

OCASSIONAL POLICY PAPER

**MEASURES FOR FINANCIAL STABILITY:
DOMESTIC POLICY REQUIREMENTS FOR REGENERATION OF
INTERNATIONAL CAPITAL FLOWS**

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The views expressed in the Policy Papers are those of the author(s) and do not necessarily reflect those of the Indian Council for Research on International Economic Relations (ICRIER).

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1. INTRODUCTION¹

The 1990s have been marked by a process of integration of emerging market economies with global capital and currency markets. Domestic financial markets have become much more liberalized and international linkages have also grown remarkably. A central feature of this process has been the increasingly free movement of capital across national boundaries. To the extent that they take place in well functioning, competitive markets and respond to proper price signals, capital flows imply benefits in terms of more efficient provision of financial services and more efficient allocation of resources and risks. Such benefits translate over time into faster economic growth and higher employment than would otherwise be the case. However, associated with these developments is a heightened tendency for financial instability, which may manifest itself in increased volatility of capital flows, asset price misalignments and international contagion, and even sporadic crises. Both the frequency and severity of international financial crises seems to have been rising over the last decade. Financial crises have increasingly led to severe economic disruption, increase in unemployment and return to poverty for many in some emerging markets. Having regard to these an issue high on the agenda of policymakers throughout the world is the prevention of these crises and ensuring financial stability and a sustained recovery of investments in the emerging markets.

The experience of recent financial crises confirms the strong interrelationships between macroeconomic instability and financial instability. Financial stability requires both macroeconomic stability and structural policies and conditions consistent with a sound and efficient domestic financial sector. As such, emerging market economies need to pay increased attention to monitoring the health and efficiency of financial institutions and markets and to macroeconomic and institutional developments that pose potential risks to financial stability. In this context the areas critical for policy action are discussed in this paper. First, however, the concept of financial stability is presented in the next section. This is followed by a discussion on linkages between financial stability and

¹ Background Paper for the forthcoming G-20 Ministerial Meeting, November 2002

capital mobility in section three. Domestic policy requirements for regeneration of international capital flows are detailed in section four. Section five concludes.

2. CONCEPT OF FINANCIAL STABILITY

There is as yet no generally accepted definition of financial stability. Nonetheless, financial stability is understood to apply to both institutions and markets. Financial stability² requires that:

- a. The *key institutions* in the financial system are stable, in that there is a high degree of confidence that they can continue to meet their contractual obligations without interruption or outside assistance; and
- b. The *key markets* are stable, in that participants can confidently transact in them at prices that reflect fundamental forces and that do not vary substantially over short periods when there have been no changes in the fundamentals.

Stability in financial institutions means the absence of stresses that have the potential to cause measurable economic harm beyond a strictly limited group of customers and counterparties. Banks are identified as key financial institutions³. These institutions are central to the smooth functioning of the financial system and their failure would cause a systemic crisis via greater susceptibility to runs and the operation of the payments system. Their obligations to counterparties are so large that failure to discharge them would cause widespread contagion.

In the context of financial stability “key markets” include the money, foreign exchange government securities, corporate bond markets, equity and derivative markets.

² Andrew Crockett 1997 a. “Why is Financial Stability a Goal of Public Policy” b. “The Theory and Practice of Financial Stability”, Essays in International Finance, Princeton University.

³ There is now an inclination to include a wider range of financial intermediaries as a potential channel for the transmission of systemic difficulties.

Financial and other asset markets are the focus of concern. Owing to the broad linkages of financial markets with saving and investment decisions, they have a greater potential impact on other macroeconomic variables than do developments in markets for goods and services. Financial markets impact through wealth effects as financial asset prices change, changes in the expected returns on saving and investment or through a more generalized impact on consumer and business confidence. In addition, the capacity for contagion is also greater in financial markets because of extensive mutual links.

Stability in the financial markets means the absence of price movements that cause wider economic damage. Price movement in a system should reflect changes in economic fundamentals. When prices in financial markets move by amounts that are much greater than can be accounted for by fundamentals, they have the potential to result in resource misallocation with damaging economic consequences.

Sustained price volatility that generates uncertainty, leading to an unwillingness to enter into long-term contracts hampers economic performance by discouraging the mobilization and allocation of saving through the financial system. Further, sudden or sharp price movements that place the liquidity or solvency of prudently run financial institutions at risk have more immediate dangers. When price movements have such damaging economic consequences, one can justifiably talk about instability or crisis in the system.

The concept of financial stability has also been dealt with through its “mirror image” approach – i.e. by defining financial market instability. Information asymmetry has long been recognized as a source of failure in financial markets. Theoretical literature has attempted to explain the institutional structure of financial markets by recognizing that this structure has evolved to reduce the asymmetric information problems of adverse selection and moral hazard. From this perspective, the underlying rationale for financial intermediaries is that they have the ability and the economic incentive to address the problems of asymmetric information. Calvo (1995), Mishkin (1996) and many others have recently applied the seminal contribution of Stiglitz and Weiss (1981) to define crises.

Financial instability occurs when shocks to the financial system interfere with information flows so that the financial system can no longer do its job of channeling funds to those with productive investment opportunities. Indeed if the financial instability is severe enough, it can lead to almost a complete breakdown in the functioning of financial markets, a situation which is then classified as a financial crisis. (Mishkin, 1999).

This is a more precise way of explaining the generalized loss of confidence that lies behind the rush for “secure” assets and the disintermediation that characterizes periods of extreme financial stress in the banking system. It identifies the channel by which financial markets can “seize up”, potentially causing a cumulative decline in economic activity.

The financial crises of the last decade have increased the emphasis placed on the international aspects of financial instability. The increasingly global nature of financial markets, in part reflecting financial innovations and advances in information technology and the liberalization of international capital transactions has increased the volatility and mobility of capital flows across borders, made financial institutions more interdependent and in the process provided an additional perspective into the relationship between financial liberalization and systemic stability. Certain features unique to cross border transactions increase the element of uncertainty. The potential contribution of external financial liberalization and the associated increase in capital mobility to financial instability has occupied centre-stage in policymaking. The additional dimensions through which capital account mobility impacts on financial stability are reviewed in the paragraphs that follow.

