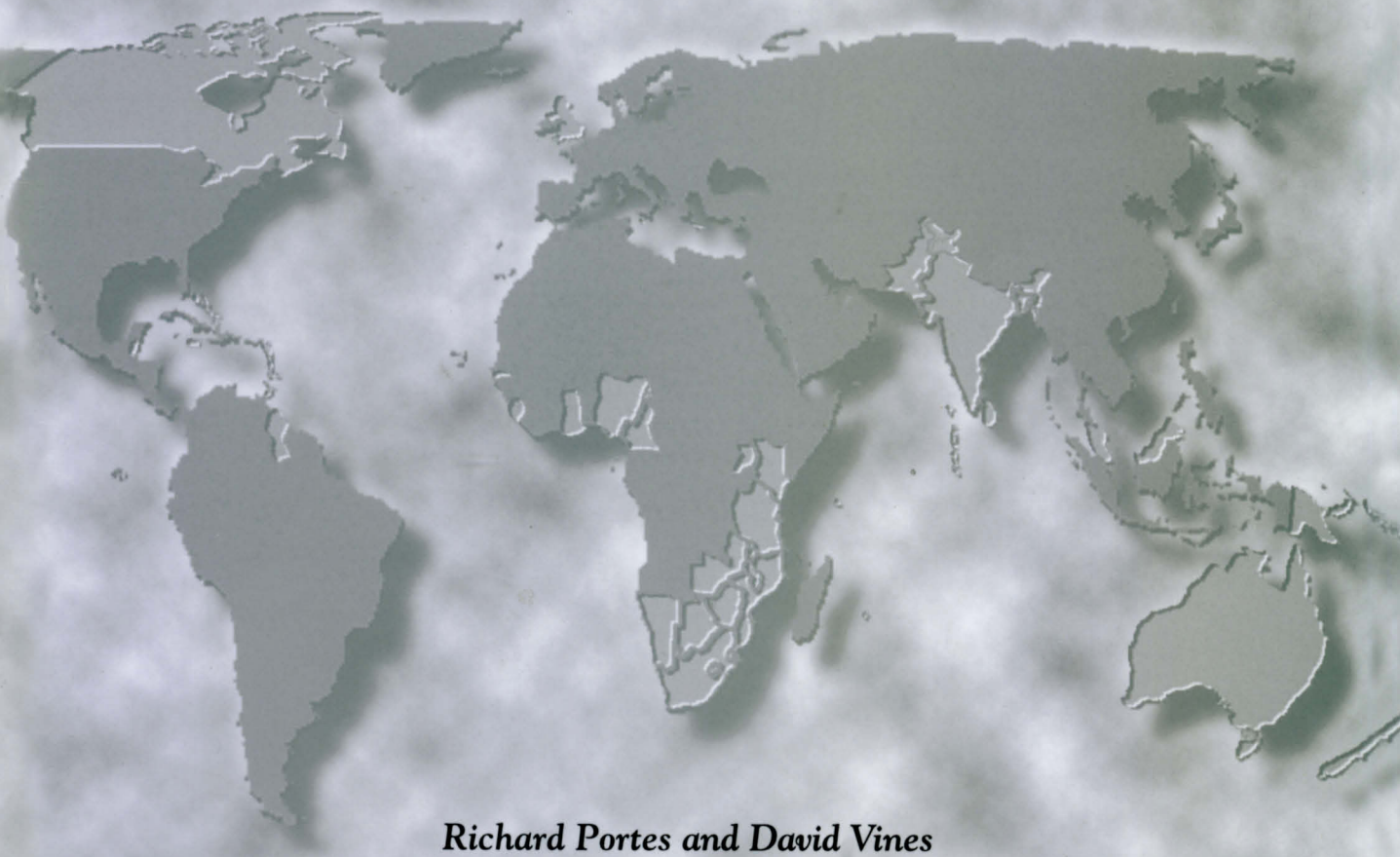
ECONOMIC PAPER 30

Coping with International Capital Flows



Richard Portes and David Vines

COMMONWEALTH SECRETARIAT

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We would like to thank Heinz Arndt, Ross Garnaut, Ross Macleod, Caroline Webb, and Charles Wyplosz for helpful comments, and we are very grateful for comments and assistance from the Secretariat's economic staff. Portes's work has benefited from his collaboration with Barry Eichengreen on the resolution of sovereign debt crises. But the authors remain personally responsible for the analysis and conclusions below

All enquiries for assistance should be directed to:
The Director
Economic Affairs Division
Commonwealth Secretariat
Marlborough House
Pall Mall, London SW1Y 5HX Britain

Telephone: +44 (0)171-747 6261/6231
Fax: +44 (0)171-747 6235
Telex: 27678

Commonwealth Secretariat
Marlborough House
Pall Mall, London SW1Y 5HX Britain

Designed and published by the Commonwealth Secretariat.
Printed in Britain by Formara Limited, Southend-on-Sea.

ISBN 0 85092 502 9

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Foreword

The Commonwealth Secretariat has been giving a great deal of emphasis in its activities to assisting developing countries of the Commonwealth in attracting private flows. It has set up an intergovernmental working group, consisting of the representatives of 15 Commonwealth countries, to develop recommendations for national and international policies for attracting private flows for investment. The Group will be presenting its conclusions to the next meeting of Commonwealth Finance Ministers in September 1997. This paper, prepared by Richard Portes and David Vines, was commissioned by the Economic Affairs Division as a contribution to the deliberations of the Group.

Private capital flows to developing countries have increased dramatically in the 1990s. These flows are important because of their role in supplementing savings and financing investment and growth. In addition, the benefits of foreign direct investment are now widely recognised including their value in facilitating transfer of technology, greater access to foreign markets for domestic goods and enhanced competition within national markets particularly for services. There are however major concerns about the sustainability and volatility of these flows. On sustainability, there is a view that the recent increase in flows can be explained as a once-for-all stock adjustment on the part of the world's investment community to the newly liberalised financial markets and profitable opportunities in developing countries, and that once such adjustment has been completed, these flows would stabilise to more normal levels. Another view is that the capital flows to developing countries are an ongoing response on the part of globally-oriented investors to changing incentive structures so that the recent increases in capital flows could be easily be reversed.

The increasing integration of developing countries into the global capital markets has also meant that these countries are becoming more vulnerable to external developments such as cyclical swings in industrial countries or disturbances in major markets. The Mexican crisis and its contagion effect on other countries in early 1995, led to a sharp cut back in portfolio flows to emerging markets, but once the initial reaction subsided, the attitude of investors became discriminatory. Broadly speaking, countries with low savings, large current account deficits, weak banking systems and significant values of short-term debt, experienced greater pressure than countries with sound fundamentals. Sudden inward capital surges can give rise to serious problems of real exchange rate appreciation, falling profitability in the production of tradeable goods, rising current account deficits, accumulation of foreign currency debt and eventually the sudden shock of reversal of flows. Portes and Vines argue for the need inter alia to: use a wide range of diverse policy instruments; control budget deficits before opening up the capital account; have an institutional framework that will firmly underpin monetary policy; preserve freedom for the timing of liberalisation of the capital account. They discuss the risks of using sterilised intervention while conceding that this may be useful only if inflows are temporary; and briefly consider the role of cross-border transaction taxes arguing that the costs of using such taxes would far outweigh any short-term benefits.

In respect of global systemic reform, the authors recommend that the IMF should continue to improve data standards of members as a source of information to the markets, but argue against their use as an early warning system. They do not believe that there is a precise connection between out-

comes on a large number of indicators and the possible emergence of crisis which inevitably would depend on a number of difficult-to-measure factors not on the IMF's list. They conclude that the IMF should not aim to become a rating agency but instead continue to provide confidential advice to countries and to work with them, confidentially, to solve their problems. In addition Ports and Vines make a major contribution by coming out with an innovative proposal for orderly debt workouts. Their ideas have been accepted by the G10 but there is still a great deal of reluctance on the part of the G7 and the IMF to support the proposals. The Fund has a particular difficulty in agreeing to lend into arrears in dealing with financial crises involving securitised debt. We believe that orderly debt workouts is an idea whose time has come and one which the Commonwealth needs to consider supporting.

Emeka Anyaoku, *Secretary-General*

1

Introduction and Conclusions

This is a report about capital inflows. But we must resist the temptation to analyse capital inflows in too simple a manner, thinking only about the determinants of the inflows themselves and their effects. One must consider capital inflows in the broader context of macroeconomic developments and analyse the inflows jointly with the appropriate policy responses to those developments.

Why might such policy interventions be desirable? Capital inflows, after all, have long been regarded as both a sign and a cause of economic success. Borrowing abroad permits investing up to the point where the marginal return equals the cost of capital, while smoothing the path of consumption over time. Yet capital inflows can give rise to serious problems

- ❖ real exchange rate appreciation, current account deficits, and falling profitability in the production of tradeable goods (endangering 'export-led growth')
- ❖ gradual accumulation of an excessive foreign currency debt burden
- ❖ sudden shocks from reversal of the inflows (volatility)

Capital inflows may cause macroeconomic instability, while domestic microeconomic distortions can both exaggerate and misdirect the flows.

This report will argue that there are three resulting sets of policy issues which are to be faced and will draw some clear conclusions:

- ❖ Macroeconomic policy responses to the inflows
  - A stable real exchange rate is important, but countries facing sustained capital inflows may have to accept a trend appreciation, especially if the capital inflows go in parallel with rapidly increasing productivity that underpins the appreciation.
  - Sterilised intervention may be useful when a capital inflow is temporary, but it is unsustainable and unwise in the face of longer-term inflows. Unsterilised intervention is likely to give real exchange rate appreciation through inflation, which is less desirable than a nominal exchange rate appreciation.
  - It is usually very difficult to judge whether inflows are temporary or long-term; so avoid strictly pegged exchange rates. But this is not the fundamental choice; the basic issue is whether or not to accommodate the capital inflows – but this will depend on the assessment of their persistence. Meanwhile, a wide range of diverse policy instruments can be used, none of which is likely to be sufficient alone.
  - Control budget before opening up the capital account, but in the face of large capital inflows, contractionary fiscal policy is an appropriate response only if the inflows are judged to be temporary.
  - Without a nominal exchange rate 'anchor', there is an urgent need for an institutional framework that will firmly underpin monetary policy.
  - Opening up capital markets requires standards of prudential regulation and supervision of financial institutions that are even higher and stronger than in open developed economies.

- There is no simple set of reliable 'early warning indicators' for financial crisis.

❖ Policy in respect of capital inflows themselves
  - There are convincing arguments not to try to steer foreign investment into FDI rather than portfolio equity investment.
  - Preserve freedom for the timing of liberalisation, which should wait upon whether the appropriate institutional framework is yet ready.
  - Retain or install appropriate capital controls during the process of liberalisation in other domains (several countries appear to have been successful with capital controls, most notably Chile and Malaysia).
  - Keep credit rationing in reserve during the process.

These freedoms may be transitional freedoms and may be consistent with the signing of a no-rollback clause in the forthcoming transfer of investment code measures from the OECD to the World Trade Organisation. But there are conflicting considerations: signing on to an multilateral investment code will convince investors that policy risk is less, and that will make countries less vulnerable to sudden withdrawal; yet it will also restrict freedom to use policy instruments which could ease the adjustment costs of transition to a more liberal open regime.

❖ Policy in respect of global systemic reform
  - The IMF should continue to improve data availability as a source of information to the markets, but should not function as a ratings agency – its confidential assessments from surveillance should remain confidential.
  - The IMF's new Emergency Financing Mechanism will require, to be effective, a significant increase in IMF quotas.
  - The GAB, even augmented, is unlikely to be much help to any but the largest developing countries.
  - There may be a useful role for regional central bank cooperation to supplement multilateral arrangements; but this will not be easy to organise.
  - A 'Tobin tax' seems unlikely to be an effective response to the main problems raised by capital inflows – i.e, the loss of domestic monetary control and vulnerability to financial crisis.
  - The G10 recommendations for resolution of sovereign debt crises would be steps in the right direction, but mechanisms and contractual changes providing for bondholder representation, qualified majority voting, and sharing clauses in bond covenants are highly unlikely to evolve in a 'market-led' process – they will need strong official encouragement and involvement.
  - The IMF Executive Board should accept without delay the G10 recommendation that 'lending into arrears' be regarded an appropriate IMF policy under stated conditions (that are not unduly restrictive) to deal with financial crises involving securitized debt.

