Part I

New Strategies for Dealing with the Instability of Financial Markets

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

Diagnostics Before Remedies in Formulating New Strategies for Dealing With Instability

Jan A. Kregel

I Introduction

It has now become generally accepted that the recent financial crises in Asia, Russia and Brazil were in large part the result of the excessively rapid, and irrational reversal of capital flows to the countries concerned. It has also been accepted that the crises were aggravated and recovery hampered by excessively strict fiscal policy imposed as part of rescue packages agreed in the period immediately after the crisis. This change in the "establishment" view suggests that some progress is being made in the understanding of the problems facing developing countries, as such ideas certainly were not commonly accepted when they were put forward, for example, in UNCTAD's *Trade and Development Reports* starting some ten years ago and reiterated and re-elaborated in last year's explanation of the Asian crisis (see UNCTAD, 1998).

However, the analysis put forward in the 1998 *Trade and Development Report* did not consider the decisions that led to the reversal of flows to be "irrational". Rather the behaviour that led to the reversal was seen as the natural response of economic agents to the evolution of economic conditions combined with the process of increasing integration of international capital and goods markets. The crises were not seen as random events, but as "systemic" to the current configuration of the international financial system and thus as events that will certainly recur, no matter what prophylactics are put in place to dampen them. Preventing financial crises will therefore require systemic changes, not simply improvements in the operation of the existing system. Indeed, if one is looking for new strategies to deal with the crises it is crucial to determine whether they are random, irrational reactions to peculiar circumstances or the natural results of the operation of the system. If the latter, then new strategies are indeed called for, if the former then the only thing that has to be done is to improve on the existing strategies.

The theoretical explanation of the difference between these two positions can be found in Keynes' *General Theory* observation concerning the

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

relationship between real and monetary phenomena. His conclusion, in contrast to his predecessors and contemporaries, was that monetary (or what are often prejudicially called "nominal") factors dominate real factors (which then were classified as "productivity and thrift"). Indeed, Keynes reversed the causality and considered money the "real" factor. One of the implications of this reversal of the traditional causal order was that the entrepreneur's pursuit of maximisation of money profits was not the same thing as the maximisation of the output of real goods and services, nor the maximisation of the number of jobs in the economy. The market system could be considered perfectly competitive and efficient in its allocation of monetary resources, to be maximising monetary returns, without producing at a level of output that was equal to its physical potential, including leaving labour that was willing and able to work at prevailing real wages rates unemployed.

II The Supply-Side View

The same independence between real and monetary factors operates in the analysis of economic development. Developing countries are viewed as facing a "real" resource gap that is the result of their excessively low savings ratios.[1] Thus, developing countries must compensate for their deficiency in real resources by borrowing those real resources from developed countries who in their turn face the opposite difficulties of excessively high savings ratios and insufficiently remunerative outlets for their accumulated real savings. But, in order to attract these real resources developing countries must offer real returns that are more attractive than those available in developed countries. Monetary flows are just the vehicle by which real resources are transferred from developed to developing countries. These flows are determined by the decisions of profit maximising agents who seek to maximise the real returns and thus provide the finance for the investments in excess of the domestic savings of developing countries that allows them to grow more rapidly. To limit or interfere with the free flow of financial resources internationally would thus impede the very process of economic development and create misallocation of scarce economic resources. The result would be not only a lower rate of return to investors in developed countries, but also a lower rate of growth in developing countries. But, this view depends critically on the identity between the maximisation of real and money profits by investors in developed countries max-

[1] This is joined by the foreign exchange gap in the so-called "two-gap" models of development.

imising real and monetary rates of income and employment growth in developing countries, and on the movements of finance representing the movement of real resources. As Keynes' theory suggests, there is no reason for this to be the case. At the very least it requires active policy to insure this result.

Keynes' alternative to this approach is that there is no necessary relationship between financial flows and flows of real resources (a similar question was debated after the First World War in the form of the "transfer problem" by which Germany was to make reparations payments), nor is it necessary that financial flows are motivated by international differences in real productivity or real rates of return. Indeed, the view that financial flows should dominate the real sector became the accepted explanation of the economic turbulence that plagued Europe in the 1920s and 1930s and led to twenty years of depressed growth and unemployment that was sufficient to produce social and political crisis for many governments and brought the stability of Europe to an end. The potential for financial flows to produce harm as well as benefit led the architects of the post-war Bretton Woods international financial system to reduce international capital flows to a minimum.

In the 1990s the old view has regained currency as massive international capital flows have emerged in foreign exchange markets, in global stock and bond markets, and in rising cross-border foreign direct investments. But, even when these flows have produced higher growth rates, growth rates have been increasingly volatile because the flows themselves have become increasingly volatile. The rapid reversal of financial flows has come to be associated with distortions that are similar to those that were attributed to inflation: distortion of relative prices and exchange rates that make it difficult if not impossible to allocate capital on the basis of comparative rates of return and thus impede the process of providing increased investments to developing countries. In the more extreme cases, this instability has destroyed domestic financial systems and national wealth, wiping out decades of successful development. In many Latin American countries per capita income levels are no higher today than they were at the outbreak of the debt crisis in the early 1980s.

But, the point that I want to extract from this discussion is the basic difference of view concerning the impulse behind the capital flows. Those who adhere to the view that they are driven by differential "real" returns tend to explain the motivation of capital flows by the decisions of developing countries concerning their development strategies and domestic policies. More market-friendly development strategies, introducing liberalisation and deregulation for domestic goods and financial markets are considered to increase real rates of return. It is the increase in real rates,

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

brought about by the change in domestic policy, relative to those in other countries that provides the real return differential that attracts the capital inflows. The reversal of these capital flows can thus be explained by reference to the persistent influence of crony capitalists who attempt to appropriate the higher real returns by limiting the application of the reforms, or to a reversal in policy fundamentals or, failing a belief in the ubiquitous fallibility of human nature, to irrationality or "rational bubbles" in which thinking makes it so and in a moment of lemming-like folly all investors engage in irrational self-destructive behaviour and attempt to flee by selling their positions. This point of view is derived from what was called the supply-side or incentive approach during the Reagan administration: changes in incentive mechanisms on the supply side increase rates of return and attract more foreign financial inflows. As in the US in the first half of the 1980s, the experience of developing countries has also been appreciating real exchange rates and deteriorating current account balances, but this is simply a consequence of the rise in productivity and profitability.

III The Demand-Side View

Following traditional terminology, an alternative Keynesian analysis would look to the demand side, and ask what forces may have driven lenders to seek out investments in emerging market developing countries. This is the position that I have adopted in a number of explanations of the recent crises and was the basis of Darity and Horn's book, *The Loan Pushers* (1988). There are two main strands to this approach (there is in fact a third, but it is derivative of the other two).

The first recognises that modern financial markets are seldom composed of initial lenders and final borrowers who meet directly in the financial market place (although direct investments may correspond to this model). Rather, as the 1970's response to the petroleum crisis taught us, most of the funds that circulate internationally are *intermediated* by financial institutions whose profitability and survival depends on positive net interest margins. Indeed, the point is more general: even financial markets that appear to provide direct exchanges are composed by the financial institutions that provide intermediation in them. There are no longer any markets that function without financial institutions that serve as market makers. Indeed, one of the elements that might explain the "push" of funds towards developing countries, as represented by the rapid rise in global capital flows, is the decline in the share of US commercial banks in the assets of all financial institutions operating in the US and the associated fall

in rates of return on equity for these institutions. From the breakdown of the Smithsonian Agreement of 1971 which signaled the final collapse of attempts to save the Bretton Woods System, international flows of capital have played an increasingly important role in determining the behaviour of the global economy. And from that date increased competition faced by commercial banks operating in the US has driven them into different areas of activity, as well as into international markets, to offset their declining returns. Indeed, most US commercial banks, subject to strict limitations on their activities within the US due to a regulatory environment that separates deposit and investment banking, are exempt from these constraints in their international operations. It would also be difficult not to recognise that the increase in capital flows and international competition in banking has been correlated with an increase in financial crises in both developed and developing countries. There is thus a strong possibility that the combination of increasingly free competition in international banking has been a major force behind the push for increasingly free global capital flows, and the accompanying increase in the frequency of financial crises.

The second strand is the increasing frequency with which countries that have applied economic stabilisation policies have been the recipients of large capital inflows, and the fact that these inflows have occurred long before these policies can conceivably be considered to have brought about any fundamental changes in the economy and thus in real rates of return expected by international investors. In the case of Chile, Mexico and Brazil, capital inflows either increased, or resumed, well before there were any visible results from the introduction of stabilisation policies based on exchange rate anchors and liberalisation and deregulation of international trade in goods and financial markets. Indeed, in most cases, capital inflows started well before any significant fall in inflation rates, and imports were increasing much more rapidly than the exposed tradable sectors had been able to introduce any restructuring, or in which financial markets had become stable and well regulated (see UNCTAD, 1999). What could explain the rise in capital inflows if there was no visible real change in underlying economic conditions to justify it?

One explanation is that it was the anticipation of increased real returns brought about by these announced policy changes. But, given the history of failed stabilisation plans this hardly seems credible. It is one thing to justify investment in China at substantial losses for decades on the justification that when the market does take off, it will be so profitable that it will cover all the past losses, and another to argue such a position for investments in Chile or Mexico.

The most probable explanation is that many of these liberalisation plans included stabilisation policies to reduce inflation that were based on an

exchange rate anchor, accompanied by monetary stringency which produced extremely high policy interest rates creating very appetising nominal interest rate differentials that attracted foreign investors. But, even here, investors are supposed to consider risk-adjusted rates of return and this risk is presumed to include exchange rate risk. However, the initial use of the exchange rate anchor reduces the exchange rate risk, or rather passes the cost to the government, and the capital inflow that it attracts increases reserves and makes the exchange rate appear to be much more stable than the government may have initially intended. As the capital inflows continue to strengthen the exchange rate investors reap additional foreign exchange gains and the size of returns soon seems much greater than the declining perception of the risks involved. The large interest rate differentials thus appear to be a one-way bet for the foreign financial institutions seeking to increase their profitability. In this way, stabilisation policy for developing countries becomes a stabilisation policies for banks' profits, and improves their balance sheets.

Thus, the search for improved return on equity by banks facing increasingly difficult conditions due to disintermediation in domestic markets, and restrictions on their ability to compete with non-bank financial institutions, led them to seek intermediation profits in foreign markets via increased lending, to expand their activities to increase fees and commissions on international underwriting activity and to increase their proprietary trading for their own investment portfolio, all of which required the introduction of free international capital flows. The "market friendly" stabilisation policies that were urged on developing countries in the aftermath of the 1980s debt crisis served this purpose well.[2] It is indeed instructive to note that most large money center banks in the United States now produce about a third of their incomes from net interest margins on traditional intermediation activity, a third from fees and commissions from arranging financing and about a third from what is called proprietary trading, primarily from exploiting international interest rate differentials.

IV Lessons for the Current Reform Debate

There are thus two opposing explanations of the forces that determine the flows of finance in the process of economic development. In one the free

[2] The third strand is the "yield famine" explanation which explains flows to developing countries by means of changes in yield in developed countries. When developed country rates fall for policy purposes, investors seek higher yields and are willing to incur more risk to get them, producing a rush of money to developing countries that is reversed once the yield famine ceases through tighter monetary policy in developed countries.

flow of international finance is the basic vehicle for the transmission of the real savings that are the source of economic development, and the flow is determined by domestic policies that increase real rates of return. In the other the loss of the franchise of US commercial banks in providing corporate lending and collecting no-cost deposits and the excessive size of nominal interest rate differentials in emerging economies leads to excessively and unintentionally stable exchange rates and underestimates of risk-adjusted rates of return on foreign lending. Sharp changes in these risk assessments then lead to volatility of financial flows that are an impediment to the successful development of a national economy within the global trading system.

It is important to note that the difference between the two positions is not about the importance of the financial flows to the development process, but rather Keynes' original point about whether the financial flows respond to real forces and effectuate the real flows of resources or whether they are independent and dominate real variables. There is also a difference concerning whether active policy intervention is required to ensure that the maximisation of financial returns produces the optimal real impact on economic development. This is the debate that is emerging concerning the possible reform of the international financial system. However, the policy alternatives that are currently under discussion do not address this basic question. This is because they are based on the presumption of the identity between real and financial flows.

