Development Policy Review, 2001, 19 (1): 121-141

Capital Account Convertibility, Poor Developing Countries, and International Financial Architecture

*Christopher L. Gilbert, Gregor Irwin and David Vines**

Capital account liberalisation can deliver modest benefits to poor countries. However, the attainment of these benefits depends on prior or simultaneous liberalisation of the banking sector, and on policy and institutional quality. By itself, liberalisation of the capital account will deliver relatively little. It is inconsistent with pegged exchange rates. This all suggests caution. Capital account liberalisation also leaves poor countries more vulnerable to crises. This vulnerability should form part of the agenda of the multilateral agencies. This article argues that debt standstills are the appropriate instrument to deal with this problem; the negotiation of such procedures is an important issue for the IMF in the coming years.

Introduction

This is an article about 'international financial architecture' and the poor developing countries. It has two related parts. First, we discuss the extent to which poor developing countries should move towards capital account convertibility. Our argument – in line with the climate of opinion since the East Asian financial crisis – is one in favour of caution. The reasons are partly sequencing (or 'second-best') ones, and partly that liberalisation can increase the vulnerability of liberalising countries to financial crisis. Secondly, we discuss the extent to which, within the current international financial architecture, international institutions are able to come to the assistance of countries which have liberalised and do encounter crisis. Our argument is that there is a key weakness in the architecture. This conclusion reinforces the argument for caution in the first part of the article.

The article is organised as follows. In the next section we review the arguments in favour of liberalisation, and in particular how these relate to the poorest developing countries. The most important of these arguments are those relating to allocational efficiency and macroeconomic discipline. But in poor countries considerations of individual freedom, in particular with regard to asset disposition, are also important.

*Respectively, Vrije Universitiet, Amsterdam, CEPR, London, and Tinbergen Institute, The Netherlands; Department of Economics and University College, Oxford; Department of Economics and Balliol College, Oxford, Australian National University, Canberra, and CEPR, London.

© Overseas Development Institute, 2001.

Published by Blackwell Publishers, Oxford OX4 1JF, UK and 350 Main Street, Malden, MA 02148, USA.

The third section presents the arguments for caution. First, although there is widespread agreement that if capital account controls were the only 'distortion' the first-best policy would always be liberalisation, the fact is that in poor developing countries there will be many distortions, both in markets and as the result of government policy, and this therefore weakens the case for liberalisation. Secondly, the experiences of the 1990s of countries moving towards financial liberalisation shows that those which have opened up their markets to international capital flows have been exposed to financial and currency crises, and in particular the risk of a rapid withdrawal of liquid funds. This experience serves as a warning to liberalising countries of the dangers of inadequate management of the liberalisation process.

Our assessment of the consensus among professional economists involved is that capital account liberalisation is seen as providing potential net benefits, even in the poorest developing countries, but that sequencing arguments are very important. Within a cost-benefit framework, the benefits of liberalisation are seen as more modest than had previously been supposed, while the East Asian crisis has increased our estimates of the potential costs of poorly managed liberalisation and of the crises which liberalisation can bring.

The experience of crises in the 1990s also demonstrates the need for the appropriate crisis resolution machinery to deal with crises when they do occur. At present the required international financial architecture does not exist, and in the fourth section we consider what reforms to the system are necessary to rectify this. We focus on three issues: the feasibility of an international lender of last resort; adjustment policies in the face of capital outflows; and standstills to facilitate the resolution of crisis and to ensure that the burden of adjustment is shared in a fair and efficient manner. We argue that a system which allows for IMF-sanctioned standstills will both remove the need for an international lender of last resort and ease the process of adjustment.

Arguments for liberalisation and the poorest developing countries

General arguments for capital account liberalisation

It is natural for market-oriented economists to regard capital market liberalisation as an integral component of the overall liberalisation process in developing countries. This was true of post-war adjustment in Europe, and has been extrapolated to the fast-growing East Asian economies and now to the remainder of the developing world. Fischer (1998: 2) wrote, '… capital account liberalisation is an inevitable step on the path of international development, which cannot be avoided and should be embraced. After all, the most advanced economies all have open capital accounts.'

