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A New Financial Architecture for Reducing Risks and Severity of Crises*

The deep integration of developing countries into the global economy has many advantages and positive effects.

In particular, capital flows to developing countries have clear and important benefits. They are especially clear for foreign direct investment, which is not only more stable but also brings technological know-how and access to markets. Other external flows also have important positive micro-economic effects, such as lowering the cost of capital for creditworthy firms. At a macro-economic level, foreign capital flows can complement domestic savings, leading to higher investment and growth; this is very valuable for low-savings economies, but may be less clear for high-savings economies like those of East Asia.

However, large surges of short-term and potentially reversible capital flows can also have very negative effects. Firstly, they pose complex policy dilemmas for macro-economic management, as they can initially push key macro-economic variables, such as exchange rates and prices of assets like property and shares, away from what could be considered their long-term equilibrium. Secondly, and more important, these flows pose the risk of very sharp reversals. These reversals can result in very serious losses of output, investment and employment. This has been dramatically illustrated by the impact of the recent crisis in Asia.

Asian-style currency crises raise a very serious concern about the net development benefits for developing countries of large flows of potentially reversible short-term international capital. While the high costs of reversals of those flows are evident, the benefits are less clear. This is in sharp contrast with foreign direct investment (FDI) and trade flows, where the very large developmental benefits clearly outweigh the costs. As a result, volatile short-term capital flows emerge as a potential Achilles' heel for the globalised economy and for the market economy in developing countries. If the international community and national authorities do not learn to manage these flows better, there is a serious risk that such volatile flows could undermine the tremendous benefits that globalisation and free markets can otherwise bring.

Analysis of the East Asian Crisis

Eighteen months after the outbreak of the crisis in Asia, its financial aspects have not yet been fully contained. Increasingly the East Asian financial crisis has been transformed in the affected countries into a serious crisis in the real economy, with highly negative social effects, as well as problematic consequences for political stability. It is noteworthy that the East Asian crisis itself, as well as its depth and length had been almost totally unexpected. The speed and extent of contagion was especially unexpected. It is therefore essential to understand both the causes that sparked off the East Asian crisis, as well as the causes that led to its deepening and spreading through contagion.

Three key elements need to be noted. First, the roots of external imbalances were grounded in private sector deficits, as most East Asian economies were running budget surpluses (here an important difference emerges with Brazil, where to an important extent the current account deficit was explained by the fiscal deficit). Second, in East Asia the crisis was a consequence of over-investment (though some of it may have been misallocated, especially in the property and electronic sectors) and not of over-consumption. Third, an important cause of the crisis was a sharp deteriora-

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tion in confidence throughout the region, spread through contagion effects, rather than significant changes in macro-economic fundamentals, which were mostly strong. Indeed, the most disturbing element in the crisis was that it affected countries with long track records of good economic management that had been remarkably successful over extended periods, in terms of economic growth, dynamism of their export sectors, low rates of inflation and high rates of saving.

How were these economies suddenly shaken by such major currency and financial crises? Clearly there were serious problems in the countries themselves including important weaknesses in their domestic financial systems and particularly in their banking systems, which were not appropriately regulated. There had been poor monitoring and regulation of short-term private debt, incurred both by banks and by corporate borrowers. Some mistakes also seem to have been made in the form in which the capital accounts were liberalised, as this was reportedly done in ways that particularly encouraged short-term flows. Furthermore, several of the East Asian countries had fixed exchange rate policies as their currencies were pegged to the US dollar; this policy became particularly problematic when the US dollar appreciated sharply vis-à-vis the Japanese Yen.

But there is another crucial causal factor, which relates to the behaviour of international capital flows. This aspect is linked to certain imperfections of international capital markets, that have almost always featured in the financial panics of earlier times, but whose impact has increased significantly due to the speed with which markets can react in today's global economy aided by highly sophisticated information technology. Paradoxically, this impact appears to be strongest for economies that either are – or are perceived to be in the process of becoming – highly successful. In these situations, euphoria in international capital markets interacts perversely with complacency by governments in recipient countries.

Successful economies offer high returns by way of yields as well as capital gains. If international investors can find ways to enter these economies, or if their entrance is facilitated by capital account liberalisation, they tend to rush in, generating a surge of capital inflows that affects key economic variables. Exchange rates become over-valued; the prices of key assets – like shares or real estate – rise quickly and sharply. There is both an increase in real income, and in perceived wealth. Banks tend to relax lending standards, lifting liquidity constraints of business firms, as they assume that current trends will continue. The payments balance deteriorates, often quite rapidly, as both consumption and investment rise. Initially, this is not seen as a problem, as foreign lenders and investors are willing to continue lending/investing. Economic authorities delay necessary adjustment, confident that their previous success will be continued, and that crises happen elsewhere.

Then, something changes. The change may be domestic or international, economic or political, important or relatively small. This change triggers a sharp modification in perceptions, leading to a large fall in confidence in the economy among internationally mobile investors, that is both foreign investors and nationals able to take their liquid assets out. The change of perception tends to be both large and quick. A country that was perceived as a successful economy or a successful reformer – for which no amount of praise was sufficient – suddenly is seen as fragile, risky and crisis prone. The change of perception tends to be far larger than the magnitude of underlying change in fundamentals warrants. Furthermore, any weakness in economic fundamentals is then discovered and magnified by markets. As in East Asia, there can be much overshooting. Exchange rates collapse, stock markets and property prices also fall sharply.

This pattern helps explain the currency and banking crises in the Southern Cone of Latin America in the early 1980s and the Mexican peso crisis. It also provides important elements to understand the 1997 East Asian crisis and the more recent crisis in Brazil. The boom-bust behaviour of short-term lenders and investors, driven not just by real trends, but by dramatic changes in perceptions is a common denominator to these crises. So is the complacency of the economic authorities in recipient countries during the period of boom.

In the case of the East Asian crisis, the reversal of private capital flows has been quite dramatic. According to figures from the Institute of International Finance (IIF), the five East Asian countries hardest hit by the crisis (South Korea, Indonesia, Malaysia, Thailand and the Philippines) experienced in a single year a turnaround of US$105 billion, a shift from an inflow of US$93 billion in 1996 to an estimated outflow of US$12 billion in 1997, an outflow projected to continue in 1998. Most of this swing occurred in commercial bank lending, followed by short-term portfolio flows, whilst foreign direct investment remained constant. The turnaround of US$105 billion in the five Asian economies represents more than 10 % of their combined GDP; as a consequence, this shift is larger than the 8 % shift that occurred in Latin America in the early 1980s.