First, the various proposals for multilateral international treaties to guarantee the free flow of international investment, and the associated proposal to make the IMF responsible for the full liberalisation of capital account flows, do not make any reference to any possible dichotomy between maximisation of financial returns and maximising real development in terms of growth of per capita incomes. Rather, they seem to presume that they are identical. Other approaches, such as the introduction of international standards, and the introduction of sustainable macroeconomic policies seem to presume that the dichotomy that exists at the international level can be eliminated by action at the national level. This is a position that bears further investigation.

It should be noted that the domestic policies that are recommended do not seem to be those most appropriate to ensuring that domestic profit maximisation produces maximisation of domestic growth – rather the opposite, since such an approach appears to require that all countries follow policies to achieve domestic fiscal balance with strictly constrained current account imbalances. One of the main messages of Keynes' Bretton Woods plan was to point out that attempts by all countries to keep current accounts in balance simultaneously ran the risk of inducing global reces-

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

sion if adjustment policies to eliminate deficits were not treated symmetrically with policies to reduce the corresponding surpluses.

Keynes also warned against the distorting effects of using monetary policy to preserve exchange stability under the gold standard. His argument was simply that when a country was forced to raise interest rates in order to retain gold, this placed an unacceptably high hurdle that had to be met by rates of return on domestic investments, leading to lower investment expenditures. But, and this was the important point, the high rates of interest imposed by the Central Bank in order to prevent gold outflows were not representative of rates that could be earned on productive investments in the rest of the world – in general the rates set by the Central Bank were not only much higher, but bore no relationship to real rates of return available to investors abroad. They were simply the rates required to keep gold at home. Thus capital was diverted from productive domestic employments to investments in government debt, not because there were more profitable opportunities abroad, but simply because the Central Bank was willing to pay rates that exceeded the return that could be made on profitable investment anywhere to protect its gold reserves. The obvious consequence was to reduce investment on a global scale and divert capital into unproductive financial investments. Keynes later generalised this argument by replacing the Central Bank with the investing public, and the interest rates required to retain gold with the high interest rates required to offset what he called the liquidity premium.

Both versions of Keynes' argument seem to be appropriate in the present context. Most countries that have introduced domestic stabilisation programmes that embody what are now considered as sustainable fundamental macroeconomic policies, have employed some sort of exchange rate anchor or have employed domestic monetary policies that are sufficiently tight to produce interest rates that are higher than those available on domestic investment or on investment anywhere else for that matter. The differentials with interest rates in developed countries that are thus produced are sufficiently large to generate flows of domestic and foreign capital into the country, but not into productive investments, which clearly cannot offer such high rates. This distorts the free flow of capital to its most productive global uses. Further these flows, unlike other types of arbitrage flows, do not act to reduce the size of the differentials, since they are not based on market rates, but on policy rates. The natural market result is thus to produce an infinite flow of funds to take advantage of the profit potential. The result is that eventually the stability of the exchange rate is undermined, as is the governments' macroeconomic policy.

It might be thought that some limit could nonetheless be placed on these arbitrage flows by the limits of liquidity creation in developed coun-

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

try markets. The transfer of funds should have reduced liquidity in developed countries as they flowed to developing countries. But, as Witteveen (1998, pp. 26-7) has remarked, the increase in capital flows into the Asian economies that started in 1996 was not accompanied by any reduction in liquidity in developed countries, rather it continued to increase in excess of domestic needs. Witteveen argues that much of the lending was funded in the international interbank market via a process that echoes that experimented with Eurodollar markets in the 1980s. While this is a possibility, it is more probable that most of the bank lending was effectuated through structured derivative transactions which provide high leverage and are largely off-balance sheet transactions from the point of view of the lending banks (see Kregel, 1998). Whatever the cause, it is clear that there was no constraint on the creation of international liquidity that would limit the arbitrage flows to developing countries. Thus, high leverage is added to the other risks such as exchange rate, market and credit risks. Since the degree of leverage is especially sensitive to expectations concerning other risks, it can change very rapidly, not only creating high volatility but also producing the rapid capital reversals that have come to characterise developing country financial crises.

The impact of rapid variations in the liquidity premium that investors require to hold assets has produced similar effects in the aftermath of the crisis in Russia, where interest rates rose in response to the rapid increase in both credit and liquidity risk premia. The effect was that funds were channeled into the lowest risk employments, usually (only the most liquid, on-the-run) government bonds. However, none of these are productive investments, and more importantly, none are in developing countries, producing a sharp reversal of the remaining private capital flows to developing countries towards the developed countries.

Drawbacks also appear to be present in other approaches to reform of the international financial system, such as standstills, debt workouts, increased emergency lending facilities, etc., all of which simply act to try to remedy the negative impact on development of the operation of the dichotomy after the fact, rather than prevent it. Thus, the two main approaches involve placing the blame on developing countries because of inadequate domestic macro policies or that nothing can be done to remedy the impact of the ever more frequent crises except to act more quickly to stem their negative consequences.

V The Policy Implications

The policy implications of the two positions are also extremely clear. On

the traditional view, if the recommended corrections to provide full information and stable economic policies are followed, then capital flows will be stable and provide the appropriate level of real resources to allow developing countries to fill their real resource gaps and grow at their potential growth rates. On the other hand, if capital flows are driven by the need of large global banks to increase their returns and by arbitrage across policy interest rates that do not converge as a result of these arbitrage flows, then the total amount of capital flowing to a country will have nothing to do with its real development needs. Capital flows will naturally tend to overshoot and undershoot. It is paradoxical that finance theory has managed to move beyond Modigliani-Miller to discuss the optimal capital structure of a firm and its optimal leverage. But, it seems impossible to do this for a country. Yet, if capital flows are not motivated by the real development needs of a country, then it is incumbent on economic policy to control capital flows so that they conform to the optimal level of leverage for a country. For example, a business firm is normally considered to be financially fragile if its debt is more than 100% of equity. It is interesting that the multilateral institutions have developed a wide range of measures for the debt repayment capacity of a country after the debt has been incurred, yet they have not used these benchmark leverage ratios to limit the amount of borrowing that a country should undertake.

This is a direct challenge to the idea that free, unhindered capital flows will automatically reach the level appropriate to the macroeconomic stability of a country. Experience suggests that this is not the case. It does not suggest that capital flows should be prohibited, but simply that government policy should take responsibility for overseeing the total amounts of capital inflow such that foreign exchange cash commitments do not exceed the country's ability to pay under plausible alternative scenarios (stress tests?) concerning foreign exchange earnings.

The other alternative would be to provide controls on the operations of the banks themselves. While controls on bank lending are currently under consideration as the best approach to the regulation of hedge funds, they appear not yet to be under consideration for bank lending to developing countries. Indeed, for the largest global banks the trends appear to be in just the opposite direction. First, we should note that the trend towards consolidation in the banking sector is making for larger and larger banks or banking groups, all of which aim to operate globally and across a wide range of activities. The future thus holds in store increasingly large global banks who will be in charge of the organisation of the flows of capital across national markets. Given the size that will be required in order to operate on a global basis, it is unlikely that there will be more than a dozen of these mega-global banks. At least two-thirds will be formed around US banks.

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

In addition, the Group of Thirty (see G-30, 1997 and Kregel, 1998) is already preparing the way for the global deregulation and liberalisation of these global banks, just as the thrift industry was deregulated in the US in the 1980s. On the argument that no national regulator will be able to efficiently judge the operations of these banks, and since their operations will be too sophisticated to be understood by national bank examiners, the conclusion is that these mega-global banks will be best regulated by their counterparties, not by public regulators. The probability of imposing lending constraints in the activities of these banks with developing countries thus seems increasingly remote. It is unlikely that it will come from counterparty surveillance. These global mega-banks, operating virtually without surveillance or regulation, will be the dominating feature of the financial landscape in the new millennium. If the financial crises that we have witnessed in the 1980s and 1990s are in fact systemic, it is likely that the financial crises that we will experience in the 21st century will involve the operation of the new global mega-banks and thus will not be a regional crisis, limited to Asia or Latin America, but a truly global crisis since it will involve global banks operating globally and it will impact every country in which they operate. It will also involve a process of global competition amongst these banks, as they attempt to establish their positions and ensure their global market share. We already have some experience of the impact on the stability of bank balance sheets of competition for market share in regional and national markets. Should this be repeated at the global level, a new level of turbulence and instability will be the certain result.

References

Darity, William A. and Bobbie L. Horn (1998), *The Loan Pushers: the Role of Commercial Banks in the International Debt Crisis*, Ballinger Publishers Co., Cambridge MA.

Group of Thirty (1997), *Global Institutions*, *National Supervision and Systemic Risk*, Washington, D.C.

Kregel, J.A., (1998a), "Comment on John Heiman's Report: Globalisation and Stable Financial Markets", In: Banca Nazionale del Lavoro, *Quarterly Review*, No. 284.

——— (1998b), "Derivatives and Global Capital Flows: Applications to Asia," In: *Cambridge Journal of Economics*, November, pp. 677-92.

Witteveen, H. Johannes (1998), "The Global Liquidity Crunch: Interview with H. Johannes Witteveen," In: *Central Banking*, vol. IX, No. 2, November, pp. 24-30.

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

Comment on "Diagnostics Before Remedies in Formulating New Strategies for Dealing with Instability," by Jan Kregel

Ariel Buira

Jan Kregel has presented a brilliant, thoughtful and original paper and I agree with most of his points, but as you will see, not with all of them. In the Keynesian tradition, he reminds us of the importance of financial flows as a factor of production and the fact that the maximisation of profits does not necessarily lead to the maximisation of output.

Two Different Views

Conventional wisdom goes that developing countries require external savings to compensate for the shortage of domestic savings. In order to attract these savings, countries must offer real returns that are more attractive than those offered in developed countries. Thus, to limit or to interfere with the free flow of financial resources would seem to impede the process of development. Market-friendly reforms, presumably liberalisation of markets and other structural reforms in developing countries, and the adoption of orthodox economic policies are thought to lead to higher rates of return for investors and to help attract capital flows. To this view, which he would call the supply-side or incentive approach, Kregel proposes an alternative.

He posits that modern financial markets have undergone a major transformation. Lenders no longer meet borrowers, they meet banks which in turn find borrowers and increase competition. The declining rates of return and equity of financial institutions have led banks to lend much more aggressively in order to survive and to push for increasingly free global capital flows. The increase in these international flows of capital have played a growing role in the world economy and increased capital mobility is associated with an increase in the frequency of financial crises.

So far so good. Kregel points out that often countries that adopt stabilisation policies receive large capital inflows even before these policies have brought about any real changes in the economic conditions of a country

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

and thus in the rates of return for investors. Moreover, he does not believe that increases in capital inflows can be attributed to changed expectations, since so many stabilisation programmes have failed. Thus, he believes that the explanation for frequent crises lies in the use of exchange rates as an anchor for stabilisation which, coupled with a tight monetary policy, results in very high interest rates that attract foreign investors.

In support of this view he underscores the distorting effects of the central bank resorting to high interest rates to prevent capital outflows. These rates, set by a central bank, not only have no relationships to interest rates abroad, but divert capital from productive investments at home, because the central bank is willing to pay rates that exceed the returns that can be made in productive investments. Thus, they reduce investment and divert capital into unproductive government debt. In Kregel's view, the high rates of interest are policy rates, not market rates. And further capital inflows do not act to reduce interest rate differentials. Thus, the natural market result is to produce an infinite flow to take advantage of the profit potential.

One doubt that immediately comes to mind is that it is not always the case. The recent experience of Latin America and other emerging market economies in 1998, for instance, shows that despite the very high interest rates and the very high spreads prevailing, the inflow of capital to these countries declined very sharply – to about half of the 1997 average. While there is no question that very high interest rates may be the result of policy, in my own experience, the issue is rather more complex and somewhat different. Let me try to explain.

Exchange Rate Policies

Let us first consider the use of exchange rate anchors in adjustment programmes. In the early 1990s, a number of countries suffering from high inflation – Israel, Mexico, Brasil, Argentina – pursued stabilisation policies in which the exchange rate played the role of nominal anchor. They chose to avoid the traditional approach of very restrictive monetary policy, because it would lead to a very sharp rise in interest rates. And this rise in interest rates, combined with downward wage and price rigidities would cause a protracted decline in economic activity and jeopardise the success of the stabilisation. This was a very deflationary and politically high-risk approach. So they sought for another approach and this was the use of the exchange rate as an anchor.