A large number of different arguments have been advanced for capital account liberalisation. These have been well summarised by Schneider (2000). The following are the broad classes of argument which are most important:

a) *Allocational arguments* – 'maximising efficiency in the world's use of capital, a scarce resource' (Cooper, 1998: 12). Capital account liberalisation reduces interest-rate differentials across currencies and countries, and thereby reduces international

differences in the cost of capital. As a consequence, investment becomes more efficient. This argument is identical to standard arguments on the gains from free trade in goods and services.

b) *Individual freedom* – 'individuals should be free to dispose of their income and wealth as they see fit' (Cooper, 1998: 12). In a liberal democracy, property owners should be free to dispose of their assets as and where they wish, provided that this does not involve illegal activities or tax avoidance or evasion. In particular, capital market controls prevent individuals from diversifying their asset portfolios. Abolition of controls facilitates risk reduction.

c) *Macroeconomic discipline* – 'countries stand to gain by enlisting the capital markets in support of good policies' (Dornbusch, 1998: 20). Because capital markets are forward-looking, the possibility of large inward or outward capital flows imposes an element of constraint on government policies, requiring that these be feasible over the longer term. This discipline is a means of obtaining commitment to sound policies from governments which may be subject to short-term electoral or other political pressures.

d) *Financial market discipline* – 'intense capital mobility puts greater burdens on a country to ensure that its financial system is well supervised and regulated' (Dornbusch, 1998: 20). If countries are to compete in free international capital markets, they will be required to conform to international standards with regard to reporting and to financial regulation.

e) *Infeasibility* – 'the scope for discretionary action has become extremely limited' (Dornbusch, 1998: 20). Capital market controls may be evaded through exploitation of special provisions and loopholes or by black or grey market operations. The net effect of controls is therefore only to increase costs. This argument contradicts those that precede it – for example, if controls are ineffective, they cannot discipline government policy – and is an attempt to finesse the entire issue. We shall take it that controls are sufficiently effective for governments to wish to maintain them, since otherwise there is no point in any discussion. Furthermore, the evidence from Chile and Malaysia, among other countries, demonstrates that controls can have significant effects.[1]

f) *Corruption* – 'the discretion given to officials to give exceptions to general provisions on international capital movements, giving rise to favouritism and corruption' (Cooper, 1998: 12). Corruption increases the arbitrariness arising from capital market controls and the costs associated with evading these controls.

Different commentators stress different arguments, but, broadly, efficient capital allocation (a) and macroeconomic discipline (c) receive greatest prominence.

Capital account liberalisation, growth and financial repression

There is one argument in favour of liberalisation which is of particular importance to the poorest developing countries. Acceleration of growth rates in such countries will require a higher level of savings and investment. Yet it is a characteristic of many of the poorest developing countries that there is widespread financial repression. There is a

1. See also the evidence on black market exchange rates in Cooper (1999).

shortage of savings at prevailing interest rates, and what saving is done is undertaken primarily by enterprises, rather than households, and is not intermediated (McKinnon, 1973; Shaw, 1973). This is likely to reduce investment; evidence suggests that such distortion constrains growth rates (see, for example, King and Levine, 1993).

In much of sub-Saharan Africa, the coverage of the banking sector is actually lower than at the end of the colonial period, largely as the consequence of politicisation of bank lending. The presence of international banks goes some way in offsetting this, but these banks seldom extend their operations outside the capital city. Rural banking, in particular, is often very weak. Deaton (1992a, 1992b) shows that households attempt to smooth consumption, but poor access to liquid assets limits their ability to do this. In circumstances of this sort, household saving typically takes the form of the purchase of physical assets, with the consequence that windfall gains may be dissipated in asset price inflation (Bevan et al., 1990).[2] Households resort to social mechanisms for risk management (based on the village or extended family) (see Collier and Gunning, 1999). There is little possibility of borrowing to finance investment. Capital account controls reinforce financial repression of this sort. Liberalisation will place domestic banks under greater pressure to compete and this may eventually result in the growth of a modern banking sector.

Another important aspect of financial repression is that it makes it very difficult for consumers and domestically-based firms to insure against country-specific risk through asset diversification. Firms can often evade capital controls, but this adds to the costs of diversification. It is more difficult for all except the richest of households to diversify, since their assets will consist mainly of real estate and pension rights, and this group often bears a large proportion of the cost of capital account controls. As countries become richer and the professional and business middle class grows, the costs of control become proportionately higher.

