

SEMINAR
on
**Management of Volatility, Financial
Liberalization and Growth in Emerging Economies**

ECLAC Headquarters, Santiago
Conference Room II
April 24-25, 2003

**THE POLITICAL ECONOMY OF BASLE II AND IMPLICATIONS
FOR EMERGING ECONOMIES**

Stephany Griffith-Jones and Avinash Persaud

April 4, 2003
Draft for comments only

THE POLITICAL ECONOMY OF BASLE II AND IMPLICATIONS FOR EMERGING ECONOMIES*

Stephany Griffith-Jones and Avinash Persaud **

Abstract

One desire of banking regulation is that the points of market failure meet the points of regulation. This does not appear to be the case for Basle II. The new capital accord for banks is complex where it should be simple; is more pro-cyclical than counter-cyclical; is lenient on large banks when it should lean more heavily on them; focuses on processes rather than results; and assumes that diversifying a developed country loan portfolio with developing country borrowers adds to risk rather than reduces it. In each case, regulation misses the main market failure to the benefit of large international banks and the detriment of developing countries. This may be explained by the governance of international bank regulation. There is no representation of emerging economies on the Basle Committee despite the greater size of some countries like India, China and Brazil, as compared to many of the countries that are represented. This governance structure not only challenges notions of equity, but is also leading to inefficient outcomes.

* Paper prepared for the Seminar on *Management of Volatility, Financial Liberalization and Growth in Emerging Economies*, organized by ECLAC with the support of the Ford Foundation, ECLAC Headquarters, Conference Room II, Santiago, Chile April 24-25, 2003.

** The authors are respectively, Professor of Economics, Institute of Development Studies, University of Sussex and Managing Director, State Street and Mercer Memorial Chair in Commerce at Gresham College. The views expressed here are those of the authors alone. We are particularly grateful for the comments and thoughts of Jonathan Ward, Martin Wolf, Miguel Segoviano and Stephen Spratt.

Contents

INTRODUCTION.....	1
1. Influence by banks on regulators	2
2. Three important characteristics of banking.....	2
a) Systemic risks, discipline and large banks	3
b) Local knowledge.....	3
c) Uncertainty, herding and pro-cyclical behaviour.....	4
d) Influence and the implications	5
3. Implications for the financial system as a whole	6
a) Implications for speculative borrowers	6
4. Conclusion and the governance of bank supervision.....	9
Annex 1 – Data and sources.....	11
References	12

INTRODUCTION

Over the last 25 years there has been a slow realisation that what matters for a successful economy, one that delivers rapidly improving living standards for all, is not the precise levels of interest rates or budget deficits, tax breaks for this or that - not only the exact calibration of the *instruments* of policy, but also the *institutions* of policy.

One of the most important institutional frameworks is the national and international regulatory regime for banking. The role of banks went through a period of neglect in the late 1990s, when storming equity markets provided much of the new money flowing to big business, especially in the developed economies. But, then as now, most entrepreneurs start up using bank credit-card loans; most businesses are too small to raise money on the stock market and most depend on bank finance. A well-functioning banking system is essential to economic growth. This is even more the case in developing countries with underdeveloped financial markets (see Singh, 1997), but it is apparent everywhere. Japan may have the second largest stock market in the world but a wrecked banking system has strangled economic growth. In industrial and emerging economies, stock markets are not substitutes for banks; we need them both.

The right regulatory regime for banks is critical to the economic vitality of nations and the international economy. But when judged from the perspective of the main market failures that should be addressed by banking regulation, the new regime outlined in the Basle Committee's proposed second capital accord (Basle II) is not right. It is complex where it should be simple. It focuses on processes when it should be driven by credit outcomes. It is implicitly pro-cyclical, when it should be explicitly contra-cyclical. It relaxes the discipline on systemically important banks when it should tighten that discipline. It is supposed to more accurately align regulatory capital to the risks that banks face, yet in the case of lending to developing countries it ignores the proven benefits of diversification. It is possible that this is just bad luck. It is more probable that it relates to the political economy of Basle II and the odd composition of the Basle Committee on Banking Supervision.