Capital and financial markets are special, in that – though generally functioning well – they are prone to important imperfections. Asymmetric information and adverse selection play an important role in explaining these imperfections, as financial markets are particularly information intensive. Furthermore, there are strong incentives for »herding« in financial markets, as each individual short-term investor, lender or fund manager tries to choose the investment or loan that he/she thinks is most likely to be chosen by other investors or lenders. Herding seems strongly encouraged by the incentive systems (excessively short-term) with which financial market actors operate. Distortions are also caused by structures within private financial institutions, which give insufficient influence on decision-making to research departments concerned with analysis and risk assessment.

The crises in Asia have had extremely negative economic and social effects on the worst affected countries. Indonesia's GDP fell by about 15 % in 1998, and people below the poverty line increased from 20 million to 80 million, reversing many years of successful poverty reduction. GDP in Thailand shrank by about 8 %. Other affected countries, like South Korea and Malaysia, saw somewhat smaller, but also very significant declines in GDP, leading to sharp falls in employment and real incomes. Of particular concern is the fact that the poorer and more vulnerable groups in those countries are the worst affected, even though they did not contribute to cause the problem.

Also of relevance for understanding the East Asian crisis is the analysis of self-fulfilling attacks, that is crises arising without obvious current policy inconsistencies. The existence of self-fulfilling attacks and multiple equilibria for exchange rates, and for other key variables, implies that good macro-economic fundamentals are a very important and necessary but not sufficient condition for avoiding currency crises. There is at present limited understanding of what triggers self-fulfilling attacks. However, there are conditions of vulnerability that can be identified, such as the ratio of short-term debt to foreign exchange reserves, or high current account deficits as a proportion of GDP.

Another important set of factors explaining the depth, length and geographical extension of the East Asian crisis relates to mistakes in the management of the Asian crisis. Capital account led crises, which relate to expectations of private investors and lenders, may need different responses to traditional balance of payments crises, provoked by problems on the current account, and caused by public sector deficits. In the »new style« of crisis, increasing confidence of private actors is absolutely central. In this new context, diagnosis and policy measures suggested by international institutions, which emphasise negative structural features of the crisis-hit countries and require sweeping structural reforms in short periods as a pre-condition for financial disbursements may exacerbate crises to the extent that they contribute to further undermine confidence, rather than rebuild it. Furthermore, even necessary structural reforms may be unnecessarily costly to implement if done very fast and in the middle of a crisis.

A second problem has been that countries initially tend to postpone as much as possible going to international institutions like the IMF, partly because they fear that the IMF's required measures will be too draconian on stabilisation, as well as too intrusive on structural adjustment. Countries come to the IMF only when margin of manoeuvre for policy-making has become very restricted; as a result, the IMF policy conditions on stabilisation are particularly draconian. Mutual recriminations follow, negotiations are long, programmes are broken, which further undermines private sector confidence. Clearly, new more positive dynamics of interaction between crisis-prone countries and the IMF need to be urgently developed, and some suggestions are made below. Furthermore, policy conditionality need to be designed primarily so as to restore the confidence of both foreign and domestic actors. Though excessively loose monetary and fiscal policies would be counter-productive in this context, so are excessively tight monetary and fiscal policies. A key objective in the design of macro-economic policies needs to be the protection both of growth and of the most vulnerable and poorest groups of the society. Furthermore, it may be desirable that crisis management should be based on a two-tier approach, which implies first stabilising and then undertaking structural adjustment.

Lessons to be Learnt

There is growing consensus that important changes need to be made urgently in the international monetary system as a whole and in recipient country policies to avoid costly crises, as well as to manage them better if they do occur. Care must be taken, however, that the measures adopted contribute to broaden access by all developing countries to capital flows, particularly long-term ones. In this context, foreign direct investment is especially beneficial.

At the time of writing, the issue of better crisis containment and reversal was particularly urgent, due to the depth and width of the crises, affecting East Asia, Russia, Brazil and other countries in Latin America, and increasingly contributing to a slowing down of the developed economies. Especially important, in that respect, is that monetary authorities in the major developed countries are willing to relax monetary policy sufficiently and soon enough to help avoid widespread currency crises causing recessionary tendencies not only in the affected countries, but also in the world economy.

From an institutional point of view, we can distinguish three levels of measures:

- Measures within existing institutional arrangements. Two important examples are more expansionary monetary policies in the developed countries, which has been done by Central Banks of the US and Europe and changes in the capital adequacy requirements for short-term and long-term lending, which could be done in the context of the expanded Basle Committee.
- Measures that require some development, expansion and adaptation of existing institutions, such as the IMF or the regulatory Committees that meet under the aegis of the BIS. Examples would be new facilities within the IMF or adaptation of existing ones, to cope with capital account caused currency crises; the filling of international regulatory gaps, to include regulation of mutual funds and hedge funds; the recently created Forum for Financial Stability.
- Measures that require more institutional radicalism, in the sense of creating new institutions or drastically adapting existing ones. Though this is clearly desirable from the perspective of having institutions and mechanisms designed for the new needs of a globalised private financial system, it is significantly more difficult to achieve; the key problem is that new global institutions are needed to effectively manage a globalised private financial system, but there is no global government to create them, and the political process for national governments to create global institutions could be complex and slow. However, it seems at the very least, highly desirable to develop a clear vision of an appropriate new international financial architecture that would allow an orderly global financial market to support the development process. Such a vision should inform current debates on a new financial architecture.

In this context, there are three essential functions of global financial market management that are currently not properly met, and would best be met, at least in part, by new institutional developments. We sketch them out here, but discuss them in more detail below.

- Firstly, the provision of appropriate surveillance and prudential regulation of financial intermediaries. This function will hopefully now be met by the Financial Stability Forum, but there may be a case for something closer to a World Financial Authority.
- The provision of international official liquidity to countries or financial markets, including in particular last resort lending in distress conditions caused by currency crises that originate in capital account problems. This could be done by existing international institutions, like the International Monetary Fund (IMF) and the Bank for International Settlements (BIS), with co-financing from the private sector, but with an important change to the concept of conditionality, and the timing of these facilities.
- The provision of emergency standstill and orderly debt work-out procedures, that would

allow suspension of payments during times of crisis without triggering default, and debt reduction where solvency problems exist, again without triggering default. Again here an optional institutional arrangement would require some new institutional developments; some of these, like the creation of an international bankruptcy court to apply an international chapter 11 may not be too feasible. However, an alternative procedure, suggested in UNCTAD's 1998 Trade and Development Report, could be more feasible.

Table 1 provides a matrix of the categories of actions required and the actors that need to be involved.

Measures to Prevent Future Crises

As in medicine, so in finance, prevention is much kinder, more efficient and cost effective than cure. In this respect, the focus of the international community in the aftermath of the Asian crisis was on better information, on the one hand, and financial system strengthening, on the other. This focus was clearly illustrated by the agenda working groups set up under the G-22, an ad-hoc group of G-7 and developing countries.