The use of the exchange rate, rather than another nominal variable was preferred, because the transition costs of the programme were presumed to be lower. And indeed one of the positive effects of this was, certainly in the Mexican case, an immediate strenghtening of the fiscal balance. As interest

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

rates paid on government debt fell sharply, we could redirect something like six percent of GDP to additional social expenditure, whilst attaining and maintaining a fiscal balance, because the inflationary component of interest rates had been so high.

Now, programmes based on the exchange rate tend to bring about a very rapid and pronounced disinflation along with a surge in economic activity. This phenomenon has been explained in several ways. One interpretation has suggested that the rapid decline of the inflation rate is reflected in lower interest rates, which stimulate economic activity. Others have indicated that lower inflation gives rise to a wealth effect and thus to a consumption boom. Alternatively it has been argued that lack of credibility leads people to increase expenditure at the early stages of a programme, as they expect the exchange rate to be abandoned some time in the future and they might as well make the most of it. It indicates that the resulting combination of economic recovery and lower inflation may help the authorities to keep the social consensus and to buy time and gain credibility. The exchange rate provides a signal which is clear and easy to understand for economic agents and thus enhances the credibility of the programme.

Of course several conditions have to be met if a stabilisation effort based on the exchange rate as an anchor is to succeed. Credibility is essential and in order to achieve it, regardless of the nominal anchor chosen, the programme should include sustainable public finances, otherwise it is bound to collapse. Moreover, when the stabilisation programme is based on the exchange rate, an appreciation of the currency is to be expected, as Jan Kregel points out. Thus, a degree of undervaluation of the currency prior to the inception of the programme is absolutely necessary, if a loss of competitiveness is to be avoided. Moreover, the government should make clear its commitment not to deviate from the target for the nominal anchor. And this may require prior accumulation of reserves, to allow the authorities to defend the predetermined level of currency in the face of negative shocks that may affect the foreign exchange market. To improve the chances of success, the programme should further be complemented with measures that contain the level of wages and other nominal variables.

Let's take another case, the case of a freely floating exchange rate and interest rates that are market-determined; and this is also my own experience of another period. Often, the interest rates are far higher than the central bank would like them to be, but it is unable to bring them down substantially in the short term. Sometimes it takes more than twelve months to really bring them down. The central bank has to pursue a policy that helps to restore confidence, which does not mean by definition that it has to follow a tight monetary policy. It may simply follow what one could call a neutral policy. That is a policy which is based on a reasonable esti-

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

mate of demand for money plus some reasonable projection of inflation. Let's say that this is a reasonable monetary programme. Of course, if you go beyond that, and the monetary policy becomes expansionary, it will scare markets and capital will flow out. So you have a relatively narrow range in which to move.

If monetary policy is not really too tight, why are interest rates so high? Why don't they come down quickly? Well, I think this has to do with what I would call the difference between real interest rates *ex ante* and real interest rates *ex post*, that is between expected and observed interest rates. I think that in countries that have suffered very high rates of inflation, large devaluations and so forth, the expectations of savers are adjusted with a lag. They are largely based on their past experience and it takes some time before they change their mind. They are mistrustful and probably rightly so. Thus, if the experience says that inflation last year was, say fifty percent, or anyway a high rate of inflation because of devaluation or for whatever other reason, domestic savers will for a time look for rates of interest that cover them for fifty percent inflation. And not only for fifty percent inflation, because high rates of inflation are very variable and you don't know, if it was fifty percent last year it could easily be sixty percent this year. So you probably want sixty-five, seventy percent interest rates. But of course, the programme is such that inflation is coming down sharply and they end up not with a ten percent or a fifteen percent real rate of interest that they wanted, which was high enough as it is, and would have been restrictive enough, but they even may end up with a thirty percent or forty percent real rate of interest. That of course is murderous. The central bank clearly doesn't want such high rates, because they cause a lot of problems to the productive sector and to the banking sector.

However, the fact that the authorities may project a lower rate of inflation and tell everybody that inflation this year is likely to be twenty percent does not immediately change the minds of savers. It is only after the market experiences a substantially lower rate of inflation, that the savers revise expectations downward. But they do this with a lag. So, in a period of sharply falling inflation, these lags lead to very high rates of real interest, rates that not only discourage productive investment, but cause a lot of problems to the banking system.

Control of Capital Inflows

So the diagnosis is fine in one sense, but in another it is not. When the banks seek higher returns and look for higher rates of interest in developing countries, these rates are not simply policy-determined interest rates. The interest rate differentials persist because, for many domestic investors, the risk-

adjusted expected returns are the same. This is a very subjective risk-adjustment. But, unless you give them this huge differential, say a thirty percent real interest rate, they will not stay in the country, capital will flow out.

Kregel believes that the differences between these two opposing explanations as to what determines financial flows – whether they respond to real forces or whether they are independent and respond to nominal factors – is important for the reform of the system. He however does not develop the point in the paper; he has explained this point a little more in his verbal presentation. He is right: if the real interest rate differentials are the result of stabilisation policies recommended to LDCs, than you should think about a different set of stabilisation policies. Since I don't believe this is generally the case I am inclined to go for the second solution, which is to change the way in which we allow capital to move. Review the way in which capital moves and see whether something could be done to avoid the problems which arise from this volatility.

I know that in a competitive model free capital movements are assumed to promote efficient resource allocation. It is also assumed that free capital movements allow you to achieve a superior inter-temporal pattern of consumption and thus to enhance welfare. However, I think that economic theory admits exceptions to this rule and these arise whenever distortions invalidate the basic assumption necessary to attain this first-best competitive equilibrium. The idea is very simple: if the economy is seen to suffer from a distortion, welfare may be improved by the introduction of another distortion. This of course is the theory of the second-best. Recent experiences of market volatility, in the new global electronically-linked markets, which have led to very costly crises in Mexico and Asia and Russia, have made the potential costs of massive speculative flows difficult to ignore or to underestimate. Indeed, the experiences of crisis countries show that the costs imposed by absolutely free capital movements in global markets have not been given adequate weight while they give rise to questions about market distortions which need careful consideration.

Let me just mention a few, but the list is much longer than what I am going to say. Questions like: Do market failures, such as price distortions in goods and labour markets, the irrational behaviour responsible for much of the recent massive speculation and the encouragement of inefficient patterns of consumption and investment in economies receiving large capital inflows, do these distortions justify interventions to limit portfolio capital inflows? Another question would be: Can speculative attacks on a currency become self-fulfilling and succeed even if a government has followed sustainable policies prior to the attack? Are emerging market economies particularly vulnerable to these attacks? Does the existence of multiple equilibria in financial and exchange markets justify capital controls? Can

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

certain types of capital controls protect countries from, or reduce the risk of unwarranted massive currency depreciations, triggered by contagion or mass psychology in financial markets? Can one make a distinction between the liberalisation of long and short-term capital flows? Can one obtain the benefits of the liberalisation of a financial system without necessarily liberalising short-term flows?

I agree with many of the points that Kregel raises. I think debt standstills, work-outs and increased emergency lending after the event, while useful, are not substitutes for measures that would help prevent crises. Full information and sound and stable policies are not sufficient to protect countries from the volatility of capital markets. Consequently, in the absence of appropriate measures of protection at the systemic level, I think it is up to the authorities to take appropriate measures to protect the country from the vagaries of financial markets, including resort to some types of controls or market-related measures to limit short-term inflows.

In any event, a country may find it useful to limit the amount of external borrowing, especially of short-term borrowing. A prudent approach might be for a country – this could be done in consultation with the IMF – to determine the level of capital inflows that it can absorb, without experiencing undue pressure on domestic prices and without causing too large a current account deficit. Capital inflows beyond that level could be discouraged for example by requiring, as Chile has done, that capital inflows remain in the country for a minimum of let's say one year or that a fixed fraction be made in the form of non-interest-bearing deposits. Chile and Colombia have done this for a number of years quite successfully and they have obtained a better balance between short-term capital flows and foreign direct investment. By doing so they have reduced the volatility of overall capital inflows.

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

New Strategies for Dealing with the Instability of Financial Markets

William R. White

I Introduction[1]

Strategies for dealing with instability in financial markets could focus on at least three kinds of issues: crisis management, crisis prevention and crisis resolution. Moreover, in each area, radical as well as incremental solutions to perceived problems could be suggested. With respect to crisis management, recent radical suggestions made by George Soros (1998), Stanley Fischer (1999) and Jeff Garten (1998) come to mind. In the area of crisis prevention, the superregulator proposals of Eatwell and Taylor (1998) among others deserve consideration. And finally, in the area of crisis resolution, Sebastian Edwards (1998) has suggested a global restructuring agency, while Steven Radelet and Jeff Sachs (1997) have proposed international bankruptcy procedures analogous to those of Chapter 11 in the United States. This paper will focus entirely on issues pertinent to crisis prevention. This reflects the fact that such concerns constitute the principal preoccupation of the three Standing Committees of national experts which meet regularly at the Bank for International Settlements.[2]

Professor Tom Peters once famously said: "If you don't know where you are going, you are going to end up somewhere else". To which someone else later added the corollary: "If you don't know where you are going, it doesn't matter how you get there". These are actually serious points that are pertinent to the choice of new strategies to deal with the instability of financial markets. Before turning to solutions, one must be crystal clear as to the nature of the problem. Without such clarity, we are sure "to end up somewhere else". Moreover, the damage caused by choice of an inappropriate solution will be all the greater if the solution chosen is both radical and has pervasive effects.

To make the same point in more practical terms, the incidence of inter-

[1] The Tables and Charts in this paper are drawn from Bank for International Settlements (1998a and 1999b).

[2] The Basel Committee on Banking Supervision: (BCBS); The Committee on the Global Financial System (CGFS, formerly the Euro-Currency Standing Committee (ECSC)) and the Committee on Payments and Settlement Systems (CPSS).

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

national financial crises does seem to have been rising over the last 20 years. Moreover, in each and every case, financial crises have been associated with severe economic disruption, increases in unemployment and even poverty; financial stability and macroeconomic stability are thus two sides of the same coin. Yet, it is important to note as well that the characteristics of the most important of these crises have also been different in significant ways.

The emerging market debt crisis of the 1980s essentially involved a limited number of banks as creditors with sovereigns as the indebted parties. In the Mexican crisis of 1994-95, the sovereign was again the indebted party, but most of the lending had been done through disintermediated markets by tens of thousands of different lenders. In East Asia in 1997 and subsequently, a relatively small number of banks were again the dominant lenders (though securities issuance was increasingly significant) but lending was essentially to a wide range of private sector entities, both banks and non-banks. And although not yet seen in the post-war period, crises could also be envisaged involving very large numbers of both borrowers and lenders interacting almost exclusively through disintermediated markets. The central point is that measures to prevent the recurrence of the last crisis may not in fact prevent future crises since crises can arise and propagate themselves in very different ways.

One underlying trend can be discerned, however, and that is the growing reliance on market-based financing processes as opposed to more traditional intermediated finance. At the FONDAD conference last year (White, 1998a), I noted the sharp rise in securities issues by emerging markets, the growing use of securitisation in the financial markets of industrial countries and the virtual explosion in the use of derivative instruments (mostly traded in OTC markets). I noted, moreover, that international financial markets are increasingly integrated in complex ways, global in scope, and rapidly changing with respect to the participants, instruments in use and the technological channels through which financial services are being provided. I concluded on the basis of these observations that a number of principles could be identified to guide the choice of a strategy for promoting financial stability.

First, measures to strengthen the system must be comprehensive and must cover each of the main pillars of the international financial system: institutions, markets and infrastructure. Second, policymakers and regulators must rely increasingly on market-led processes to provide the discipline required to encourage prudent and stabilising behaviour. Third, recognising the limitations of markets (bubbles do occur, market failures do happen), the traditional activities of regulators and supervisors will continue to be a needed complement to market discipline. And finally, what-

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

ever measures are taken to strengthen the financial system, these measures must recognise its international dimension. If level playing fields are to be encouraged and regulatory arbitrage avoided, these measures will increasingly have to be the result of international negotiations and agreements.