3. CAPITAL MOBILITY AND FINANCIAL INSTABILITY

The asymmetric information problem is more acute in the international context than in the national context. Distance, cultural differences and the inability to decipher local (economic and political) idiosyncrasies enlarge the discrepancy of information between lenders and borrowers. Globalization opens new weaknesses as operators

attempt to exploit legal international loopholes. As cross border capital flows involve different sovereigns with different political and economic systems, domestic monetary authorities have less influence over financial transactions and thereby are more constrained in the conduct of macroeconomic policies. Furthermore cross border capital flows while magnifying certain types of traditional risks also introduce new risks such as foreign exchange risk, transfer risk and settlement risk. We elaborate on this below.

3.1 Linkages Between the Financial Sector and the Macroeconomic Stability

Macroeconomic stability risks stem from the large size of potential inflows relative to the ability of the economy to absorb these flows. Large capital inflows may lead to excessive expansion of domestic demand, which is likely to be reflected in inflationary pressures, real exchange rate appreciation and a widening of the current account deficit. Capital inflows also typically lead to an expansion of domestic bank credit and an unsustainable increase in asset prices. Overheating eventually leads to a downturn in the economic cycle. Episodes of excessively large inflows invariably end with sudden large reversal of flows. Sudden reversal of flows and the associated pessimistic investor perceptions implies a severe weakening of the financial position of banks, non-bank financial institutions and the non-financial institutions. The adverse impact is even more serious when accompanied by the collapse of the asset price bubble. The swing in investors' perceptions may be a result of changing policy environment and sometimes may reflect herd behavior and an incomplete and inaccurate appraisal of information on economic conditions. The consequent shift in market sentiment and the fluctuations in key financial prices can imply excessive volatility in the financial system. Most emerging economies do not have the ability to bear excessive volatility in the system, as their financial sectors are not fully developed and financial markets are not sufficiently deep and liquid. Weakness in the financial sector in such circumstances increases uncertainty and constrains the policy mix further aggravating the asset price volatility and misalignments. A situation of a probable speculative attack and crisis may thus emerge.

3.2 Structural Factors – Financial Risk Management

The ability of a financial system to manage risk associated with international capital movements and transactions is largely a function of its ability to manage risk in general. If on account of structural weaknesses like inadequate market infrastructure, prudential regulation and supervision, poor internal controls and risk management in financial institutions, an economy is unable to manage risks associated with domestic financial operations the additional risks associated with cross border and multi currency operations only make things more complicated.

Structural weaknesses in the system are more pronounced when the economy is open and the capital account has been liberalized. The additional risks in cross border financial transactions are primarily attributable to foreign exchange risk and the fact that the transactions take place across countries. The traditional categories of risk associated with financial transactions (such as credit risk, market risk and liquidity risk) are further augmented on account of exchange risk⁴. Fluctuations in exchange rate may adversely affect economic agents with long or short positions in foreign currency denominated assets or liabilities. Liquidity problems and consequent delays in payment may occur leading to systemic financial problems. An overview of the main risks that arise in the context of an open capital account and instances of specific cross border transactions that may contain such risks are as given in Appendix 1.

Cross border transactions may also give rise to legal rights and obligations that may be different from those arising from analogous domestic transactions. Cross border transactions may also differ in, or lack, an enforcement mechanism. Interlocking claims and liabilities through the inter- bank markets, over the counter derivative transactions and the payment and settlement system become more complex.

⁴ Many risks can be priced. Country and exchange risk premium are usually based on an extensive credit rating industry which monitors economic and political conditions around the world. However, credit rating agencies also face the problem of asymmetric information. The failure of rating agencies, which did not issue adequate warning signals ahead of the Asian crisis, has been widely noted.

Differences in regulatory and supervisory regimes across countries could permit circumvention of domestic regulation and supervision. Capital could flow across borders to countries, including offshore financial centres, with inadequately regulated and supervised markets. This militates against effective supervision and regulation of financial institutions and transactions.

Weaknesses in risk management are often amplified on account of macroeconomic instability.

3.3 Government Involvement in the Financial sector

In countries with state dominated banking systems market oriented instruments of monetary policy tend to be less well developed. Long standing government involvement in the financial system leads to a lack of efficiency and distortions in credit allocation. Government intervention entails an implicit subsidy element that eventually impacts upon the banks' earnings and capitalization.

Implicit or explicit guarantees (typically of bank deposits) introduce moral hazard and encourage excessive risk taking. During the Asian crisis the weaknesses in the regulatory, supervisory and incentive systems in the crisis countries was aggravated by the implicit exchange rate guarantees provided by their pegged or tightly managed exchange rate regimes.

Fiscalization of losses in the financial system may cause the governments creditworthiness to deteriorate much faster. To the extent that the government assumes both external and foreign currency liabilities as a means to restore confidence in the financial system, this will strain its sovereign external debt- servicing capacity, even triggering a sovereign debt crisis.

3.4 International Linkages and Contagion

Contagion is an inherent characteristic of the financial system. Since financial decisions are forward looking, any event in a market, borrower, or instrument causes

investors to reevaluate their assessment of markets, borrowers or instruments, resulting in portfolio reallocation decisions. Capital mobility and increased financial integration could further facilitate contagion in the event of any financial crisis. The series of crises in the 1990s – in Asia, Latin America, Europe and Russia- demonstrated the importance of contagion effects in transmitting disturbances.

The above analysis suggests that increased capital mobility may be a contributory factor in explaining financial crises, potentially impacting financial system stability through two main and often interrelated channels; by posing risk to macroeconomic stability and by creating an opportunity for financial institutions to mismanage their financial risks. Initial shocks to a system can then propagate themselves through systemic linkages and contagion. Recent episodes of crises also indicate that emerging market economies that are net debtors are most at risk from volatility in capital flows. Industrial countries seem less prone to deeper crisis, even though crisis in these economies can lead to capital flow reversal, which can in turn have serious consequences on emerging markets. In this context the following areas can be identified as critical for ensuring financial stability.

