

# Crises and Global Financial Consolidation: Lessons for International Regulation?<sup>1</sup>

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## Introduction

Two key elements have a bearing on the international regulatory challenges for financial systems in the emerging markets. The first element is the weakness of domestic financial institutions and infrastructure revealed in recent crises. The second element is the pressures that arise for financial systems from what, for want of a better term, can be called ‘global consolidation’ – the emergence of fewer and bigger banks, the concentration of securities trading in a few centres and so on. These trends are somewhat ambiguous, but nevertheless have an important bearing on some long-term policy choices in the emerging markets.

Each trend has been much discussed in recent years, but the interaction between the two has received somewhat less attention. For instance, we can draw lessons from recent crises for the supervision of local banks; but how are supervisory strategies modified by the substantial presence in the local market of large international banks? Capital market development provides another instance. We have learnt that emerging markets need to develop their local capital markets – especially their bond markets; but does the trend towards consolidation mean that many, small local capital markets will become less and less viable? This paper raises some of these questions, but provides rather few answers.

## Lessons from Crises

The first and most obvious lesson of repeated crises is that capital flows are volatile. This volatility can take the form of large-scale swings in capital movements or of sizeable movements in asset prices to forestall heavy *ex ante* flows. Small open economies are particularly vulnerable to disruption by large flows of international capital. And they are likely to remain so. When the liberalisation of capital flows began to spread globally

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<sup>1</sup>Views expressed in this paper do not necessarily reflect the views of the BIS. Thanks to Marc Klau for statistical work and Emma Warrack for efficient secretarial assistance.

in the 1980s, the volatility that arose surprised many observers. The response at that time was often to dismiss volatility as transitional – markets would settle down once macro-economic stability was restored and when financial institutions and governments had become more accustomed to the new world of liberal capital markets. After all, capital markets had not been free since before World War I and the situation would take some getting used to. The 1990s was indeed largely a decade in which macro-economic stability was restored – progressively almost everywhere. Yet volatility has persisted. As far as can be judged, financial asset prices have been more volatile in the last decade than in the global capital market that prevailed before World War I. For instance, bond yields even in relatively stable low-inflation countries have been much more volatile than they were pre-1913 – despite more stable inflation in the recent period (Table 1). Volatility is probably intrinsic to modern financial markets, and arises even in the markets of countries that are well-managed.

**Table 1. The variability of interest rates in two periods of globalisation**

	Inflation rate		Long-term interest rate		Short-term interest rate	
	Average	Standard deviation*	Average	Standard deviation*	Average	Standard deviation*
<i>A. United Kingdom</i>						
Gold standard 1881–1913	0.1	2.2	2.7	0.1	2.8	0.8
Floating 1991–2000	3.3	1.1	7.3	0.7	6.6	1.7
<i>B. United States</i>						
Gold standard 1881–1913	0.4	3.8	4.4	0.2	4.1	1.4
Floating 1991–2000	2.1	0.5	6.4	0.8	4.7	1.2

Note: This table follows McKinnon, *The International Gold Standard*, 1989.

\*The standard deviation of the first differences of annual averages.

The issues raised by how to better manage the volatility of capital flows was the focus of a working group established by the Financial Stability Forum under the chairmanship of Mario Draghi.<sup>1</sup> Its report was published shortly after the March 2000 meeting of the Forum in Singapore.

<sup>1</sup>Financial Stability Forum. *Report of the Working Group on Capital Flows*. April 2000.

## Should capital flows be regulated?

This report did not in general see tighter control of capital movements as the solution for the problems raised by capital flows. Its basic premise was that the free movement of capital internationally is desirable because it helps both the efficient international allocation of saving among countries and the diversification of risks. But it did recognise that the use of controls on capital *inflows* may be justified for a transitional period in the face of very strong inflows or as countries strengthen the institutional and regulatory environment in their domestic financial systems. In other words, capital controls could be countenanced as prudential measures – often second-best prudential measures. The report did not, however, address the more controversial question of controls on capital *outflows*, largely because such measures are usually elements of crisis management and so were beyond the terms of reference of the Draghi Group.