The Basle Banking Committee members are from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom and the United States. Each of these countries is represented by their central bank, and by the authority responsible for banking supervision in that country, where this is not the central bank. The composition reflects the world political order at the beginning of the twentieth century. There is no representation of emerging market economies and developing countries on the Basle Banking Committee. This is in contrast with other Basle Committees where at least some representation of developing countries has been introduced and it is in contrast to the Financial Stability Forum that is intended to provide a platform for regulators from systemically important countries to meet.

It is true that the Basle Banking Committee does liaise with a group of 13 non-G10 countries, including Russia and China, which meets every two months to review developments and comment on current work. However, this consultative group of developing and transition economies have no clear mechanisms of influence on Committee decisions. It is useful to be

consulted, but it is no substitute to having a seat at the decision-making table. Indeed, we will argue in this paper that Basle II appears to be the result of excess influence by the large financial institutions domiciled in the countries represented on the Committee. The new Accord is to their benefit and to the detriment of emerging market borrowers and developing countries not represented on the Committee. It will probably reduce flows to developing economies and make the remaining flows more pro-cyclical and susceptible to sudden stops¹. The wider significance of this is that developing economies, and especially emerging economies, are more dependent on banking flows than industrialised economies and the world economy is more dependent today on growth in emerging economies.

In Section 1, we introduce the concept and measurement of regulatory capture. In Section 2, we test for capture of the Basle Committee by large international banks. In Section 3, we assess the impact of this capture in general and show through some empirical work that it is likely to have an excessively negative impact on lending to developing countries. In Section 4, we conclude and consider proposals for avoiding regulatory capture next time around.

1. Influence by banks on regulators

One of the most difficult tasks facing regulators of any industry is to avoid excessive influence against the public interest by those they are supposed to be regulating – regulatory capture. The heavier the regulation and the fewer the number of players in an industry the bigger the incentives are for the industry to try and influence the regulator. Banking is one of the most heavily regulated industries and banking systems are invariably dominated by a small number of large players. Four banks dominate retail banking in the UK. Just 12 banks dominate international banking.

Regulators are intelligent, hard working and conscientious. However, they are generally not as expert in the conduct of banking as the bankers. Furthermore, bankers have the resources and the incentive to pay for the studies from outside experts that better inform their positions. Regulatory costs create a countervailing lobby against regulation. In the end, through superior expertise and information, regulators often become persuaded of the bankers' position. This is the most perfect and least visible form of regulatory capture – a capture of minds.

The principal way to observe the capture of minds is to step back from the detail and observe the mis-match between the points of regulation and the points of market failure that regulation should be addressing. Ideally these points should meet and the wider they miss each other the more likely regulators and regulation have been subject to excessive influence.

2. Three important characteristics of banking

In identifying the market failure that needs to be addressed by the international bank regulator there are three characteristics about banks that we need to know.

¹ For further literature on capital surges and stops in emerging markets see Ffrench-Davis, R. and Griffith-Jones S. (1995), "Coping with Capital Surges: The Return of Finance to Latin America", Lynne Rienner Publishers.

a) *Systemic risks, discipline and large banks*

As is well discussed in the financial literature, banks pose systemic risks, even more so than the average hedge fund. Banks are leveraged: they lend several times their capital. They are in the *business* of mismatching duration and credit risks: they borrow cash short-term to lend to individuals and companies often long-term. As such they play a key role in financing and supporting overall economic activity. They are at the centre of the payments system: their loans are often used as collateral for other loans, so that if one large bank pulls its loan early, a whole pack of cards could come tumbling down. The bigger the bank, the bigger the tumble.

One of the consequences of the systemic implications of a failure of a big bank is that there is a loss of internal discipline as banks become too big to fail. In August 1982, the threat of a Mexican default of its foreign debt threatened the solvency of Citibank and Chase Manhattan and other major banks which had lent, evidently recklessly, to Mexico and Latin America. Their failure would have undermined the banking system as a whole. This focused the minds of US officials who arranged an emergency financing package for Mexico and pressured the IMF and World Bank to help co-ordinate a restructuring of Mexican debt. The management of Citibank and Chase had a scare but survived and later prospered. In February 1995, The Bank of England allowed Barings Bank to fail after Nick Lesson accumulated an \$860m loss while gambling on futures contracts based on the Nikkei-225 stock index. Barings had become relatively small and the systemic risk judged minimal². Baring's senior management was disbarred from the city. There is moral hazard here: if you are going to fail, better fail big.

b) *Local knowledge*

A key point about banking is that it is part of the information industry. One of the most visible consequences of the collapse of information costs in society as a whole has been the disappearance of high street bank branches. Form-filling in face-to-face meetings is no longer a cost-effective way of gathering information when digital banking means every dollar or pound you spend or save can be monitored daily and fed through a computer program searching for patterns. A good bank is one that knows its customers better than others and so lends to some that others wouldn't touch, and draws back from others that the broad markets like.