There is an inevitable worry that, following capital account liberalisation, capital which might otherwise be invested domestically will leave the country. However, the marginal product of capital will typically be high in poor countries, and this indicates that risk rather than potential returns is the main factor inhibiting investment. The implication is that governments should attempt to reduce those elements of risk which are under their control – risk arising from poor or inconsistent macroeconomic policy and from poor institutional quality – and be prepared for domestic firms and households to reduce their own risk through diversification of their asset portfolios. Provided capital account liberalisation is accompanied by good policy and institutional reform, investment should rise, even if there is some ‘capital flight’.

Financial repression also has implications for macroeconomic performance in that it implies that there is little practical distinction between fiscal and monetary policy. With capital controls, the shallowness of the market for domestic debt will imply high interest-rate volatility. If capital controls are eliminated, governments can borrow on international markets. That too brings benefits.

Overall, this section suggests that financial liberalisation may help to remove financial repression, with a number of beneficial effects.

---

2. Dehn (2000) shows that initial positive investment responses to temporary shocks fail to lead to permanent increases in growth, while large shocks are actually associated with declines in investment.

Capital account liberalisation, growth and foreign direct investment

Liberalisation could also stimulate the inflow of foreign capital to finance investment. However, this argument should not be overstated in the case of the poorest developing countries, at least not in the short term. This is because in these countries most foreign investment is direct investment (FDI), as opposed to portfolio investment, and capital account liberalisation is not crucial for FDI.[3]

Both FDI and portfolio investment rose dramatically during the 1990s, with some decline from 1997 following the onset of the East Asian crisis. They are now recovering, and there is every prospect that the first decade of the new century will show a continued high level of inward capital flows into developing countries. Both FDI and portfolio investment give countries access to international technology, enabling them to participate in a process of transformation and growth to an extent which would not be possible if they were confined to domestic technology. Both have the potential to raise growth rates and thereby reduce levels of poverty.

At the same time, the growth in both portfolio investment and FDI has been patchy, with many of the poorest countries receiving very little inward investment, and volatile, so that those countries which have been recipients have suffered from periodic 'emerging market crises' during which flows dry up. Bosworth and Collins (1999: 148) record that five countries accounted for nearly two-thirds of financial flows into developing countries over the period 1990-95, of which only one (China) would be regarded as among the poorest developing countries.[4] Furthermore, FDI and portfolio investment flows are not significantly correlated. For example, China, which was the largest recipient of FDI, obtained very little portfolio investment, while Brazil, which was the largest recipient of portfolio investment, obtained little FDI (Bosworth and Collins, 1999: 151).[5]

The distinction between FDI and portfolio investment is important for three reasons:

(i) Portfolio investment flows are much more volatile than FDI flows; it is much easier to sell shares in a Thai company and withdraw one's capital, than it is to sell a factory in Thailand with the same objective. Although FDI can decline in a crisis, it is unlikely to reverse.

(ii) Econometric evidence shows that FDI translates directly into fixed investment with a near unit coefficient. By contrast, the multiplier for portfolio investment is much smaller.[6]

(iii) Countries do not need to liberalise their capital accounts fully in order to benefit from FDI, since both inflows and outflows can be accommodated through special

3. It is conventional to break down inward capital flows into three components: foreign direct investment; portfolio investment; and other flows, which include loans, aid flows, and official funding. We do not discuss the third component in this article.
4. The others were Mexico, Korea, Thailand and Brazil (in that order).
5. The correlation coefficient between FDI and portfolio investment over the period 1978-95 was 0.01 in their sample, rising to 0.06 in the sub-sample of emerging markets.
6. Bosworth and Collins (1999: 162). Their panel estimates with regard to their emerging market sample are 0.90 (standard error 0.22) for FDI and 0.15 (standard error 0.08) for portfolio investment.

provisions. Portfolio investment does, however, require capital account liberalisation.