Table 1:

The Elements of a New International Financial Architecture

Actors	**Capital-receiving Countries**		**Capital-supplying Countries**		**International Financial Institutions**		
Types of Measures	Authorities	Markets	Authorities	Markets	IMF	BIS	IBRD
Crisis Prevention	Restrict short-term inflows Improve prudential regulation and strengthen domestic financial sector Liberalise more carefully	Develop equity and forward markets Avoid uncovered foreign currency debt exposure	Risk weighted cash requirements on foreign investments for institutional investors Avoid regulatory bias towards short-term lending	Use more available information more efficiently	Last-resort lending	Extend international regulation and supervision of bank loans and portfolio flows to emerging markets	
Better Crisis Management	Use interest rates policies with care Allocate rescue package to protect the poorest first	Participate in burden-sharing		Participate in burden-sharing	Make funds available faster Promote market confidence throuth conditionality Allow for orderly debt workouts		Contain the social impact of crises

Transparency and Information Disclosure

Gaps in information certainly played a role in the genesis of the Asian crisis. As a result, much of the work of the IMF, the BIS and the G-22 during 1998 focused on finding ways to encourage countries to improve the quality of information that they make available to the Fund and the public, and to improve the quality and effectiveness of international surveillance.

Clearly, better information will certainly be welcome, but the current focus on information and transparency at the country level may be too narrowly focussed. Firstly, better and more widely available information on international financial markets may prove as, if not more, vital to international financial stability as information on developing countries. Secondly, there is little evidence to suggest that better information will be sufficient for financial markets to function well. The key issue is how information is processed and acted upon. It is now well recognised that in the lead-up to the Asian crisis, markets ignored clear signals that the levels of short-debt had risen dramatically because of phenomena such as euphoria and herding discussed above. Thirdly, it is also worth remembering that information in financial markets can never be perfect and that asymmetries will always exist. In this context, it is important that policies are designed which accommodate such failures in financial markets.

Financial System Strengthening

The Asian crisis highlighted the importance of strong financial systems in maintaining the stability of national economies, as well as international currency and capital markets. One of the G-22 working groups looked at the issues around strengthening domestic financial systems and improving international co-operation, building on the work of the BIS and a recent IMF publication on this theme (Folkerts-Landau et al., 1998).

There is already a strong degree of international consensus on what constitutes sound practices in many areas of banking supervision and securities regulation, although effective implementation, even in industrialised countries, is complex. The Basle Committee has produced the »Core Principles for Effective Banking Supervision« and the International Organisation of Securities Commissions (IOSCO) has produced similar guidelines for the securities industry. The G-22 report emphasised the need for cooperation and coordination between national supervisors and regulators, as well as among international groups. This recommendation has now been met by the creation of the Financial Stability Forum, which will be discussed in more detail below.

a. Responsibilities of capital receiving countries

An important part of the responsibility for discouraging excessive reversible inflows lies with recipient countries. It is in the period of excessive surges of capital inflows that they have greater degrees of freedom for policy-making. The role of counter-cyclical monetary and fiscal policies are essential to reduce excessive growth of domestic absorption, and/or current account deficits. The recent experience and literature indicate that a tightening of macro-economic policies is particularly desirable when indicators of vulnerability to currency crisis start to deteriorate quickly or pass certain thresholds: when current account deficits start to grow rapidly; when the proportion of capital flows which are easily reversible in total flows is high and rising; and, particularly, when short-term external liabilities grow rapidly and approach or exceed the level of foreign exchange reserves. Thus, high levels of foreign exchange reserves and limits on the level of short-term external liabilities are crucial for currency crisis avoidance.

An appropriate exchange rate regime is also essential for relatively small open economies, so as to make them less vulnerable to currency attacks. Though this is a complex issue, and the choice of the exchange rate regime should be linked to the country's specific circumstances, international evidence seems to show that exchange rate regimes like wide bands – with a possible crawling peg element – offer a good combination of flexibility with some desirable guidance to the market and anchor for monetary policy. Fixed exchange rates – though they have some advantages – offer apparently secure yields to very short-term investors, leading to surges of such inflows, and can create fixed goalposts for hedge funds and others to attack, when the situation deteriorates. Furthermore, if domestic inflation exceeds international inflation, fixed exchange rates can lead to over-valuation, which encourages domestic corporations to borrow abroad.

A counter-cyclical approach should also be applied to the supervision and regulation of the financial system, and particularly the banking system. In boom times, supervision and regulation of banks – as well as credit decisions by banks themselves – should not be just based on expectations of a continued growth scenario among borrowers. This counter-cyclical approach would moderate booms of domestic bank lending which often exacerbate the impact of excessive surges of capital inflows.

Where these surges of potentially reversible capital are excessive, it may also be appropriate for recipient countries to take measures to discourage them temporarily. Indeed, some countries (e.g. Chile and Colombia) have implemented measures (such as taxes and non-remunerated reserve requirements on flows during a fixed period) with this objective. Their aim has been threefold:

- decrease the share of short-term and potentially reversible flows,
- increase the autonomy of domestic monetary policy,
- help curb large over-valuation of the exchange rate.

The major international financial institutions now explicitly recognise that market measures taken by recipient governments to discourage excessive short-term capital flows can play a positive role, if they are part of a package of policy measures that include sound macro-economic fundamentals as well as a strong and well regulated domestic financial system.

b. The Financial Stability Forum

The large scale of international funds – compared to the small size of developing country markets - leads us to question whether measures to discourage excessive short-term capital inflows by recipient countries are enough to deal with capital surges and the risk of their reversal. Three strong reasons underpin the case for complementary international and source country action:

- Not all major recipient countries will be willing to discourage short-term capital inflows, and some may even encourage them.
- Even those recipient countries which have deployed a battery of measures to discourage short-term capital inflows have on occasions found these measures insufficient to stem very massive inflows.
- If attacks on their currencies make it difficult for countries to service their debt, official funding has to be provided.

International private investors and creditors might simply continue to assume excessive risks, in the knowledge that they will be bailed out if the situation becomes critical. This is the classical moral hazard problem.

The international financial crisis provoked a serious debate on how the surveillance and supervision of the international financial system could be strengthened in order to help prevent economic crises of this sort happening again in the future.

At the more institutionally radical end of the scale, there have been proposals for the creation of a new international body such as a World Financial Authority (Eatwell and Taylor, in this issue) or a Board of Overseers of Major International Institutions and Markets (Kaufman, 1992). Such a body would have wide-ranging powers for the oversight of regulation and supervision globally.