The events of the last year, in particular the spectacular fallout from the Russian crisis and the events surrounding the devaluation of the Brazilian real, provide no cause to question any of these conclusions. Indeed, they only serve to strengthen the belief that the dynamics of market behaviour ought to be a source of increasing concern to policymakers and market participants themselves.[3] What also seems confirmed is the strong interrelationships between macroeconomic instability and financial instability. To make this point rather bluntly, strategies for dealing with the instability of financial markets must recognise the extent to which the roots of that instability lie in macroeconomic excesses and the choice of inappropriate exchange rate regimes. Absent better choices in the macroeconomic area, financial crises may be all but inevitable.

This paper begins by considering in more detail what is meant by financial instability and then proceeds to question what underlying causes may have contributed to such instability. It then goes on to consider possible policy responses to the problems identified. In this regard, some emphasis is put on arguments for and against establishing some form of international superregulator, as well as some of the practical problems inherent in implementing those policy measures that seem to have some merit.

II Underlying Causes of Financial Instability

In light of developments in international financial markets, concerns have grown that such markets may themselves contribute to financial instability of different sorts.[4] One possibility is that there may now be greater short-run volatility in asset price movements. Another possibility is the enhanced likelihood of longer-term misalignment in asset prices, where misalignments are thought of as deviations from longer-term equilibrium prices. The third possibility is that international financial markets enhance the likelihood of contagion across previously separated markets. In fact, there are grounds for believing that all three problems may be of greater significance now than previously.

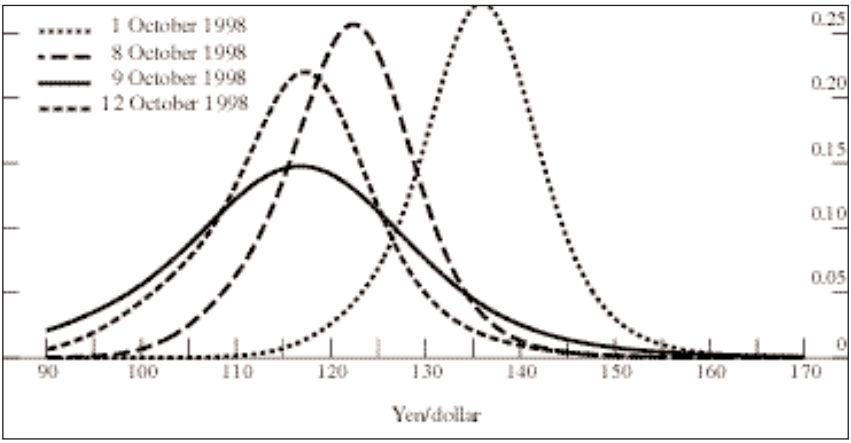
While there is a popular perception that the short-run volatility of asset prices is now greater than it used to be, by some empirical measures this is

[3] For a more detailed analysis of these events see BIS (1999b), Chapters III and V.
[4] These distinctions are first suggested in Andersen and White (1996).

not in fact the case. If one considers the standard deviations of monthly price changes for a wide range of assets in industrial countries, there was no clearly discernible trend in the 20-year period ending in 1996.[5] This having been said, there does seem to be supportive evidence for this hypothesis in data drawn from financial markets in emerging countries and from more recent data in industrial countries as well. Moreover, it is a fact that standard deviations are themselves a form of average which may hide occasional large price movements capable of inflicting serious damage on individual agents and even potentially the system itself.

So-called "fat tail" events can be perceived in the 1987 stock market crash, the bond market collapses of 1958 and 1994, the sharp fluctuations in the yen/dollar rate in mid-1995 and the events surrounding the Russian debt moratorium in August 1998 and the subsequent difficulties of Long-Term Capital Management. By way of example, Chart 1 shows the massive swings in perceptions about the future value of the yen/dollar rate in early October of 1998 with the spot rate moving almost 7% on one day alone.

Chart 1 Probability Distributions of the Yen against the Dollar



Note:
The calculation assumes risk neutrality and is based on data posted at the beginning of the days shown.

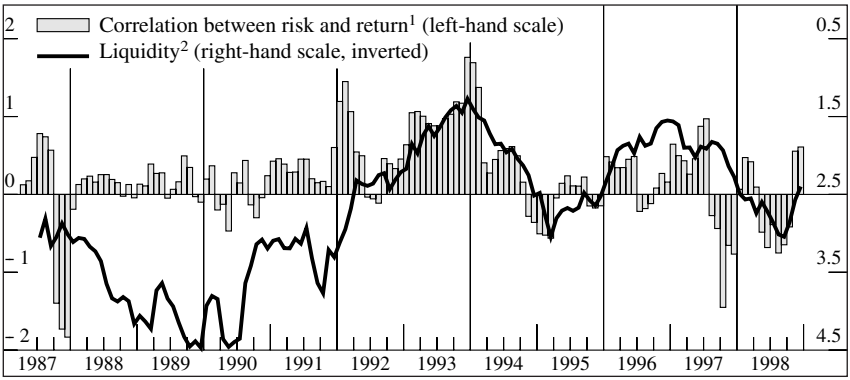
Source:
W. Melick (Kenyon College, Ohio) using Deutsche Morgan Grenfell data.

[5] This stylised fact emerges from BIS (1996). Note, however, that the early part of this period contained the marked turbulence of the 1970s.

The chain of events here seems to have been large losses by heavily leveraged investors in Russian paper, followed by recognition that the credit standing of those investors was potentially seriously compromised. As credit spreads rose, many lenders withdrew from the markets, leading to liquidity shortages which further widened the differentials between yields on higher-quality and lower-quality paper. Confronted with losses arising from these events and calls for margin, investors who had borrowed cheaply in yen were forced to close out their positions, putting sudden and violent upward pressure on the value of the yen.

As is now well known, concerns about the implications of a disorderly winding-down of the book of Long-Term Capital Management were so great that the Federal Reserve Bank of New York felt it prudent to organise a private sector support operation to ensure this did not happen. In effect, we had an instance of both too big and too complicated to fail. These events would seem consistent with modern financial markets having the capacity to sharply increase short-term price volatility. While it may be of only small comfort, it is worth noting that the infrastructure supporting the international financial system, in particular facilities for clearing and

Chart 2 Investors' Attitudes towards Risk and Liquidity



Notes:
[1] Slope coefficient of a cross-sectional repression of realised returns on historical volatility for a number of asset classes.
[2] GDP-weighted average of overnight real rates in the Eurocurrency market for the United States, Japan, Germany, France and the United Kingdom.

Sources:
Datastream; national data; BIS estimates.

settlement, continued to operate effectively throughout this period of unusual stress.

Assessing whether modern financial markets have become more prone to generate deviations of asset prices from equilibrium prices ("misalignments" or "bubbles") is even more difficult since the concept of an equilibrium price is itself rather fuzzy. A starting point might be the Wicksellian concept of a discrepancy between the market rate of interest and the "natural" rate of interest but this does not really take us very far. A further complication arises from interaction between the behaviour of market participants and the actions of the official sector. As seen in Chart 2, periods of declining policy interest rates in the major industrial countries do seem to be correlated with periods when investors seemed to become relatively less risk-adverse. Should bubbles occur in consequence, it becomes difficult to disentangle the relative contribution of each source.

Concerning the possible contribution of monetary policies to asset price movements, one cannot help but be struck by the fact that, over the last 15 years, financial conditions have been unusually easy in at least one major financial centre at all times. In the mid-1980s, the cost of capital in Japan was reduced to virtually zero as the US authorities demanded measures to stimulate demand growth in Japan, while the Ministry of Finance refused to countenance fiscal easing. In the early 1990s, real interest rates were very low in the United States as efforts were made to resist the "headwinds" generated by previous financial excesses. Moreover, this also contributed to a sharply lower dollar and a massive expansion of investment in Asian countries then pegged to the dollar. And more recently, the difficulties of the Japanese banking system have again led to virtually zero policy rates, significant uncovered borrowing in yen and potential effects on currency values and asset prices in other countries.

Turning now to a possible private sector contribution to recent unwelcome developments in international financial markets, it does seem to be the case that lenders in recent years have been pricing risk rather more aggressively than in the past. This seems to have two basic causes.[6] One is that competition in the financial services area has increased markedly in recent years. Moreover, even as profits have been harder to come by, the growing concern for shareholder value (especially in Europe) has meant that managers have come under substantially greater pressure to maintain or even expand profit levels. These developments in themselves might have inclined some financial institutions to engage in riskier endeavours. Closely related to this has been the role of public safety nets, which have

[6] For a description of the global, as well as distinctively European factors at work (including the euro), see White (1998b).

tended to attenuate perceptions of the possible costs associated with such risk taking. Consider, for example, the massive expansion of interbank lending to Korea at very short maturities prior to 1997. Explicit sovereign guarantees meant there was no credit risk. The fact that the loans were denominated in hard currencies and of short maturity indicated there was no market risk. And, after the IMF interventions surrounding the Mexican and early Asian crises, liquidity risk was also considered to be minimal.

What have been the implications of these financial sector "excesses" over the last number of years? Arguably, the first result has been the excessive expansion of the capital stock in a large number of industries worldwide: steel, shipbuilding, automobiles, chemicals, pharmaceuticals, electronic products, etc. It is this excess capacity which has driven down the prices of such products and materially aided the global process of disinflation. The problem of course is that profits are also under pressure; loans taken out to finance capital expansion cannot be repaid; and this in turn threatens the viability of lenders in many cases. While the focus above has been on international financial markets, it should not be forgotten that domestic financial markets also contributed to these excesses. In Asia, for example, by far the largest portion of the credit granted during the boom period came from domestic sources (Table 1). As is well known, many of these domestic banking systems now need significant restructuring.

Table 1 Asian Banking and Financial Markets

	Domestic Bank Credit[1]	**Share of Bank Assets**				**Domestic Bonds**[1]	*(of which: private sector)*
		State Banks		Foreign Banks			
		1994	1998	1994	1998		
China	125	100	99	0	1	21	*-7*
Hong Kong	141	0	0	77	77	17	*-14*
India	50	87	82	8	8	32	*-8*
Indonesia	89	48	..	4	..	..	
Korea	83	19	28	5	6	68	*-54*
Malaysia	124	9	18	21	21	85	*-53*
Philippines	77	19*	..	10*	..	..	..
Singapore	85	0	0	80	80	18	*-2*
Thailand	128	7	29	7	16	..	..
Latin America[2]	37	37	26	11	18	29	*-9*
G-3[3]	124	17	21	10	10	127	*-53*

Notes:
[1] As percentage of GDP.
[2] Simple average of Argentina, Brazil and Mexico.
[3] Simple average of Germany, Japan and United States.
* 1991.

Sources: BIS, IMF, central banks.

The search for yield may also have contributed to two other phenomena; the sharp run-up in equity prices in many industrial countries over the last few years, as well as the massive increase in capital inflows into emerg-

Table 2 International Bank and Securities Financing of Emerging Market Economies
(in billions of US dollars, at an annual rate)

	Average 1990-1995[1]	1996	1997			1998		
			First half	Q3	Q4	First half	Q3	Q4
International bank lending[2]								
Asia[3]	37	80	74	-8	-109	-103	-94	-32
of which:								
China	7	13	13	21	-1	-6	-25	4
Crisis countries[4]	28	58	49	-39	-96	-96	-59	-43
Latin America	1	29	27	43	40	30	-32	-24
of which:								
Argentina	0	5	4	10	12	3	5	-11
Brazil	0	17	13	18	-1	17	-32	-18
Mexico	0	0	3	-5	8	2	-4	6
Eastern Europe[5/6]	0	2	4	8	6	7	4	2
Russia[6]	-2	7	8	17	6	12	-43	-6
Net Issuance of International Debt Securities								
Asia[3]	15	43	40	44	13	10	-15	-3
of which:								
China	2	2	7	2	1	0	-4	2
Crisis countries[4]	11	38	28	36	10	7	-16	-5
Latin America	13	41	48	76	-3	50	-1	-8
of which:								
Argentina	6	11	13	26	2	20	5	2
Brazil	4	12	15	19	-6	16	-8	-12
Mexico	2	13	13	11	-2	3	0	2
Russia	0	0	9	5	6	11	25	-1

Notes:
[1] 1993Q4-1995 for net securities issuance.
[2] Exchange-rate-adjusted change in claims of BIS reporting banks.
[3] Excluding Hong Kong and Singapore.
[4] Indonesia, Korea, Malaysia, the Philippines and Thailand.
[5] The Czech Republic, Hungary and Poland.
[6] Data are available only from 1994.