4. POLICIES TO PREVENT FINANCIAL CRISIS

4.1 Financial Infrastructure and Institutions

A wide range of financial markets and instruments is essential for an efficient and robust financial system. Well- developed and efficient financial markets and institutions can help in managing the risks from international capital flows by allowing a broad range of risks to be priced, traded and diversified. Key areas for development include money and securities markets (where the latter can be subdivided into government and private securities and into equity and bond markets), financial derivatives markets and insurance markets.

Development of key financial markets, especially the money and foreign exchange markets, will strengthen monetary management and control, which in turn will facilitate the achievement of macroeconomic objectives of monetary policy and thus help

to mitigate the risks from international capital flows. For the development of a mature bond market, the emerging market government needs to play an important role. As an issuer, the government can help to develop the yield curve, improve standardization and secondary market liquidity and assist in building the necessary infrastructure (including settlement facilities). A well functioning government debt market can also lay the groundwork for the development of private debt market and also enhance the revenue stream. While equity markets have a great role to play as a provider of risk absorbing long- term finance to firms, in some cases these markets also provide an important exit opportunity for governments following a privatization program.

Derivative instruments can facilitate the development of capital markets and provide risk management vehicles that can moderate the impact of volatility. Forwards and futures can provide tools to manage price risk, interest rate risk, and currency risk. Swap transactions can be used, subject to appropriate controls, to help adjust the currency and interest rate structure of liabilities and assets. As swaps are credit products, accessibility to the swap market would be a function of the country's credit ratings.

For markets to function efficiently emerging markets need to develop the institutional and financial market infrastructure. To this end, it is necessary to strengthen the legal/ judicial framework to ensure that property rights are well defined and a sound credit culture promoted. This should be accompanied by improvement in the timeliness and relevance of information used by market participants and regulators to assess asset quality, creditworthiness and the condition of financial institutions. In addition to the development of a comprehensive and internationally comparable accounting system, the payments system for executing the transactions should also be developed.

4.2 Financial Regulation and Prudential Supervision

Emerging market economies need to pay particular attention to creating and sustaining a strong bank regulatory/supervisory system to reduce excessive risk taking in their financial system. Weak credit evaluation and speculative lending as also failure to control currency risk among banks and other financial firms are often at the origin of

financial and currency crises. Regulatory reform is therefore an essential part of the strengthening and restructuring of the financial sector. Creating a strong regulatory/supervisory mechanism for the financial system involves the following steps:

❖ *Implementation of prompt corrective action provisions*

Quick action by prudential supervisors to stop undesirable activities by financial institutions and, even more importantly, to close down institutions that do not have sufficient capital is critical if financial crises are to be avoided. Funds must not be supplied to weak or insolvent banking institutions to keep them afloat. In the long run, injecting public funds into weak banks does not lead to a restoration of the balance sheet of the banking system; instead it provides strong moral hazard incentive to take on big risks at the taxpayer's expense.

❖ *Strengthening risk assessment practices*

Sound risk management is generally assessed on the basis of four elements. These are:

- The quality of oversight provided by the directors and senior management
- The adequacy of policies for and limits for activities that present significant risks
- The quality of risk measurement and monitoring systems
- The adequacy of internal controls to prevent fraud or unauthorized activities on the part of employees

❖ *Limiting implicit government guarantees to financial institutions*

Most countries either explicitly or implicitly have a too- big to- fail policy in which all depositors at big banks are fully protected if the bank fails. This policy reduces market discipline on large financial institutions and thus increases their moral hazard incentives. The problem is even more severe in the emerging market economies as their financial systems are typically smaller and tend to be dominated by a few institutions.

Furthermore the connections of large financial institutions with the government and political power is often much greater in emerging market countries, thus making it more likely that they will be bailed out if they experience any difficulty.

In order to reduce increased incentives to take on excessive risk by large institutions, prudential supervisors need to scrutinize them even more rigorously than smaller ones and at a minimum, must impose losses on shareholders and managers when these institutions are insolvent.

- ❖ *Providing sufficient statutory powers and resources to the regulator/supervisor*
- ❖ *Promoting the independence of regulatory authorities from political interference while ensuring that they are accountable in the use of their powers and resources.*

As prompt corrective action is so important, the regulatory agency requires sufficient independence from the political process so that it is not encouraged to engage in regulatory forbearance. In addition supervisory agencies cannot be independent if they are starved for funds.

There are, however, limits to the crises preventing potential of regulation. Firstly, financial regulation is constantly struggling to keep pace with financial innovation and there is a continuing threat that new practices or transactions not yet adequately covered by the regulatory framework may prove a source of financial instability. Secondly, cross-country differences in prudential regulation and supervision may create competitive distortions and provide opportunities for “regulatory arbitrage”. Thirdly, there are difficulties regarding transparency required for regulation and supervision. The increased speed at which financial firms can now alter their balance sheet and off-balance sheet positions renders financial statements out of date almost before they can be prepared.

4.3 Developing Accounting, Auditing and Disclosure Standards and Procedures

The development of appropriate standards and procedures for accounting, auditing and disclosure is key to strengthening the financial systems in emerging markets.

The Asian financial crisis has accelerated initiatives to improve the timeliness and quality of information concerning key macroeconomic variables as well as the financial reporting of banks and non- financial firms. These are viewed as contributing towards better decision making by private lenders and investors, greater discipline, more effective policy surveillance by multilateral financial institutions and strengthened regulation and supervision.

The potential value of information associated with fuller disclosure for improved surveillance has also been a stimulus to econometric analysis of the determinants of currency and banking crises. One of the objectives of this analysis is to develop leading indicators of crises.

While the value of greater transparency and fuller disclosure are incontrovertible, views antithetical to the theory of a marketplace governed by the intense glare of full disclosure also exist. There are certain types of information that should be held confidential by the supervisors. The types of information considered sensitive vary from country to country.