Is there a case for extending the regulatory framework governing the financial system by adding rules designed to impede capital outflows? This is a controversial question. The consensus view at present is that regulatory arrangements should focus on the riskiness of exposures independently of whether such exposures are primarily domestic or foreign in origin. But this consensus is not universally shared. Several countries in Asia seek to protect themselves against sudden short-term capital outflows by limiting bank lending to non-residents. In many exchange rate crises, pressure on weak currencies has indeed been accentuated by the speculative borrowing of domestic currencies which can then be sold. Hence limiting such bank lending can seem to be an attractive option. However, the experience of many other countries suggests that such limits have become less and less effective in present-day conditions. With the growing internationalisation of business activities – especially through foreign direct investment, which has risen strongly in recent years – the distinction between resident and non-resident becomes ever harder to draw.<sup>1</sup> So too do distinctions between ‘legitimate’ and ‘illegitimate’ uses common in exchange control regulations in the past. For instance, a foreign company that has acquired substantial assets in a country and has sizeable business interests can readily find justifications for increasing its borrowing of domestic currency when it wants to ‘short’ any exposure to the local currency. For these reasons, the case for restricting lending to non-residents in order to deny the potential funding of speculative activity is not overwhelming.

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<sup>1</sup>Moreover, recent crises have often been fuelled by bona fide residents ‘shorting’ their own currency.

## **Managing foreign currency liquidity risks: banks**

The main conclusion of the report was that borrowing countries need to have their eyes open to the risks and exposures created by capital inflows. The emphasis is on a proper risk-management strategy for foreign currency liquidity risks. This applies not only to the government's management of its own position (which was extensively discussed in the report) but also to the management of such risks by banks (relevant for this conference).

The report drew lessons for both lending banks (whose loans to emerging markets contributed to an excessive expansion of credit) and for banks in the emerging markets. As regards the former, the report emphasised that lending institutions should be more aware of the risks that they are running, and that fuller disclosure by private institutions was needed in order to strengthen market oversight of lending institutions. Inadequacies in macro-economic data are part of the problem. One obvious weakness concerns data on external debt – in many countries, reporting and statistical systems need to be strengthened to improve the quality of debtor-based data. Until this happens, creditor-based data – largely the BIS banking statistics and data on international bonds – will remain the more reliable source for most countries.

Somewhat less obvious perhaps, but as important, is the need for better statistics on the aggregate exposures of financial institutions. Almost every crisis reveals that the full extent of such exposures is not known at the outset of the crisis – and in some cases true exposures turned out to be much larger than widely believed. The Draghi Report made a number of suggestions about the BIS banking statistics which are being followed up by the relevant central bank committees that meet at the BIS. Extending these statistics is important. This will involve further reporting burdens on banks – who need to be convinced that better data are in their own interest.

The report paid particular attention to risk management by banks in the emerging markets. Shortcomings in this area have made several recent crises much worse. As this report clearly recognises, the work of the Basle Committee in this area has been, and will continue to be, central. The Basle Committee's Core Principles have been key. Their success owes much to the work of a special liaison group – on which developing countries are represented – that provides a forum for discussion and continuous support for supervisors. One important lesson from this experience is that defining standards to be achieved is much more effective when supported by an infrastructure of experienced people. The lesson from this process is that standards and codes work better when set by those who have the best knowledge of and proximity to the matter being considered. No kind of

global standard setter would have provided better organisation than the current one, founded on the direct reliance as well as the exercise of consultation and co-ordination.

The IMF and the World Bank have been very closely involved in this work. A central element of the assessments under the joint World Bank/IMF Financial Sector Assessment Program (FSAP) is the monitoring of compliance with the Core Principles. It is difficult to overestimate the importance of these exercises.

Yet additional Basle Committee guidance more specially tailored to the needs of emerging markets may also be needed. It should be remembered that the present trend of supervisory oversight in countries with sophisticated financial institutions and deep financial markets is to rely more on banks' own – often more complex – risk-management procedures. In this world, the supervisors' role is to verify that well-based procedures are in place and to ensure that disclosure is such that the market can sanction excessive risk-taking. One consequence of this trend is that earlier simple supervisory rules or guidelines on particular exposures have fallen into disuse in many highly developed countries.

But such simple rules may still have useful roles to play in the conditions prevailing in many emerging markets. Borrowers in many rapidly developing countries will not have long-established credit histories and this will make credit assessments more difficult. Borrowers in countries that have recently liberalised may not have learnt to deal with foreign exchange risks. The banks and their supervisors may well be inexperienced. In addition, the deep financial markets used for hedging risks in advanced countries may not be available in many emerging markets. (However, the presence of foreign banks raises some additional issues which are considered further below.)