The Grameen bank in Bangladesh illustrates this point well, with an added twist. Grameen has become something of a Shumpeterian icon, but its success underscores an interesting distinction between sophistication and effectiveness of credit risk management. Grameen lends small amounts of cash to women engaged in cottage industries or small agribusinesses. Previously bankers did not lend to poor women, which meant that they did not have a credit history, nor did they have any collateral, yet Grameen's credit risk management was highly successful, being centred on little more than the strong social mores of Bangladeshi villagers where women held the purse strings, were too proud to default and were too committed

² In the 1890 *Barings Crisis*, the bank was judged to be more important to the financial system. Following reckless lending to Argentina and rise in interest rates by the Bank of England in order to calm speculative fever on the London stock market, Barings faced collapse. In order to stop a systemic crisis the Bank of England organised a lifeboat by borrowing French and Russian gold.

to their extended families to run off. Knowing your customers is key to good banking; precisely how you do it is less so.

c) *Uncertainty, herding and pro-cyclical behaviour*

Banks exhibit herd behaviour. This is not because they are irrational - though they may be. Herding is a rational response to uncertainty³. Most market participants can be characterised as people who think that somebody out there knows something they do not know and if you think that, then the best policy is to follow them. It is also a rational response to the institutional dangers of being wrong and alone. Being wrong and in company is not as uncomfortable a place as it should be. If you are wrong and in company you cannot easily be singled out for punishment by the markets or courts, and if you and the crowd are so spectacularly wrong that you are in danger of bringing down the financial system, you may even get bailed out by the monetary or fiscal authorities. Being wrong and in company is not fatal – this is similar to the earlier adage that if you are going to fail, then it is best to fail big.

Herding and uncertainty lead to pro-cyclical banking. Imagine you are the chairman of a bank, deciding whether the bank should increase or decrease its credit exposure to an industry or a country. Now consider that the economy starts to speed up, asset values rise and risks appear to fall. These developments may be the lagged effects of past interest-rate cuts and just typical of a cycle that will shortly turn down, or they may be a result of some exciting permanent technological change or deregulation that everyone is calling the *new thing*. It could be either. Your opinion is evenly divided; your risks are not.

If you back the *new thing*, and extend more credit to a sector, or a region or country, you appear bold and part of the future. (In Britain, where boldness is often seen as more worthwhile than commercial success, it may even lead you to a knighthood, no less.) If your decision turns out to be a mistake and you are wrong, you are in respectable company. If instead you back a narrow cyclical view of the world, resisting the new trend, you will appear hesitant and part of the past. If you stick to this view and it turns out to be a mistake, you are wrong and alone, vulnerable to be punished by the financial markets and then the Board. Being wrong and alone *is* fatal. The story of Tony Dye, Chief Investment Officer of one of Britain's largest fund managers, UBS Philips and Drew was not atypical. In 1998 and 1999 he resisted the technology bubble in the equity markets. In the process Phillips & Drew appeared out-of-date and lost money under management. Mr. Dye was ultimately pressured to resign, a few months before the March 2000 crash.

These asymmetries in total risk mean that in the up cycle bankers are biased to backing the *new thing* or new country. Your loan and that of others makes it look even more attractive, convincing more lenders to follow. Indeed, the market begins to punish those seen to be slow to catch on, forcing the more reluctant to lend too. Boldness is virtuous. At some point however, the hot sector or country is smothered by over-lending and there is a crash.

³ For more literature on herding see Shiller (2000).

In the crash, the earlier optimism is seen to be irresponsible, the bezzles associated with all booms are laid bare⁴. Prudence is the new virtue. The market now rewards banks which are prepared to let opportunities go by if the risks are uncertain. The economy is so starved of finance and investment that, some way down the line, when the economy hits bottom and starts recovering, another investment rush quickly ensues.