Taken together, these remarks imply that openness to portfolio investment offers fewer benefits and imposes higher costs than does openness to FDI, and that many of the benefits from access to FDI can be obtained without full liberalisation. According to Rodrik (1998), there is in fact little econometric evidence that capital market liberalisation has any effect on developing country growth, although Quinn (1997), who uses a measure which takes into account the extent as well as the presence of controls, does find evidence of positive effects.

FDI is driven by expected profitability, in relation to risk, as it affects shareholder values. We suppose that shareholders are interested in dollar returns. Since funds for FDI derive from international markets, capital account liberalisation will have only minor effects on the costs of FDI. However, it will affect the perceived ability of investors to repatriate profits and the risk associated with repatriation. Investors will also interest themselves in the macroeconomic environment, so the indirect effects of liberalisation on macroeconomic policy will be important. Capital account liberalisation, together with the confidence that capital movements will remain free over the relevant investment horizon, should therefore contribute to FDI. However, it is doubtful that this is a major determinant of the direction of FDI, and there is a large number of examples of countries, the most notable of which is China, which are major recipients of FDI despite maintenance of capital market restrictions.

The major reason for the apparent small effect of capital account liberalisation on FDI is that it directly affects neither relative prices nor institutional quality. It is a characteristic of many economies with low degrees of trade openness that distortions of relative prices in relation to border prices arise out of pressure to protect domestic industries rather than local factor abundances. It is unlikely that international investors will find investment in such environments attractive, particularly when indigenous firms maintain the ability to seek reinforcement of protection if they deem this necessary. This indicates that FDI will be more dependent on the liberalisation of goods and services, and on the strengthening of those institutions which will ensure a level playing field for indigenous and international firms. Capital account liberalisation can contribute to the stimulation of FDI, but the fact that this contribution will be small without institution-building and liberalisation of the markets in goods and services, indicates that it should fall relatively late in the sequencing of reforms.

This argument does not imply that there are few benefits from capital account liberalisation, but only that the benefits arising out of better allocation of world capital are unlikely to be large until other reforms are at least in progress. Furthermore, if capital account liberalisation results, as it may if domestic markets remain heavily protected, in investment which would cease to be profitable at border prices, this may increase pressures on government to maintain these levels of domestic protection. In this case, premature capital account liberalisation may actually impede liberalisation of the market for goods and services.

These considerations are particularly important for the poorest countries which are almost definitionally the countries which receive the lowest amounts of FDI and which typically have poorly developed financial systems. With very few exceptions (South Africa being the most notable), the poorest developing countries are not recipients of

significant portfolio investment – a situation which will not be changed significantly simply by capital account liberalisation. Inward portfolio investment is therefore not an important issue for the poorest countries. Furthermore, capital account controls are not in general the major impediment to FDI. The implication is that, for these countries, capital account liberalisation is not likely to be the place to start in the reform process, since capital accumulation can be stimulated by FDI without it.

Arguments for caution in capital account liberalisation

Capital liberalisation also imposes costs on developing countries. Understanding the nature of these costs not only allows an informed and balanced assessment of the merits of liberalisation, but is also instructive in determining how the process of liberalisation can best be managed. Arguments against capital account liberalisation can be grouped into two categories (Dooley, 1996). First, capital controls can be justified as a second-best response to a market failure: whilst the first-best response is to correct this failure directly, where this is impracticable it may be welfare-improving to create an additional distortion (in the market for international capital) to offset this. It follows that capital account liberalisation, in the absence of other institutional reform, may lead to reductions in welfare. Secondly, where capital account liberalisation can give rise to vulnerability to crisis, government intervention can be justified to reduce this vulnerability. Capital controls can provide one way for the government to do this.

In the following sub-sections we consider each of these arguments in turn, but we also show how vulnerability problems may be rooted in some pre-existing distortion. The two arguments of this section are therefore interconnected. In these sub-sections we draw heavily on the experience of liberalising economies in the 1990s.