The plan of the rest of the paper is as follows. Chapters 2 and 3 provide background; first of all a historical perspective and then an introduction to current issues and prospects. The main argument of the paper begins in Chapter 4, with a discussion of the reasons for huge increase in capital flows to the developing world which has occurred since the beginning of the 1990s. Chapter 5 discusses the appropriate macroeconomic policy responses to these flows. Chapter 6 discusses possible policies directed at limiting the flows themselves. Chapters 7 and 8 are directed towards discussing the reforms of the international monetary system which we believe are necessary, including improving crisis prevention measures, necessary measures relating to the management of illiquidity crises, and the putting in place of better procedures for the management of sovereign debt workouts.

2

Emerging Markets and the Volatility of International Capital
A Historical Perspective

2.1 Introduction

We are seeing a reconstruction of the truly global economy, similar in many ways to that which existed in the period before World War I. As in that period, we expect that this global system will give rise to convergence among the economies that are open to it. There are two key mechanisms of such convergence: technology transfer and capital flows (interconnected in an important way).

Unlike the period before World War I, these movements are taking place among sovereign states, rather than between an imperial core and periphery. Such capital flows and transfers of technology create difficult questions, both for the sovereignty of the states which receive them, and for the international institutional structure in which the states are embedded.

2.2 The Closing and the Re-opening of the Global System

This re-opening is a relatively new historical phenomenon. From 1918 to the 1960s there was a closing associated with

- the collapse of the international trading system
- inward-looking macroeconomic policies associated with financial repression, international capital controls and currency inconvertibility
- microeconomic policies: 'state building'
- mercantilist trade policies and protectionism
- 'big push' industrial policies

Keynes (1933, p 236) summarised the intellectual beliefs which supported these policies:

> *"I sympathise with those who would minimise, rather than with those who would maximise, economic entanglements between nations. Ideas, knowledge, art, hospitality, travel – these are the things which should by their nature be international. But let goods be homespun whenever it is reasonably and conveniently possible; and, above all, let finance be primarily national."*

It turned out that Keynes was mistaken: with homespun goods and national finance, ideas could not be international. These two policies institutionalised technological backwardness in present day developing countries.

Protection created an inward-looking manufacturing sector, small-scale and fragmented, with none of the benefits of scale and dynamism associated with freer trade. Paradoxically, therefore, protection priced manufactures out of world markets and so enforced precisely that dependence on exports of agricultural staples which protectionism was designed to avoid. Thus protectionist policies produced a developmental roadblock.

By contrast, trade liberalisation causes every enterprise to know that it has to compete in an open international environment. This makes the enterprise sensitive to developments elsewhere in technology, management and market trends, and it encourages rapid adjustment to change. Firms know that to survive they must adopt the world's best practices, and so take care to inform themselves on and compare themselves with the world's best practices. Capital imports both provide the new technology and information (in the case of direct investment) and also bring firms into international system, with accompanying monitoring and benchmarking of their

performance (in the case of foreign portfolio investment in domestic equities).

Even stock markets, for which Keynes used the metaphors 'casino' and 'beauty contest', turn out to be good for economic growth, and a primary factor in the healthy development of stock markets is opening up to foreign investors (see Sec. 6.1).

2.3 Capital Flows after Trade Liberalisation

Partly because of growing recognition of these positive effects, liberalisation of capital flows – and their explosive growth – has followed trade liberalisation. In the first half of the 1990s, capital flows have come to resemble in both quantity and composition the 'golden age' before World War I. Securitised debt and direct investment have been dominant. Private flows to developing countries averaged $1.2 billion a year between 1961 and 1970 and $3.8 billion a year between 1971 and 1980 (Cuddington, 1989). Following the 'lost decade' of the 1980s, lending exploded: aggregate net long-term resource flows to developing countries rose to $46 billion in 1990, $103 billion in 1992 and $173 billion in 1994 (World Bank, 1995). This flow of funds had a major impact on the recipient countries: for Mexico net capital inflows averaged six per cent of GDP in the first half of the 1990s. Initially, much of the lending went to Latin America and East Asia; since 1990, however, South Asia and some countries of Sub-Saharan Africa (Kenya, Tanzania, Uganda) have also experienced substantial capital inflows.

The capital inflows to emerging markets reflected four factors. Most fundamental was economic liberalization and reform in the developing world. In addition to opening goods and capital markets, developing countries improved their macroeconomic policies, emerging from the debt crisis of the 1980s with a firmer grasp on fiscal conditions and with inflation under growing control. Privatization created new opportunities for financial capital. The economies of East Asia moved up the technological ladder toward the production of higher value-added goods.

Second, reforms encouraging capital transfer took place in developed as well as developing countries. By the late 1980s, thoroughgoing deregulation of financial markets became widespread. Trade liberalization had made capital controls more difficult to enforce: importers and exporters could over- and under-invoice transactions and exploit 'leads and lags' to circumvent restrictions on capital flows. New information technologies and the globalization of financial markets made the restrictions needed to close off domestic financial markets more costly. The authorities could not deregulate banking systems while continuing to prohibit banks from borrowing and lending abroad. Nor could they encourage the development of a stock market, in order to capture financial business from regional rivals and offer domestic firms attractive sources of external finance, so long as foreign investors were barred from participation.

Third, rather than turning the capital markets away, the debt reduction afforded by the Brady Plan also encouraged new capital flows to the middle-income developing countries that benefited from it. Between 1990 and 1993, countries participating in the Brady Plan were able to reduce their debt loads significantly by exchanging their floating-rate bank debt for bonds that bore below-market interest rates and by discounting the original loans. The subsequent rise in the secondary-market prices of the remaining commercial bank debts indicates that the markets perceived a significant improvement in these countries' creditworthiness.

Finally, since 1989, monetary policies in the capital exporting countries have for the most part favoured capital flows to emerging markets, which are highly sensitive to the level of global interest rates. Lower rates in the financial centres stimulate investors to search for higher yields abroad, and they enhance the creditworthiness of developing-country borrowers by reducing the cost of servicing existing debts. Cohen and Portes

(1990) demonstrated a strong inverse relationship between US interest rates and the secondary market prices of developing country debt. Notice that this last relationship goes both ways. By raising interest rates in 1994, the Fed increased the yield and attractiveness of domestic securities and heightened the debt-servicing burdens of countries like Mexico with substantial short-term obligations outstanding. Indeed, Dooley *et al.* (1996) argue that a repeat of this rise in industrial country interest rates, if sufficiently pronounced, would probably stop and even reverse capital flows to developing countries.

The composition and type of lending has changed. In the 1970s lending had been directed primarily at governments, while private foreign borrowing in developing countries was still tightly controlled. Between 1990 and 1993, however, more than 80 per cent of all long-term private capital received by developing countries flowed to the private sector (Fernandez-Arias and Montiel (1996), Table 3). In practice, the line between private and public debts is not that easy to draw, in view of the implicit guarantees that governments extend to parastatals and private enterprises. But it is clear that there has been a major shift in composition. In part, this has been a consequence of the wave of privatisation and financial liberalisation that were from the outset an integral part of the policy reform process.

In the 1970s bank loans and direct foreign investment had been the principal conduits for private capital transfer to emerging markets. Starting in 1989, securitized investment finally regained the prominence it held in the 1920s and the period up to 1913. The use of bonds and other securities as vehicles for redistributing financial capital internationally was particularly important for developing countries. The turn away from financial repression and the conscious efforts to develop securities markets paid off. The volume of foreign capital that flowed into developing countries' bond markets rose by a factor of ten between 1989 and 1993. Investment in emerging stock markets rose in parallel over the period, again by a factor of ten. Information flows improved, and managers of major institutional portfolios sought diversification: Since the stocks and bonds which they bought were relatively liquid (they could be sold as easily as they had been purchased) capital inflows could now be reversed much more easily.

3

Current Prospects

The Mexican crisis has led to proposals both for changes in national macroeconomic policies and for international regulation of the global financial system which are reviewed below.

The crisis revealed major problems arising from:

- the overall strategy followed by Mexico (e.g. maintaining an overvalued exchange rate, an unwillingness to follow the appropriate domestic monetary policy, issuing foreign-currency-denominated debt);
- the volatility of capital inflows and the consequences of a sudden reversal; and
- the lack of accepted mechanisms for an 'orderly workout' for a financially distressed country.

We discuss these problems successively in this paper. Here we expand on the background to the 'systemic' problem of providing mechanisms for dealing with sudden reversals of capital flows.

Investors in liquid securities, suddenly confronted with new uncertainties, have an overpowering incentive to scramble for the exits. Like depositors who see their neighbours lining up outside a bank and join the queue in order to liquidate their holdings before the institution's cash reserves are exhausted, investors in government bonds have an incentive to liquidate their holdings when others do likewise, and they grow fearful that the government's limited foreign exchange reserves will be exhausted or the exchange rate will sharply depreciate. So also do holders of corporate securities and short-term bank debt.

A country experiencing a debt run, like a bank experiencing a run by its depositors, may have no choice but to suspend payments, regardless of the damage to its creditworthiness. On the eve of the crisis, the Mexican government was responsible for more than $18 billion of dollar-denominated and dollar-indexed liabilities, an amount roughly triple its foreign exchange reserves. And with convertibility for capital account transactions, holders of peso-denominated liabilities could also take funds abroad (as many residents did – see IMF, 1995). Once investors began to liquidate their holdings, the authorities had no recourse. This is because (as had already been shown in early 1994) the fragility of the domestic financial system precluded the kind of sharp increase of interest rates which would have halted such an outflow. (Banks and other financial institutions were already overstretched.)

In these circumstances, it can be exceedingly difficult to restructure government debts – to convert and extend their terms of payment. Bondholders are unsure how much the government is able to pay. Governments are unsure how much the bondholders are willing to accept. Both sides have an incentive to withhold information in bargaining. Besides the problem of strategic behaviour between the creditors and the debtor, there are conflicts among different classes of creditors. Altering the core terms of a bond covenant normally requires the unanimous consent of the bondholders, which may be impossible to obtain. Individual investors will be tempted to refuse any offer of less than a hundred cents on the dollar in the hope of being bought out at full value by the government or other creditors. Small creditors seeking a favourable deal can thus hold up the settlement process indefinitely.

In this climate of uncertainty, potential

providers of additional liquidity will hold back. Lenders will hesitate to provide new money for fear that it will simply go to pay off old creditors. The government and the country will be starved of finance for even highly productive investments.

These problems already existed in the 1980s, but they are even more serious now that securitized instruments have replaced bank loans. There were never more than several hundred banks involved in sovereign debt reschedulings, and bank advisory committees rarely had more than a dozen members. The largest banks could discipline their smaller counterparts, threatening to exclude dissenters from future loan syndicates and to undermine their position within the banking community if they refused to cooperate. Pressure to go along was also applied by a US government which feared that the debt crisis could jeopardize the stability of the financial system. Still, these efforts to secure a quick resolution were only modestly successful. And problems of collective action and strategic behavior, however significant then, are many times greater now. Today there are thousands of small bondholders whose consent is required to restructure the core terms of loan contracts. The prevalence of bearer bonds makes it difficult even to identify the owner, much less to apply peer pressure. The incentive for any one investor to provide new money to kick-start the debtor's economy is further diminished when all creditors are small relative to the market. It is revealing that IMF attempted to coordinate the provision of private financing for countries in arrears early on in the debt crisis of the 1980s but made no similar effort in 1995.

Subsequently, it has become clear that there is a divergence of view about systemic reform proposals (discussed in Secs. 7 and 8 below). Officials from G7 countries welcome them, as a way of preventing 'excessive lending', which they do not wish to have to make when things go wrong, in the way in which they were forced to bail out Mexico's creditors. Market participants are hostile, suggesting that they still expect to be bailed out again in future. The most fundamental legacy of the Mexico crisis is this conflict of view, which suggests that there is a market imperfection which needs rectification.

4

Trade Liberalisation, Profitability, Investment and Savings, and Capital Flows

This chapter reviews the underlying reasons for the capital flows revival which we are discussing. As was argued in the first sentence of this paper, although this is a paper about capital flows, one must locate these flows within the wider economic context – both cause and effect. This chapter takes the first step, by considering causes. As will already be clear, we locate this fundamentally in the liberalisations which have taken place in recipient countries.