The other approach has been to develop existing institutional arrangements. Both the Canadian and the British government put forward proposals based on this approach in 1998. In the autumn of 1998, Chancellor Gordon Brown and Secretary of State Clare Short proposed a standing committee for global financial regulation to coordinate the multilateral surveillance of national financial systems, international capital flows and global systemic risk. It was proposed that the committee would bring together the World Bank, the IMF, the Basle Committee of the BIS and other regulatory bodies on a monthly basis to develop and implement ways to ensure that international standards for financial regulation and supervision were put in place and properly coordinated. In October 1998, the G-7 finance ministers and central bank governors asked Hans Tietmeyer, president of the Bundesbank, to develop the UK proposal and more generally consider the cooperation and coordination between the various international regulatory and supervisory bodies and to make recommendations for any new arrangements. Tietmeyer's report, released in February 1999, outlined areas where improvements to current arrangements were necessary, but stated that »Sweeping institutional changes are not needed to realise these improvements« (Tietmeyer, 1999). Instead it was proposed that a Financial Stability Forum, which would meet regularly to discuss issues affecting the global financial system and to identify actions needed to enhance stability, be convened. The Forum was formally endorsed by finance ministers and central bank governors from the G-7 at their February meeting in Bonn.

The Tietmeyer report outlined three main areas for improvement on current arrangements which have been highlighted by recent events in international financial markets:

- Efforts are needed to identify vulnerabilities in national and international financial systems and sources of systemic risk and to identify effective policies to mitigate them.
- Effective procedures are needed to ensure that international rules and standards of best practice are developed and implemented, and that gaps in standards are identified and filled.
- Improved arrangements are needed to ensure consistent international rules and arrangements across all types of financial institutions.

The Financial Stability Forum will be limited in size to 35 members, in order to allow for an effective exchange of views and decision making. Each G-7 country will have three representatives on the Forum, from the finance ministry, central bank and supervisory authority. The G-7 stated that while the Forum will initially be limited to G-7 countries, it is envisaged that other national authorities, including some from emerging market countries, will join the process at some stage. The IMF and the World Bank has two representatives each, as has the Basle Committee on Banking Supervision, the IOSCO and the International Association of Insurance Supervisors (IAIS). The BIS, the OECD and the two BIS Committees all have one representative on the Forum.

The setting up of the Financial Stability Forum is clearly a very necessary, positive first step towards enhancing the coordination of the various bodies which try to improve the way markets work. The Tietmeyer report succinctly analyses the deficiencies of the existing set of arrangements and draws what are almost certainly the right conclusions on where improvements need to be made. The question lies, however, in whether the Forum will be a representative enough and strong enough body to address all these issues.

First, the omission of any developing country authorities in the initial years of the Forum appears to be a major error. Representation of developing countries on the Forum would be desirable for both legitimacy reasons, and because it would provide the body with a wider range of expertise and perspectives. Ways could easily be found to include developing countries without making the new Forum too large. If three developing countries representatives were included, the membership of the Forum would rise from 35 to 38, that is by less than 10 %. Developing country representatives (e.g. from Central Banks or regulators) could for example be chosen on a regional basis; there could be one Asian, one Latin American and one African. These representatives could be appointed for a fairly short period (e.g. 2 years) and then rotated. This type of representation by developing countries has been working rather well in other contexts, for example in the Boards of the Bretton Woods institutions.

Second, doubts have been voiced over the institutional strength of the new Financial Stability Forum. With a small secretariat in Basle, meetings only twice yearly, and no power of enforcement, will the Forum have the sufficient institutional muscle to deal with the tasks that have been identified? The setting up of the Forum represents a significant enhancement of the system of global regulation by agreement and peer pressure that has been shown to work reasonably well in the context of the Basle Committees of the BIS. International cooperation at the BIS has always been based on home country control, where sovereignty remains at the level of the nation-state, and agreements are reached through negotiation and then implemented, where necessary, through national legislation or regulation. Countries which are not represented at the Basle Committee have also adopted some of their directives (most notably, the capital adequacy standards). However, in the medium term, in a world of open financial markets, an international body with the power to make and enforce policy may well be needed (Eatwell, 1999). This would point towards a body more akin to some kind of World Financial Authority, which would be endowed with executive powers along the lines of a WTO for finance.

In the meantime, however, the Financial Stability Forum is a very important step in the right direction. Time will tell whether this body is sufficient to promote international financial stability, and to fill the important gaps in financial regulation which undermine such stability.

c. Regulatory gaps

There are three categories of flows that seem insufficiently regulated and that have played a particularly prominent role in sparking off recent currency crises:

- short-term bank loans (particularly important in the Asian crisis);
- easily reversible portfolio flows, made by institutional investors, such as hedge funds (especially important in the Mexican peso crisis but also important in East Asia);
- activities by hedge funds, relating in particular to different types of derivatives.

International bank loans are already regulated by industrial countries' Central Banks; these national regulations are co-ordinated by the Basle Committee. However, existing regulations were not enough to discourage excessive short-term bank lending to several of the East Asian countries. A key reason was that until just before the crisis most of these East Asian countries were seen by everybody including regulators as creditworthy. Another, important reason seems to have been current regulatory practice. For example, for non-OECD countries loans of residual maturity of up to one year have a weighting of only 20 per cent for capital adequacy purposes, whilst loans of over one year have a weighting of 100 per cent for capital adequacy purposes. This was done to reflect the fact that it is easier for individual banks to pull out from renewing short-term loans. However, as a result of this rule, short-term lending is more profitable for international banks. Therefore, to the banks' economic preference for lending short-term, especially in situations of perceived increased risk, is added a regulatory bias that also encourages short-term lending. An overall increase in short-term loans, however, makes countries more vulnerable to currency crises and therefore, paradoxically, banks more vulnerable as well, to risk of non-payment. Therefore, a narrowing of the capital adequacy weighting differential may be desirable.

As regards portfolio flows to emerging markets, there is at present no regulatory framework internationally, for taking account of market or credit risks on flows originating in institutional investors, such as mutual funds (and more broadly for flows originating in non-bank institutions). This important regulatory gap needs to be filled, both to protect retail investors in developed countries and developing countries from the negative effects of excessively large and potentially volatile portfolio flows (Griffith-Jones, 1998).