For these reasons, the Draghi Report argued that the liquidity and foreign exchange exposures of banks in some emerging markets could, as an interim measure, be subject to some explicit regulations. Most countries already have rules that limit banks' *net* foreign currency positions. But it is *gross* foreign currency positions that have often proved to be a problem in the past because banks use borrowing in foreign currency – from both foreign banks and domestic foreign currency deposits – to fund domestic loans. In such cases, the banks' net foreign currency exposure may be small because domestic assets denominated in foreign currency 'balance' foreign liabilities. They nevertheless remain exposed to credit risk that arises from their borrowers' foreign exchange risks.

Among the more explicit regulations to limit liquidity and foreign

exchange exposures, the Draghi Report listed the following possibilities:

- ◆ Minimum holdings of liquid foreign assets to cover liquidity risks arising from foreign currency liabilities. Requirements could be tiered so that lower liquidity ratios would apply to long-term foreign currency borrowings than to short-term borrowing.
- ◆ Reserve requirements, with or without remuneration, could be imposed to discourage foreign currency funding.
- ◆ Regulations could require banks to match maturities of foreign currency assets and liabilities. More stringent minimum maturities could be imposed on foreign currency funding.
- ◆ Regulations could require banks to hedge their foreign currency risk exposure in transactions and to ensure that their borrowers hedge their exposure as a condition for obtaining loans from banks.
- ◆ To lower credit risk, foreign currency loans could be restricted to a fixed percentage of capital or banks could be required to hold more capital and/or loan-loss reserves against these loans.

Over time, more sophisticated approaches to the management of risk should be developed. Large financial institutions have made significant progress in this area in recent years. One trend that deserves emphasis is the development of stress tests. Standard value-at-risk techniques have proved to be of limited value in measuring exposure to extreme market events because: (i) such events occur too rarely to be captured by empirically driven statistical models; and (ii) correlations estimated in normal times change when markets come under stress. A stress test involves the examination of a scenario which is plausible, if somewhat exceptional. A recent BIS review of practice in the private sector found that most private institutions increased the resources they devote to stress tests after the Asian financial crisis in 1997 and the global turbulence in autumn 1998.<sup>1</sup>

Such tests should, in time, help those responsible for financial stability to get a clearer picture of risk intermediation in the financial markets. Although it is too early to know whether the tests applied by individual institutions can be aggregated in a meaningful way (and the difficulties should not be underestimated), the process of asking about the likely consequences of plausible (not of course central) scenarios can be a useful discipline in revealing hidden risks and in ensuring that financial institutions can cope with unexpectedly adverse developments.

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<sup>1</sup>Committee on the Global Financial System. *Stress testing by large financial institutions: current practice and aggregation issues*. April 2000.

## Developing bond markets

A second recommendation of the Draghi Group was the need to develop domestic bond markets. The absence of bond markets has several consequences. The first is that it tends to concentrate intermediation risks on banks, rather than allowing risks to be spread via markets. Alan Greenspan has recently suggested that the banking crises in Asia probably exerted a more depressive impact on activity in the region because of the absence of well-functioning capital markets to take over intermediation that banks with much-weakened balance sheets could not undertake.<sup>1</sup> He argued that the mild US recession of 1991 could have been more severe had not capital markets (which were largely unaffected by the decline in real estate prices) been able to substitute for bank lending.

The second consequence of absent domestic capital markets is that borrowers will tend to incur foreign currency exposures even if the country as a whole has no such exposure. Without capital markets to invest in at home, resident savers have to place their funds abroad and resident investors in effect borrow them back. Where the only funding available in the domestic market is short term (whether from banks or the market), companies which need long-term funding have to choose between borrowing at home (and exposing themselves to maturity risks) and borrowing abroad (foreign exchange risk).<sup>2</sup>

Several emerging market countries are indeed attempting to develop their bond markets. Latin American governments have begun to lengthen the maturity of government debt, which is often short-term or at floating rate. Increased government bond issuance in Asia in the wake of larger budget deficits (inflated by costs of bank restructuring) has begun to create larger bond markets. The absence of fiscal deficits does not necessarily preclude government bond issuance because the authorities can issue debt and invest the proceeds in other assets. But one question with issuing bonds with no deficit to finance is whether governments should in principle take such financial investment decisions, or whether such choices are best left to the private sector. Normally, such decisions are best left to the market; but the social benefits from developing a local bond market may outweigh this. In any event, the volume of outstanding local currency bonds issued by governments in emerging markets has risen substantially in the past decade (see Table 2). Latin American

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<sup>1</sup>Alan Greenspan. Remarks before the World Bank Group and the IMF. Programme of Seminars, 27 September 1999.