4.1 The Process of Trade Liberalisation

The typical pre-emerging developing country is a capital-scarce, low-wage economy in which the productivity of capital is low, even although capital is scarce. The financial system is repressed. Because returns to investment are low, the return to saving cannot be high and may be negative. So savings are low, and they must be prevented from flowing abroad. They are probably channelled into 'priority areas'.

Reforming, opening and emerging change all of these things. The process of 'emerging' involves putting in place sound macroeconomic policies, which provide a guarantee of stability. Against this background, trade liberalisation, opening up the goods markets, promotes the reorientation of production, with an export sector serving the global market. The rate of return in the export sector will rise. This will attract foreign capital – and the inflow of foreign capital, by bringing new technology and supplementing domestic savings, will reinforce the process. Any policies responding to or attempting to influence capital inflows must keep these fundamentals firmly in mind.

4.2 Trade Liberalisation and the Profitability of Investment

There are four essential reasons for this rise in profitability.

(i) comparative advantage

Trade liberalisation enables the emerging economy to specialise in goods in which it has a comparative advantage – essentially low-wage assembly with semi-skilled labour resources. Under protectionism, imported inputs are either physically difficult to get hold of or are expensive. Domestic resources used in production are expensive in that their rewards and so costs are inflated behind the protective barrier. Freer trade removes these cost disadvantages, and so raises the rewards in the export sector.

(ii) economies of scale in specialisation

Opening enables the economy to escape from an inward-looking production system serving the home market, fragmented and small-scale, with none of the benefits of scale in its product lines which are too high-cost to serve the world market associated with freer trade.

Every extra industry added behind the barrier of protection requires the country to bear another set of fixed costs. The result is a manufacturing sector which has too high a level of fixed costs (it does too many things) and which gets too little reward for each set of fixed costs incurred. Liberalising trade leads to a rationalisation of the industrial sector, which bears fewer fixed costs by concentrating on fewer industries, and fewer product lines within each industry. Each of the remaining lines of production has a larger output and is sold on the infinitely larger and more competitive world market.

(iii) technological catchup

Stable policies and low factor costs make liberalising and reforming developing countries attractive places to which to transfer technology. Foreign capital and foreign knowhow can make high profitability in the export sector possible.

Trade liberalisation can also force producers to acquire and make use of international knowledge, in order to survive in more open international competition. Liberalisation causes enterprises in both the import-competing sector and the export sector to know that they have to compete in an open international trading environment. This encourages rapid adjustment to change. Firms know that to survive they must adopt the world's best practices. All these adjustments raise profitability, both in the industries making the adjustments and in those which use their outputs as inputs.

(iv) domestic technological advance

The opening of trade can help to focus 'positive feedback' in the accumulation of national knowledge which must go hand in hand with the process of technological catchup. Perhaps just as importantly, the opening of trade can lead to an industrial structure in which there is 'positive feedback' through spillovers: mutually reinforcing external economies of scale within a particular industry, and between industries.

It requires not just an increasingly skilled and educated workforce for an economy to be the recipient of technical inflow of the kind just described, but also the acquisition of competences specific to the industry in question. This is true whether for the car industry in Thailand or the growth of the software, data processing and accounting sectors in the Indian economy. Much of the required skills and competences can be acquired only by costly national R and D, education and training efforts (since the activity-specific knowledge and skills are tradeable internationally). The specialisation which goes with trade liberalisation means that it is no longer essential for an economy to attempt to spread this across the entire industrial range. Final products and intermediate capital goods can be imported which have been designed elsewhere (see Romer, 1994). As a result, the R and D effort can be better focused and 'goes further'.

Furthermore, existing knowledge and competences are important for the success of future R and D. If these are more narrowly focused, then positive feedback will be stronger. The result can be a cumulative process, and so long as manufacturing is sufficiently specialised, then these cumulative gains can characterise the manufacturing sector as a whole. This cumulative process will lift the overall rate of growth of the economy (Grossman and Helpman, 1991).

Finally, the opening of trade can lead to an industrial structure in which there is 'positive feedback' through spillovers: mutually reinforcing external economies of scale in a particular industry, and between industries. As the size of successful industries increases, this will

- provide a large market for workers with specialised skills (thus encouraging specialisation by workers in such skills)
- induce the growth of specialised support services (inducing productive specialisation in the provision of these)
- bring about the reciprocal exchange of technology amongst firms in the industry.

Expansion of each firm and industry improves the environment for and lowers the costs of other firms and industries. Again there is the possibility of a cumulatively reinforcing process which lifts the economy-wide growth rate (Krugman, 1994).

All of this means that the return on investment will increase, investment as a share of national income will rise and these countries will come to be attractive places to invest. Sachs and Warner (1995) present evidence that once developing countries become more open, they begin to invest and grow at rates higher than those of developed countries and begin the process of convergence and catchup. This too is the central message of the *World Bank Global Economic*

Prospects (1996), which presents further empirical evidence and examples.

4.3 Long-Run Policy Response

(i) mobilising domestic savings

One long-run response to the higher demand for investment would be to raise the domestic savings rate. This was characteristic of the East Asian 'miracle'. According to Rodrik (1995b), 'In Korea and Taiwan, interest rates were controlled by the government, and in any case the bulk of investment funds were generated either by self-finance or through directed lending from the government. However governments in both countries did raise real interest rates for savers to levels that were either positive or only mildly negative (Taiwan in the 1950s and Korea in the 1960s). In this respect their policies diverged significantly from the gross financial repression favoured by other developing governments ... In addition, an increase in public savings made an important contribution to total savings in both countries ... [as it did in Korea].'

(ii) mobilising foreign savings

The other long-run response would be to move to a regime in which foreign savings finance a high proportion of the domestic investment, with the goods market counterpart of a current account deficit financed by an equal capital inflow. This would be the strategy of the colonial countries of the late nineteenth century, of Thailand in the late 1980s and early 1990s and of Mexico in the first part of the 1990s – until it ended in tears. The risks are well-known: those caused by the rise of foreign costs of funds; and policy risk in the face of withdrawal. In the following section, we discuss how best to minimise these risks and control the costs of negative shocks.

4.4 The Transition

Policies to raise the savings rate take time. Furthermore, consumers, seeing the possible effects of the policy reform, take heart at their rising real permanent income and spend more.

Opening the economy to capital inflow offers the possibility of immediate foreign financing of the high level of investment to which the liberalisation leads. That enables the investment to get underway more rapidly than if it were domestically financed. With a domestic rate of return higher than the foreign rate of interest, this offers the possibility of immediate net returns to the economy or to foreign investors in it. It is this large gap between the rate of return on domestic investment and the foreign rate of interest that both stimulates the investment and – with open international capital markets – encourages the capital inflow which finances it.

The problem is that in the short run there is macroeconomic disequilibrium. With domestic savings not keeping pace with the higher level of domestic investment, aggregate demand will exceeds aggregate supply.

In addition, the financial reforms which permit the capital inflow will in general also be associated with the easing of restrictions on domestic residents; it is very difficult to separate domestic from foreign liberalisation. This will lead to relaxation of credit rationing on domestic consumers. Without care a consumption boom will accompany the investment boom, leading to a further imbalance between demand and supply.

5

The Challenge for National Macroeconomic Management

The problem to be dealt with macroeconomically is one of aggregate demand running ahead of aggregate supply. The difficulty may simply be one of timing, as some Mexican policymakers maintained. Policy reforms and the associated investment may be properly directed towards increasing aggregate supply capacity for tradeable goods, but getting the additional production on stream takes time. Mexico's exports of manufactures were in fact growing fast in the early 1990s – but not as fast as the imports stimulated by the increase in aggregate demand. Losing the race may be very costly. One response is to try to slow down demand, but we shall see that this is intimately related to the capital flow problem.

5.1 Preventing the Increase in Aggregate Demand

What is required is some policy in the face of this increase in demand. As we shall see, such policies require the authorities to face up to a fundamental dilemma. In the short-to-medium run there is macroeconomic disequilibrium. The obvious weapon with which to fight the increase in aggregate demand is a rise in the domestic nominal interest rate. A rise in the nominal interest rate will depress domestic interest-sensitive expenditures. To the extent that domestic inflationary pressures are threatening, the nominal interest rate will need to go sufficiently high to raise the real interest rate sufficiently to depress expenditures and contain the boom.

This is a very big task. Policy authorities in advanced industrial countries are accustomed to using monetary policy to respond to increases of aggregate demand – due to investment booms or consumption booms – of perhaps as much as five per cent of GDP. For example, the extraordinary boom in Germany post-reunification added to aggregate demand by as much as six per cent of GDP. By contrast the increase in investment resulting from the liberalisation which we are discussing might take the investment share from the high teens (numbers common in Latin America) to the thirties and above which are common in the Asian NIEs, and within the space of a decade or even half a decade. Such shifts – in the absence of immediate and unprecedented mobilisation of national savings efforts – would require the use of tight monetary policy of a kind without precedent in the OECD countries. Note that European post war growth saw high investment shares, but capital was very immobile internationally, and there was tight credit rationing to mobilise savings.

5.2 The Dilemma

A tight monetary policy will itself induce capital inflow, over and above that attracted by the new investment opportunities. That capital inflow will make it very difficult to prevent the exchange rate from appreciating. This is an example of the 'inconsistent trilogy': in general, it is impossible to maintain simultaneously free movement of capital, domestic monetary autonomy, and a fixed exchange rate.

Indeed, a very tight monetary policy, sufficient to stop an investment boom of the kind discussed above, will make it impossible to prevent the exchange rate from appreciating a very great deal. If capital is very mobile, we should expect appreciation to go so far as to compromise severely the new-found profitability of the export sector. Indeed if capital is very mobile,

the mechanism by which the investment boom is damped down will consist almost entirely of the crowding out of net exports, since interest rates will not be able to increase far above world levels.

5.3 The Policy Options – a Taxonomy

We can create a taxonomy of responses to this dilemma. Each responds to the increase in aggregate demand in a different way.

(i) sterilised intervention

The Central Bank may attempt to maintain the value of the exchange rate in the face of capital inflow by buying up reserves in exchange for domestic money. It may then also attempt to prevent consequences of the inflow for the domestic money supply, by selling domestic-currency denominated government bonds to a value equal to the capital inflow, so as to maintain a fixed monetary base in the face of the macroeconomic disturbance. This is a policy of sterilised intervention. In the view of several observers, this policy has often been successful, at least within limits (Dominguez and Frankel, 1993; IMF, 1995; Montiel, 1995).

The effect of such a policy could well be not just to prevent the capital inflow from leading to a monetary expansion, but also to force up domestic interest rates on domestic government bonds and so provide some macroeconomic dampening. This is because portfolio holders – both domestic and foreign – would have to absorb an increased supply of these assets. To the extent that the capital inflow was carried out with the intention of purchasing such bonds, then no yield adjustments would be necessary. But to the extent that the capital inflow was carried out with the intention of purchasing real assets, whose profitability has risen for the reasons discussed in the previous chapter, the sterilised intervention will create an ex-ante excess supply of government bonds, and will lead to a rise in interest rates. In general, too, we would expect domestic and foreign assets to be less substitutable for our 'emerging market' economy than for a highly developed country.

There are four problems with such a policy. First there are limits to the extent that such a policy can be pursued in the face of large and determined capital movements; the Central Bank may simply run out of sufficient government paper assets, or the capacity of new, thin markets for government paper to absorb this new emission may be limited. In the end the policy becomes unsustainable, for reasons already described.

Second, sterilised intervention is typically very costly for a developing country. It is likely to be paying several hundred basis points more on its obligations than it earns on the foreign currency assets it has purchased. The quasi-fiscal burden may be very great.

Third, such a policy may be macroeconomically unstable and its effects upon aggregate capital flows unsustainable. It is true that any rise in domestic interest rates may dampen the attractiveness of investment in the export sector and thereby dampen capital inflow whose desired destination is investment in that sector. But such a rise in domestic interest rates will mean that returns on bonds in the home country rise above returns abroad, and that will encourage inflows of capital funds into those assets. Any reduced capital inflow of the first type will simply be replaced by inflow of the second type, which may be even greater. Capital inflow will continue, creating further need for sterilisation. Indeed if capital is very mobile, capital inflows will continue unabated precisely until the policy is abandoned.