These booms and crashes are charged with psychology which infects many aspects of life and work. So it is sometimes hoped that an appeal to sophisticated, quantitative risk-management techniques that rely on up to date market prices could save us from this psychology, but they cannot. If financial markets were any good at stepping out of their own shoes and witnessing their collective behaviour from an independent perspective, these crashes and booms would not happen. Their regular presence is evidence of a market failure continually repeating itself.

d) *Influence and the implications*

We have identified three aspects of banking that need to be addressed by regulation: firstly, the bigger the bank the more the systemic risk; secondly, good banking is about using superior, perhaps internal, information about local risks, and thirdly, bank assessments of risk, whether they are sophisticated or not, are inherently pro-cyclical. This suggests that good banking regulation should:

- (1) place additional regulatory costs and scrutiny on the big, systemically important banks;
- (2) encourage banks with superior local information;
- (3) use measures of inherent risk that, for example, do not chase market prices and market behaviour and emphasise the diversification and spread of risks

Basle II does almost the precise opposite. This raises the suspicion that the Basle Accord has been excessively influenced by the large international banks that it is supposed to regulate. If this is so, what would Basle II look like? First, the regulation would be very complex. Complexity is the main avenue of capture. The simpler things are, the more you can see what's going on. A 500-page rule book, for example, is an intimidating *barrier-to-entry* to non-bankers. Complexity also makes regulation less easy to enforce. Second, we would expect the regulation to focus on internal processes and less on outcomes. Sophisticated, data-hungry processes have economies of scale and so they are cheaper for big banks with a long history and more expensive for banks that are small, new or operating in developing countries. This is of course exactly what Basle II does look like.

There is complexity where there should be simplicity. There is also a lower capital requirement (an implicit subsidy) to those with sophisticated internal risk assessments, without much attention to whether or not these assessments work. Whether the Basle Committee has been captured by the large banks or not, we can never be sure, but the new accord carries the hallmarks of capture. The points of regulation do not meet the points of market failure and they miss in a way that benefits those that regulation should be toughest on.

⁴ See, Galbraith, JK. (reprinted 1997).

3. Implications for the financial system as a whole

The implications of this outcome are significant and harmful to financial stability. Internal processes on their own do not keep banks away from bad lending. Moreover, *common* internal processes across financial institutions lead to financial instability. The principal accoutrements of sophisticated internal risk assessments are daily, price-sensitive risk limits which require a bank to reduce its exposure to risk when the estimated probability of losses rise as a result of a decline in the price of an asset, or a rise in the volatility or correlation of asset prices. When a handful of banks use these systems, everyone may be better off. But if every bank uses them, and they have herded into similar positions, then when a price decline causes one bank to hit its risk limit, other banks hit theirs too. As many banks try to sell the same asset at the same time, prices plummet and volatility and correlation soar, causing the risk limits of more banks to be hit.⁵

As long as market participants herd, which they have been doing for as long as markets have existed, the spread of sophisticated risk systems based on the daily evolution of market prices will *spread* financial instability and promote pro-cyclicality. Moreover, as systemically important financial institutions teeter on the edge of liquidity or solvency as a result of using risk systems that have been approved by the regulator there will be an obligation on the regulator to bail them out. Basle II worsens each of the market failures it should be designed to correct.

a) *Implications for speculative borrowers*

Apart from the alignment of market failure with intervention, another measure of a system is how well it serves its most vulnerable members. If Basle II makes the flow of credit more unstable and pro-cyclical everywhere, as discussed above, this will have a bigger impact on borrowers at the periphery of the financial system where institutions are less well resourced and the alternatives to bank lending are fewer and harder to obtain. Combining these two separate forces suggests that Basle II could end up having its greatest and most adverse impact on banking flows to developing countries. There has also been concern that the assumptions recommended for calculating the probability of default will excessively raise the regulatory cost of lending to small and medium enterprises (SMEs) and developing countries⁶. This was of particular concern to German officials and bankers where bank lending to SMEs plays an important role for the banks, SMEs and the economy.