4.4 Strengthen Corporate Governance

Improving corporate governance in emerging market economies is essential for building investor confidence and stimulating private capital flows. The Institute of International Finance (IIF) has formulated a code of Corporate Governance that includes detailed policy recommendations covering practices and policies, exchange rules and listing requirements as well as security and company law. Key elements of the IIF code are as follows:

- Minority shareholder protection: The IIF has identified three main areas in which minority shareholder protection is important. These are voting rights, changes to the company and its capital structure, and shareholder meetings.
- The board of directors should be so structured so as to ensure an independent check on management. A significant number of board members should be

independent from management. At the same time the board of directors should be directly responsible for disclosure of information to the shareholders.

- Accounting and Auditing: At a minimum listing requirements in emerging market countries should require that firms conform to local general auditing and accounting practices (GAAP). In addition to following the standard disclosure practices, information on off-balance sheet transactions and business risks should also be included in accounts and reports. A periodic review of risk by auditors is also suggested.
- Improved data transparency standards
- Independent regulation.

4.5 Data Requirements

In addition to better disclosure of the financial positions and risk management policies of market participants, better data on aggregate external financial position are needed if investors and borrowers are to better understand the risks inherent in international capital flows. Up-gradation of quality, timeliness and coverage of data on external flows, external liability position of the economy as a whole, as well as of key sectors of the economy is called for.

Emerging markets should aim to draw upon a range of financial vulnerability indicators addressing solvency and liquidity risks and undertake research to develop appropriate methodology needed to test for financial stress. Early- warning indicators of financial crises thus developed can contribute to improved policies for financial stability.

4.6 Monitoring Capital Flows

Free capital movements are seen as conditions of efficiency. Yet crises have rarely occurred in countries that allowed limited capital mobility. A trade-off exists between the efficiency costs of restricting capital mobility and benefits of promoting financial stability. The judicious use of controls on short-term inflows can help slowdown surges of capital flows that could aggravate financial instability. Market based measures-reserve requirements, new generation “Tobin taxes”, such as the Chilean type

compulsory deposits, can be used to selectively discourage short-term flows without harming efficient long-term flows.⁵

Quantitative restrictions have been used to discourage short-term flows in India. The authorities sanction short-term debt on a case-by-case approval of purpose, amount and terms, within a sub-ceiling of total external commercial borrowing (ECB) ceiling. Policy articulation on ECB also takes into account a desired maturity profile. Variable reserve requirements have also been used as an instrument in India, though only for foreign currency denominated non-resident deposits.

Capital controls when applied comprehensively provide a temporary breathing space in which to address weaknesses and to stabilize expectations. The controls could however also encourage delays in implementation of needed corrective policies and consequently dampen investor confidence. This could imply potential long run costs for the economy in terms of future access to capital inflows and in effect delaying the integration of the economy into global markets.

For successful implementation of controls on capital inflows, following features must be kept in mind:

- Controls can only serve as a support for a solid macroeconomic program committed to stability.
- Controls with a prudential element are likely to work best when they are temporary and apply broadly, that is, when they do not try to make subtle distinctions among particular instruments. As time goes by, the effectiveness wears off as market participants find ways to avoid the controls, in part by switching to instruments that are not covered.

⁵ Chile introduced restrictions on capital inflows in June 1991. Initially all portfolio inflows were subject to a 20% reserve deposit that earned no interest. For maturities of less than a year, the deposit applied for the duration of the inflow, while for longer maturities, the reserve requirement was for one year. Chile's system of unremunerated reserve requirement (URR) is equivalent to a tax on capital inflows. The rate of the tax depends both on the period of time during which funds stay in the country, as well as on the opportunity cost of these funds. Overall Chile's experience with controls on capital inflows is that they were successful in changing the maturity profile of capital inflows and of the country's foreign debt. It is important however to emphasize that Chile style controls on inflows are likely to be useful as a short-run tool.

- Implementation requires an effective and enforceable system of foreign exchange regulations. Authorities should impose rules in a transparent and non-discriminatory way, without privileged sectors, groups or institutions. The monetary and foreign exchange authority should also be able to enforce these regulations effectively through examinations and a transparent system of fines and sanctions.
- A fundamental requirement for capital controls to work is an adequate system of information on the universe of foreign exchange transactions, including both, those subject to regulations and those, which can be undertaken outside them.
- Capital controls require maintenance. For effective implementation their application needs to be monitored and the authorities should be ready to adjust the rules and procedures to ensure the non-discriminatory compliance with regulations.

4.7 Debt Management

The asymmetric information view of financial crisis indicates that a debt structure with substantial foreign denominated debt, as is typical in many emerging markets, makes the financial system more fragile. Currency crises and devaluations do trigger full-fledged financial crises in countries with foreign denominated debt, while this is not the case for countries where debt is denominated in domestic currency.

As foreign denominated debt is intermediated through the banking system, regulation to restrict both, bank lending and borrowing in foreign currency could greatly enhance financial stability. In addition, the development of domestic government securities markets, in which debt denominated in local currency can be issued, can help reduce vulnerability to shifts in global capital flows.

Emerging market countries should avoid issuing large quantities of short-term debt as ongoing exposure to rollover risk intensifies vulnerability to changes in market conditions.

Policy measures that create a bias toward short- term capital flows should be identified and altered appropriately in the light of the volatility they might cause.