For all these reasons, sterilised intervention may be useful when a capital inflow is temporary, but it is unsustainable and unwise in the face of long-term inflows. Moreover, a policy response relying upon sterilised intervention ignores our fundamental dilemma. Observers who believe that such a policy response is likely to be adequate are viewing the capital inflow in isolation from other macroeconomic developments. Because of the large demand boom the monetary authorities will need to raise interest rates; they

may need to raise interest rates well above the levels which might possibly be induced by sterilised intervention. But for the very reasons just described, if capital is mobile, any such increase in interest rates will generate capital inflow of a magnitude sufficient to destroy the sterilised intervention.

(ii) unsterilised intervention

The central bank may also attempt to maintain the exchange rate by buying up reserves in exchange for domestic money, allowing the money supply to expand in consequence. This is a policy of unsterilised intervention. It faces no financial constraint, in that the Central Bank can – in principle without limit – exchange its domestic money (which is its own liability) for foreign reserves.

But such a policy prevents the Central Bank from taking any policy response to moderate the demand boom. Indeed, the expansion of the money supply may allow domestic interest rates to fall, and so aggravate the domestic demand boom.

The consequence will be a combination of (i) domestic inflation and (ii) after an interval, competitiveness pressures on the tradeable goods sector – both the export sector and the import competing sector. Real exchange rate appreciation comes through a rise in prices rather than nominal appreciation.

If capital is very mobile, so that there is little or no scope for interest rate increases, we should expect competitiveness pressures to continue so far as to compromise severely the new-found profitability of the export sector. Excess demand and continuing inflation will prevail until the investment boom survives only to the extent that it has crowded out net exports in a current account deficit. The economy will then be left with an overblown cost structure, if the nominal exchange rate is fixed (real appreciation). Another formulation of this problem stresses the rise in the price of nontradeables that is induced by the expansion of domestic demand ahead of supply – and hence real exchange rate appreciation, with the consequences noted.

(iii) currency appreciation

The central bank may allow a nominal appreciation of the currency, or with a currency band, may widen the band of permissible currency fluctuations and allow the (real and nominal) exchange rate to drift up. This will check the domestic boom by putting pressure on both tradeable goods sectors – both the export sector and the import-competing sector.

As already noted, if capital is very mobile, we should expect appreciation to go so far that it will seriously reduce the profitability of the export sector. If the monetary authorities are resolute in their determination to stop excess demand from leading to inflation, then they will persevere with monetary restraint until the investment boom survives only to the extent that it has crowded out net exports.

Despite these problems associated with exchange rate flexibility, one can already see that a fixed exchange rate may be the worst policy. It may prove impossible – even with a fixed nominal rate – to stop the real appreciation because of domestic inflation. The fixed nominal exchange rate may at the same time remove future flexibility to respond to a capital outflow. And price rises are harder to reverse than nominal exchange rate depreciation, if the capital inflows themselves reverse. A *fortiori*, currency board arrangements are to be avoided, except in the case of very small, very open economies (even then, the Central Bank should retain scope for lender of last resort actions and should arrange lines of credit in advance of potential crises).

5.4 Softening the Fundamental Choice

The fundamental choice, however, is not between fixed and floating exchange rates. It is between, on the one hand, attempting to prevent the real appreciation, the pressure on the tradeable goods sector, and the emergence of a current account deficit; and, on the other hand, accommodating the capital inflows and allowing this to

happen (either by floating the exchange rate or by allowing domestic inflation). In general, the appropriate response depends on the assessment of whether the inflows will persist. If so, accommodation is the right choice, and hindering it is positively harmful. Even a 'virtuous' contractionary fiscal policy, recommended by Schadler *et al.* (1993) and Corbo and Hernandez (1994) in all circumstances, will for persistent inflows just increase the required degree of real exchange rate appreciation (by improving the current account) and so hurt the tradeables sector even more (Kenen, 1996).

As Kenen (1996) points out, however, 'there is no way to forecast the duration of a capital inflow and, therefore, no way to know whether a country should accommodate to it'. In view of this ineradicable uncertainty, it may be sensible to soften the choice, possibly by reducing the net inflow.

There are indeed a number of ways of softening the choice:

- ❖ to quicken the pace of trade liberalisation
- ❖ to increase the reserve ratio applying to bank deposits
- ❖ to switch government-controlled deposits from the commercial banks to the central bank
- ❖ to improve the mobilisation of private savings
- ❖ to eliminate any remaining subsidies to inward investment, such as investment guarantees, location subsidies, etc.
- ❖ to impose or increase controls on capital inflows
- ❖ to relax controls on capital outflows.

We discuss these further in Chapter 6, together with a review of some important country case examples.

5.5 Capital Inflows and Budget Deficits

A number of countries, some in Africa, have been carrying out policy reforms that involve significant liberalisation, but they have not made corresponding progress in fiscal consolidation. Budget deficits are financed by selling government bonds. Interest rates rise to the point where foreign capital is attracted and capital inflow ends up financing the deficits. The consequence is a weakening of the fiscal constraint – the discipline that could support fiscal reform is lost. The high rates of return that induce the inflow are illusory, in the sense that the inflows do not finance investment in tradeables with a correspondingly high yield. The lesson is that the deficit should be controlled **before** opening up to capital flows.

5.6 Institutional Implications

5.6.1 Monetary policy and central bank independence

If fixed exchange rates are to be avoided, then it is essential to establish an alternative framework for anti-inflationary monetary stability. One of the key reasons for maintaining fixed exchange rates is as a nominal anchor, a form of anti-inflation discipline. This was why Mexico operated a quasi-fixed exchange rate as part of its stabilisation process in the run-up to the signing of NAFTA. This is the justification for the currency board law in Argentina: in the wake of the memory of the hyperinflation of the 1980s, the value of the currency is fixed to the US dollar by legislation.

The political problem is to find some 'discipline device', which has the same potency as that which was believed to be possessed by a fixed exchange rate, which will remove the ability to inflate the economy in the pursuit of short-run advantage.

The technical problem is that the relationship between the instruments of fiscal and monetary policy on the one hand and inflationary outcomes on the other hand is not clear cut. Some years ago, it was hoped that the solution lay in the rigid control of some monetary aggregate. But financial liberalisation means that the setting

for monetary policy required to discipline inflation is uncertain, and reliance on higher interest rates as the discipline mechanism encourages disintermediation (i.e. the pursuit of other methods of financing expenditures so as to keep the inflationary burst going).

The technical problem and the political problem are deeply intertwined. If there were a simple connection between the money supply and inflation, then the central bank could announce a simple monetary policy (for example, keeping the money supply growing at x per cent per annum). Political interference with such a policy would be easy to observe. But if the connection between monetary policy and inflation is a complex one requiring frequent adjustments, it is much more difficult to detect and punish political inflationary interventions amongst these myriad adjustments.

There are two approaches to this combination of political and technical problems. A country undergoing a liberalisation should consider – as a matter of urgency – how to adopt one or the other of these solutions. The first is the 'New Zealand solution' – creating an independent central bank with a contractual obligation to pursue low inflation. This is transparent and straightforward, but not very flexible. The second solution is to adopt an explicit inflation target (see Leiderman and Svensson, 1995). The problem with this is that it requires detailed forecasts of future inflation; a shared understanding about how much monetary contraction is needed – i.e., about how much interest rates are to be raised – whenever the forecast inflation rate rises above target; and shared understandings that there exist circumstances in which this first understanding could be over-ridden (implicit escape clauses). The difficulty with this 'British' solution is that it is intensive on analysis and trust.

As we have explained, in the presence of the capital inflows which liberalisation is likely to bring, the exchange rate may undergo considerable movements. This underlying stability may combine with self-fulfilling expectations to produce disastrous outcomes – e.g., if capital inflows reverse and a speculative attack brings a collapse of the exchange rate, this in turn can force an abandonment of anti-inflationary discipline that will 'justify' the collapse. In the face of such possibilities, an underlying 'fulcrum' of anti-inflationary discipline is essential. Therefore one of the most important institutional innovations required in liberalising countries facing high and volatile capital flows is the establishment of one or the other of the suggested institutional structures for providing anti-inflationary discipline.

5.6.2 Fiscal policy institutions

We have argued that part of the capital inflow problem is a consequence of aggregate demand running ahead of aggregate supply, at least for a time until the latter can catch up. Evidently contractionary fiscal policy could help to close the gap, and that would be appropriate if the capital inflow were financing government consumption or were expected to be temporary. But in many countries, the effective use of fiscal policy for stabilisation – in particular, tax increases – requires significant improvement in tax administration.

An alternative to increasing public saving is to stimulate private saving. One means of doing this is to privatise all pensions. This measure, begun by Chile in the early 1980s, has proved sufficiently successful that other middle-income countries should certainly consider taking the same step.

5.6.3 The banking system and financial fragility

If a high proportion of the liabilities of the domestic banking system arise from capital inflows, in the form of deposits by non-residents or interbank borrowing from non-resident banks, a sudden reversal of the inflows can threaten the stability of the system.

There are two forms this danger can take. With a fixed exchange rate, capital outflow – exacerbated by the economy-wide liquidity crisis it creates – may amount to a classic run on one or more major banks. Moreover, if the exchange

rate peg is broken, or if the rate was floating at the outset, a sharp depreciation will correspondingly raise the domestic currency value of foreign-currency-denominated liabilities. The Mexican banking system suffered the latter shock in December 1994 and thereafter; while one of the few significant spillovers from Mexico was the loss of confidence in the Argentine banking system, which experienced the first type of financial distress in an extreme form in spring 1995. And as we noted above, financial fragility can preclude the use of interest rates to defend the exchange rate against a speculative attack.

There are policies that can limit these dangers. Enhanced supervision and regulation of banks are obvious but still essential measures. Market-based, self-regulating supervision has its place in highly developed financial systems, but developing countries – even (or perhaps more so) those with flourishing securities markets – require a sound institutional basis for bank supervision. They should also set higher capital adequacy and other prudential standards for these banks than are needed in more developed systems. Finally, they may wish to consider taxes or quantitative limits on non-resident bank deposits (see Sec. 6.2).

5.7 Early warning indicators

Policy-makers would naturally like guidance to tell them when to start worrying and when to translate their worries into actions. Since the Mexican crisis, several authors have sought to specify the factors that indicate or determine how vulnerable a country may be to a financial crisis (Frankel and Rose, 1996; Goldstein, 1996; Sachs, Tornell and Velasco, 1996).

Both theoretical models of the 'fundamentals' and trained economic intuition and experience (also informed by theory) give similar stories, in the form of a presumptive set of 'early warning indicators'. Goldstein (1996) lists the following seven categories:

(i) an upward turn in international interest rates

(ii) growing mismatch between the government's/banking system's short-term liquid liabilities and its liquid assets (particularly international reserves)

(iii) a large current-account deficit, used mainly for consumption and financed in good measure with short-term borrowing

(iv) a highly overvalued real exchange rate

(v) constraints (most of them related to financial fragility) on the willingness to increase domestic interest rates when there is an adverse shift in international capital flows

(vi) an unsustainable boom in bank lending followed by a sharp fall in asset prices

(vii) high susceptibility to 'contagion' (reflecting small country size, regional effects, characteristics similar to original crisis country and/or weak policy fundamentals) following the outbreak of a financial crisis elsewhere.

This is all perfectly sensible. But these 'explain' both too little and too much. Taken as a whole, they amount to a fairly complete description of the relevant economic structure, policy stance, and international environment of the economy in question. In any case when things 'go wrong', some of these indicators will be 'flashing red' – but others doubtless will not. Conversely, many countries for which some of the indicators do show danger ahead will be protected by strengths in other areas. Moreover, many of the 'indicators' tend to move together (collinearity) because most are endogenous in a complex set of causal relationships, including policy reactions.

Partly for these reasons, the empirical evidence available so far certainly does not permit us to derive a limited, unambiguous set of indicators with clear predictive value. Goldstein may be demanding too much, but his own review of the data concludes that 'predicting contagion on the basis of any single characteristic didn't fare too well' (p.44).

Although the study by Sachs *et al.* (1996) of a sample of 20 countries post-Mexico does find

explanatory power for crises in variables representing Goldstein's categories (ii), (iv), and (vi), these authors find none in the size of capital inflows relative to GDP, the proportion of capital inflows that are short-run, the current account deficit, the share of savings in GDP, and government consumption as a share of GDP (variables which represent aspects of Goldstein's (iii) and (vii) as well as other plausible candidates he did not include). Frankel and Rose (1996), looking at currency crises in annual data for 105 developing countries over the period 1971-92, also observe that the current account deficit, the government budget deficit, and the maturity structure of external debt are not useful indicators. On the other hand, they too find that real exchange rate overvaluation and the growth of bank lending do show something – but they also find half a dozen other equally useful indicators, including some (like debt composition) that Sachs *et al.* reject.