In response to these concerns, and intense lobbying, the draft Accord was amended so that lending to borrowers with less than Euro 50 million in annual sales received an average reduction in capital requirements of about ten percent relative to large corporates. It was argued, more on theoretical grounds than overwhelming empirical evidence, that this was consistent with the principle of risk-weighted capital requirements because the probability of default was less correlated amongst SMEs than large enterprises. A bank with a loan portfolio that is distributed widely across a range of uncorrelated markets is less likely to face simultaneous problems in all of those markets than a bank with loans concentrated in a smaller number of correlated markets. *In order to accurately align regulatory capital with the actual risks a bank might face, the*

⁵ For a more detailed discussion, see Persaud (2002).

⁶ Reisen, H. (2001), "Will Basel II Contribute to Convergence in International Capital Flows?", Oesterreichische Nationalbank, 29. Volkswirtschaftliche Tagung 2001, pp.49-69

accord should take account of this portfolio level effect. The capital requirements for a bank with a well diversified international loan portfolio should reflect the lower total risk implied by this diversification than a more concentrated portfolio.

A similar case can be made for developing countries. In other papers⁷ we have tested the argument of differential correlations between developed and developing markets, first with specific regard to international bank lending and profitability, second, with regard to country equity markets and third, in a more general macroeconomic sense. Across these different instruments, variables and time periods we find significant and consistent statistical evidence for the diversification benefits to a bank of lending to a collection of developed and developing country borrowers.

In the case of spreads on syndicated bank loans, which are a proxy for probability of default risks, have had a greater tendency to rise and fall together *within* the developed regions than between developed and developing regions. Over the sample period of 1993 to 2002, a bank with a loan portfolio that was well diversified across the major developed and developing regions, would have enjoyed diversification benefits at the portfolio level. Similarly, over the same sample period, the profitability of banks in developed markets are correlated with each other but negatively correlated with those in developing markets.

An analysis of macro variables tells the same tale. Consequently, if the incidence of non-performing loans (NPLs) in an economy is, at least partially, inversely related to the rate of GDP growth, then banks with a portfolio of loans diversified between developed and developing country borrowers would be less likely to experience a sharp increase in NPLs across the portfolio simultaneously. Similar implications can be drawn if we take movements in short-term interest rates as a proxy for the business cycle or long-term interest rates as a proxy for underlying inflation risks.

⁷ For more details on correlations and simulations, see Griffith-Jones, Segoviano and Spratt (2003), and Persaud (2003).

Table 1: Variables analysed.

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)

* (H0: Mx = My) critical value of 0.05% one-tailed test in parentheses.

Key: ROA – Return on Assets, ROC – Return on tier one capital, Syndicated – Syndicated Loan Spreads, GBI – Global Bond Index, EMBI – Emerging Market Bond Index, EMBI+ - Emerging Market Bond Index Plus, IFC G – S&P International Finance Corporation (Global), IFC I – S&P International Finance Corporation (Investable), COMP – Developed countries composite stock indices, GDP – GDP Growth Rate, GDP HP – Hodrick-Prescott decomposition of GDP, STIR – Short term nominal interest rate, STIRR – Short term real interest rate. For further details see Annex 1.

Using 10 emerging and 10 developed country equity markets we find a similar result. Emerging markets are highly correlated with each other and for equity markets, more so than developed markets. This is even more apparent in periods of financial stress and it is this feature of emerging markets that has made many discount their diversification benefit. However, over both short and long time periods (one week to three years) emerging equity markets are less correlated with developed markets than developed markets are with themselves. A bank with a portfolio of developed equity markets would have a less diversified investment or loan portfolio than if it was invested in companies from developed *and* emerging markets.

Table 1: Correlation matrix using the past ten years of daily correlations of equity returns between emerging markets and developed markets.

1 week returns			3 year returns		
	Emerging	Developed		Emerging	Developed
Emerging	0.0008	0.0003	Emerging	0.4274	-0.0132
Developed	0.0003	0.0004	Developed	-0.0132	0.0745

Source: B B o m b e r g , S t a t e S t r e e t

Countries included in analysis: Developed – US, Canada, Germany, France, Norway, UK, Australia, Japan, Switzerland, Italy. Emerging – Indonesia, Korea, Brazil, Argentina, Chile, Turkey, Mexico, Thailand, Taiwan and Jordan.