<sup>2</sup>In the absence of long-dated swap markets (can these be very deep without a government bond market?)

issuance has been large (although these figures are inflated by the inclusion of dollar-linked bonds in Argentina and Brazil). There has been a notable rise in the volume of bonds issued in Korea and Thailand (not shown in Table 2).

**Table 2. Long-term local debt securities outstanding\***  
(\$ billion, at end of year)

	1990	1995	1996	1997	1998	1999
Argentina	6.0	15.7	19.1	23.2	21.7	24.6
Brazil		72.2	96.8	116.2	107.4	112.6
Mexico	23.8	11.2	12.3	14.3	16.9	19.1
Hong Kong	0.4	3.3	2.7	4.1	5.4	6.8
Korea	52.2	114.3	121.6	69.6	137.2	148.5
Malaysia	25.6	40.3	47.	34.5	41.4	52.0
Singapore	25.3	44.7	51.0	11.0	14.2	14.2

\* Maturity over one year.

Source: BIS. *International banking and financial market developments*.

However, turnover in such markets remains low. Although statistics on turnover are notoriously unreliable, the turnover ratios recorded in several major emerging market countries is well below the range in most industrial countries (where turnover ratios generally exceed ten). It is possible that low liquidity is an inevitable feature of bond markets in any small country. Bond markets can be liquid only if the different holders have broadly independent liquidity needs. In small countries, domestic holders may tend to need liquidity at the same time (for example during recessions). The presence of foreign holders could offset this to some extent, but such investors may be more subject to herd behaviour. Even so, there are ways of enhancing the liquidity of government bond markets. Several important recommendations were made in a recent note prepared by the Committee on the Global Financial System (CGFS) that meets at the BIS.<sup>1</sup> Included among these were recommendations to concentrate issuance on large benchmark issues at key maturities; to avoid tax distortions that impede liquidity; to ensure transparency; and to develop safe trading and settlement practices.

All this is relatively non-controversial. A more difficult question is whether governments should be even more activist in fostering government debt

<sup>1</sup>CGFS (1999). 'How should we design deep and liquid markets: the case of government securities?', October 1999.

markets. One possible policy to support the development of bond markets is to develop funded pension systems. (The poor performance of many government pension schemes suggests that such a policy may well be desirable for its own sake, and indeed this has been advocated by the major international financial institutions.) Given the nature of their future liabilities, such funds tend to invest in government bonds, and many countries have regulations which require investment in domestic securities. The case most often cited is that of Chile, where the development of a local bond market went hand-in-hand with the growth of government-mandated funded pension schemes – and this occurred despite a recent history of high inflation ('original sin' to use Ricardo Hausmann's graphic phrase) that might have made it impossible to build confidence in local currency financial assets.

On the face of it, the simultaneous development of deep government bond markets and extensive funded pension systems seems an attractive combination of policies. But there are three reservations, two of which raise rather fundamental issues. The less fundamental point is that pension funds may simply hold bonds of a given maturity (as long as possible given the maturity of their obligations?) and not trade actively. If so, they might not contribute much to the liquidity of these markets. The second, more fundamental, reservation is that diversification into *foreign* assets is particularly necessary for investors based in small open economies. Investors in such economies should seek to diversify their holdings and not keep too high a proportion of their wealth in domestic assets. This reasoning would argue against pension funds concentrating their investments in domestic assets.<sup>1</sup>

The third reservation relates to the consolidation trend apparently affecting world capital markets. The trading of the equities of emerging market enterprises on the world's largest exchanges has increased. The need for companies to trade their shares in foreign markets gave rise to the ADR market in New York. Companies in emerging markets often prefer listings on big international exchanges because liquidity on the local exchange is too low. Hardly a month goes by without some discussion on the merger on long-standing exchanges.

It is, of course, logically possible to separate the question of the trading of

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<sup>1</sup>There is, therefore, something of a paradox which arises when the same issue is viewed from assets side as well as the liability side. From the liability side, foreign borrowing exposes the borrower (and sometimes whole economies) to dangerous risks. Yet from the asset side, the accumulation of foreign rather than domestic assets helps savers diversify risks. One resolution of this paradox would be to give up an independent exchange rate – dollarisation, common-currency bloc etc.

different instruments from the issue of different exchanges – different local currency bonds could be traded on the same exchange. But is this entirely plausible? Most financial assets on a given exchange tend to be denominated in a common currency. Such a common currency serves perhaps to broaden the market. Certainly in Europe, the introduction of the euro is often seen as making already-large European bond markets almost as deep and as liquid as that of the US government bond. (Once again the question of independent exchange rate arises.)