To make matters worse for the hopeful policy-maker, Frankel and Rose establish that 'most variables...tend to move very sluggishly in the years surrounding currency crashes. This leads one to expect that it will be difficult to predict the exact timing...(p. 16)'. And if that too is perhaps an excessively demanding requirement, consider the statement of Kaminsky and Reinhart (1995), as reported by Goldstein: '...even the best early-warning indicators send at least two wrong signals for every correct one, and for most indicators, the signal-to-noise ratio is much worse than that...'

We conclude that there is no substitute for seasoned economic judgment. Our own discussion above focuses on the real exchange rate and financial fragility – yet despite its high apparent vulnerability on these criteria, Argentina managed to escape a crash in early 1995 (with, admittedly, some external help). It is hard to measure and use as an 'indicator' the credibility of policy-makers.

5.8 Is there a Justification for any Further Action?

In this chapter we have considered the appropriate macroeconomic policies in response to inflows. In the next Chapter we will consider some policies which might be undertaken in order to limit directly the inflows themselves. But before we do this, the reader may reasonably ask, "Why might such restrictive policies ever be desirable? Why not just carry out the recommended macroeconomic policies – in particular avoiding a pegged, over-valued exchange rate – and then allow the free movement of international capital? What is the market failure to which such controls are supposedly addressed?"

This difficult question gets to the heart of the matter, and there is no general agreement. Our view is that there are market failures to do with capital flows and that these can – *not do, but can* – justify further policies of a preventive, interventionist kind. There is a useful list in Eichengreen and Wyplosz (1996), who assert that "there is by now an accumulation of historic and episodic evidence consistent with the notion that such distortions characterise the international lending process". Here we simply provide a check-list of such market failures and the relevant arguments.

(i) Swings in sentiment not obviously associated with the arrival of economic or political news often occur in international capital markets. These can give rise to bandwagon effects which lead to excess flows. There are significant informational difficulties associated with foreign lending, in particular the difficulty of assessing sovereign risk. A rational response may be to ration credit to individual borrowers and to rely partly on the judgements of other lenders when determining how much to lend. In these circumstances, minor 'news' can give rise to major changes in assessment of sovereign creditworthiness, a problem which can be compounded by "cascades" of (possibly false) information as lenders imitate each other's behaviour. (See Gai, 1995)

(ii) Excess flows may occur because of moral hazard in the banking system. Regulators may be unwilling, and in less developed

countries they may be unable, to allow banks to fail, and at the same time may be unwilling or unable to enforce sufficient prudence in the face of risks. Banks, knowing that they are assured of a bailout (either explicitly, or implicitly through the government relieving them of their obligations) face incentives to lend to too many, too risky projects. Improved regulatory structures will greatly reduce but may not completely remove the susceptibility to these problems.

(iii) In liquid international markets, there are possibilities of self-fulfilling speculative attacks which share similar features with bank runs and which may occur even if not justified by the underlying economic "fundamentals".

(iv) Finally, the macroeconomic policies in response to capital flows which we have reviewed in this Chapter are not in themselves costless. We have discussed the difficulties of rapidly increasing the savings rate. In the meantime there may be no alternative to allowing the nominal, and the real, exchange rate to appreciate. This inflicts costs on traded goods producers. If the capital flows are temporary the appreciation may cause dislocation of production, whose effects are difficult to reverse. If the capital flows are permanent, the effect on traded goods producers will again be temporary as, with time, policy induces domestic savings to increase, thereby enabling the real exchange rate to come back down again.

All of these problems can interact. Initial trade liberalisation can give rise to over-exuberant capital inflow. That can cause over-appreciation of the nominal, and real, exchange rate. That can cause such a large fall in the profitability of the tradable goods sector as to induce a reversal of capital inflow. That can cause rapid self-reinforcing withdrawal. It can even cause a self-fulfilling crisis.

This sketch just given is not completely dissimilar to the actual Mexican experience. It may seem a bit overdrawn. But it indicates why we do not think that the minimalist advice, namely "just carry out the recommended macroeconomic policies and then allow the free movement of international capital", is always the correct advice. (Note too that it is not even completely clear that floating the exchange rate will guard against such a crisis, since if the reversal of flows is great enough, the exchange rate may go into a self-reinforcing slide. This is especially if markets for the currency are thin, as they are in developing countries, and if the credibility of the policy-makers is not watertight.)

6

Country Policies to Limit Capital Inflows

We have discussed the macroeconomic policy responses to capital inflows in Chapter 5. There is a second category of policies that seek to deal directly with the capital inflows themselves. IMF (1995, p. 12) summarises the policies of both types tried by nine different developing countries over the past several years. In this Chapter we deal with the second category of policies.

6.1 Relative Merits of Different Types of Flows

Evidently the different forms that capital inflows can take have policy implications, but only some are relevant to our concerns, and even these are often overemphasized. Foreign direct investment (FDI) can be a vehicle of technology transfer and training of local labour. More important for our purposes is the claim that it is less volatile than portfolio investment or bank lending (Agosin and Ffrench-Davis, 1996, for example, call FDI 'fairly stable' and portfolio investments 'notoriously volatile', asserting that 'it is unclear that developing countries have much to gain from this form of internationalisation of finance' – pp. 10, 28). Foreign purchase of domestic equity shares may have implications for corporate governance or foreign influence in the domestic economy. More relevant here are the dangers of stock price booms and crashes resulting from capital inflows and their reversal; and of a reduction in domestic savings (wealth effects). Foreign purchase of government bonds may help to finance budget deficits – at a cost.

There is evidence, however, that FDI is just as volatile as other capital flows (Claessens, Dooley, and Warner, 1995). Direct investors can and do hedge political risk by matching assets that cannot be moved against domestic liabilities on which they can default. Policy restrictions aiming to push foreign investors away from portfolio towards direct investment will, on this argument, simply change the accounting (see IMF, 1995, pp. 96-97). Calvo and Reinhart (1995) also obtain results suggesting that FDI flows do not behave with a significantly different volatility (or reversibility) than portfolio flows. Moreover, as discussed above, Sachs *et al.* (1996) find that the share of short-run flows (portfolio investment and bank deposits in total inflows had little or no explanatory power for vulnerability to crisis in 1995. (Frankel and Rose (1996), however, do find that a higher FDI share is associated with lower vulnerability.)

Conversely, there is also recent evidence that supports opening domestic equity markets to foreign participation (see the discussion in Dimirgüç-Kunt and Levine, 1996). In a sample of 14 'emerging market' countries during the 1980s, capital market liberalization yielded 'rapid improvements in the functioning of their stock markets' (including greater liquidity and, in the longer term, lower volatility of stock returns). Moreover, further research suggests that 'stock market development is positively correlated with the development of financial intermediaries...[and] with long-run economic growth (p.233)'. The latter relationship appears to be remarkably strong: '...if Brazil and Mexico...had had the same level of stock market development as Malaysia..., then Brazil and Mexico would have enjoyed 1.6 per cent faster capita growth each year. (p. 233)' The arguments in this section are prima facie convincing against policies that try to steer foreign investment into FDI rather than portfolio equity investment. Overall views on the desirability and effectiveness of controls

on inflows vary significantly, even in the international financial institutions – thus IMF (1995, pp13-14, 108) is continuously positive in a range of circumstances while Corbo and Hermandez (1994) are rather negative.

Finally, note also that those who thought non-FDI flows untrustworthy and dangerous and had been predicting a halt or even a reversal of 'volatile, unsustainable' capital flows – a 'hard landing' or 'crash' – were wrong. Such a view was doubtless understandable after Mexico (and shared by the international financial institutions that had favoured encouraging capital inflows) – but even then, it was wrong. It should be recalled that historically, financial/debt crises (in the 1980s, the 1930s, and the nineteenth century) were not due to the 'volatility' of the original capital flows.

6.2 Constraining the capital flows themselves

Some countries have nevertheless sought to favour FDI per se. And there are other measures that have been taken to influence the size and composition of capital inflows (see the summaries on pp.14-15 of IMF, 1995). Policy-makers may be concerned that the current account deficit corresponding to the capital inflow will be so high as to threaten confidence; or that some types of capital flow are too volatile (see Sec. 6.1); or that foreign currency borrowing, especially by commercial banks, is undesirable (it may increase the likelihood or the cost of a financial crisis). There is a general, and we believe justified concern that the pace of financial liberalisation has in some cases been too fast, and that especially with domestic financial underdevelopment and fragility, there is considerable danger in the large and rapid increases in the volume of financial intermediation that capital inflows can bring.

(i) Favouring FDI

One commonly discussed possibility is to place restrictions on the foreign issuance of securities by domestic firms. One rationle for such restrictions lies in the view that equity finance is more long-term than finance through bank lending (which may need continuing rolling over) or through the issue of bonds (which may be medium or short term and therefore, again, need rolling over). Another rationale is that holders of equities may find it more difficult to withdraw their capital – because equitiy markets are volatile (and expected to be so). As we noted in Section 6.1, neither of these arguments is watertight.

(ii) Capital Controls

There is an extensive literature on capital controls, but as the survey of Dooley (1995) shows, most of it relates to restrictions on outflows rather than inflows. Overall views on the desirability and effectiveness of controls on inflows vary significantly, even in the international financial institutions – thus IMF (1995) is cautiously positive in a range of circumstances , while Corbo and Hernandez (1994) are rather negative. On the one hand, Singapore has generally coped well with large capital inflows without controls. On the other hand, notable examples of the use of controls over inflows are Chile and Colombia in Latin America and Indonesia and Malaysia in East Asia. (Descriptions and generally favourable assessments of the Chilean and Colombian measures are given by Agosin and Ffrench-Davis, 1996, and LeFort and Budnevich (1996); Corbo and Hernandez compare four Latin American and five East Asian countries.) In these examples, different countries have used different types of controls at different times, as follows.

(a) Direct controls which involve scrutiny of all transactions. This includes dual exchange-rate systems, which, for example, have been used by Chile. (In such systems, it can be a requirement to bring capital in at a more appreciated rate than is applied to capital withdrawals.) Another example is that of Indonesia, where, since 1991 ,all state-related offshore commercial borrowing has required prior government approval (with aggregate annual ceilings).

(b) Reserve requirements. In Chile, for example, domestic foreign currency borrowing has for some years entailed a 30% non-interest bearing deposit for one year; and recently this has been extended to cover non-resident purchases of domestic securities. This tends to discourage short-run arbitrage, but it is not costly enough to deter a speculative attack on the currency when the markets expect a significant change in the parity. Colombia uses a similar reserve requirement. As IMF (1995) points out, this can be justified on prudential grounds, as a long-term policy instrument. Indeed, LeFort and Budnevich (1996) stress that a wide range of interventions to deal with capital inflows are equally helpful in strengthening prudential regulation of financial institutions.

(c) Limits on banks' foreign currency liabilities, that is on the amount which banks can borrow abroad, particularly in foreign currency. Indonesia and Thailand have implemented such policies. So has Malaysia, in the form of a prohibition on sales to foreigners of short-term money market instruments.

(iii) Elimination of Subsidies to Inward Investment

Many countries still have the remains of regimes which were designed to attract foreign investment, especially into inward looking manufacturing activities, harking back to the time when attracting investment was difficult and when inward looking manufacturing was desirable. These regimes are intrinsically undesirable – as explained at the beginning of the paper – and a time of buoyant capital inflow is a good time to abolish them.

6.3 Complementary policies

There is a further set of policies that seek either to compensate for capital inflows or to limit them indirectly. (Direct controls on the flows themselves will be discussed in the next Chapter.)

(i) Relax Controls on Capital Outflows

Several countries have thought that eliminating controls on outflows would reduce the net inflow: Chile, Colombia, Mexico, the Philippines, Sri Lanka and Thailand are among those that have taken this approach. Some have found, however, that although the relaxation may be desirable in itself, it may also raise the confidence of foreign investors and thereby stimulate even greater inflows.

(ii) Quicken the Pace of Trade Liberalisation

This is clearly a way of accommodating the capital inflows, in that it encourages the demand for imports at the expense of demand for domestic goods, and so dampens the macroeconomic boom. But, of course, if it causes a further increase in the attractiveness of investment in the country concerned, then it will give no real respite.