4.8 Sequencing of Capital Account Liberalization

Capital account liberalization should be coordinated with different financial sector policies taking into account the initial conditions of both the financial and non-financial entities and their capacity to manage risks associated with international flows. General principles on sequencing that an emerging market economy should follow are as follows:

- Foreign direct investment should be encouraged as it combines the benefits of long maturity with other benefits such as risk sharing, more efficient business practices and technology transfer. Even though foreign direct investment sometimes raises concerns about foreign ownership and control, it does not generate the same acute problems of financial crises as do sharp reversals of debt flows.
- Capital account should be liberalized gradually after eliminating all the systemic distortions. It is necessary to ensure that all the major problems in the domestic financial system such as under capitalized banks, non-performing assets, connected lending and market indiscipline on account of inadequate prudential supervision and regulation etc are addressed before restrictions on the capital account transactions are removed. As a general rule non- viable institutions in the banking system should be weeded out and the remaining banks put on a sound footing before liberalizing the domestic banking system. Banks should be regulated to avoid unmatched, unhedged currency exposure in their balance sheets.
- External capital that comes in through non- banking institutions, such as portfolio investment in domestic equities and debt instruments also calls for a prior strategy. The necessary financial infrastructure, that is, clearly laid down bankruptcy laws and procedures, securities laws etc. should be instituted before inviting external capital through these instruments.

- Given the fact that short- term capital inflows can be destabilizing, there is a strong case for liberalizing longer- term flows well ahead of short-term capital inflows.
- The role of offshore currency markets in fuelling speculation has recently become a cause for concern, leading to a questioning of the extent to which emerging markets economies should encourage the internationalization of their currencies or deregulate non- resident domestic currency accounts without underlying transactions. There is a strong case for carefully monitoring and restricting the size of offshore currency markets in relation to the depth of the onshore market. Reducing the risks posed by capital flows intermediated by OFCs requires improved regulation and supervision of these centres through greater information sharing and transparency and tighter control through consolidated supervision of the relations of onshore banks with institutions in OFCs. Regulation of OFCs requires strong international cooperation to create a level playing field and prevent regulatory arbitrage.
- Emerging market economies should liberalize outflows after they have reduced macroeconomic imbalances and financial distortions to manageable proportions.

4.9 Exchange Rate Regime

The currency crises of the 1990s have led economists to rethink their views on exchange rate policies in emerging countries. The Mexican and the East Asian currency crisis and their sequels in Russia, Brazil and Turkey on the one hand, and recent experiments in parity fixing (currency boards in Argentina to full dollarization in Ecuador) on the other, have given rise to an intense debate on appropriate exchange rate regimes for emerging market economies. Some important issues in this debate are highlighted in the paragraphs that follow.

Almost all the major capital market related crises since 1994 have involved a fixed peg or crawling band exchange rate regime. In the mid –1990s, even as professional economists in academia and the multilateral institutions questioned the effectiveness of

pegged –but –adjustable rates, policymakers in the emerging economies continued to favor this exchange rate regime. In spite of Mexico’s painful experience with a rigid exchange rate regime in the first half of the 1990s, the five East Asian nations that were eventually hit by a crisis in 1997 had a rigid –de facto, pegged or quasi pegged – exchange rate system with respect to the US dollar. The belief that the exchange rate will not change removes the need to hedge, and reduces perceptions of the risk of borrowing in foreign currencies.

The impossible trinity – of a fixed exchange rate, capital mobility, and a monetary policy dedicated to domestic goals, is the major part of the explanation of for the non-viability of soft pegs⁶.

A large number of authors have argued that in countries with an inflationary problem, after a short initial period with a pegged exchange rate, a more flexible regime should be adopted.

In 1998 the IMF published a comprehensive study on “exit strategies”, where it set forward the conditions required for successfully abandoning a pegged exchange rate system (Eichengreen et al 1998). This important document presented three main conclusions. These are:

- Most emerging economies would benefit from greater exchange rate flexibility
- The probability of a successful exit strategy is higher if the pegged rate is abandoned at a time of abundant capital inflows.
- Countries should strengthen their fiscal and monetary policies before exiting the pegged exchange rate.

An important implication of this document is that it is easier for countries to exit an exchange rate nominal anchor from a situation of strength and credibility than from one of weakness and low credibility. Chile and Poland provide two cases of successful exits into a flexible exchange rate system in the late 1990s.

⁶ The conventional fixed pegs, crawling pegs, horizontal bands, and crawling bands are sometimes referred to as *soft pegs*.

The most difficult aspect of orderly exits – and one that is not discussed in detail in the 1998 IMF document – is related to the political economy of exchange rates and macroeconomic adjustment.

4.9.1 The “Two – Corners” Approach

After the East Asian, Russian and Brazilian crises, as fixed –but - adjustable regimes rapidly lost adept, the two extreme positions- super-fixed (through a currency board or dollarization), and freely floating exchange rates gained in popularity. From a historical point of view the support for the “two-corners “” approach was largely based upon the shortcomings of the intermediate systems-pegged-but-adjustable, managed float and narrow bands, and not on the historical merit of the two corners systems. In emerging markets there have been very few historical experiences with either super- fixity or with floating. While the two corners approach has become increasingly popular in academic circles it has been resisted, in particular by Asian economies.

❖ *Super Fixed Exchange Rate Regimes*⁷

Supporters of super fixed exchange rate regimes – currency boards and dollarization – have argued that these exchange rate systems provide credibility, transparency, very low inflation and monetary and financial stability (Calvo 1999, Hanke and Schuller 1998, Hausmann 1999). A particularly attractive feature of super-fixed regimes is that, in principle, by reducing speculation and devaluation risk, domestic interest rates will be lower and more stable than under alternative regimes. Adoption of Currency Board Arrangements (CBAs) has often been motivated by the desire to import credibility to the exchange rate regime. For the super fixed regime to be actually credible the following key issues must be addressed successfully

- Fiscal solvency: This imposed fiscal responsibility is in fact considered to be one of the most positive aspects of the super fixed regime.

⁷ Super Fixed/Hard pegs correspond to fixing the exchange rate to a hard currency, and holding enough reserves to back up the peg, for example by holding a stock of international reserves equal to the money base.

- The lender- of- last -resort function, which under the flexible and pegged-but –adjustable exchange rates is provided by the Central Bank, has to be delegated to some other institution. This may be a consortium of foreign banks, with which a contingent credit is contracted, a foreign country with which a monetary treatise has been signed, or a multilateral institution.
- The domestic banking system should be sound in order to minimize the frequency of banking crises.
- The monetary authority should hold enough reserves –an amount that in fact exceeds the monetary base.