Second-best arguments

As Dooley (1996) and Wilson (2000) point out, there are many distortions which can provide the basis for second-best arguments in favour of capital controls. Of these, some are of particular importance to the poorest developing countries:

a) *Protection and subsidies.* Suppose that the current account is not liberalised and that certain sectors have significant protection from foreign competition which increases the prices domestic producers receive relative to world prices. Capital account liberalisation could encourage investment in these protected sectors which is welfare-reducing; if the protection in these industries is sufficiently great, investment may even occur in situations where the value of the investments at world prices is negative. A similar argument can be made in the situation where production in certain sectors is subsidised by the government through an active industrial policy.
b) *Moral hazard.* We have argued above that in many of the poorest developing countries there is widespread financial repression. A common first step in the growth of financial systems is the development of a banking system insured (and often owned) by the government. This is a natural response, in a risky environment, to the absence of financial systems strong enough to undertake proper risk management. Such an institutional structure can distort investment incentives, since

(explicit or implicit) government guarantees remove some of the down-side risk from investment. Firms will stand to gain if investments turn out well, but they do not bear the full cost if things turn out badly. That creates an incentive for 'over-investment', in the sense that investment will be undertaken for which the expected return is less than the expected cost (Krugman, 1998; McKinnon and Pill, 1997). Capital account liberalisation, which allows access to a large supply of funds for potential investment projects, will lead to a greater number of investment projects being feasible given the guarantee, and thus a greater amount of investment being undertaken for which the expected return is less than the expected cost (Wilson, 2000).

c) *Unreformed tax systems.* There are two main problems. First, as many poor developing countries have a relatively narrow tax base, capital liberalisation will impose costs on them by further reducing the tax base. This is mainly because it is difficult to tax overseas earnings, making it attractive to countries to prohibit the export of domestic capital (Razin and Sadka, 1991). Secondly, there is empirical evidence that countries with capital controls tend to exhibit relatively high inflation (Dooley, 1996: 656), resulting in lower real interest rates, and hence low real service costs, on domestic debt. Capital account liberalisation therefore entails either increases in explicit tax rates or reductions in government expenditure (Giovannini and de Melo, 1993). Liberalisation prior to solution of these problems can cause budget deficits to grow. This can lead to increases in real interest rates which can penalise investment. Furthermore, experience in sub-Saharan Africa has shown that it can lead, at least for a time, to capital inflow and currency appreciation, endangering the growth of exports, and openness in trade, on which development depends.

d) *Fixed exchange rates.* Suppose that the authorities have a commitment to a fixed exchange rate as a form of nominal anchor, as remains true in many developing countries. Suppose further that the authorities are in the practice of regulating the economy through monetary policy, raising interest rates at times of boom and vice versa. The viability of this type of regime is underpinned by capital account controls (Wyplosz, 1986), and undermined by capital account liberalisation. One way of making this clear is to note that there is an 'impossible trinity' of fixed exchange rates, independent monetary policy, and capital mobility: one of these will have to go.[7] The East Asian crisis has shifted the majority view in the economics profession towards a strong preference for floating-rate regimes as a way of resolving that choice. But, as discussed below, the institutional reforms necessary for a transformation of monetary policy are very large. The construction of such institutions can currently only be an aspiration in many developing countries. A move to capital account liberalisation, along with a move to floating exchange rates, prior to the construction of these monetary institutions, may leave the economy exposed to severe monetary instability. This point seriously qualifies the macroeconomic discipline argument for capital market liberalisation, and suggests that, for many poor countries, liberalisation can only be a long-term

7. See Warr (1998) who shows how the exchange-rate peg prevented the pre-crisis boom in Thailand being choked off, with the consequence that price increases were unchecked, making the export sector increasingly uncompetitive.

objective. In other words, if macroeconomic policy-making institutions are not strong enough to stand the scrutiny of forward-looking capital markets, then capital controls may be desirable as a second-best response.

This discussion suggests that there are a number of important preconditions for financial liberalisation. For each distortion or market failure identified above we can determine the reforms necessary as a precursor to capital account liberalisation.