(iii) Encourage Higher Domestic Savings

This is also clearly a way of accommodating the capital inflows, in that it dampens the macroeconomic boom. To put the matter another way, to the extent that capital inflows are substituting for domestic saving, then an increase in the latter may tend to reduce the former.

(iv) Switch Government-Controlled Deposits from Commercial Banks to the Central Bank.

Indonesia, Malaysia, and Taiwan have all adopted such measures; by reducing deposits in the banking system they reduce the ability of the banking system to lend.

(v) External Debt Management

There is much to be said for the 'Dooley rule': that governments should only borrow long and in domestic currencies, so as not to be exposed to capital risk. Calvo and Goldstein (1996) argue that the key ratios to watch are those of short-term government debt to reserves and money to reserves.

6.4 Some further examples

Kasekende *et al.* (1996) argue there is considerable reason for concern regarding capital inflows to six countries of sub-Saharan Africa that they studied: the size of the flows is substantial; they appear likely to be unsustainable, indeed (the authors claim) reversible; they have caused significant exchange-rate appreciation and volatility in both the exchange rate and interest rates; they have been spent mainly on consumption. They do not wish to see the flow decline, however – so they are concerned mainly with composition and macro management. But their policy recommendations are constrained by limitations of the data – indeed, at the top of their list is simply 'improving recording mechanisms without driving flows back to parallel markets'. We are also sceptical of their faith in sterilised intervention (which may, as noted above, be a cause of the high real interest rates on government securities that they deplore) as well as in fiscal policy. Both assume what the data are inadequate to prove: the short-term, unsustainable character of the capital flows.

7

Improving the International Monetary System

7.1 Introduction: strengthening the system by prevention and crisis management

No matter how well the suggestions of the previous sections are taken to heart and thus no matter how well the macroeconomic policy framework is constructed in liberalising economies, mistakes are made; and no matter how well policies are conducted, there will remain the possibility of adverse external developments. Countries opening themselves to international financial markets – and their governments – run risks of things turning out badly. Policy mistakes, domestic political developments, or external circumstances can lead to crises and the withdrawal of funds previously attracted by investment opportunities of the kind described earlier. The most recent example of this is the Mexico crisis of winter 1994-95. But, as discussed earlier in this report, there were similar problems in the debt crises of the early 1980s, after the massive growth of lending to emerging markets in the 1970s. Similar problems occurred in the early 1930s, after the growth in lending to the peripheral economies in the 1920s. Similar crises were also a feature of the late 19th century, as metropolitan markets expanded into the colonial periphery.

The purpose of this section is to ask whether, and to what extent, the strengthening of the international system – as distinct from the better national policies – can (i) help reduce the risk of such crises occurring (prevention); and (ii) help minimise the damage caused if and when they do occur (containment). Globalisation of markets increases the chance that problems in one part of the world will have contagion effects on other countries. Cooperative and coordinated prevention and containment might be required for this reason.

Under the general heading of prevention, we will consider improved information provision, IMF leverage through policy advice and assistance, improved central bank cooperation, and also proposals to tax international money flows (the 'Tobin tax').

Under the heading of containment we consider responses to the two forms of crises to which sovereign governments are potentially exposed – namely crises of illiquidity and crises of insolvency. We discuss each of these in some detail. In principle as well as in practice, illiquidity and insolvency are much harder to distinguish for sovereign debtors than for firms, and policy must recognise the inherent ambiguity and its implications. The Group of Ten issued a report in May 1966 on dealing with liquidity crises, entitled "The Resolution of Sovereign Liquidity Crises". It can be argued (*Financial Times*, 16 May 1966) that ' [as] far as they go, the proposals will probably help', but that 'the suggestions, while sensible, are too modest to have much impact on the resolution of future financial crises'. Earlier, Eichengreen and Portes had (1995) offered some detailed practical reform proposals. In this Chapter we will revisit those proposals in the light of the G10 document.

7.2 Prevention

7.2.1 International responses involving improved information provision

In 1995 the IMF Executive Board agreed on a list of indicators to be provided by countries to the IMF on a regular and continuous basis. These include, as a minimum, 12 indicators (exchange

rates, international reserves, central bank balance sheets, reserve money, broad money, interest rates, consumer prices, external trade, the external current account balance, external debt/debt service, the fiscal balance, and GDP/GNP (*IMF Survey*, 25 October 1995, p 315).

The IMF has also developed a set of standards to guide members in publishing economic and financial data – on a voluntary basis – to keep markets better informed. (The data categories include, in addition to the 12 cited above, industrial production, unemployment, wages or earnings, producer or wholesale prices, and domestic credit.) There is to be a general standard for all members and a more demanding special standard for members having, or seeking, access to capital markets (IMF, 1996).

These efforts at increased information provision are to be welcomed. But the idea that such a range of indicators can be turned into an effective IMF 'Early Warning System' is not persuasive. As we argued above (Sec. 5.7), from the perspective of the country policy-makers, the connection between outcomes on this very large number of indicators and the possible emergence of crisis is not a precise connection, and will inevitably depend on a number of difficult-to-measure factors not on this list, including policy-makers' perceived resolve and commitment. It is therefore highly unlikely that a 'warning system' could be developed based on such factors. There is a parallel here with the generally unsuccessful attempts to model sovereign default risk in the 1970s and 1980s. There is no substitute for judgement on these issues. Moreover, the entire history of debt crises in many countries and varied circumstances supports Kenen's (1996) sceptical remark: 'It is particularly hard to believe that more timely data will cause markets to exert gradual but growing pressure on a recalcitrant government.'

7.2.2 The role of the IMF in crisis prevention: leverage through advice and assistance

The IMF invests a large amount of resources in monitoring and surveillance. In the wake of the Mexico crisis, this effort has been refined to pay greater attention to countries at risk and to countries where financial tensions are most likely to have spillover effects.

There have been pressures on the Fund to make public more of the confidential assessments of countries' positions which emerge from this process of enhanced surveillance. We believe that these pressures are misplaced.

The IMF is the leading international institution for macroeconomic research, and it should be the place from which countries can get the best quality advice on and assistance with macroeconomic adjustment policies. Provision of advice and assistance to individual countries is a legitimate role for a world-wide international institution, because of the economies of scale and scope in the provision of such analysis. This role needs to be sustained, partly because this analysis is an international public good, partly because private markets will not provide the required analysis in each individual country (where it has the character of a national public good), and finally because many national governments of poorer countries cannot afford or cannot get access to the necessary resources themselves (so that the advice and assistance becomes a form of 'technical assistance').

Fund advice, to be useful, must frankly stress both weaknesses and required remedies; and Fund assistance must consist in working with a country to help it solve its problems. This involves not merely one-off advice, but continuing policy assistance, and can – if crisis breaks out – involve IMF lending. It is this twin feature – frank diagnosis by the IMF followed by continuing work together to solve the problems identified – which makes the advice and assistance relationship between the IMF and its client countries a particular one. Current problems are clearly identified and a commitment established to solve them through future work. This is a relationship of trust, as well as of the power that comes from the conditionality of IMF lending.

If the IMF were to divulge more of its confidential assessments of countries' positions to the

markets, it is hard to see how this relationship of trust could survive. Current problems, clearly identified, are facts which the market can readily appreciate; a commitment to solve them through future work is much more difficult to evaluate. It therefore seems inevitable that release of confidential reports to the markets would do more harm than good. As a consequence the relationship of trust between the Fund and its clients would inevitably be broken, in two ways. First, the advice from the IMF would necessarily become more formal, and cautious in its criticism (cf. OECD country reports), and the information which countries provide to the Fund on which this advice was based would itself become less frank. Second, the Fund's relationship with the country would necessarily become more hands-off, since working with a country to solve its problems and releasing critical information to the markets about its difficulties point in opposite directions. It is as if management consultants called by a company to advise management on strategy and assist with its implementation were compelled to make known the contents of their report to shareholders.

In short, the IMF is not a ratings agency, nor should it aim to become one. It should continue to provide confidential advice to countries and to work with them, confidentially, to solve their problems. Private market participants would naturally like the Fund to do part of their work for them, and to have another party to blame should their analysis prove inadequate – but these pressures should be resisted.

7.2.3 The role of the BIS in crisis prevention and the role for regional central bank co-operation

The issues discussed above are obviously ones in which increased central bank cooperation would be useful. The Bank for International Settlements is a forum for such cooperation. Its members ('shareholders') are exclusively central banks, and it has become the principal forum for discussion, consultation and cooperation among central bankers in western countries. Two of its main functions are information and experience sharing, and banking supervision and surveillance. The Bank for International Settlements has an important role to play in advice and assistance with the surveillance and supervision of domestic financial markets. Most of the proposals for the big changes in bank supervision which have happened in the past 20 years have come from the BIS Committee on Banking Supervision, including the capital adequacy requirements in relation to credit risk and market risk. The BIS can also play a parallel role to the IMF in relation to the informal sharing and dissemination of advice among central bankers about appropriate macroeconomic policies, including policies in the face of capital inflow, but currently its role in this regard is relatively limited.

It may be that these issues can also be tackled by regional central bank cooperation. In a recent speech, Bernie Fraser (1995), the Governor of the Reserve Bank of Australia, has called for the creation of an institution modelled on the BIS and serving central banks in the Asia Pacific Region. The proposed membership of this grouping is: Australia, China (PRC), Hong Kong, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore and Thailand, based on the current membership of the Executive Meeting of East Asia and Pacific Central Banks. Fraser notes that current international institutional arrangements are not ideal from an Asian perspective. Appropriate regulatory frameworks will differ depending upon economic structure, yet those who decide upon BIS rules are entirely from the G10, which means that, apart from Japan, Asian regional perspectives have no influence. Furthermore there are certain concessions in the BIS risk weights which discriminate against banks from non-OECD countries in ways which might be thought to be unfair.

7.2.4 Tobin Tax

Nearly 20 years ago Tobin (1978) suggested some preventive medicine for international financial crises – a tax that would throw sand in the wheels

of international capital flows. The idea was that the existence of, or the potential for, destabilising speculation constitutes a market failure which could be responded to in the "normal" way by some price-mechanism signal – a tax.

Ever since the original Tobin paper there have been a number of observers who have believed that the imposition of such a "Tobin tax" would be a highly desirable reform of the international monetary system. In the context of our report, this proposal has a number of serious problems. (For a detailed and balanced discussion readers are referred to Haq, Kaul and Grunberg, 1996, where the proposal has been reviewed in detail).

The proposal is for a low rate of tax of 0.05per cent of the value of transactions (see Kenen in Haq *et al.*, who argues for a low tax to discourage substitution and migration). A tax at this rate would perhaps raise as much as $100 billion if it did not lead to changes in volume.

Such a tax would make very little difference to long-term transactions. This is because it is within the range of existing spreads and/or transactions costs. Nevertheless, there is no doubt that such a tax would decrease the amount of short-term trading. If the horizon were as short as one day 'as it is for most traders' (Frankel, p 13, in Haq *et al.*) then the relevant calculation relates to switching in and out 240 times a year, on which the repeated payments of the tax would amount to an annual rate of tax payment of 24 per cent (= 240 x 2 x 0.05 per cent).

Such a tax could not be levied in an individual country but would have to be levied in at least the major half dozen large trading centres in the world. An arrangement is suggested whereby the tax would be levied in two halves, half at the country of source of the trade and half at the country of destination, and if either of these were in a tax-free offshore haven then the other half would be paid at a higher or even a penalty rate. Nevertheless a high degree of international political cooperation would be required in order to make levying the tax politically viable. This in turn would surely require agreement about its effectiveness, and that agreement is not present.

The three major problems with this proposal are as follows.

First and most seriously, it appears that such a tax would need to cover a wide range of transactions, not just spot foreign exchange transactions. Any attempt to make the tax just applicable to spot currency transactions would lead to substitution of spot trades with tax-exempt futures trades. Any attempt to tax those would lead to their replacement by tax-exempt option trades. Any attempt to tax them would lead to their replacement by more yet more complex tax-exempt derivative trades. All such futures, options, swap and derivative trades could be automated to replace the desired spot trade, so the transactions costs of avoidance would be very low indeed. (The case is very different from that of other tax bases where organising avoidance across the line of exemption is very costly – for example, avoiding a housing sale tax which has an exemption for sales of the matrimonial home is possible but involves complex adjustments of lifestyle.) There is the spectre here of a long and complex line of required 'followup taxes' which appear to make this whole prospect a non-starter, unless the rate of tax were so extremely small as to make avoidance in the way described not worthwhile. It is not at all clear that a rate as low as 0.05 per cent satisfies this requirement.