Source: BIS.

ing markets prior to the Russian crisis. Both developments have associated dangers, though some are now more obvious than others. As for stock prices, the danger is that easy credit could contribute to the price of financial assets being pushed up (essentially driven by extrapolative expectations) even as excess capacity was driving down the rate of return on the underlying assets. This would not be a permanently sustainable situation, though the dynamics of this process might extend over a surprisingly long period. It is notable that in the United States, where household ownership of equities is by far the most advanced among the industrial countries, debt levels are also at record levels (as are personal bankruptcies) while the personal saving rate is now effectively zero.

As for capital flows to emerging market economies, Table 2 is instructive. In addition to showing the growing use of securities issuance prior to the last quarter of 1997, it also makes clear the brutality of the turnaround when concerns about the riskiness of investments in emerging markets did finally begin to reassert themselves. It is worth noting, moreover, that the vast bulk of bank lending was first provided by Japanese banks and then more recently by continental European banks. In both cases, albeit to varying degrees, domestic profits were under significant pressure at the time and government safety nets were commonly expected to be available.[7] If capital flows contributed to expansionary excesses on the way in, they also contributed significantly to crisis and recession on the way out. As external financing disappeared for countries with sizable current account deficits, domestic absorption had to be reduced by whatever amount was necessary to respect the underlying accounting identities. Indeed, as even trade credit dried up for some countries, the offsetting competitive advantages provided by a lower currency value could not be exploited.[8]

The last possibility to be considered is that international financial markets contribute to instability by increasing contagion across markets and countries that were previously more insulated. As for financial markets, there can be little question that they are now much more interrelated than a decade ago. However, what is not clear is whether this is a good or bad thing. On the one hand, individuals now have many more ways to cover risks, and there is the possibility as well that shocks may become dispersed across markets and therefore less harmful. During the events surrounding the LTCM crisis, for example, there was a very sharp reduction in the

[7] In most instances the guarantees were implicit, but in such cases as the German Landesbank they were explicit.

[8] It is common to assume that real depreciation leads to expanded production of domestically produced goods and services via substitution effects. However, terms of trade effects and the need to service external debts denominated in foreign currency work (in some cases overwhelmingly) in the opposite direction.

amount of international bank credit extended to non-bank customers (especially highly leveraged institutions), an associated unwinding of positions in derivatives markets, and also a flight by depositors to banks of the highest quality. In the face of these massive strains, the interbank deposit market expanded significantly and thus helped cushion the shock.[9] On the other hand, it cannot be ruled out that a single market or piece of the underlying infrastructure (especially payment and settlement systems) might fail with knock-on effects of significant magnitude.

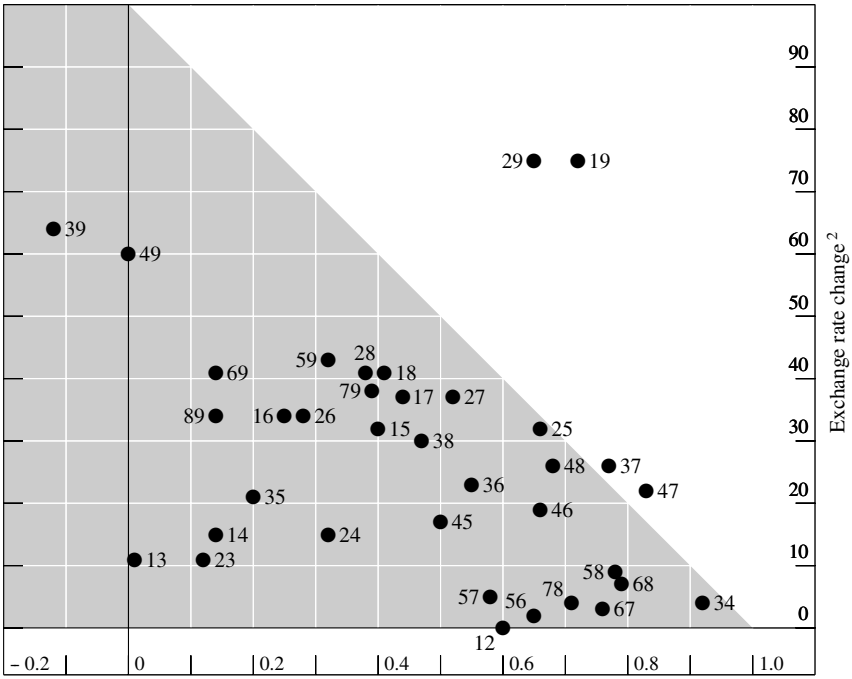
The problem of cross-country contagion, caused by the behaviour of lenders on international financial markets, received considerable attention during and following the Asian crisis. There is an element of truth in these allegations.[10] Sometimes losses in one market forced liquidations in others, and sometimes withdrawals by retail investors forced generalised liquidations. It is also the case that some investors relied rather mechanically on historical correlations of cross-country rates of return; thus pressure on one currency led to sales of another. As well, liquidity at times dried up in one market, leading investors to cover by selling in other markets which were still liquid. Finally, it may be the case that there was a generalised flight from risk which did not take into account the different circumstances of different countries.

Yet, it was also the case that the crisis-affected countries shared many similar characteristics. A sudden recognition of this reality might imply correlation but not contagion (White, 1998c). Shared domestic shortcomings were excessive capital formation, many bad loans and weak banking systems. At the international level, the fact that these countries were strong competitors with each other in export markets also meant that currency depreciation on the part of one contributed materially to the pressure on others (Chart 3). Moreover, it is a fact that many of these countries were quite heavily dependent on the exports of electronic products whose prices were under severe downward pressure at the time. This was a further common shock.

Finally, and worthy of some special attention, all of the affected countries had in effect pegged their currencies to the US dollar in order to benefit competitively as the dollar fell against the yen prior to the spring of 1995. Many domestic investors believed that the peg would be held indefinitely and thus borrowed unhedged in foreign currency to get the benefit of much lower rates of interest.[11] When the dollar subsequently also began

[9] See BIS (1999b), Chapter VIII.
[10] See BIS (1998a), Chapter VI.
[11] Foreigners, including many hedge funds, did the same by buying Asian currencies forward on the expectation that they would depreciate less than was implicit in the interest rate differentials.

Chart 3 Export Competition and Exchange Rates in Asia



The dots represent pairs of exporters, where 1=China, 2=Hong Kong, 3=Singapore, 4=Taiwan, 5=Philippines, 6=Malaysia, 7=Thailand, 8=Korea and 9=Indonesia.. The shaded area indicates where the dots would fall if trade competition tightly constrained exchange rate changes.

Notes:
[1] Correlations measured across shares in total exports of goods sent to the European Union, the United States and Japan in 11 merchandise trade categories (SITC 65, 75-78, 82-85 and 87-88). A high correlation indicates a similar merchandise mix and similar export destinations.
[2] Absolute difference in the percentage changes in exchange rates (measured as US dollars per unit of domestic currency) over 12 months to end-March 1998.

Sources:
W. Melick and BIS using OECD data, Bankers Trust and Reuters.

to rise sharply, and the effects of the earlier effective depreciation of the Chinese renminbi began to be felt, competitive pressures intensified and current account deficits widened in most countries. When the peg eventually had to be given up in Thailand, those who were short of dollars suf-

fered severely and this served to highlight the dangers facing those similarly exposed in other countries. As these people tried to cover themselves, they put downward pressure on their own currencies, contributing in turn to the wave of depreciations observed during that period.

III Strategies for Preventing Financial Crises

The thrust of the above comments is that financial instability has a number of manifestations (volatility, misalignments, contagion). Each may have a number of underlying causes, and it is important to know what they are before suggesting how problems might be rectified. Macroeconomic forces, some domestic and some international, have certainly contributed to recent and perhaps prospective difficulties. However, deficiencies in the operation of financial systems (again at both domestic and international levels) have also had an unwelcome influence.

As for deficiencies in the operation of the financial system, one could point to shortcomings in the governance and supervision of many sorts of financial institutions, the tendency of a wide variety of markets to be subject to emotional swings of optimism and pessimism, and many deficiencies in the fundamental infrastructure supporting the financial system. Among such deficiencies, shortcomings and inconsistencies in international accounting standards, uncertainties about legal interpretations, as well as possible defects in payment and settlement systems all have the potential to cause or contribute to financial instability.

A "Top Down" Approach?

A number of people have recently suggested the potential merits of an international superregulator to set standards, oversee international financial markets and impose discipline on those who seem to be behaving in ways inconsistent with international financial stability.[12] Arguments in support of such a proposition would certainly include the globalisation of financial markets, the breakdown of sectoral distinctions worldwide (e.g. between banks, investment dealers, insurance companies and asset management firms), the growing integration and complexity of international financial markets, and the need for efficient information sharing by all relevant bodies. All of this would seem to argue for an organisation capable of seeing the big picture, and then doing something about it. In sum, this proposition would seem to be both comprehensive and fundamentally

[12] See Eatwell and Taylor (1998) and Currie (1999).

international, two of the underlying principles suggested above as being necessary for any strategy for fostering international financial stability.

The principal arguments against the proposition are both practical and political. At the practical level, oversight and supervision must be a very hands-on affair. This was one of the arguments used in Europe when it was decided that banking supervision would stay at the national level rather than migrating to the European Central Bank. Still more practically, one could ask whether the magnitude of the task faced by a single agency might be so great as to be effectively unmanageable. One is reminded that, in writing computer software, it is common to eschew seamless integration in favour of modular development. While the latter may be conceptually less efficient, it is also less likely to be a complete failure.

The political objections to this idea at the current time would seem significant. A superregulator with effective powers to set standards and enforce them globally would be enormously powerful. One could argue that national legislators are not yet ready for this. Consider how very similar arguments led to banking supervision being taken away from the Bank of England once it had been given "independence" in the conduct of monetary policy. Nor do national legislators seem ready to cede the degree of sovereignty that would be needed to make such a superregulator effective in practice. Consider, for example, the current Congressional antipathy to the International Monetary Fund and the difficulty of obtaining legislation to raise Fund quotas. Consider as well the application of the principle of subsidiarity in the European Union. And finally consider the protective attitude taken to their national financial sectors by governments in most countries of the world. It is true that all of these attitudes should and likely will change with time. But that seems more for the future than for now.

Another argument against this superregulator approach is that it could violate the third and fourth principles laid out above for choosing a strategy for promoting financial stability. These principles state that internal governance and market discipline should be at the heart of financial oversight, with the supervisory apparatus playing a complementary and market-consistent role. A superregulator could of course operate in this fashion, but the theory of bureaucracies teaches us that it might well be tempted to act in its own interests instead. That might imply growing recourse to traditional directives (and the need to police them) and less reliance on market processes.

A final set of points has to do with the difficulty of getting international agreement on the mandates, powers and accountability of an international superregulator. Even more difficult: would it be possible to change these agreements in the light of changes in objective circumstances? The history of the United Nations and the Bretton Woods institutions teaches us that

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

these are not unimportant issues. All of this perhaps argues for a more informal and "bottom up" approach to the promotion of financial stability.

A "Bottom Up" Approach?

Questions of Process Pertaining to International Financial Stability

The "bottom up" approach suggested here essentially involves improving the process already under way to enhance the prospects of international financial stability. This process is based on a piecemeal identification of shortcomings in all the areas discussed above, with attention then being paid to effecting improvements in individual areas. The latter challenge involves identifying what needs to be done and then actually implementing these recommendations. Judging from what has been accomplished to date, this approach seems to adhere to all four of the principles which should underlie any strategy chosen to foster international financial stability. However, this is not to say that what has been done to date is not without shortcomings. In particular, a great deal still needs to be done in the area of implementation. For example, it was suggested as far back as 1995 that international bond contracts should contain majority voting provisions and sharing clauses. Thus far, the industrial countries have refused to lead the way by example. In contrast, the G-10 countries were willing last year to commit to a template for revealing their foreign exchange positions with a view to encouraging emerging markets to do the same.