Recently “dollarization” has emerged as a policy option in the context of exchange rate regimes. Dollarization is being presented as the ultimate way for achieving credibility and growth. During the last few months some countries have either dollarized or have announced that they are moving in that direction. Ecuador, in 2000, in the midst of a major crisis abolished its national currency and adopted the US dollar as legal tender. Empirically very little is known about the costs and benefits of dollarization.⁸ In addition to the above stated preconditions for super fixed regimes, an economy must consider the following issues/ features for dollarization:

- Policy credibility
- Extent of informal dollarization
- Revenue cost of seignorage loss
- Central bank solvency in the absence of seignorage sharing
- State of public finances
- Ability to successfully pursue counter- cyclical monetary policy

Other factors that are considered desirable for adopting dollarization are:

- Correlation of the business cycle with the US business cycle
- Trade integration with the US

⁸ According to S. Edwards, 2001, when the limited empirical evidence is investigated, the results are not as positive as some analysts would have the world believe. According to him, the dollarized nations when compared to other countries have grown at a significantly lower rate, have had a similar fiscal record and have not been spared of major current account reversals. The inflation rate though, has been significantly lower for the dollarized nations.

- Vulnerability to terms of trade shocks
- Openness to trade
- Flexibility of labor markets
- Degree of capital mobility
- Implicit or explicit fiscal federalism and income insurance schemes
- Political factors

The traditional models (Mundell- Fleming) as also the modern versions of Chang and Velasco (2000) cite a limitation of super- fixed regimes. According to these models negative external shocks tend to be amplified in super- fixed regimes. To the extent that it is difficult to engineer relative price changes, these external shocks will have a tendency to be translated into financial turmoil, economic slowdown and higher unemployment. The actual magnitude of this effect will depend on the structure of the economy and the degree of labor market flexibility. The Argentine experience with currency boards has led to a widespread awareness of the risks involved in excessively rigid pegs. The lack of monetary policy independence along with constraints on counter cyclical fiscal in situations of high debt burdens or large fiscal deficits, could leave dollarized economies with no effective means of dealing with significant asymmetric shocks.

❖ *Feasibility of Floating Exchange Rates in Emerging Economies*

As capital account liberalization has progressed a number of countries responded to the increase in capital flows by adopting greater exchange rate flexibility. Such moves were motivated by the recognition that the greater exchange rate uncertainty of a flexible regime would, by eliminating the implicit exchange rate guarantees provide by the pegged regimes, discourage volatile capital flows that target short term returns. Flexibility in exchange rate regimes would also discourage bank and non- bank institutions from taking excessive unhedged foreign exchange positions.

As most emerging market countries tend to export commodities or light manufactures and floating exchange rate can be extremely volatile, this has been have been traditionally cited as a reason for the inability of the emerging market economies to adopt a freely floating exchange rate regime.

More recently a new objection to floating in emerging markets has been raised. Calvo (1999), Reinhart (2000) have argued that in a world of high capital mobility, incomplete information, fads, and rumors and dollar denominated liabilities the monetary authorities will be severely affected by a “fear to float”⁹.

Recognizing the difficulties for an emerging market country of defending a narrow range of exchange rates, John Williamson (2000) proposes alternative regimes. He calls these BBC regimes: basket, band and crawl. He also recommends that if necessary, countries may allow the exchange rate to move temporarily outside the band, so that they do not allow speculators with one-way bets that lead to excessive reserve losses. In these circumstances, the band would serve as a weak nominal anchor for the exchange rate. Why this system is preferred over an inflation targeting framework is however not clear.

Generally speaking the choice between a super-fixed/hard peg or floating system should depend on the specific structural characteristics of an economy and on its inflationary history, the extent of labor market flexibility and degree of de facto dollarization/ integration of its currency and capital account transactions with another or a group of other countries.

For emerging market economies therefore, free floating strategies have high costs including excessive domestic price volatility and business uncertainty in the trading sector. De facto dollar pegs have proved incapable of accommodating diversified trade patterns, a greater capital mobility and independent monetary policies in practice. In crisis situations, currency boards suffer many of the defects of pegged regimes and have in fact required last resort lending (and borrowing) by domestic authorities to sustain domestic liquidity.

⁹ Many emerging market economies that claim to have floating exchange rates do not allow the exchange rate to float freely, but instead use policy intervention in the forex market to try to stabilize the exchange rate.

In conclusion, the argument that only “corner solutions” are feasible for emerging market economies is not valid. Emerging market economies should be allowed to choose their own exchange rate regime suited to their circumstances. International support should not be made conditional on the adoption of a particular regime. Developing countries have resisted the notion that adoption of a particular exchange rate regime should be part of the IMF conditionality for access to international liquidity. An “intermediate” exchange rate supported by economic policies including monetary policy and exchange market intervention, may be a preferred choice for economies with a high degree of involvement with global trade and subject to external financial shocks.

A fundamental point worthy of attention here is whether the emerging markets can attain exchange rate stability simply by adopting appropriate macroeconomic policies and exchange rate regimes when the currencies of the major industrial countries are subject to large fluctuations. The wide swings of dollar/yen/euro exchange rates are an important source of external shock to emerging market economies undermining their efforts to maintain sound financial policies and macroeconomic balances. A recent empirical analysis by Esquivel and Larrain B. (2002) has shown that while even a large increase in G3 exchange rate volatility may not by itself be sufficient to push a developing country into crisis, it may nonetheless play a role in precipitating a crisis in an otherwise vulnerable economy. Many observers have suggested that the global economy will not achieve greater systemic stability without some reform of the G3 exchange rate regime. Emerging markets will continue to remain vulnerable to crises as long as major currencies remain highly unstable.