However, the East Asian crisis confirms what was already clearly visible in the Mexican peso crisis. Institutional investors, like mutual funds, given the very liquid nature of their investments can play an important role in contributing to currency crises. It seems important, therefore, to introduce some regulation to discourage excessive surges of portfolio flows. This could perhaps best be achieved by a variable risk-weighted cash requirement for institutional investors, such as mutual funds. These cash requirements would be placed as interest-bearing deposits in commercial banks. Introducing a dynamic risk-weighted cash requirement for mutual funds (and perhaps other institutional investors) is in the mainstream of current regulatory thinking and would require that standards be provided by relevant regulatory authorities or agreed internationally. The guidelines for macro-economic risk, which would determine the cash requirement, would take into account such vulnerability variables as the ratio of a country's current account deficit to GDP, the level of its short-term external liabilities to foreign exchange reserves, the fragility of the banking system, as well as other relevant country risk factors. It is important that quite sophisticated analysis is used, to avoid simplistic criteria which stigmatise countries unnecessarily. The views of the national Central Bank and the Treasury in the source countries and of the IMF and the BIS should be helpful in this respect. The securities regulators in source countries would be the most appropriate institutions to implement such regulations, which could be coordinated internationally by IOSCO.

The fact that the level of required cash reserves would vary with the level of countries' perceived »macro-economic risk« would make it relatively more profitable to invest more in countries with good fundamentals and relatively less profitable to invest in countries with more problematic macro or financial sector fundamentals. If these fundamentals in a country would deteriorate, investment would decline *gradually,* which hopefully would force an *early correction* of policy, and, a resumption of flows. Though the requirement for cash reserves on mutual funds' assets invested in emerging markets could increase somewhat the cost of raising foreign capital for them, this would be compensated by the benefit of a more stable supply of funds, at a more stable cost. Furthermore, this smoothing of flows would hopefully discourage the massive and sudden reversal of flows that sparked off both the Mexican and the Asian crises.

Given the dominant role and rapid growth of institutional investors in countries such as the US, the UK and France, this proposal – for a risk-weighted cash requirement on mutual funds – could be adopted first in those countries, without creating significant competitive disadvantages. However, once implemented in that type of country, efforts to harmonise such measures internationally would need to be given urgent priority for global discussions at IOSCO, so as to prevent investments by mutual funds being channelled through other countries, and especially off-shore centres, that did not impose these cash requirements. Such IOSCO international guidelines would be formulated through international consultations similar to those employed by the Basle Committee in developing the »Core Principles for Effective Banking Supervision«. The guidelines could be developed by a working group consisting of representatives of the national securities' regulatory authorities in source countries together with some representation from developing countries, in the context of IOSCO. Due account should be taken of relevant existing regulations, such as the European Commission's Capital Adequacy Directive. Finally, it is important to stress that additional regulation of mutual funds should be consistent with regulation of other institutions (e.g. banks) and other potentially volatile flows.

Careful analysis – both technical and institutional – is required on how hedge funds and other highly leveraged institutions can best be regulated to reduce their impact on magnifying volatility of capital flows, exchange rates and stock markets in developing countries. It is encouraging that there is a growing consensus, as reflected for example in the January 1999 Report by the Basle Committee on »Banking Supervision, on Banks' Interactions with highly leveraged Institutions (HLIs)«, that HLIs can pose important risks both to direct creditors and, under certain market conditions, to the financial system as a whole. The impact of HLIs on magnifying volatility in developing countries – has not yet been sufficiently studied, nor have measures designed to deal specifically with this issue been proposed internationally. However, policy responses to address risks posed by HLIs to creditors and the financial system as a whole will also help reduce negative impact on developing countries.

It is firstly important to stress that the problem does not just relate to hedge funds, but to other highly leveraged activities or institutions, such as proprietary desks of investment banks. HLIs can be defined as having three characteristics:

- they are subject to little or no regulatory oversight as a significant proportion operate through offshore centres,
- they are subject to limited disclosure requirements, and often their operations are very opaque,
- they take on significant leverage.

There are three sets of responses that can be used to address risks posed by the HLIs. Often, they are presented as alternatives. However, it would seem better to consider them as complementary.

The first response is indirect, through the major counter-parties of HLIs (mainly banks and securities houses). This can be done by promoting sounder practices in the way banks and securities houses assess risks when they deal with hedge funds and other HLIs. However, further actions by supervisory authorities also seem desirable. This refers, in particular to higher capital requirements on lending or other exposures of banks to HLIs, to reflect the higher risks involved in such exposures. It may also be desirable for supervisors to, either formally or informally, prohibit banks from lending to a particular class of risky counter-party. Such measures may not only protect banks, but could also possibly stimulate HLIs to manage risks in a more responsible way.

A second avenue, which is clearly complementary to the first, is to increase transparency on total exposures to HLIs by all financial institutions. One possibility would be an extension of the concept of a credit register for bank loans (along the model of the French »central des risques«, which provides banks access to the aggregate amount of bank lending to each company). Such a register would collect, in a centralised place total exposures (both on and off balance-sheet positions) of different financial intermediaries to single counterparties, such as major hedge funds. Counterparties, supervisors and central banks (both of developed and developing countries) could then get information about total indebtedness of such institutions, which would help them assess risks involved far more precisely. For this purpose, the information would have to be both timely and meaningful (especially to take account of rapid shifts in HLIs positions). It would seem best if such a register would be based at the BIS itself or at the Basle Committee on the Global Financial System which already has experience in similar information gathering.

A third avenue is to directly regulate hedge funds and other highly leveraged institutions. Such direct regulation could take a number of forms, including licensing requirements, minimum capital standards and minimum standards for risk management and control. In its recent report, the Basle Committee on Banking Regulation has argued that such a regulatory regime should focus on the potential to generate systemic risk by HLI activities due to their size and risk-taking. However, HLIs' effects on the volatility of exchange rates in developing countries should also be addressed in attempts at their regulation.

The most frequent argument against direct regulation of hedge funds is that they would be able to circumvent such regulations, because these institutions either are or could move easily offshore. However, if global supervision and regulation is genuinely accepted as essential in today's world of globalised financial markets, there can be no justification for »no-go« areas, where such regulations could be evaded or undermined. Both as regards provision of information, and as regards global regulation of institutions such as hedge funds, it is essential that off-shore centres comply with international standards. If the G-7 countries in particular backed this clearly, and if developing countries supported it, a political initiative in this respect should be both effective and useful.

Measures to Improve Crisis Management

Though prevention is far better than cure, if prevention fails and major currency crises do unfortunately occur, measures need to be in place to manage them as well as possible. Thus, measures for better crisis management – both nationally and internationally – are clearly complementary to measures for crisis prevention.

National measures

The policy options at a domestic level once a currency crisis explodes are very narrow, and the trade-offs very problematic. The standard response required by the markets, includes sharp increases in interest rates and significant fiscal tightening, the latter even in countries with fiscal surpluses.