The identification of international problems affecting financial stability was for a long period the preoccupation of the various committees working under the aegis of the Group of Ten. Among those committees, the three standing committees which meet at the BIS[13] have made a particular contribution over the years. The publication in 1997 of the Report of the Working Party on Financial Stability in Emerging Market Economies (involving many representatives from emerging markets)[14] also served to move this process forward. In particular, this report recommended the establishment of standards of best practice in a number of areas affecting financial stability. After the publication of this report, the Governors of the G-10 then asked their three standing committees to establish whether there were other area as well (the "gaps" exercise) where international standards might be both desirable and practically feasible. These committees reported in the affirmative and also made specific recommendations.

[13] BCBS, CGFS, CPSS. The accomplishment of these Committees over the years are recorded in successive BIS Annual Reports under the title "Activities of the Bank".
[14] See BIS/IMF (1997).

Still more recently, following up on a promise made by President Clinton at an APEC conference in 1997, three working groups with proportionally larger representation from emerging markets made still further recommendations with a view to increasing transparency and accountability, strengthening financial systems, and improving the resolution of international financial crises. In short, even after recognising the enormous overlap in much of the work done to date, there is now no shortage of suggestions as to what needs to be done.

Consistent with use of the phrase "bottom up", it is to be noted that all of the committees and working groups mentioned above were made up of senior officials from the national capitals where sovereignty still resides. Moreover, it now seems almost universally recognised that similar groups of national experts should also take primary responsibility for drawing up international codes of best practice.[15] Indeed, following the precedent set by the Basel Supervisors in drawing up the Core Principles for Effective Banking Supervision, similar core principles either have already been promulgated[16] or are in the process of being prepared.[17]

Consistent with this "bottom up" approach, the challenge now is to actually implement the most important of the recommendations made to date: in particular, the adoption of international codes of good practice. This will not be easy given shortages of knowledgeable resources in both industrial and emerging countries and often political unwillingness to take steps that might prove personally costly. However, experience to date with the implementation of the Core Principles for Effective Banking Supervision gives some idea as to how to move forward. The Basel Committee on Banking Supervision has established a Liaison Group and is in close contact with regional groups of supervisors; both directly and in association with these groups, it is vigorously advocating the implementation of the Core Principles. Peer pressure of this sort may well be intensified if needs to be. The International Monetary Fund is preparing for the Monetary and Exchange Affairs Department to monitor compliance in the

[15] Exceptions to this general rule, recommended in the Report of the Working Party on Financial Stability, are codes for how officials themselves should behave. The IMF, as directed by the Interim Committee, has already drawn up a Code for Transparency in the Conduct of Fiscal Policy. It is also in the process of finalising a Code for Transparency in the Conduct of Monetary and Financial Policies.

[16] These include: Disclosure of Foreign Currency Positions; SDDS; Enhancing Bank Transparency; Trading and Derivative Disclosures by Banks; Disclosure Framework for Securities Settlement Systems; Core Principles for Securities Regulation; Core Principles for Insurance Supervision.

[17] These include: Transparency about Adherence to International Standards, Principles of Corporate Governance; Disclosures by Financial Institutions, including HLIs; Core Principles for Payment Systems; Principles for the Management of Credit Risks.

context of Article IV consultations,[18] and the World Bank group will focus on supporting necessary training. The private sector can also help by imposing market penalties on those countries which do not conform to the Core Principles. Finally, consideration might have to be given to denying rights of establishment in major financial centres to financial institutions from countries where the Core Principles for Effective Banking Supervision are being inadequately applied. This eventuality was in fact foreseen as far back as the Basel Concordat (BIS: BCBS, 1975), which was updated in 1992 (BIS: BCBS, 1992). The fact that so many different incentive systems for implementation are being suggested reflects the widespread belief among officials that no single approach is likely to be wholly effective.

Of course, adopting a portfolio of approaches has one major deficiency. Lacking specific accountability, those responsible for individual initiatives might pursue them with inadequate vigour based on the expectation that someone else might be counted on to pick up the slack. In this regard, the recent establishment of the Financial Stability Forum is a big step forward. For the first time, it will bring together representatives of international financial institutions, central banks, Treasuries and regulators at the international level. While established under the aegis of the G-7, its membership was expanded in June 1999 to include four other countries.[19] Moreover, it will identify the work that needs to be done, will set priorities in light of scarce resources and will monitor implementation. Finally, given the high level of the official participants, the Forum should be able to mobilise the political clout to ensure that hard decisions are actually taken. Today, there remains an excessive tendency at the level of committees for international conflicts to be obfuscated, rather than resolved, through the use of accounting, regulatory and other devices.

Questions of Substance Pertaining to International Financial Stability

Rather than simply repeating the long list of existing recommendations as to how international financial stability might be improved, an alternative and higher-level approach might be suggested. In Section II above, problems of financial instability were classified as having to do with short-term price volatility, medium-term misalignments (including the problem of "excessive" international capital flows) and international contagion. What

[18] It is still an open question whether or not the Fund will announce publicly its assessment of whether a country is in compliance or not.
[19] Countries named to date are Hong Kong, Singapore, Australia and the Netherlands.

are the principal policy recommendations, both macroeconomic and structural, that might help alleviate each of these problems?

The dangers of excessive short-run price volatility, and at the limit the failure of markets to function, have been a longstanding source of concern. Serious problems associated with the failure of payment and settlement systems were only just averted in light of the failure of Drexel Burnham Lambert in 1988. More recently, a different aspect of the problem came to the forefront during the events surrounding the Russian moratorium and the near-collapse of LTCM. The heart of this latter problem seemed to be high levels of leverage, not only by so-called hedge funds, but also by the proprietary trading desks of investment firms as well as others. Since many of these firms are unregulated, and since attempts to regulate them could simply drive them offshore, attention now has shifted to other ways to approach this problem.

Three initiatives are under way in the Basel community, each having a somewhat different objective. The Basel Supervisors[20] have been concerned that bank lending to such entities could threaten the system by bringing down the banks, should the creditor default because of some market accident. Clearly, restraints imposed from the side of the lenders would also have effects on the capacity of borrowers to leverage themselves and thus indirectly on short-term market volatility. A working group set up by the Committee on the Global Financial System (the Fisher Group) is looking into what kinds of improvements in disclosure by large financial institutions of all kinds would be most effective in improving systemic stability. This reflects concerns that, in the absence of full information, lenders might suddenly refuse to deal with a large number of counterparties, aggravating short-run liquidity and related problems. Finally, another working group of the CGFS (the Patat Group) is assessing whether it would be feasible to provide additional aggregate information on activity in currency markets that could improve market stability by enhancing the capacity of market participants to identify the potential for large exchange rate movements and for contagion, especially in emerging markets.[21]

Another insight arising from the sharp price movements experienced following the Russian moratorium was that commonly accepted risk management procedures may promise more comfort than they actually provide. Normally, credit risk, liquidity risk and market risk are thought of as separable and additive. However, during the events of last fall, these risks

[20] The supervisors have already published two studies on this issue. See BIS: BCBS (1999a and 1999b).

[21] The CGFS has also conducted a series of studies into the nature of liquidity in financial markets and market behaviour under stress. See BIS: ECSC (1997) and CGFS (1999c).

proved highly interactive with heightened concerns about credit risk causing liquidity to disappear, generating in turn price movements significant enough to have effects on perceptions of market risk. Indeed, commonly used measures of Value at Risk turned sharply upwards implying that firms with pre-committed levels of economic capital were forced by their methodologies to retreat from exposed positions. This behaviour may have amplified the original disruption, showing once again how sensible policies at the level of the firm can suffer from "fallacies of composition". The lesson from all of this is that "stress testing" needs to be relied upon more heavily, and that the implications for profits and losses of even highly improbable events need to be given serious consideration.

Measures to reduce the likelihood of medium-term price misalignments (and problems associated with international capital flows) have both a macroeconomic and an institutional dimension. Consideration of the former issue, raises some questions which were hotly debated in the 1920s[22] and have resurfaced more recently.[23] The fundamental question is whether monetary policy should be conducted solely with a view to controlling domestic inflation, as measured by some index (PGNP or CPI) of the prices of currently produced goods and services. Or, rather, whether monetary policy should also pay some attention to asset price developments, particularly when they are associated with rapid credit extension and the related possibility that this could feed back on the health of the financial system. As if this issue were not contentious enough at the domestic level, one could also ask whether domestic monetary policies might not sometimes have to be conducted with the international implications of that policy also in mind. The willingness of the Federal Reserve to lower interest rates in the fall of 1998 is consistent with the hypothesis that downside risks on the international side are sometimes taken into account in setting domestic policy. What seems less in evidence is a willingness to admit that domestic policies to lower interest rates, and with it the value of the currency (as in the US in the early 1990s and Japan more recently), may also contribute to problems elsewhere. For example, countries which continue to peg to a depreciating currency may suffer generalised inflation including asset price inflation. And countries which float upwards might still find asset prices under some upward pressure, even if less than under a fixed rate regime.

Dealing with the sporadic tendencies of lenders to underprice risks of all

[22] The principal protagonists were Keynes and the Cambridge school on the one hand, and the Austrians (Hayek, von Mises, Robbins, etc.) on the other. See Cochrane and Glahe (1998).

[23] For a discussion of many of the issues in a modern setting, see BIS (1998b).

sorts is not an easy problem to deal with through institutional reform. To the degree that this tendency is heightened by exacerbated competitive pressures, care should be taken to ensure that deregulation does not proceed at a faster pace than is compatible with good supervision and regulation. To the degree that this tendency is also exacerbated by safety net considerations, these should be systematically reviewed. In this context, it is important to note that there is a clear trade-off between safety net provisions which help manage crises today and the likelihood that associated moral hazard will create even bigger crises tomorrow. The existence of this trade-off leads to the conclusion that the practical design of safety nets is an important issue, and one made more complicated by the realisation that safety net provisions can also interact in complicated ways.[24] Recognising that regulatory failures can have systemic implications with macro-economic effects, raises two further questions.[25] Should central banks have a role in helping design regulatory regimes, and should they have some advisory role when it comes to enforcement? In many countries there now seems to be a significant degree of uncertainty about the respective roles of central banks and other agencies in promoting financial stability.

Even assuming that biases in the incentive structures affecting lenders could be removed, mistakes would still be made. This implies that greater attention must be paid to governance issues at financial institutions. As suggested in Section I of this paper, the primary emphasis should be on internal governance and adequate risk management systems. A second pillar should be market discipline, and a third pillar should be adequate external supervision. Note that this ordering is quite different from what would have been the norm twenty years ago. For all of these governance processes to work effectively, the *sine qua non* is transparency about what is actually going on. Obviously, this need for transparency relates to the activities of financial institutions themselves but it also extends to the activities of their clients. And finally, if there is to be transparency, there must be agreement on accounting procedures and definitions. For governance purposes, good accounting standards are the essential building block, and such standards are not always in evidence even in some parts of the industrial world.

As for the related issue of international capital flows, solutions must balance off longer-run concerns about allocational efficiency against shorter-

[24] For example, the need for deposit insurance may be attenuated by the design of exit policies. Assuming that the information provided to regulators is correct, a process of Structured Early Intervention and Resolution (as in FDICIA in the US) might imply no need for deposit insurance at all.

[25] For a further discussion, see White (1999), pp. 24-6.

run concerns about macroeconomic disruptions. In the last year or so, perhaps for obvious reasons, the balance has shifted somewhat and market-based approaches to dissuading short-term capital inflows now seem more generally acceptable.[26] There is also greater recognition of the fact that existing controls should be dismantled more carefully, particularly if (as is often the case) the domestic financial system is not very sound. Countries which do wish to maintain a liberal regime in this regard should also plan for the possibility that rapid inflows could turn into equally rapid outflows. This implies trying to build up reserves as inflows accumulate, paying close attention to maturity mismatches, and the potential use of binding contingent lending facilities with the private sector to ensure financing in times of stress.

Turning finally to solutions for the problem of contagion across markets and countries, it is worth repeating the conclusion above that there remain uncertainties about the seriousness, although not the existence, of this problem. Market interrelationships are the source of many of the efficiencies provided by modern financial markets, and policies to minimise disruptive cross-market price movements would have to take care not to throw out the baby with the bathwater. Cross-country contagion, as a byproduct of financial market behaviour, was also seen to be a problem with undiscriminating swings in sentiment to whole regions being of particular concern. In recent months, however, renewed inflows into emerging markets do seem to be demonstrating a heightened concern for the circumstances of individual countries.[27]

It was contended above that shared underlying problems also contributed to the appearance of contagion in Asia. In this regard, the biggest shared problem was excessive reliance on a fixed exchange rate system when capital inflows were heavy. The result of such policies was that the peg eventually had to be given up, but on the downside and in an environment of crisis rather than of a measured response to changes in external circumstances.