Second, as Frankel (in Haq *et al.*) points out, the imposition of such a tax might change the whole foreign exchange industry in unexpected and possibly undesirable ways. At present it is a highly competitive industry, with a myriad of dealers playing the central role. These dealers lay off the risk of uncovered positions among each other in a complex way. Whenever any trader incurs the risk of an uncovered position incurred when a 'primary client' outside the market buys foreign exchange, that trader lays off the risk by passing it around other dealers like a 'hot potato', rather than by conducting an auction to find that other one dealer who wishes to take the risk. This means that any primary trade sets off a ripple of secondary trades, and

partly (and perhaps significantly) explains why such a high proportion of foreign exchange trades are trades 'within the market'. The foreign exchange market thus works to an important extent like a re-insurance market. (Why it does so appears not to be entirely well understood.) A transactions tax, at a rate large enough to make a difference, would very likely lead to a change in this market structure, with the emergence of large traders who would bear the risks of individual 'primary' trades in-house. Such large traders would have scale advantages – larger size would allow risk spreading without the need for transactions external to the firm- and this might be enough to tip the whole industry away from its present competitive structure to a monopolistic one. For all its faults, the present industry may be preferable to one in which currency values were influenced, and perhaps controlled, by a few global brokerage houses. Again, this consideration points to the fact that any tax would have to be at an extremely low rate in order to avoid the risk of this disturbance to market structure. Because there appear to be so many links in the hot-potato chain, it is again not clear that a rate of tax as low as 0.05 per cent would satisfy this requirement.

Finally, and most importantly for our purposes, a Tobin tax seems unlikely to yield sufficient of the advantages which it is supposed to possess in respect of international monetary reform. It may be that a tax of this kind could discourage merely speculative investments and so lower very short-term volatility in international capital markets. (See Frankel, *op cit.*). But it is not volatility which was our concern in this report, but domestic monetary autonomy and vulnerability to exchange rate (more generally, financial) crisis. Given the constraints, the Tobin tax cannot address these two issues. If the rate of tax really were low – as low as 0.05 per cent – then that would be such as to yield an extra freedom of interest rate policy that was unmeasurably small. The trilogy of fixed exchange rates, international capital mobility, and domestic autonomy would still be unattainable. Equally important, a tax at this low rate would be of no assistance in stemming speculative outflow against a currency which was thought to be overvalued. As a currency crisis looms the prospective capital gains and losses are *more than two orders of magnitude* larger than this tax rate. As Eichengreen and Wyplosz point out (in Haq *et al.*), such a tax might marginally slow down the onslaught of a crisis, by discouraging the initial flows before the onset of the crisis became apparent. But it is hard to see how it could do more than this.

Thus we conclude that the case for the Tobin tax is unproven. It may have to be at an extremely small rate to avoid evasion and to avoid causing undesirable concentration in the market structure of foreign exchange trading. But at such a small rate it seems unlikely to achieve its aims.

7.3 Crisis Management

There are two sorts of crises which a country may encounter – liquidity crises and solvency crises. We discuss the first of these – liquidity crises – in the remainder of this Chapter, and devote the whole of the next chapter to the second problem of solvency crises.

7.3.1 Illiquidity

Consider the following three sorts of problems:

- A country with macroeconomic policies which are fundamentally sound may nevertheless find itself faced with very short-term external pressures. These may stem from events largely outside its direct control, but which seem likely to reverse or to dissipate relatively quickly, without major changes in underlying policies.
- A country may also face pressures which are to some extent the result of policy actions which it has taken (or failed to take), but the country may have subsequently taken corrective measures that could be expected to resolve the problem relatively quickly (or may be about to take such measures).

- A country in which there are thought to be problems of either of these first two kinds – even if objectively there are not – may nevertheless face speculative withdrawal pressure – i.e, a kind of national 'bank-run'.

Funds which enable a country to borrow in such circumstances are intended to be merely 'liquidity support' or 'lender of last resort' money. They do not address any need for financial restructuring, to which we turn in the next section.

7.3.2 The role of the IMF

Lending for such purposes is regularly part of IMF adjustment programmes for countries which run into macroeconomic difficulty. There are deep questions as to whether, with the globalisation of international capital markets studied in this report, such liquidity lending from the IMF is needed. It might be thought that, as emerging market economies engage in financial market liberalisation, there is no longer need for such lending. When the Fund was initially set up, and there was very limited international mobility of capital, there was an obvious need for the Fund to supervise the creation of international reserves which countries could use for adjustment finance, and to itself provide additional liquidity to countries to tide them over adjustment episodes. The question addressed here is whether there is another different argument for such a role in a world of high capital mobility.

Both experience and analysis suggest that such lending is necessary. At a time of crisis, when macroeconomic adjustment is needed, private lenders may be unwilling to do what they perceive as 'throwing good money after bad'. That is to say, the private sector may be unwilling to commit funds even if the need for financing is as limited as that described above and even if it will be no more than temporary.

The IMF will be able to do things that are not possible for private sector lenders in such circumstances. It will be able to invest enough resources in monitoring conditions in the borrowing country to determine that the need for lending is indeed temporary. A private ratings agency could not do this, for two reasons. The first is the classic public good problem concerning the underprovision of knowledge: once the rating is publicly available its sale value disappears. The second is that such a private body may see it as no part of its task to advise clients to lend to countries that are in present difficulty but are expected to be in good shape in the future. To cope with such problems it might be conceded that such an agency should be an international institution (i.e. non-private). But with such a body there might be irresistible 'grade creep' pressure on it to improve its ratings.

Moreover, the Fund is able to impose its conditionality on borrowers. In the absence of such conditionality private creditors might fear that a borrower – even in the relatively benign circumstances referred to above – would use a loan merely to continue to run a deficit, rather than employ it as temporary financing while embarking upon the changes which are required for adjustment – changes which in due course would enable the money to be repaid. Such fears might prevail, even although the borrowing government was in fact committed to adjustment, because no firm and credible ('bankable') commitments could be given that the funds would in fact be used for adjustment in this way. Thus the outcome of relying on private creditors at a time of liquidity crisis, even if serious adjustment efforts are begun, may be no loan at all.

The ability to attach conditionality to adjustment funding is therefore central to the IMF's ability to provide such funding, in a way in which private markets cannot. The Fund's ability to impose such conditionality arises fundamentally from its legitimacy as a multilateral Bretton Woods Institution. There have been few attempts to apply such conditionality by private financial markets and no known example of private markets doing this effectively. The Peruvian government in 1976 allowed a consortium of US banks to impose conditions on it, and to monitor their implementation, in return

for a $240 million loan. The conditions were not met, the stabilisation was a failure, and the IMF was called in the following year (see discussion in Rodrik,1995a).

Nevertheless it is important to find the right balance between Fund lending and market lending in obtaining adjustment finance, and to ensure that such adjustment finance is sufficiently speedily arranged. The Mexico episode raised serious questions on this score. These have been dealt with in ways now to be described.

7.3.3 Short-term Emergency Financing Facility (EFM), General Agreements to Borrow (GAB), and Quota Increases

The history of a proposal to provide short-term emergency financing goes back to the responses to the European Monetary System (EMS) crisis of 1992/3, when consideration was given to a short-term facility, particularly for emerging markets. Countries, it was envisaged, could be pre-approved for this facility and could then draw down from it. These ideas were discussed by the Executive Board of the IMF in early 1994, but without reaching agreement. The problem is that the Fund would only be prepared to provide support in the amounts required if it was judged that underlying policies were sound. Such judgements are continually changing over time and take time to revise. The Mexican difficulties turned out to need much larger sums of money than those which had been envisaged in earlier discussions. In the end, the response was entirely ad hoc. Very great speed was required, with disturbing implications for any future formal procedure. The Halifax summit in June of 1995 led to a further set of proposals to regularise the official response.

As a result of this history, there are now in place within the Fund agreed procedures on how to handle countries in these circumstances. (These were agreed by the Executive Board prior to the October 1995 Annual Meetings and agreed by the Interim Committee at that time. See *IMF Survey*, 23 October 1995, p 315) These introduce an Emergency Financing Mechanism, or procedure, to enable the IMF to respond rapidly – with sizeable front-end loading where necessary – to deal with potential Mexico-style crises. The use of such procedures will not necessarily involve exceptional financing (exceeding IMF access limits) and will be subject to strong conditionality. Such procedures are not, and cannot be, fully prescriptive, and are best thought of as a kind of fire alarm drill. But they make it likely that the kind of support money necessary could be organised and issued within two or three weeks. For their effective operation, such procedures will require very close working relationships between officials in the Fund and in the country concerned.

The significance of these new procedures is hard to quantify, for they have not yet been tested by a major crisis. It is however notable that these arrangements were put in place at the same time as plans were announced to expand the General Agreements to Borrow (see *IMF Survey*, 23 October 1995, p 319). Only the G10 countries participate in the GAB, but the IMF may call upon it to assist a non-participant in a crisis that 'could threaten the stability of the international monetary system.' The new arrangement will double the existing credit lines, to $49 billion, and bring in new participants, but the G10 will still have a major say in approving use of the funds. It is also not clear that this will be much help to any but the largest developing countries, since the use of funds would be limited to cases which are judged to pose systemic threats.

There is also now a significant move afoot to double the IMF's quotas. 'Taking into account the massively increased scale of international financial flows, taking into account the need for the Fund to be credibly equipped to help countries likely to need our financial support while dismantling their remaining exchange controls, and taking into account the fact that this quota review will determine the Fund's resource base into the early years of the next century.... my judgement is that a doubling of quotas is needed.' (M. Camdessus, *IMF Survey*, 23 October 1995, p 319). It seems essential that these initiatives succeed in order to provide the necessary liquidity for the IMF to successfully carry through the use of the EFM

as and when it is needed, and in order that it be seen to have sufficient resources to do so – also a confidence-enhancing perception.

7.3.4 The role of the BIS and of regional central bank cooperation

Liquidity financing is an issue on which increased central bank cooperation would be useful. The Bank for International Settlements is already a forum for such cooperation and has occasionally provided short-term support (e.g. to Hungary in 1982).

Providing such emergency assistance in exceptional circumstances is something which could also be done at regional levels. The development of contingency planning and response capability for these purposes in the Asia Pacific Region has been suggested by Fraser (1995). 'Responses could range for example from information sharing through coordinated foreign exchange operations, and foreign exchange swap agreements, to more highly structured temporary credit facilities. (p. 25)' Fraser notes the developments at the IMF reviewed above and argues that 'assistance from an institution as large as the IMF (it has the interests of 179 members to reconcile) might not be available as quickly as it is required. [T]here is still a case, in my view, for close neighbours to have their own mutual support arrangements to deal quickly with emergency situations. (p. 24)' Recent press reports (*Australian Financial Review*, April 26 1996) suggest that some progress has been made in this direction. But private sources indicate that the agreement so far is very limited indeed (apparently it simply concerns Repurchase Agreements, involving a short run transfer from one side of a bank's balance sheet to another, without exposure to market risk, of a kind which is common in open market operations and debt management).

8

Insolvency and Sovereign Debt Workouts

The second kind of financial problem which a sovereign government may encounter is insolvency. This involves the inability to service debts, because of overborrowing, or because of the worsening of external circumstances in unexpected ways. But sovereign debtors are not strictly analogous to corporate debtors.

8.1 Bankruptcy Proceedings, Moral Hazard and Bailout

Consider what happens when a firm becomes insolvent. A firm is the owner of a collection of assets and liabilities and, if the latter exceed the former, then the firm is technically insolvent: net worth is negative. The debtors are left with a 'debt overhang' – a collection of obligations which they are unable to honour. In these circumstances, one may want recourse to some procedure which would make it possible to remove the debt overhang which prevents debtors making a new start after an unexpectedly poor outturn.

There are three sorts of arguments as to why one might wish to do this. First there is an equity component – it removes the possibility that extreme forms of bondedness will hang over debtors whose assets have gone bad. Second, there is an efficiency component: debt overhangs act as a form of tax on future effort, in that the fruits of any future activity by the debtor belong – in large part or in total – to the creditor. What is the incentive for a debtor to make adjustment efforts, or more generally to make any efforts at all, if a large part or all of the proceeds of that effort belong to the creditor? Third, there is an 'avoidance of bailout' argument. If these arguments against debt overhang are thought powerful, but at the same time the creditors' claims cannot be dismissed, then it may become politically necessary for some third party such as the government to provide the funds with which the creditors can be paid off. A better way to address this issue might be to have a mechanism which sees off the creditors rather than holding the government to ransom by implicit understandings within private contracts.