a) *Current account liberalisation and reform of industrial policy.* We have already argued that such policy reforms are a necessary precondition for an efficient outcome following capital account liberalisation.
b) *Improved regulation of the financial sector and removal of implicit guarantees*. The East Asian crisis demonstrated that guarantees to the banking system can result in a tendency towards excessive risk-taking, and that capital account liberalisation can exacerbate this by providing access to an elastic supply of cheap foreign funds. Such guarantees are a common response in the poorest developing countries to the problems caused by an institutionally underdeveloped banking system. They should be replaced by modern methods of risk management implemented by the banking sector itself, and both donor countries and multilateral agencies may be able to assist in this process. These systems should be buttressed by prudential regulation. In particular, capital adequacy ratios will typically need to be raised, probably to levels well above those in OECD countries. Enhanced loan loss provisioning is required in order to prevent banks from carrying bad loans on their books which should be written off (see Fane, 1998). Once such reforms are introduced, it will be possible to reform the system of guarantees given to the financial sector.
c) *Fiscal reform.* This is required to broaden the tax base and in so doing to reduce the dependence of the government on forms of finance which are underwritten by capital controls. This may require major institutional reforms; in particular, tax evasion is often facilitated by current bank regulatory regimes.
d) *Central Bank independence*. Capital account liberalisation spells the end for pegged exchange-rate regimes. The transition to a floating exchange-rate regime requires the creation of a new form of nominal anchor: the nominal anchor must be provided by the Central Bank's monetary policy. In turn, this requires strong monetary institutions – central bank independence, coupled with a credible commitment to some form of inflation targeting. This is a strong requirement. We note that a number of developed market economies have experienced difficulties in this regard. Eichengreen et al. (1999) discuss the moves which are required.

Vulnerability arguments

There is a further reason for caution in the advocacy of capital account liberalisation. Experience during the 1990s has shown that developing countries which liberalise are vulnerable to financial crisis: the financial crises of the 1990s have been intrinsically crises of capital mobility in which countries are subject to a panic withdrawal of large amounts of liquid funds. This is in contrast to the financial crises of the 1980s in Latin America, at the core of which were government budgetary problems.

Vulnerability is related to the presence of structural nonlinearities: a state of affairs is vulnerable when, even if there are only small changes in fundamentals, there can be a big shift to some sort of bad outcome. There are many ways of making this general idea specific (Dooley and Walsh, 1999); the easiest way of doing so is in terms of the idea of multiple equilibria.[8] The financial system is vulnerable to crisis when both a good equilibrium and a bad equilibrium are possible; a crisis occurs when the economy shifts from the good to the bad equilibrium. In what follows we discuss how vulnerability can arise when the capital account has been liberalised before sufficient of the reforms discussed in the previous section have been implemented.

Vulnerability and unreformed financial systems As discussed above, most poor developing countries are characterised by financial repression and poorly developed financial systems. We have argued that a common first step in the growth of financial systems is the development of a banking system insured by the government, and that this can promote over-investment. The East Asian crisis has made clear just how vulnerable countries are to financial crisis if the capital account is liberalised in these circumstances. The archetypal East Asian financial system functioned by channelling domestic savings into particular forms of investment and growth, via a banking system operating under state guarantees. Although current low levels of portfolio investment may make the possibility of financial crisis appear remote for many countries, the premise of reform is that these countries will in time become attractive to foreign investors; and, in any case, crises can be equally well caused by sharp increases in outward portfolio investment ('capital flight').

In this environment, firms become highly geared. They, and the banks which lend to them, become exposed to the effects of a revenue downturn, and in aggregate the whole of the financial system becomes so exposed. In countries experiencing successful growth the possibility of a downturn can be seriously underestimated. Firms, and the financial system that lends to them, suppose that they are implicitly guaranteed against such bad outcomes. Liberalisation, without reforming the financial system, implies that foreign suppliers of capital obtain access to these guarantees. Over-investment is encouraged and there is rapid increase in the stock of implicit guarantees to the financial system (see Krugman, 1998). The mere statement by government that rescues will not take place will seldom be credible unless accompanied by institutional reforms which tie the government's hands (Diaz-Alejandro, 1985).