IV Final Remarks

Domestic financial markets have become much more liberalised in the last few years, and international linkages have also grown remarkably. The multiplicity of agents in financial markets, the complexity of the instruments being used, and the speed of change have brought many benefits in

[26] As James Tobin once noted, "It takes a heap of Harberger triangles to fill an Okun gap".
[27] See BIS (1999a).

terms of more efficient provision of financial services and the more efficient allocation of credit. Moreover, such benefits translate into faster growth, more jobs and better jobs than would otherwise be the case.

However, what also seems to be associated with developments of this sort is a heightened tendency to financial instability and even sporadic crises. The challenge is to find some means of trading off these costs against the benefits. As indicated above, thinking about how to make the international financial system more stable has almost turned into an industry itself. Most of this thinking has resulted in suggestions for incremental changes to the current system, with implementation now emerging as the real challenge, even for changes that might not seem of great substance. What is also welcome, however, are more radical thoughts about how the system might be reformed in the interests of a better trade-off between efficiency and stability. Recently, suggestions of this sort have become more common. This is surely desirable, supposing of course that radical suggestions still address practical problems and that they also stand some chance of practical implementation.

References

Andersen, Palle and William R. White (1996), "The Macroeconomic Effects of Financial Sector Reforms: an Overview of Industrial Countries", In: OECD Proceedings, *Macroeconomic Policies and Structural Reform*, pp. 59-103.

BIS (1996), "Financial Market Volatility: Measurement, Causes and Consequences", In: *BIS Conference Papers*, Vol. 1, March.

BIS (1998a), *68th Annual Report*, June.

BIS (1998b), "The Role of Asset Prices in the Formulation of Monetary Policy", In: *BIS Conference Papers*, Vol. 5, March.

BIS (1999a), *Quarterly Review: International Banking and Financial Market Developments*, March.

BIS (1999b), *69th Annual Report*, June.

BIS, Basel Committee on Banking Supervision (1975), *Report to the Governors on the Supervision of Banks' Foreign Establishments*, 26 September.

BIS, Basel Committee on Banking Supervision (1992), *Minimum Standards for the Supervision of International Banking Groups and Their Cross-Border Establishments*, July.

BIS, Basel Committee on Banking Supervision (1999a), *Banks' Interactions with Highly Leveraged Institutions*, January.

BIS, Basel Committee on Banking Supervision (1999b), *Sound Practices for Banks' Interactions with Highly Leveraged Institutions*, January.

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

BIS, Committee on the Global Financial System (1999c), *Market Liquidity: Research Findings and Selected Policy Implications*, May.
BIS, Euro-Currency Standing Committee (1997), *The Measurement of Aggregate Market Risk*, November.
BIS/IMF (1997), *Financial Stability in Emerging Market Economies*, Report of The Working Party on Financial Stability in Emerging Market Economies, April.
BIS/IMF/OECD/World Bank (1998), *Summary of Reports on the International Financial Architecture*, October.
Cochran, John and Fred Glahe (1998), "The Drama: Hayek-Keynes Debate Over the Nature and Causes of the Business Cycle", unpublished.
Currie, Carolyn (1999), "The Need for a Supra-Mega Regulator for the Next Millenium - Is There Evidence?", Presentation at the Global Finance Conference, Istanbul, 7-9 April.
Eatwell, John and Lance Taylor (1998), "International Capital Markets and the Future of Economic Policy: A proposal for the creation of a World Financial Authority", Ford Foundation, mimeo.
Edwards, Sebastian (1998), "Abolish the IMF", In: *Financial Times*, 13 November.
Fischer, Stanley (1999), "Frequency of Global Crises Highlights Need to Consider International Lender of Last Resort", In: *IMF Survey*, Vol. 28, No. 1, January.
Garten, Jeffrey (1998), "Needed: A Fed for the World", In: *New York Times*, 23 September.
Radelet, Steven and Jeffrey Sachs (1997), "What Have We Learned, So Far, from the Asian Financial Crisis?", Harvard Institute for International Development, mimeo, January.
Soros, George (1998), "The Crisis of Global Capitalism", In: *Wall Street Journal*, 15 September.
White, William R. (1998a), "Promoting International Financial Stability: the Role of the BIS", In: J.J. Teunissen (ed.), *Regulatory and Supervisory Challenges in a New Era of Global Finance*, Forum on Debt and Development (FONDAD), The Hague.
White, William R. (1998b), *The Coming Transformation of Continental European Banking*, BIS Working Paper No. 54, June.
White, William R. (1998c), "Crisis "Contagion" in Asia: Causes and Preventive Measures", In: *Swiss Journal of Economic and Statistics*, Vol. 4, No. 2, December.
White, William R. (1999), *Evolving International Financial Markets: Some Implications for Central Banks*, BIS Working Paper No. 66, April.

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

Floor Discussion of "New Strategies for Dealing with the Instability of Financial Markets"

The Problem of Getting Too Much Capital

Jack Boorman began by taking issue with Jan Kregel's proposition that market participants are not looking for risk-adjusted rates. "This strikes me as strange because, as Ariel Buira said, investors are considering the government's policy, particularly its exchange rate policy, how its policy feeds through to inflation and, as a result, what the real rate of return in foreign currency is going to be at the end of the day. If you assume that investors are not looking cross-country at adjusted rates of return, how can you explain the differential spreads that exist between countries?

In your criticism of stabilisation programmes, you seem to assume that the country was in equilibrium when some of these measures were introduced. But the fact of the matter is that a stabilisation programme is prescribed because the country is in disequilibrium; this is why it has to adjust interest rates and try to pull capital back into the country. While adjustment policies can have negative effects, investors' expectations will only begin to change after some sustained period of policy implementation. So, *ex post*, it might indeed appear as if they had very high real rates of return before the crisis. But whether their expectations were based on risk-free, *ex ante* rates of return when they first moved in, is a totally different proposition."

Jan Kregel stressed that neither Jack Boorman nor Ariel Buira addressed the basic point of his analysis. "Both consider the question of interest rates from the point of view of a particular country and then attribute the level of interest rates to the use of either fixed or flexible rates. The basic point I am making is that whatever domestic strategy you use in a developing country, you will generally have a positive interest rate differential relative to the countries which are the major source of international capital flows. This will produce a situation where your capital inflows are greater than you will be able to employ profitably and efficiently given your domestic productive structure. So the question then becomes: what is the relationship between the flows that your interest rate differentials attract and your domestic capacity to absorb them?

If we look at the German, Swiss, and if my memory serves me correctly, Dutch capital market in the 1960s and the 1970s, there were always con-

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

trols – not on capital inflows, but on capital outflows. Foreign firms who wanted to borrow in the Swiss market, for example, had to apply to the Swiss Banking Board for permission to float securities in this market. It was presumed that the Swiss currency was so attractive that there would be an excess demand for capital, and that this would disturb the domestic financial market. What we are talking about here is precisely the opposite problem. It is not an excess capital *outflow* that will disturb conditions in the financial market of a developing country, but an excess capital *inflow*.

My point is that whatever type of stabilisation policy you use – I insist again that it makes very little difference whether it is a fixed or flexible regime and whether the absolute level of interest rates is going to be higher under the one or the other – in the end, the level of interest rates will create an incentive for international investors to move capital into the country, regardless of the ability of the country to employ the capital effectively, efficiently and profitably. At this point difficulties will start to develop."

György Szapáry supported Jan Kregel's view. "There can be high real interest rates with both fixed rates and floating rates. Whether the real interest rate is higher under the fixed rate or under the floating rate really depends on the perceived risk. Real interest rates differ from one country to the other; it is a question of how the markets perceive the risk and not whether a fixed or a floating exchange rate regime is in place. The problem is that there is capital ready to jump on this interest rate differential in order to take advantage of it, and as a result you sometimes get much more capital than you need. This is when the difficulty arises. I think that both the recipient countries and the countries of origin share the responsibility for dealing with this problem."

Mohammed Ariff stated that the argument that the interest rate differential between developed and developing countries drives the flow of capital to developing countries is invalid in the East Asian context. He emphasised the distinction between rates of return and interest rates. "In East Asia you have countries where rates of return are pretty high, while interest rates, on the other hand, are not high. In fact, there is a bias against high interest rates because they are not good for the local stock market. Before the crisis, interest rates were pretty low – even in countries like Thailand, Malaysia, Korea and Indonesia – and yet there was a massive inflow of short-term capital into these countries. These flows were not caused by high interest rates, but by high rates of return. So the distinction between rates of return and interest rates is important to bear in mind."

Age Bakker turned the discussion to the role of the exchange rate in stabilisation and mentioned the importance of preconditions for stabilisation. "The jury is still out on the role of the exchange rate in stabilisation poli-

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

cies. It depends very much on the circumstances. I want to add the European experience to the examples already given. When it joined the European Union, Portugal was in the same position with respect to the core EU members as the Central European countries currently are. The exchange rate has played a major role in the stabilisation of some of the European economies.

Of course, there were important preconditions, such as the ones already mentioned by Ariel Buira: the behaviour of economic agents, especially the behaviour of social partners. But, as European experience shows, they can be influenced by this nominal anchor. I would add another precondition to their behaviour: the importance of a well-functioning financial intermediation. A small country like the Netherlands was also hit by large inflows, but these quickly turned into outflows if no investment opportunities materialised in the Netherlands. So the excessiveness of capital inflows is highly dependent upon whether the intermediation process in the country is functioning correctly."

While Jan Kregel agreed with Age Bakker that well-functioning financial intermediation can insure the rapid departure of excess capital, this rarely happens in developing countries. "Unfortunately, there is still an incentive in developing countries for the domestic financial system to attempt to invest that excess capital domestically since the financial systems are such that the internal rates of return tend to remain higher than they are abroad. So I would again emphasise that we are talking about interest rate differentials. In general, because of their growth potential, developing countries will have interest rates which are likely to be higher than the interest rates in the more developed economies. This is a problem which will not be alleviated by risk adjustment."

Warren Mosler, a practitioner, suggested a paradox. "My understanding is that when you have a floating exchange rate, the rate is always set by political authority and never by the market. On the other hand, a fixed exchange rate is always a market rate and not a politically set rate."

Jan Kregel agreed with Mosler and explained why. "Warren's point concerns the position that we should take when looking at exchange rates. There is a presumption that in Asia, exchange rates were fixed, but officially, they were not. The majority of the Asian countries had adjustable or crawling peg type systems. The reality, however, was that capital flows into the Asian countries resulted in these exchange rates becoming, effectively, fixed: flexible rates are in fact fixed and fixed rates are in fact flexible. If capital inflows are such that you desire a lower exchange rate, but your currency appreciates because of the capital inflow, there is very little you can do about it."

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

Managing the Booms

Stephany Griffith-Jones would have liked greater emphasis on the role of governments in crises in Jan Kregel's paper. "Indeed, a lot of the problems are induced by financial markets, but developing countries' governments are unprepared to lean against the wave. At the domestic level, we have to start thinking about what Ricardo Ffrench-Davis calls 'managing the booms', i.e. how governments might resist inflows of excessive surges. They may need to fight exchange rate appreciation, use counter-cyclical fiscal policies and perhaps even counter-cyclical financial regulation. We have to think in new ways about what it means to have good macroeconomic policies in the context of very free capital flows and strong volatility."

Ricardo Ffrench-Davis elaborated further on the role of governments in macroeconomic management. "When we try to link the financial sphere with the real economy, we ultimately want an economy that works better, with better allocation of resources, more investment, more savings and more sustainable growth. We should try to build better macroeconomic management that is able to generate more stable real exchange rates and more stable real interest rates – not absolutely of course, we need flexibility in them – than the ones we usually see in emerging economies. If you look only at the Latin American countries in the last one or two decades, you see continuous swings. Interest rates, for instance, were very high in real terms for a while, then in several of the countries, they declined to levels lower than the adjusted real return in the economies. The interest rates then went up again to very high levels. A similar pattern can be seen with regard to the exchange rate. Exchange rates which were quite depreciated, appreciated during the period of big capital surges and when the Asian crisis hit, they depreciated dramatically again. This makes things very complicated for resource allocators who need a certain time horizon: what is the 'normal' interest rate or the 'normal' exchange rate for the coming years?