Rapid sharp rises in interest rates have been quite effective in some, but not in all, cases for preventing large currency depreciations. Interest rate increases seem to have been most effective when they are timely, sharp and temporary and when other measures (e.g. fiscal ones) are taken simultaneously or were previously in place. The effect of increased interest rates depends on whether they can restore confidence or not. If interest rates remain high for a significant period, they have very damaging and undesirable effects due to their recessionary impact on the real economy. This may contribute to second round negative effects on exchange rates.

Account also needs to be taken of the specific features of individual economies, as for instance the high debt equity ratios in East Asian companies, which imply that increases in interest rates in East Asia were more likely to lead to companies' insolvency than in other regions. As a consequence the transmission mechanism of contagion between the financial sector to the real economy was greater in East Asia than in Latin America or Russia. As regards fiscal tightening, it seems important to evaluate its relevance in contexts where budget deficits are not large or there are even budget surpluses.

Sufficient international liquidity

a. Improved and enhanced role for the IMF

The first response internationally when a large currency crisis starts unfolding is to activate quickly a sufficiently large financing package to provide the important public good of stability. The key institution in this has been the International Monetary Fund, through its own resources and its catalytic role in attracting other resources, both public and private. In this context, it is a positive development that the IMF itself was given more resources, through an expansion of its quotas. To be effective for restoring confidence, the liquidity provided needs to be large. Therefore, complementary avenues for sufficient provision of early liquidity need to be explored. One possible modality is via enhanced central bank co-operative arrangements, through greatly enlarged swap arrangements. Another possible avenue is via pre-committed stand-by arrangements with private banks, as Argentina and Mexico have recently done. However, these latter arrangements are still untested, and it is unclear how well they would operate in a severe crisis. The BIS could play an important role in co-ordinating the provision of liquidity by G-10 Central Banks and private banks (as discussed below).

Besides the crucial issue of scale of resources, other issues include: timing, conditionality and ways to avoid moral hazard.

The issue of timing is important, as currency crises happen so quickly. Though the IMF and the international financial community have made important efforts to develop emergency procedures, the response to currency crises is still not fast enough. A currency crisis is able to unfold for a couple of weeks, before a financing package can be put in place. A great deal of damage can occur in that period. Due to contagion the crisis can spread rapidly to other countries. A solution worth considering is to have increasing recourse to IMF-supported preventive programmes. This implies that a request for a country's right to borrow from the IMF could be made well before a crisis happens, for example during the country's Article IV consultations. The country would only draw on this facility if a crisis occurred, but could do so immediately. This would imply that the Fund would have a »shadow programme« with the country, including policy conditions that would make a currency crisis less likely; these would naturally be less stringent than would be called for in a crisis. Hopefully, the adoption of these measures would make the currency crisis less likely. However, if it still occurred, there would be *no further conditionality* as a pre-condition for immediate disbursement.

The fact that Brazil had a sort of preventive package with the IMF (though it was agreed when the situation had already deteriorated significantly) and still had quite a large currency crisis does raise the question of whether preventive financing is enough to stop currency crises. The fact that IMF conditionality – in Brazil and elsewhere – was too deflationary, leading to economic contraction and to political resistance in the country, may have to some extent increased the probability of the crisis occurring. Therefore timeliness and appropriate conditionality need to be combined.

An additional serious problem is that when such large volumes of IMF – as well as World Bank and Regional Development Bank – funding is channelled towards middle-income countries in crisis, funding available from those institutions for low-income countries can fall drastically. Moreover, sharp reversals in private capital flows have already created serious instability in low-income countries. It is important that official support from the IMF and others should also be provided to »less important« countries in the same way as it is provided to »systemic threats« when they face identical difficulties.

Pressure on the IMF to provide international liquidity will be less if there is more equitable burden sharing between public and private contributions. This makes it very important to develop orderly work-out procedures, which will reduce the required scale for international lending (as discussed below).

A final issue is the nature of IMF conditionality that should accompany the large financial packages, linked to currency crises. A number of relevant criticisms have arisen of IMF conditionality in East Asia. Radelet and Sachs (1998) have argued that some of the IMF conditionality (e.g. on bank closures, excessive tightening of fiscal policy) not only were inappropriate, but actually added to rather than ameliorated panic in international financial markets. Furthermore, Feldstein (1998) has argued that IMF conditionality has been too intrusive and too comprehensive, trying to make dramatic changes in short periods. It is, therefore, crucial that IMF conditionality contributes to rebuild, and not undermine, markets' confidence in countries. As far as possible, IMF conditionality should focus on macro-economic policies, and not be too intrusive and comprehensive. Only where more structural reforms are essential for confidence building, and can be effectively implemented in the short-run, should they be included as part of policy conditionality. Other structural reforms could be undertaken later, once stabilisation had been achieved and growth restored.

b. Towards an international lender of last resort

It would be highly desirable that improvements in global regulation be accompanied by steps towards an international lender of last resort. Just as the growth of domestic banking in the last century created the need for central banks to act as national lenders of last resort to prevent frequent crises, so at the end of the 20th Century the rapid growth of global credit and capital markets and their extreme volatility poses the urgent need to develop steps towards an international lender of last resort.

To be able to stop panic arising and spreading, a lender of last resort has to have the discretion to create any level of necessary liquidity. At a national level, central banks are the institutions that play this role, by providing as much liquidity as they consider necessary to private financial institutions – and especially banks – in trouble. At an international level, there is at present no global institution that performs such a function, nor is such liquidity available internationally. National financial institutions have on occasions played bilaterally the role of an international lender of last resort, as in the 1992 German Central Bank support for the French franc during the ERM crisis and in the 1995 US Treasury support to the Mexican government during the peso crisis. The IMF has increasingly become the main source of support to developing countries experiencing currency crises. However, the IMF – under its current mandate – is not a genuine international lender of last resort for several reasons. Firstly, and most importantly, the IMF cannot at present create unlimited liquidity. Secondly, the IMF lends to governments with conditions attached; an international lender of last resort would provide liquidity to countries in distress, at higher cost but without conditions.

As a consequence, two separate institutional mechanisms could be envisaged. One would be an expanded and improved IMF, along the lines discussed above. The other would be a complementary facility for unconditional official lending. At a later stage, when a global central bank develops, it could become institutionalised. In the meantime it could be based on G-10 Central Bank facilities, possibly combined with private sector lending. The BIS, which is and should increasingly play an ever increasing role in global financial regulation would also be very well placed to play a key co-ordinating role for rapidly assembling financial packages by G-10 Central Banks, combined where feasible with private credit lines, to countries in currency crises, that have not been caused by countries' policy mistakes, and that are thus not required to have changes in policy.

Therefore, there would be three categories of situations.