4.10 Forex Reserves

During recent emerging market crises countries with low amounts of international reserves relative to short-term foreign liability have been more vulnerable to crises. While large amounts of reserves may reduce a country’s vulnerability to currency crises, they do not insulate them from such crises. If the financial sector of the economy were weakened, financial crises would be hard to prevent. Moreover the costs of maintaining these reserves could also be very large.

There has been a continuous but inconclusive discussion on the optimum level of reserves. The adequacy of reserves should be gauged not just in conventional terms as a cover for imports, but also with respect to short-term liabilities, particularly short-term debt.

Besides the size of reserves, the quality of reserves also assumes importance. Unencumbered reserve assets must be available to the authorities at any point in time for fulfilling various objectives assigned to reserves.

4.11 Willingness to Comply with Initiatives at the International level

With a view to ensuring greater financial stability, international financial institutions especially the IMF have evolved several crises prevention initiatives. The Financial Stability Forum (FSF) has identified 12 key codes and standards that are crucial for sound financial systems. These are: Code of Good Practices on Transparency in Monetary and Financial Policies, Code of Good Practices in Fiscal Transparency, Special Data Dissemination Standard/ General Data Dissemination System, Principles of Corporate Governance, International Accounting Standards, International Standards in Auditing, Core Principles for Systemically Important Payments Systems, Core Principles for Effective Banking Supervision, Objectives and Principles of Securities Regulation and Insurance Core Principles.

These initiatives can provide information, incentives and assistance to emerging market economies to encourage them to adopt sound policies and practices on transparency. Compliance with these initiatives is an important step whereby emerging markets can assure credit rating agencies and international investors of the existence of an appropriate risk management framework.

The potential of such initiatives for preventing crises however should not be overemphasized. Equally important is the adequate evaluation, by both multilateral financial institutions and market participants, of the available information to make timely and correct assessment of the emerging market's ability to continue to access

international capital markets. In this context, India has also expressed concern in the international fora such as the IMF and G-20. We briefly review Indian perspective and approach to implementation of financial Standards and Codes below.

❖ *Indian Perspective on Implementation of Financial Standards and Codes*

India is fully supportive of the need to observe certain minimum universally accepted standards in areas relevant to the maintenance of stability in the international financial system including increased transparency in formulation and implementation of monetary and financial policies and improvements in dissemination of relevant data. The establishment of a high –powered Standing Committee on International Financial Standards and Codes underscores India’s commitment to this enterprise.¹⁰ However India has been voicing some of its concerns with regard to implementation of the financial codes and standards in the international fora. These are as follows:

- India advocates a voluntary and gradual adoption process that takes account of the institutional and legal structure and stage of development in different countries.
- India cautions against categorizing countries into “performers” and “non-performers”. In effect, the transformation of a best practice goal should not result in premature conditionality for countries that approach the Fund for balance of payments support.
- Some prioritizing of implementation also becomes inevitable in the face of the large number of codes, standards and principles and the consequent demand on human and financial resources
- There is a strong case for undertaking more intensified research on the relationship between implementation of standards and codes and macroeconomic and financial stability.
- The potential for self-assessment on the part of individual countries should be explored. This will not only be cost effective but will also facilitate country-ownership.

¹⁰ India is one of the earliest members of the SDDS of the IMF.

- As financial crises can have multiple causes overemphasizing financial standards could detract from other policy priorities
- In assessing the relative importance of financial standards in crisis prevention the degree of capital account openness should also be taken note of. In this respect a “one size fits all” approach may not work

Currently there is better appreciation of India’s stand and concerns in this context in the international fora

As part of the formulation and implementation of measures for establishing a stable and robust financial system at the national level, the IMF and the World Bank should take further steps to define their respective roles and means of coordination, between themselves and with other international organizations and country groupings. Cooperation and coordination among national supervisors and regulators and international groups and organizations are crucial to strengthening the domestic financial system. The G7 governments and the international financial institutions should provide resources and technical assistance to support emerging market governments without sufficient domestic implementation capacity.

It is also necessary to ensure that those countries most affected by these standards, that is, the emerging markets, are closely involved in both the design and implementation stage. This will not only establish the legitimacy and “ownership” of the new standards but also help draw upon knowledge and experience of very diverse financial institutions. Further, since the primary motive for having standards is to catalyze orderly capital flows, while ensuring financial stability, greater consultation with the private sector in evolving and prioritizing of core standards is of utmost necessity.

4.12 Financial Safety Nets and Resolution Policies

Financial safety nets and resolution policies play an important role in the prevention and management of financial crisis. These policies include official liquidity or lender- of- last -resort support, deposit insurance, insolvency laws and procedures and

arrangements for the systemic restructuring of weak or failed financial institutions. When appropriate institutional arrangements are in place in these areas, and their functioning is well understood and seen as credible by markets they will help to restore confidence and reduce the susceptibility of individual financial institutions, the financial system and the economy as a whole.

The lender -of -last- resort policies have to be well designed and implemented so that these are not to be a source of moral hazard.

4.13 Adequate Macroeconomic Policies

All emerging markets should maintain price stability and steady and predictable macroeconomic environment with respect to fiscal discipline and a sustainable current account as a precondition for financial stability.

Fiscal policy vulnerabilities should be reduced and fiscal deficits that are substantially beyond a country's sustainable domestic financing capacity should be avoided. Fiscal policy ought to combine short-run flexibility with long-run discipline, while ensuring that public debt remains sustainable at all times. Further, in “ federal” arrangements such as federal states or monetary unions, the overall budget deficit should be a matter of common concern for all “sub-federal” entities also.

Central banks, which have successfully pursued price stability, have sufficient credibility so that expansionary monetary policy or a lender-of-last-resort operation in the face of financial crisis is less likely to result in inflation expectations and a sharp depreciation of the currency, which would harm balance sheets. Thus countries that have successfully maintained price stability have an enhanced ability to use monetary policy tools to engineer recovery from a financial crisis.

