan portfolio diversified across the developed and developing regions enjoys a more efficient risk/return trade off – and therefore lower overall portfolio level risk as measured by unexpected losses – than one focused exclusively on developed markets. To test this more directly, a simulation exercise was undertaken to assess potential unexpected loss resulting from two simulated portfolios, one diversified within developed economies and one across developed and poorer countries.

The approach employed represents a modification of the well-known Credit Metrics approach, widely used for such purposes. An algorithm was programmed that simulated 10,000 different "quality" scenarios (for details of estimation and results, see Griffith-Jones, Segoviano and Spratt, 2003, Basel II and Developing Countries; Diversification and Portfolio Effects. www.ids.ac.uk/intfinance/). The results obtained from these simulations (presented in Table 3) shows that the unexpected losses simulated for the portfolio focused on developed country borrowers are, on average, around twenty three per cent higher than for the portfolio diversified across developed and poorer countries. Given that capital requirements are intended to deal with unexpected losses, the fact that the level of unexpected loss for a portfolio diversified between developed and poorer countries is lower implies that – to accurately reflect the actual risks that banks take – Basel II should take account of this effect.

[5] IFC I (Investable) is adjusted to reflect restrictions on foreign investments in emerging markets. Consequently, it represents a more accurate picture of the actual universe available to investors.

Table 3. Comparison of non-industrially diversified portfolios

1. Diversified developed/developing			2. Diversified developed			
Total Exposure = 117,625,333.00			Total Exposure = 117,625,333.00			
Percentile	Loss value	Unexpected loss (%)	Percentile	Loss value	Unexpected loss (%)	% Difference
99.8	22,595,312	19.21	99.8	27,869,349	23.69	+23.34
99.9	26,390,246	22.44	99.9	32,187,075	27.36	+21.96

Unfortunately, the proposed Basle II does not explicitly take account of those clear international diversification benefits at all, despite their being widely recognised and confirmed by the research described above. We feel that unless the proposal is amended, capital requirements will – in this respect – not accurately reflect risk, and will unfairly and inappropriately penalise developing countries.

It therefore seems important that in its final revision of the proposed Accord, the Basel Committee incorporate the benefits of international diversification.

There is a clear precedent. The Basel Committee, in its previous modifications, has already started to take account of variable asset correlation for lending to corporates, as related to probability of default and as regards size of firm. Following the publication of the Basle Committee's proposal in January 2001, there was widespread concern – especially in Germany, but more recently, in the US – that the increase in capital requirements would sharply reduce bank lending to SMEs. After intensive lobbying, particularly by the German authorities, and based on empirical research (J A Lopez, "The Empirical Relationship between Average Asset Correlation, Firm Probability of Default and Asset Size"), the Basle Committee lowered capital requirements for lending to SMEs under the IRB approach.

Our recent research suggests that a similar modification is justified with respect to international diversification, in regard to lending to developing countries. In a very preliminary way, the results of our simulation would seem to suggest that the upper limit for benefits of international diversification could reach a maximum of approximately 20%. An adjusting factor could be introduced into the IRB approach that would – possibly in a tapered way – reflect the benefits of international diversification, in ways similar to the modifications introduced for corporates, and specifically for SMEs.

We would have liked to replicate the Basel Committee methodology, and the data they based their research on for modifying the IRB curve for corporates and SMEs, and apply it to international lending. Unfortunately, this information is not publicly available. However, we have requested this information from the Basle Committee, and trust that given their previous helpfulness and in the interests of transparency, they will grant us access to such information, which would allow a more precise estimate of the impact of international diversification on capital requirements in the IRB approach, leading to a more specific proposal. We would be happy and honoured to collaborate on this with the Basle Committee, if it was considered useful. In this case, we would of course welcome any inputs or suggestions from colleagues, especially from developing countries and internationally active banks.

We feel that such a change would both ensure more precise measurement of risk and capital adequacy requirements, thus promoting a more stable banking system and ensuring that international bank lending to developing countries, especially the poorer ones, is not inappropriately discouraged. As G-10 governments are clearly committed to encouraging private flows, they should avoid measures that might have the opposite effect.

Developing and transition economies are not at all represented in the Basle Committee, (even though they are consulted and informed). They therefore have limited leverage. In my discussions with their authorities, I have learned how deeply concerned many of them are about possible unintended negative effects on their economies of Basle 2, especially as regards reduced international lending to them. A modification to take account of the benefits of international diversification, along the lines suggested above, would therefore not only be technically and economically correct, but also politically wise.