- There would be countries which, during Article IV consultations with the IMF were deemed by the Fund to have good policies. If these countries had a run on their currency, and a crisis started to unfold, a non-conditional financial package would be assembled by the BIS, drawing possibly on its own resources, but mainly on those of G-10 Central Banks and, if feasible, on private lending.
- There would be countries which during Article IV consultations with the IMF had agreed a »shadow programme« of conditionality with the IMF (see above). If the economic authorities implemented the programme fully, and a crisis still broke out, the IMF would disburse automatically (without additional conditionality). If a bigger package was necessary, the BIS could help co-ordinate additional financing from G-10 Central Banks and private banks.
- There would be countries which, during Article IV consultations, did not want to accept a

»shadow programme« with the IMF, and did not improve their policies. If these countries were hit by a currency crisis, they would have to go as a first step to the Fund for conditional lending.

Such a procedure would provide very strong incentives for countries to have good policies, either implemented on their own or under a Fund »shadow programme«; this should make crises less likely. If, nevertheless, crises did occur, then large lending facilities by the IMF and/or lending by Central Banks and commercial banks co-ordinated by the BIS would be disbursed quickly and without additional conditionality. The role of the IMF conditionality would be greater in the preventing crises phase, but smaller in the managing crisis phase. As a result, its conditionality could be less draconian (in terms of growth) and thus less controversial.

Orderly debt workouts

The larger scale of capital flows to emerging market countries in recent years means that official funds can no longer be relied upon to offset the private outflows during a crisis. Moreover, the scale of the recent IMF-led rescue packages in Asia and Brazil have led to increased concern over the issue of moral hazard. The perception that official resources will be made available should a country experience difficulty in meeting its financial obligations can distort the incentives to both creditors and debtors. This moral hazard is particularly strong on the lenders' side, as lenders and investors are spared from having to bear the full risks of their investment decisions by IMF-led bailouts.

The need to reduce moral hazard does not, however, imply that the official sector has no role in the resolution of financial crises. The problems involved in collective action, and the risk of contagion are clear justification for official intervention in crises. Still, ways need to be found to encourage a greater assumption of risk by the private sector, as well as to involve the private sector at an early stage in crisis resolution in order to achieve equitable burden sharing vis-à-vis the official sector.

One of the G-22 working groups, assembled in 1998, reviewed some of the proposals which appeared in a G-10 report, produced in the wake of the Mexican peso crisis , which examined ways to deal with sovereign liquidity crises (Group of Ten, 1996). One issue common to both reports is the importance of promoting orderly arrangements to co-ordinate debtors and creditors in the event of a crisis. Difficulties associated with creditor co-ordination, particularly the creditor »grab-race« in which actions taken by individual creditors in pursuit of their self-interest can disrupt orderly debt workouts, can reduce the potential resources available to all creditors and help create a situation of panic. The greater diversity of recent capital flows to emerging market countries, with a more heterogeneous set of international creditors than in the past, has also added to the difficulties of co-ordinating debt workouts. The G-22 group put forward the proposal that certain contractual clauses could be incorporated into sovereign bonds issued in foreign offerings. Such clauses would:

- provide for the collective representation of debt holders in the event of a crisis,
- allow for qualified majority voting to alter the terms and conditions of contracts, and
- require the sharing among creditors of assets received from the debtor.

These clauses would encourage dialogue between debtors and creditors, as well as among creditors, and prevent a minority of dissident investors from holding up settlement. This would therefore facilitate a more orderly resolution of crises.

The G-22 report also examines alternative ways of achieving standstill-type arrangements. Countries, the report states, should make every effort to meet the conditions of all debt contracts in full and on time. However, in certain cases, a temporary suspension of payments may be a necessary part of the crisis resolution process. In such cases, a voluntary, co-operative and orderly restructuring, combined with a programme of reforms, constitutes the most efficient means of crisis resolution. An orderly and co-operative restructuring process would be aided by »an enhanced framework for future crisis management«[1] that would allow the international community to signal its approval of a temporary payments suspension by providing

1. See point 4.9 of the report of The Working Group on International Financial Crises.

financial support to the crisis country. This signal would only be provided where the international community believed the government's decision to suspend debt payments was the only reasonable course open to it, that the government is implementing a strong programme of policy reform, and that it is making every effort to reach agreement with creditors.

Lending in such circumstances provides the IMF with the opportunity to manage a crisis by signalling confidence in the debtor country's policies and longer-term prospects, and indicating to unpaid creditors that their interests would best be served by reaching agreement with the debtor quickly. Governments that impose a standstill as part of a process of co-operative and non-confrontational debt renegotiation, it is argued, would be unlikely to be penalised by creditors. The G-22 report stops short of supporting proposals to provide sovereign debtors with greater formal protection from legal action by creditors during a payments suspension. It does not see this as feasible, and regards the general issue of protection from legal action as one requiring further consideration.

One important concern often raised is that any mechanisms which would make it easier for borrowers to default on their financial obligations, even with the support of the international community, could make it harder for borrowing countries, and possibly emerging markets generally, to access international capital in the long-term or, at least, increase their cost of borrowing. The counter-argument is, that financial crises, like the one which began in Asia in the summer of 1997, drastically reduces the access of affected countries to international capital and, when they can borrow, sends their borrowing costs sky-high. Similarly, some argue that payment standstills may spark off contagion; if markets get wind of a payments suspension in one emerging market economy, they may well pull out of other markets perceived to be »similar« in some way. This argument may well have validity, but the absence of declared payments suspensions during the early months of the Asian crisis did not stop contagion sweeping through East Asia.

Another objection voiced over orderly workout procedures designed to assist countries which are forced to declare a temporary payments standstill is based on moral hazard. If countries can default on their debts with official blessing, it is feared, false incentives will be provided to borrow imprudently. However, moral hazard for borrowing countries would be limited by the painful experience of crises, and by the strict conditionality that the IMF currently imposes on lending in such circumstances. Furthermore, the possibility of a suspension of payments would reduce the moral hazard that encourages lenders to lend too much in the expectation that they will be bailed out by an IMF-led rescue should things go wrong.

The search for more effective ways to manage financial crises remains a priority as, although prevention is undoubtedly better than cure, crises will never be eliminated altogether. The standard crisis response, which concentrates on imposing tough stabilisation measures on debtors, has contributed to undermine growth, as well as dramatically increase poverty, in the countries affected by the crisis. The lengthy negotiations to agree debt restructuring in Indonesia provides a potent example of the failings of the present arrangements. The absence of an adequate framework for crisis management has meant that valuable time was wasted in Asia, and crises which may well have been short-term liquidity crises at the outset became full blown economic, financial and social crises. ◀

References

Agosin M. 1996, »El retorno de los capitales extranjeros a Chile« *El Trimestre Económico,* Mexico.

Akyuz Y. 1998, »The East Asian Financial Crisis: Back to the Future?« http://www.unicc.org/unctad/en/pressref-prasia98.htm.