Economies of this type are subject to multiple equilibria since, if foreign lenders believe that the government can honour its guarantees, they will set low interest rates (the risk premium is low) with the result that the government will in fact be able to afford to honour the guarantees, while if they believe that the government will not be able to honour its guarantees, then they will set high interest rates such that the government will not in fact be able to afford to honour the guarantees. The expectation that the government will renege can therefore become self-fulfilling. When this happens there will be a financial crisis in which a rapid reversal of international capital flows

---

8. Seminal multiple-equilibrium analyses are to be found in Diamond and Dybvig (1983) and Obstfeld (1986; 1991; 1994; 1995). These papers analyse, respectively, bank runs and exchange-rate crises, and use very different kinds of analysis. But they share the generic idea that one can locate vulnerability in multiple equilibria.

occurs. This is because, once the government is forced to renege, it is difficult to see how it can credibly promise similar guarantees in the future. But without such guarantees much of the investment undertaken will become unprofitable, and funds will be withdrawn from the country (see Corbett et al., 1999; Irwin and Vines, 2000).

Vulnerability and fixed exchange rates A high proportion of poor developing countries operate pegged exchange rates. These exacerbate vulnerability once the capital account is liberalised, because they result in a large outstanding stock of unhedged foreign debt. It is easy to see why private investors should fail to hedge; a fixed exchange rate reassures investors that it will not be devalued. The fact that foreign debt is unhedged raises the domestic-currency value of the stock of outstanding government guarantees to the financial system in the event of a currency depreciation, making it more expensive for government to meet these guarantees. With a liberalised capital account, fears that the government may renege may trigger depreciation. Adding currency depreciation to the equation implies an additional cost to the government when capital is withdrawn, and there is thus a wider range of circumstances in which the bad equilibrium may be selected.

Our assessment

The argument of this article is that the advanced country paradigm – well-regulated financial markets, strong macroeconomic policy-making institutions (with an independent Central Bank, a floating exchange rate, and low budget deficits), well-regulated financial institutions, and a liberalised capital account – is the end to which all countries will ultimately be aiming (Knight et al., 2000). If countries have the capacity to undertake this full economic liberalisation package, financial liberalisation will be an integral part of this first-best policy and will be welfare-enhancing. But if countries do not have the capacity to undertake full economic liberalisation, financial liberalisation may not only be impracticable; the second-best argument suggests that it may also lead to a reduction in welfare. Liberalising countries must also take care to ensure that the removal of capital controls does not increase vulnerability to financial crises.

These arguments are in line with those advanced by McKinnon (1992). However, they require qualification in two respects:

a) Some of the reforms which are necessary precursors to capital account liberalisation themselves require capital account liberalisation to have been undertaken if they are to succeed. This undermines the sequencing argument: capital account liberalisation and the associated institutional and policy reforms should be seen as a package to be pursued concurrently. A prime example is the move from fixed to floating exchange rates. This, we have argued, is a necessary precondition for capital account liberalisation. A well functioning floating exchange rate requires a foreign-exchange market of sufficient depth, including futures and swap markets. But it is difficult to see how this depth can be achieved in an environment in which capital controls remain in place. For example, many observers argue that Singapore successfully withstood the East Asian crisis, whilst maintaining a fixed exchange rate, partly because of an explicit prohibition of

short-term trading in the currency. Both policies – capital account liberalisation and a move to a floating exchange rate – must, therefore, be pursued at the same time.

b) Political economy considerations suggest that a staged approach may provide policy-makers with an excuse for prolonging bad policy, or at least weaken their incentive to develop good policy. It is relatively easy for politicians, who have clearly benefited from the status quo, to agree in principle to reforms, but to emphasise the practical difficulties of satisfying preconditions. For example, we have already argued that capital controls can reduce the real interest rate, thereby cutting debt-servicing costs; as a result the incentive to refrain from a profligate fiscal policy is weakened. Sequencing arguments make sense if there is a genuine commitment to reform, but otherwise may be little more than a ploy for attracting assistance without implementing difficult policies.

The role for international organisations

Vines (1997, 2000) reviews four broad reasons why international institutions are inevitably important as a source of research and policy advice on issues such as current account liberalisation, industrial policy, financial market regulation, fiscal reform, and the reform of macroeconomic and monetary policy.

(i) Many national governments of poorer countries cannot afford or cannot get access to the necessary resources themselves. Thus the advice becomes a form of technical assistance.

(ii) There are significant economies of scale and scope in the provision of such analysis and this analysis is also an international public good (because the theory of macroeconomic policy is partly comparative).

(iii) Agencies such as the World Bank and the IMF are uniquely placed to offer frank advice which stresses both weaknesses and required remedies.