In the case of the insolvency of a firm there is recourse to bankruptcy proceedings for just these reasons, and for some particularly bad outcomes for the debtor there is relief. In effect, bankruptcy proceedings truncate (or remove) part of the probability distribution of possible returns to the borrower, in that if things go well he/she keeps the reward but if things go badly he/she does not bear all of the cost. Hence the expression 'risk shifting'.

In a world of complete information and costless negotiations, there would be no need for recourse to actual bankruptcy proceedings in order to achieve the desired outcomes. Instead the contracting parties could agree on what to do in all eventualities and write it down contractually (including a 'no hold to ransom' clause). Alternatively the contract could describe how bargaining would take place between creditors and the debtor in the case of a particularly poor outturn. The reasons why, instead of this, there is in fact recourse to bankruptcy proceedings are that (i) there will always be eventualities which cannot be fully foreseen, and (ii) in the absence of a formal bankruptcy process, the costs of bargaining between the debtor and the creditor may be impossibly high.

The risk shifting embodied in bankruptcy procedures does lead to moral hazard. In the knowledge that there is the potential of

recourse to bankruptcy proceedings there is an incentive upon borrowers to take unduly risky decisions, categorised as decisions which – for any given expected average outcome – contain a larger probability of very good and very bad outcomes. If the very good outcome is realised, then the debtor keeps the proceeds, whereas if the very bad outcome occurs, the debtor can expect to be protected by the bankruptcy process and to slough off the bad consequences onto the creditor.

Even though the existence of bankruptcy proceedings does lead to moral hazard, this is not used as an argument that such proceedings should not exist. Rather, a good bankruptcy process must take account of the disadvantages when pursuing the advantages described at the beginning of this section. We may summarise this by saying that an efficient bankruptcy procedure is one that balances two goals: maximising the ex-post value of the firm, and preserving the ex-ante bonding role of debt (the debtor's obligation not to default). Normally it does this by financially reorganising the firm – writing down its debt – but at the same time also by penalising the management in bankruptcy proceedings (e.g. by dismissal) so as to reduce the moral hazard. When considering international workouts for sovereign debt obligations it is important to be aware of both: (i) the desirability of having some equivalent to the recourse to national bankruptcy proceedings; and (ii) the moral hazard to which this might give rise.

Eichengreen and Portes (1995) offered a number of practical reform proposals which would provide for orderly workouts of sovereign debt-servicing difficulties. Some of the proposals in that study have been warmly welcomed by the official community and are embodied in a recent G10 report (Group of Ten, 1996). Nevertheless the response of most market participants has been hostile to such proposals (ibid., p 10), ostensibly because they believe that 'the obligation to repay should be considered almost "'sacred" by the debtor'. One interpretation is that they have implicitly in mind that if the costs of full settlement turn out to be high, third party bailout will be achieved, as it was in the case of Mexico's creditors in late 1994 and early 1995. The official sector's explicit statements that securitized debt will not escape future restructurings are not credible.

Nor are proposals for an international bankruptcy code or court (for the reasons, see Eichengreen and Portes, 1995). Yet as international financial markets become better established and increasingly institutionalised, it is necessary that they evolve institutional arrangements which perform at least some of the same features as national bankruptcy procedures. In particular, it is necessary that there be protection not only for debtors against creditors but also for third parties – namely governments of major nations – against effectively being held to ransom for bailout.

8.2 Sovereign Debt Workouts

In the case of a sovereign borrower it is difficult to define insolvency, in contrast with the case of a firm. A firm's net worth is, in principle, well defined. A sovereign debtor in financial distress also owns a collection of assets and liabilities. One of the main assets of a state, however, is the capacity to tax. There is no fixed limit to this capacity, so there is no fixed point beyond which a mismatch between assets and liabilities constitutes insolvency. Nevertheless there comes a point beyond which reasonable analysis suggests that the state is unable to pay, even if this analysis is to some extent political. It is desirable to have some substitute for a domestic bankruptcy procedure to cope with this eventuality.

There are essentially four parts to an efficient bankruptcy procedure, each of which needs some analogue in international sovereign debt workouts:

- protection from an economically inefficient initial 'grab race' by creditors, including a stay on interest payments
- the injection of new temporary 'working

capital' financing (normally on preferential terms, by providing administrative priority for new creditors)

- enterprise restructuring and the appointment of new management
- balance sheet (debt) write-down

In a world of complete information and costless negotiations, there would be no need for recourse to any institutional mechanisms to achieve these desired outcomes. Instead, as discussed above, the parties could write down contractually what to do, or how to bargain, in all circumstances. But in the real world circumstances of international capital markets it is extremely difficult to remove debt overhangs, since there are no mechanisms for the restructuring of securitised debts and the number of credits is large and dispersed.

8.2.1 Workouts and the balance sheet write down

The G10 May 1996 report argues that certain contractual provisions, if broadly incorporated in international debt contracts, could help to facilitate debtholders' decision-making and hence the resolution of a sovereign financial crisis. The proposals that they contemplate involve the following three elements:

(a) Collective Representation. This is intended to provide holders of international securities with a mechanism for communicating with other bond holders and with debtors; this would enable them to proceed with debt restructuring more smoothly and quickly. Macmillan (1995) discusses the required leadership and coordination of such a mechanism and considers whether there should be one international bondholder council or national bondholder councils. He also considers whether a bondholder council should be a representative organisation. The best structure for such an organisation would depend on who would appoint representations to it (governments, bondholders or some combination) and their mandates. This could produce two quite different models of organisation. One would be a quasi-official permanent representative council having significant political power, which could negotiate with the debtor but only with the power to recommend outcomes, not to bind. Alternatively the council would help bond holders to appoint their own representatives with rules governing their election to a negotiating committee. As Macmillan argues, funding for such a council would be important since debt crises can be sudden disasters following long periods of stability; organising funding for an institution with sporadic expenditure needs will be difficult. He recommends funding by some kind of small fees (effectively a kind of "top-slicing" tax) at the time of issue. Given the sums involved, and the rather limited need for financing, the rate of such a levy would need to be extremely small indeed.

(b) Qualified Majority Voting Clauses. Eichengreen and Portes (1995) suggest that debt instruments should authorise a (qualified) majority of bondholders to reschedule debt issues, as in the case of corporate debt. Such clauses would enable changes to be made in the terms of a bond contract without the unanimous consent of bondholders. This would limit the scope for a small minority of bondholders to stall or block the workout process. Market participants argue that this may undercut the creditors' rights too severely. Others note that the London Club steering committees for the rescheduling of commercial bank debt have in effect routinely 'imposed' terms on other banks – after lengthy negotiations, the few remaining dissidents have a take-it-or-leave-it (or go to court) choice. Even when they have initiated legal action, the settlements have proceeded.

(c) Sharing and Similar Clauses. As an addition to (or alternative to) qualified majority voting clauses, sharing clauses could be used as a mechanism to raise the threshold for disruptive bondholder behaviour as well as oblige creditors to treat creditors in a fair and equitable manner. However, there is little experience with the effects of such clauses when the number of creditors is large and dispersed as in the case of bonds. Thus, in addition, it could be required that all legal proceedings be consolidated, and that there be a minimum proportional requirement (e.g. 25 per cent) of bondholders needed before a lawsuit was allowed.

These proposals go further than those of the G10. But they need to go further still in one more important way. Real progress will require that the official sector press the markets to adopt at least the reforms recommended by the G10 report, rather than expecting 'market-led' reforms.

8.2.2 Crisis resolution: the creditor stay, financing and 'new management'

As in the case of domestic financial distress, there is need for a creditor stay, for financing and for 'new management'.

(i) Creditor Stay

It is necessary to prevent the creditor grab race which occurs in cases of prospective default. In the sovereign debtor case, the race involves capital outflow. Is it possible to institutionalise mechanisms for dealing with financial distress without the reimposition of capital controls? If not and if one of the central aspects of liberalisation is the removal of such controls, what then? Might not the mere possibility of debt workout negotiations make the likelihood of capital outflow all the greater?

A debtor government can in effect impose a stay, simply by stopping payments. If it does so under force majeure, non-confrontationally, and with at least tacit IMF approval, creditors are unlikely to penalise it. The G10 report suggests that the IMF could signal its approval by lending into arrears, and this seems a sensible proposal. The report says such cases should be 'rare...[and] conditioned on very strong adjustment efforts on the part of the debtor country and limited to cases where the debtor country is making reasonable efforts to negotiate with its creditors'.This is a realistic approach provided that the criteria are as stated: the 'rare' cases should not be limited to large countries with political and economic clout or with special ties to major economies.

(ii) Financing

The new IMF emergency financing facility discussed above, to be created by increasing the General Agreements to Borrow, is also relevant here. Although it is intended to deal with short-term liquidity crises, it is also necessary in the case of an overall debt-workout package which, without financing, might come unstuck due to liquidity problems. If there are to be more negotiations to deal with the longer-run issues of debt reduction and restructuring, then there will be more need for liquidity finance to carry debtors over. This is an additional argument for lending into arrears and, hence, for expansion of the resources available to the Fund – i.e., for a substantial quota increase.

(iii) 'New Management'

In corporate bankruptcy, part of the penalty to the management which lessens the risk of moral hazard is the sanction of changing the management. Clearly this is ruled out for sovereign governments. But the possibility of linking support for a debt workout with agreement on an IMF-supported adjustment programme provides a safeguard against the moral hazard problem.

8.3 A Realistic Way Forward

The G-10 sees the adoption of clauses providing for bondholder representation, qualified majority voting, and sharing as a 'market driven process.' Governments are to recommend such provisions but simply to hope that the markets

will see the light. This hope is as unrealistic as the academic proposals for an international bankruptcy court: in this case, if such changes were so desirable and so easily adopted, the markets would have made them already. There would be no need to recommend action. In fact, there are significant obstacles to market-driven reform (see Eichengreen and Portes, 1996).

The G-10's proposals, if adopted, would be a positive step. But the advanced industrial countries and the developing countries in strong financial positions must push for the G-10 proposals and must support parallel initiatives to enlarge IMF quotas. Moreover, the Executive Board of the IMF should endorse without delay the G10 proposals regarding lending into arrears and should not hesitate to apply them where appropriate.

The Clinton Administration is likely to support expanded financial resources for the IMF, since the United States is the leading source of portfolio capital to emerging markets and the country which underwrote the largest share of the Mexican bailout. It has some support in the Fund, which could find these proposals enhancing its role in dealing with sovereign liquidity crises.

But other high-income countries may not agree. The German authorities are preoccupied by moral hazard and worry that any reforms will encourage reckless lending and overborrowing. The Japanese, their experience with bank insolvencies firmly in mind, feel much the same way. The French and Italians worry that an agreement to rewrite international debt contracts will force them to do so for their parastatals. The most prosperous and financially secure developing countries, not consulted by the G-10, may be suspicious of innovations that acknowledge the possibility, however slight, that debts might one day have to be restructured. Thus, as was the case during the Mexican meltdown in 1995, it will be difficult for the international community to achieve consensus.

Institutional reform to cope better with future crises will therefore require strong leadership from its supporters and an effective campaign to win over the financial community to the required reforms. Otherwise there is a real possibility of another Mexico-type crisis, but this time with a different denouement. With no bailout from the official sector, a sudden exodus of capital from any major debtor country will not only be very damaging to the country concerned, but could also undermine the stability of global financial markets. Creditors could be very badly hurt; we think that they could well be unexpectedly badly hurt – and debtors as well. Better, in our view, to take pre-emptive action.

There is another reason for seeking leadership now for moderate reform initiatives. If such a crisis were to occur, it is perversely possible that private market participants might then voluntarily push for very strong reforms indeed. It is entirely plausible that the changes sought by some market participants (and officials) might then be much more interventionist than the modest ones proposed in the G10 Report or in this paper, so much so as to damage international financial markets by inappropriate or over heavy regulation, or indeed so strong as to lead to cartelisation or monopolisation of international financial markets. Paradoxically, there might then be a need for leadership to head off overzealous "reform" proposals.

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ISBN 978-1-84859-599-6

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ISBN 0 85092 502 9