These results on three independent datasets strongly suggest that a bank’s loan portfolio that is diversified internationally between developed *and* developing country borrowers would benefit in terms of lower overall portfolio risk, relative to one that focused exclusively on

lending to developed countries. In order to test this more directly, we simulated two loan portfolios, using the past ten years of loan data, one portfolio with only developed country borrowers the other with developed and developing country borrowers. The unexpected losses for the portfolio focused on developed country borrowers are, on average, almost twenty-three percent higher than for the portfolio diversified across developed and developing countries.

The *expressed purpose* of the proposed new Basel Capital Accord is to better align regulatory capital with actual risk. Capital requirements are intended to deal with unexpected loss. In order to accurately reflect the actual risks that banks may face – Basel II should take these diversification effects between developed and developing country borrowers into account. Not doing so places higher and excessive regulatory costs on lending to developing countries. Given the changes already made to the proposals with respect to corporates and SME lending, as well as the fact that the changes we propose would seem to have at least as solid an empirical basis, there are no theoretical, empirical or practical reasons why changes should not be made to incorporate the benefits of international diversification. Of course one key difference is that German SMEs had a representative on the Basle Committee and developing country borrowers do not.

4. Conclusion and the governance of bank supervision

It is no coincidence that the critical stakeholder in the international banking system not represented on the Basle Committee – developing countries – receive the rawest deal from the new Basle accord. It is no surprise that the one group that appears to have excessively influenced the Basle Committee, are the most powerful financial institutions domiciled in countries represented on the Committee. The outcome of Basle II seems to relate to the composition of the Committee. With this in mind and given that the Basle Capital Accord is a global standard that is likely to have a very large impact on emerging economies and that emerging markets are critical to the global economy, the composition of the Basle Committee needs to be changed. A more sensible composition would reflect global GDP. The ten largest economies would bring in China, India, Brazil and either Mexico or Russia to the Committee to join the US, Japan, Germany, UK, France and Italy. The new countries are critical to the global economy and to cross-border bank lending. This new composition would have the virtue of powerful economic logic behind it, and would counter-balance the influence of the large international banks domiciled in developed countries. However, it would require some small developed economies to leave the Basle Committee.

There may be politically more acceptable alternatives. For instance, the current membership could remain and India, China and Brazil could be added. Whatever the solution, concrete steps need to be taken as soon as possible to start changing the composition of the Basle Banking Committee to increase its legitimacy, especially in the light of the recent serious problems of Basle II. Indeed, we suggest that the Basle Committee start meeting with a representative group from emerging countries (such as its own consultative group or members of the G-24 that represent developing countries at the IMF) to establish a process whereby emerging countries can quickly become full members of the Basle Banking Committee. This is urgent. The short comings of running the 21st century world economy, using the 19th century world order are becoming greater over time. A Basle Committee with appropriate representation

from the world economy would not just result in fairer but also in more stable financial system with welfare enhancing effects for all.

Annex 1 - Data and sources

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, United Kingdom, Italy, Canada

Others: Singapore, Ireland, Greece, Portugal, Finland

Table 1: Variables analysed:

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
Macro	STIRR	Short term real 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.

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

References

- Ffrench-Davis, R. and S. Griffith-Jones (1995), eds., *Coping with Capital Surges: The Return of Finance to Latin America*, Lynne Rienner Publishers, Boulder.
- Galbraith, J.K. (reprinted 1997), *The Great Crash 1929*, Mariner Books.
- Griffith-Jones, S., M. Segoviano and S. Spratt (2003), "Basel II and Developing Countries: Diversification and Portfolio Effects", Institute of Development Studies at www.ids.ac.uk/intfinance/
- Persaud, A. (2003), "Globally Responsible Investment", Gresham Lecture, available on www.gresham.ac.uk.
- _____ (2002), "Liquidity Black Holes: And Why Modern Financial Regulation in Developed Countries is making short-term capital flows to developing countries even more volatile", *WIDER Discussion Paper 2002/31*.
- Reisen, H. (2001), " Will Basel II Contribute to Convergence in International Capital Flows?", Oesterreichische Nationalbank, 29. *Volkswirtschaftliche Tagung 2001*, pp.49-69.
- Shiller, R.J. (2000), "Irrational Exuberance", Princeton University Press.
- Singh, A. (1997), "The Stockmarket, the Financing of Corporate Growth and Indian Industrial Development," *Journal of International Finance*.