My second point concerns the debate about flexibility in exchange rate policy. I'm afraid that we are again moving toward advocating either the totally fixed exchange rate, the pegged exchange rate and the currency board, or the totally flexible exchange rate. What we need to do more convincingly than in the past is to manage flexibility. If the emerging economies that experienced capital surges and then faced crises in the 1990s had had more flexibility, exchange rate appreciation and depreciation would likely have been less dramatic than it actually was. We need flexibility, but we also need some management in the sense of avoiding the *extreme* depreciation and the *extreme* appreciation that we have been observing in these economies. This is not easy to do. There is clearly a

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

need for more thought on how one can manage flexibility of the exchange rate and what the interrelations with the management of capital flows are. I am obviously talking about the emerging economies and not about the large, more financially developed economies. Colombia and Chile's experiences with managing exchange rates and capital flows and harmonising the two are very relevant."

Long-Term Versus Short-Term

Stephany Griffith-Jones strengthened Jan Kregel's analysis by making a complementary point on the short-term time horizon of the financial sector. "I want to stress a problem that Keynes already detected and which is much more serious now. It concerns the fact that investors and lenders want to be as liquid as possible, because it is in their interest to make profits in the short term. This implies a severe tension with the development needs of fragile economies, where from both a broad development perspective and a perspective of long-term investment by the private sector, the needs are for long-term money. The problem is that the financial sector has become increasingly clever at being very liquid. Even the instruments that appear long-term, like bonds and so on, have increasingly included options and all of these mirror games with derivatives and so on, which makes them potentially very short-term. This is one of the major challenges that we should address.

This brings me to the issue of the appropriate response. In general, discussions on financial architecture are somewhat abstract and we need to understand the essence of the problem and particularly how the international financial markets work. Based on this, we should design the response. Jan Kregel is right in stating that the response should be focused more on limiting the negative features of these international capital flows without harming the more positive features. This is, of course, very difficult because the financial markets have become so complex and interrelated. For example, while foreign direct investments tend to be more long-term, it is not always the case. So from an international perspective, regulation is challenging. We should look globally, across countries and across sectors, and try and identify the primary sources of volatility."

Regarding short-term capital controls, Mohammed Ariff expressed his concern about the definition of short-term capital. "There is a tendency to treat all portfolio investment as short-term capital, but one does not know until after the fact whether the capital inflow is short-term or long-term. How are you going to restrict the inflow of short-term capital if you do not know beforehand whether it is short-term?"

Jan Kregel answered that anything which exceeds the country's ability to

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

absorb, is automatically a short-term flow. "On the other hand, profitable investments which generate an internationally competitive rate of return become long-term flows by definition. So we are back to the question: just exactly what are we trying to control? In my view, we should try to control the inflows – they have to be justified relative to the absorptive capacity.

I refer to Hyman Minsky's theory which is based primarily on the comparison between a firm's cash flow commitments on borrowing relative to its ability to generate the flows to meet those commitments. We have benchmarks for domestic firms for the amount of borrowing that is deemed sensible. And financial markets assess a domestic firm's borrowing capacity in terms of what they think is sensible relative to its cash flow commitments. We do this for domestic firms and domestic financial markets do it all the time. Yet, international capital markets do not apply benchmarks and they seem unable to assess them efficiently. Part of the problem is, and again I go back to the interest rate differential, that a substantial part of the flows is motivated simply by differentials in interest rates, which I suggested are nominal rates and which have absolutely nothing to do with the real rates of return from investments within the countries."

Need for a Superregulator?

Turning to the paper by Bill White, Stephany Griffith-Jones raised the issue of whether we need a superregulator or not. "Bill White asked: 'Is it practical to have some kind of global superregulator?'. He is right that it is difficult to get the full picture, but I would turn it around and say: 'Is it practical not to have a superregulator in a world where the financial markets are increasingly globalised and integrated?' If you do not try to do it, you may end up with recurrent crises. Because, as Bill knows better than I do, if you regulate one aspect, crises may spread to the other aspects which are less regulated.

How should you do it? The Basle process is attractive because it is modest and you aren't telling the politicians too much – particularly the US Congress. In a way, I think that you at the BIS have constructed a superregulator without telling anybody. I see the Stability Forum as a next step.

There is a clear economic need and I would argue that there is also a clear political need for a global regulator. The need for the latter relates to the fact that actions by big international players – who are not democratically accountable – have tremendous effects on real economies, on peoples' lives and on political systems. Many say that the IMF is not democratically accountable either, but the IMF has democratically elected representatives on the Board. To whom are the financial market operators accountable?

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

Regulation through the Basle process brings some kind of accountability, albeit highly technical, to the financial markets so that they serve the objectives of the real economy. Still, I think there is a strong political rationale for moving towards a global regulator."

Bill White explained that the Basle process is based on the notion that national policymakers are unwilling to give up their sovereignty to a supranational body. "Europe is a good example because Europeans have kept all the banking supervision at the national level. They say that there are all sorts of good reasons for it, but I think the bottom line is that they don't want to give up their sovereignty. The Basle process is helpful here because we bring in all the national experts in a particular area, let's say banking supervision, and then these individuals basically hammer out some kind of a consensus on what needs to be done. Once they have done that, after a lot of painful negotiation and compromise leading to sometimes not wholly sensible results, they go back to the national legislators who are still sovereign and basically say, 'We have done a deal'. This international deal has no legal authority whatsoever, it is all in the realm of soft law. Stephany said, 'You are sort of regulating internationally, but you are not really telling people about it'. There is an element of truth in this because the power to impose rules and decisions is at the national level, and the rules at the international level are being negotiated in a very informal way.

The question is: Would you want to have some kind of legal power at the international level as well? One could think of areas in which you would like to have some international laws, an international bankruptcy law, for example, for domestic corporations or for banks that are internationally active. It would be nice if there was a single framework, but there isn't and you are not likely to get one either. So the next best thing is using national authority to try to impose something that has been decided internationally. It is a process question really."

Zdeněk Drábek observed that the first important question is not who regulates the financial sector, but what supply-side factors cause financial instability. "We all share a belief that perhaps macroeconomic fine-tuning and information availability are not what they should be. But what is it specifically on the supply side in the financial sector that is producing this kind of instability? I am astounded to see and hear that banks are prepared to take risks that are enormous and excessive. Why is it that this is happening? Why is there no adequate control from shareholders and bank operators to stop it? If the system allows these excesses, clearly there must be a way of introducing some rules. I don't think we should be concerned with who establishes the rules, but whether there is enough discipline within the banking sector to stop these excesses."

Bill White responded: "Why don't the shareholders try to stop it? I

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

think the shareholders are part of the problem because they focus first on their return. They say that their returns are not high enough. But obviously, higher rates of return are accompanied by risk. It is only after the shareholders have taken the hit, and they have seen how bad it can get, that they want to stop taking excessive risks. And it is only after a crisis that individuals realise that with extra return comes extra risk. Maybe shareholders have to go through this before they begin behaving more sensibly."

Elemér Terták stressed that banks throughout the world are strictly regulated and controlled, whereas institutional investors – pension funds, insurance funds, hedge funds – are scarcely controlled. "In practice, who is exercising the demand for shareholder value? Not the small shareholder like myself, but these large funds are the real players. Perhaps the control should include these increasingly important funds. This control should look at the considerable pressures on these funds and their large obligations towards the populations they serve. The function of pension funds is to finance pensions, and there are numerous problems in the developed countries because of the ageing population. So now these pension funds are even under substantial pressure."

Bill White agreed that the role of hedge funds, pension funds and other big players is an increasingly important issue: "Talking about financial instability, I put the finger on the banks and the securities markets, but there is no question that there are some dangerous things going on with respect to these large funds. They are another source of instability in the system, and I suspect that we may hear more about them, in particular about insurance companies."

The Irrationality of Spreads

Elemér Terták said that the spreads of the banks always increase after the crisis has occurred and not before. "It is not really risk awareness which is reflected in the spreads, but rather the shocks or the reaction to the shocks. The paradox is that after the shock has occurred and the problem is more or less resolved or the government is improving its behaviour, then the spreads increase and thus the burden becomes high.

I work for a bank owned by a Korean shareholder. I have the feeling that before the Korean crisis we could easily get money in Europe. After the crisis the policy of our bank has not worsened, but because a lot of banks that we dealt with have suffered, they are now demanding very high spreads. Korea's performance was even judged to be good by the IMF and as I see it Korea is on the right track. But now Korea has to pay much higher spreads than ever before even though the policies have never been as correct as they are today."

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

Ricardo Ffrench-Davis endorsed Elemér Terták's remark by saying that the Latin American borrowing before the crisis was stimulated by decreasing spreads. "Before the crisis more and more capital was being borrowed as spreads were getting lower, fueled by competition. It is difficult to have equilibrium with that. When we are moving into dangerous areas, capital should become more costly, not cheaper. We have to increase the cost of capital when borrowing is too high or when the deficit of the current account is too high or when the appreciation of the exchange rate is too high or when the stock market is too high, etcetera. Something has to start giving a market signal 'be careful', and we should use the market to do that."

Bill White looked at the example of South Asia. "Spreads for borrowing by emerging markets went down before the crisis, which meant a negatively sloped supply curve. When the crisis came, they went right back up again, only to come back down again after the event, so that the lending could resume again. I am not quite sure what one does about it. Looking at South Asia now, the money has started coming back in again with inflows into the stock market and into markets more generally, also into Japan. Now the question is: 'Is that the good news, that the overshoot is now being regressed?', or rather 'Is this just the beginning of the next bubble?'. Given the history of how these markets behave, I would not be at all surprised if it is the latter and not the former. The operation of markets in terms of spreads has not been their finest hour in recent years. How do they get away with it? It seems that you have these forces of domestic competition and the belief that the safety net is in place, and this pushes lenders and borrowers in the direction of doing what they have done."

The Right Exchange Rate Regime

John Williamson questioned Bill White's point at the end of his paper, that a float up of the exchange rate would have resolved all the problems. "Maybe it would have avoided a crisis, but it would have done so at the expense of the boom that occurred in the earlier years or at least in the investment in the tradable goods industries. The problem with floating up is that the tradable goods industries cannot expand enough and hence the boom gets cut short prematurely. I think it would have been more desirable to have avoided the excessive capital inflow."

Bill White responded by saying that there is absolutely no single right answer to the question of what the right exchange rate regime is. "It depends on so many different factors. If you go back to the optimal currency notion and to various other criteria and ask: 'Should you peg immutably to somebody else?', then the answer is: 'It all depends.' You have a list of

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org

pros and a list of cons, add them up and see what applies. There is no single right answer.

The same applies to issues concerning exchange rate expectations. In Latin America, for example, what seems to be a kind of stylised fact is that when the exchange rate goes, domestic prices go too – although this may have changed recently. While Latin America is much less open than Asia, when you look at the relationships between domestic prices and wages and exchange rates, the feed-through is much faster in Latin America. I think this is just because of the signaling effect. There is such a history in Latin America of inflation and even hyperinflation, that when people see the exchange rate go, they know they are in trouble, and they'd better start asking for higher prices and wages. Then the whole dynamic becomes self-fulfilling.

If you could actually fix the exchange rate in a credible way, which is what the Argentineans are trying to do, then maybe you could break that self-fulfilling pattern. But it still leaves you with the problem that Ariel Buira referred to which is: if real wages have gone up in the process of disinflation – and that may be more likely to happen the faster the disinflation takes place – then you may enter into a situation where everybody knows you need an exit strategy, which really means that the exchange rate was not credible in the first place.

In the Asian case, a float upwards would have been helpful when the flows were coming in. Fixing the exchange rate when the flows are coming in will result in a real appreciation of some sort: either domestic prices or asset prices are going to increase. But don't doubt it for a moment: those inflows subject to a fixed exchange rate are going to cause you trouble. And if you let the exchange rate go up immediately, you will have an immediate impact on the relative prices of tradables and non-tradables, and again, you will have trouble. You have to make up your mind where you think there is going to be less trouble. In the Asian case, if the bubble had been pricked earlier, the world as a whole would be a healthier place than it is at the moment."

From: The Management of Global financial Markets,
FONDAD, April 2000, www.fondad.org