## Coping with Global Banking Consolidation

The process of consolidation in the financial system globally appears to have strengthened in recent years. Banks world-wide have come under pressure from deregulation, freer trade in financial services and technological innovations. In major countries, the largest banks are becoming bigger – and size is increasingly being seen as necessary for exploiting economies of scale and therefore for maintaining competitive position. In some cases, consolidation has raised questions about the weakening of competition in the banking market.

Banks in emerging markets are likely to face particularly strong pressures. This is partly because many such banks face a high cost of capital or are rather inefficient by world standards. But it is also because of reduced possibilities for diversifying portfolios. In many emerging markets, the scope that local banks have in diversifying risk is inevitably smaller than in larger, more developed economies – because of size, because of more concentrated production and trade or because of concentration on certain markets. Foreign banks, on the other hand, have the advantage of being able to diversify over several different national markets.

The market share of foreign banks in several major emerging market countries has increased sharply in recent years. This has been particularly true in Latin America (see Table 3). Some countries may face the prospect of having largely foreign-owned banking systems in the space of relatively few years. An important issue to resolve is whether the process should be allowed to go as far as this, or does the foreign ownership of the banking system raise issues that do not occur in the foreign ownership of other industries? This is likely to be a complicated and controversial question. It may be useful to distinguish four issues. The first is the nature of competition in the domestic market. Does the behaviour of foreign banks change when they go from having a minority share to having a majority share of the local market? Does the reaction of domestic banks change? Some recent World Bank research which examined various measures of performance of domestic banks found that the entry of foreign banks does

indeed make domestic banks more competitive, but this effect depends more on the number of foreign entrants rather than on foreign banks' market share.

**Table 3. Share of foreign-owned banks (as a percentage of assets)**

	1994	1998	1999
Argentina	22	30	51
Brazil	9	14	23
Chile	20	32	54
Colombia	4	31	26
Mexico	1	18	16

Note: Figures in this table are meant to be indicative only.

In some countries, domestic banks have responded to the threat of increased foreign competition by domestic mergers; and this has on occasion been encouraged by governments. If this is done to increase efficiency (rationalisation), the economy can benefit. But such policies are sometimes driven by a mercantilist keenness to develop 'national champions'. If the new domestic bank that results is large enough to dominate the market and knows the government wants at least one domestic bank to remain viable, competition in the domestic banking market can actually be reduced. A bank that knows it is too big to be taken over may not perform well. Any policy of fostering 'national champions' in the banking industry could serve to create banks that are too big to fail.

The second issue concerns the nature of the supervisory regime to be applied. It was noted above that simple regulations may be useful in supervising banks in some emerging markets. But the trend in the supervision of big international banks is to allow them to use their own risk-management procedures – subject, of course, to both supervisory verification and market discipline. Other banks will still be subject to standardised rules. Applying different standards to domestic and to foreign banks in the same jurisdiction may prove to be something of a challenge, and will inevitably raise level-playing-field issues.

The third issue is how differences in the source of funds affect lending decisions, volatility of lending, etc. The suspicion that foreign banks tend to neglect lending to small businesses is often raised. In addition, foreign banks may draw more funds from abroad, and this can make a difference. What happens, for instance, when foreign banks run into difficulties at home? Do they just pull back even from potentially profitable business

abroad? An obvious case for consideration is Japanese bank lending in Asia. Did this fall because of problems in Japan or because of problems in Asian markets?

Finally – and this is perhaps the hardest question to answer – are foreign banks more likely to curtail credit in a crisis? Some research by Federal Reserve Bank of New York economists on the Latin American experience suggests that diversity in ownership appears to contribute to greater stability of credit in times of domestic crises and low domestic demand. If this is true, what can be done to maintain diversity without introducing untoward distortions? Some countries seek to ensure that the foreign owners of local banks come from different countries.

## Conclusion

The word ‘challenges’ which appears in the title of this section of the conference has been used to raise several issues in this paper, while providing few answers. Perhaps one, very tentative, conclusion could be offered. In framing regulatory policies, it is possible that the underlying and long-term forces behind globalisation are being underestimated. Perhaps the eventual result of globalisation will be fewer national banking systems, fewer capital markets and fewer exchange rates. The challenge is to design systems that can be open enough to the potential gains that this process can bring about while guarding against some of the risks.