4.14 Investor Relations Program (IRP)

A proactive investor relations program can supplement the policies for financial sector strengthening and sound macroeconomic environment. By facilitating candid and constructive dialogue between the authorities and investors, and enhancing the decision

making process of investors through the provision of key information and streamlining its dissemination, an IRP can contribute to the stability of capital flows and help prevent crisis. A country driven investor relations strategy helps authorities shape investor perceptions and provides market feedback in response to policy changes. An IRP can also serve as a sounding board for sovereign financing operations that could in turn impact market sentiment. In addition an IRP can favorably influence the pace and timing of the sovereign's re-entry into global capital markets in cases where market access was previously lost on account of crisis or contagion. A well run IRP should provide updated information on a sovereign's macroeconomic performance and forward looking information on the sovereign's medium-term macroeconomic objectives and proposed policy measures. To earn the trust of market participants the IRP is expected to be non-partisan, clear and reliable in information dissemination. The IRP will yield potential benefits to a sovereign, only on attaining a certain level of credibility in the international capital markets. This will depend on the extent of a country's integration with global capital markets.

Major emerging markets that maintain strong investor relations programs through formal or informal channels are Mexico, Argentina, Brazil, Chile, Korea, South Africa and Turkey. China, Hungary, India, Indonesia, Philippines and Venezuela have conducted some forms of investor relations activities. These emerging market economies have resorted primarily to road shows and teleconferences at the time of new bond issuance and other securities while providing statistical information through their country web sites.

5. CONCLUSION

Financial system stability in an integrated global financial market is a complex issue and identifying and addressing potential systemic vulnerabilities are challenging tasks for emerging market economies. This paper has focussed on the aspect of financial stability in an era of global capital and currency market integration. Emerging market economies in the last decade experienced a spectacular rise in capital inflows as also the associated risks manifested in the form of crises, with increasing risk and magnitude. Efforts are therefore on at the national and international level to reduce potential

vulnerabilities in emerging market economies while maintaining capital market access. Greater transparency in emerging market economies' policies and data dissemination is expected to improve the effectiveness of surveillance internally as well as at the international level by the IMF and other organizations. The IMF is expected to play an important role in this regard through its Financial Stability Assessment Program and Financial System Stability Assessment programs. The development, dissemination and implementation of internationally recognized standards and codes of good governance could also contribute to better informed lending and investment decisions, increased accountability of economic policymakers and an improved economic performance.

In addressing systemic vulnerabilities it is important that emerging market economies simultaneously sharpen the ability to recognize and respond to new risks and crises that that will emerge in the changing global financial environment.

APPENDIX 1

RISKS INVOLVED IN CROSS BORDER CAPITAL MOVEMENTS AND INTERNATIONAL CAPITAL TRANSACTIONS SUBJECT TO SUCH RISKS

Credit Risk The failure of a counterparty to perform according to a contractual arrangement. It applies not only to loans but also to other on and off balance sheet exposures such as guarantees, acceptances and security investments. Additional dimensions of cross border transactions include:

- *Transfer risk*: when the currency of obligation becomes unavailable to the borrower regardless of its financial condition
- *Settlement risk*: risk in the settlement of some foreign exchange operations that is due to time zone differences, existence of different currencies or different settlement systems
- *Country risk*: risk associated with the economic, social and political environment of the borrower's country.

Examples include

- Banks' lending to residents and nonresidents in foreign currency
- Banks' onlending of their own foreign currency borrowing from abroad locally in foreign currency
- Banks involvement in derivative activities in foreign exchange (swap, options, forwards etc) with residents and nonresidents (including offshore counterparts); and
- Bank involvement in other off-balance sheet activities involving contingent liabilities or assets in foreign exchange (eg. Guarantees, acceptances and security investments)

Market risk: risk of losses in banks' on and off balance sheet positions arising from movements in market prices that change the market value of an asset or a

commitment. This type of risk is inherent in banks' holdings of trading portfolio securities, financial derivatives, open foreign exchange positions and in interest sensitive bank assets and liabilities.

Examples include Foreign exchange risk, interest rate risk and risk involved in derivative transactions

Foreign exchange Risk: refers to the risk of losses in on or off balance sheet positions arising from adverse movements in exchange rates. It tends to be most closely identified with cross border capital flows. Banks are exposed to this risk in acting as market makers in foreign exchange by quoting rates to their customers and by taking unhedged open positions in foreign currencies.

Examples include

- Banks' market making in spot and forward exchange markets
- Banks taking unhedged positions in foreign currencies
- Banks' derivative transactions in foreign currencies

Interest rate risk: refers to the exposure of a bank's financial condition to adverse movements in interest rates, arising out of a mismatch between a bank's interest sensitive assets and liabilities, and affects both the earnings of a bank and the economic value of its assets, liabilities and off-balance sheet instruments. Excessive interest risk may erode a bank's earnings and capital base.

Examples include

- Banks' holding of interest sensitive domestic and foreign assets and liabilities, including off- balance-sheet items

Risk in derivative transactions Derivatives are an increasingly common method of taking or hedging risks. The actual cost of replacing a derivative contract at current

market prices is one measure of a derivative's position's exposure to market risk. Since many of these transactions are registered off-balance sheet, supervisors need to ensure that banks are adequately measuring, recognizing and managing the risks involved.

Examples include

- Interest and foreign exchange rate derivative transactions (swap, options, forward, futures etc.) of residents with other residents and nonresidents.

Liquidity risk arises from the inability of a bank to accommodate decreases in its liabilities or to fund an increase in its assets at a reasonable cost. Inadequate liquidity affects profitability and, in extreme cases can lead to insolvency. In the case of cross-border transactions there is an additional foreign exchange liquidity risk that may arise from:

- A sudden interruption to banks' access to foreign funding
- Absence in general of a lender of last resort facility by the central bank for foreign exchange transactions
- A sudden dry-up in foreign exchange markets during periods of tensions to convert domestic currency to foreign currency.

Examples include

- Banks' lending to residents and nonresidents in domestic and foreign currencies; and
- Banks' borrowing from abroad.

Sources: Folkerts-Landau, Lindgren (1998), Johnston, and Otker-Robe (1999).

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