Bagehot W. 1873, *Lombard Street: A Description of the Money Market* (London, Reprinted John Murray, 1917).

Bank for International Settlements (BIS) 1995, *65th Annual Report* (Basle, BIS).

Boorman J. 1998, »Reflections on the Asian Crisis: Causes, Culprits, and Consequences«, paper prepared for the FONDAD conference on »Coping with financial crises in developing and transition countries: regulatory and supervisory challenges in a new era of global finance«, March 1998.

Budnevich C. and Le Fort G. 1997, *Capital account regulations and macro-economic policy: two Latin American experiences*, Banco Central de Chile. March. Documento de Trabajo 06. Santiago, Chile.

Camdessus M. 1998a, »Is the Asian Crisis Over?«, Address by Michel Camdessus at the National Press Club, April 2 1988, Washington DC.
http://www.imf.org/external/np/speeches/1998/040298.htm

Camdessus M. 1998b, »Capital Account Liberalization and the Role of the Fund«, Remarks by Michel Camdessus at the IMF Seminar on Capital Account Liberalization, March 9 1998, Washington DC http://www.imf.org/external/np/speeches/1998/030998.htm

Chote R. 1998, »Crystal Balls in Washington«, *Financial Times,* April 17, 1998, p 19.

Corsetti, Giancarlo; Pesenti, Paolo; Roubini, Nouriel; 1998, »What caused the Asian currency and financial crisis?«, http://www.stern.nyu.edu/~nroubini/asia/AsianCrisis.pdf

Eatwell J. 1999, »Brown achieves first step towards global stability«, *The Observer,* 28 February, 1999.

Eatwell J. and Taylor, L. 1998, »Towards an Effective Regulation of International Capital Markets«, *Internationale Politik und Gesellschaft – International Politics and Society* 3/99.

Eichengreen B. and Portes R. 1995, *Crisis? What Crisis? Orderly Workouts for Sovereign Debtors* (London, CEPR).

Feldstein M. 1998, »Refocusing the IMF«, *Foreign Affairs,* March/April 1998, Vol. 77, No. 2, pp 20–33.

Ffrench-Davis R. and Griffith-Jones S. (eds) 1995, *Surges in Capital Flows to Latin America* (Boulder, Lynne Reinner).

Fischer S. 1997, »Capital Account Liberalization and the Role of the IMF«, 19 September 1997, http://www.imf.org/external/np/apd/asia/fischer.htm

Fischer S. 1998, »The IMF and the Asian Crisis«, March 20, 1998, Los Angeles. http://www.imf.org/external/np/speeches/1998/032098.htm

Greenspan A. 1998, *Financial Times*, 28 February 1998.

Griffith-Jones S. 1998, (forthcoming). *Global Capital Flows.* (London, MacMillan).

Griffith-Jones S. 1996, »How can future currency crises be prevented or better managed?« in Jan Joost Teunissen (ed), *Can Currency Crises Be Prevented or Better Managed?* (The Hague, FONDAD).

Griffith-Jones S. and Lipton M. 1987, »International lender of last resort: are changes required?«, in Z. Ros and S. Motamen (eds), *International debt and central banking in the 1980s* (London, Macmillan).

Group of Ten 1996, *The Resolution of Sovereign Liquidity Crises, A Report to the Ministers and Governors prepared under the auspices of the Deputies,* May 1996.

IMF 1998, *Toward a Framework for Financial Stability,* Prepared by a Staff Team led by D. Folkerts-Landau and C.-J. Lindgren (Washington, International Monetary Fund).

IMF 1997, *World Economic Outlook: Interim Assessment, December 1997* (Washington, International Monetary Fund).

IMF 1995, *International Capital Markets: Developments, Prospects and Key Policy Issues* (Washington, International Monetary Fund).

Interim Committee of the Board of Governors of the IMF 1998, *Communiqué,* April 16, 1998. http://www.imf.org/external/np/cm/1998/041698a.htm

Kaul I., Grunberg I., and Ul Haq M. (eds) 1996, *The Tobin Tax: Coping with Financial Volatility* (New York, Oxford University Press).

Kenen P. 1996, »The Feasibility of Taxing Foreign Exchange Transactions«, in I. Kaul, I. Grunberg and M. Ul Haq (eds) *The Tobin Tax: Coping with Financial Volatility* (New York, Oxford University Press).

Keynes J. M. 1936, *The General Theory of Employment, Interest and Money,* (Cambridge University Press, Cambridge).

Khan M. and Reinhart C. 1995, »Macro-economic management in APEC economies; the response to capital flows«, in M. Khan and C. Reinhart (eds) *Capital Flows in the APEC region*. Occasional paper 122, IMF, Washington, March.

Mishkin F. 1996, »Understanding financial crises: a developing country perspective«, *Proceedings of the World Bank Annual Conference on Development Economics*, pp 29–77.

McKinnon R. 1991, *The order of economic liberalisation: Financial control in the transition to a market economy,* (Johns Hopkins, University Press, Baltimore).

Obstfeld M. 1995, »International currency experience: new lessons and lessons relearned«, *Brookings Papers on Economic Activity*, No 2, p 119–220.

Phillips S. 1998, »Risk weighted regulation«. Paper presented at FONDAD Conference, Holland, March.

Radelet S. and Sachs J. 1998, »The Onset of the East Asian Financial Crisis«, 1[ST] draft, 10 February 1998.

Rodrik D. 1998, »Who Needs Capital Account Convertibility?«, University of Harvard http://www.nber.org/~drodrik/essay.pdf

Soros G. 1997, »Avoiding a Breakdown«, *Financial Times,* 31 December 1997, p 12.

Stiglitz J. 1994, »The role of the state in financial markets«, *Proceedings of the World Bank Annual Conference on Development Economics*, IBRD, p 19–61.

Stiglitz J. 1997, »Statement to the Meeting of Finance Ministers of ASEAN plus 6 with the IMF and the World Bank«, Kuala Lumpur, 1 December 1997, http://www.worldbank.org/html/extdr/extme/jssp120197.htm

Stiglitz J. 1998a, »Boats, planes and capital flows«, personal view in the *Financial Times*, March 25, 1998, p 32

Stiglitz J. 1998b. »The Role of International Financial Institutions in the Current Global Economy«. Address to the Chicago Council on Foreign Relations, February 27, 1998, Chicago. http://www.worldbank.org/html/extdr/extme/jssp022798.htm

Strauss-Kahn D. 1998, »A Fix, not a Fudge«, personal view in the *Financial Times*, April 17, 1998

Tietmeyer H. 1999, *International cooperation and coordination in the area of financial market supervision and surveillance.*