(iv) Agencies such as the World Bank and the IMF can develop an on-going working relationship with a country to help it solve its problems, and to build policy credibility, which involves not merely one-off advice but continuing policy assistance.

These last three reasons mean that it is difficult to see how private suppliers could effectively provide the technical assistance to any large degree, were it not to be provided by international agencies. Economies of scale and scope, and the need for a continuing relationship, suggest that any attempt to substitute in this way would be dogged by market failure. Alternatively, if the governments of advanced countries were to attempt to provide such advice directly, government-to-government, the result would be direct bilateral power relationships of a neo-imperialistic kind. The Fund and the Bank are multilateral institutions. This gives them – at least to some extent – a legitimacy when they assist in the solution of policy problems in developing countries.

The various areas of required activity do not partition neatly among the various agencies. While the IMF is the natural agency to lead on Central Bank conduct and organisation, the World Bank and the regional development banks may be the more appropriate lead agencies with regard to industrial policy. In development of domestic banking, there is a clear role on which the International Finance Corporation should be

encouraged to lead. The overall message, however, is that the long-run objective of capital account liberalisation increases the urgency of reforms which are desirable on their own merits, and the various multilateral agencies should work together to encourage and assist governments in moving in this direction.

International financial institutions and crisis resolution

The East Asian crisis revealed deficiencies in the international community's advice about financial liberalisation. This advice failed to emphasise properly the important preconditions for successful liberalisation identified above. Well-heeded advice along these lines will increase the benefits of liberalisation, and reduce the costs of, and vulnerability to, crises.

Nevertheless, however good the advice given, and the policies followed, on sequencing, regulation, and institution-building, mistakes will be made and crises will occur. As the above discussion has highlighted, countries in which capital flows have been liberalised face the risk of a rapid withdrawal of liquid funds. There is a need for the appropriate crisis resolution machinery as a response to this.

Article VIII

Over the past three years, the IMF has been debating the stance it should take on capital market liberalisation. We take it that it is unlikely that IMF member governments will ever concede the power to require capital account convertibility to the Fund, in the way that, under Article VIII of the Fund's Articles of Agreement, they have conceded the power to require current account convertibility. The practical issue therefore becomes whether and how the IMF should promote capital market liberalisation.

We suspect that, if professional economists were to be surveyed on this issue, there would be a clear positive correlation between those who approve of the IMF's exercise of its mandate during the Asian crisis and those who would be happy to see an extension of the IMF's remit to capital account liberalisation. Since capital account liberalisation has costs as well as benefits, many more sceptical economists might suspect that the IMF would push capital account liberalisation in circumstances where the costs exceed the benefits. For these economists, this would be a further case of the IMF's medicine being worse than the disease for which it is prescribed. Others would point to the successful recovery of many of the previously ailing Asian economies to argue that IMF policy did, broadly, have the desired effect, and that IMF advice was sensitive to diverse circumstances in different countries. They might also add that the IMF was obliged to learn the rules of crisis management on the job.

Like other institutions, the IMF must operate by consent. Whatever the merits of the different positions taken over the Fund's recent performance, these differences imply that it will have to tread warily in assuming new responsibilities. This suggests that it is appropriate, in the post-Seattle environment, to move carefully. We have argued that capital account liberalisation gives rise to important sequencing issues. Within an overall context in which relaxation of capital account controls is viewed favourably, the IMF should work with governments in devising regimes which mesh with their continuing movement towards market liberalisation but which do not

jeopardise the conduct of macroeconomic policy. In particular, countries will wish to know what stance the IMF is likely to take in any crisis.

Three forms of crisis response

The East Asia crisis revealed deep deficiencies in the IMF's system of crisis resolution. In what follows, we review these deficiencies in detail, and show that deep-seated problems still remain, even after what has been learned from the crisis. These deficiencies are a further reason why it is right to be cautious about capital account liberalisation.

(i) IMF lending and the impossibility of lender-of-last-resort financing The first weakness exposed was one in the process of IMF lending. In the face of panic and threatened currency collapse, countries need financing to tide them, and their creditors, over a panic period. Ideally one would like the IMF to act as a lender of last resort in such circumstances. In the light of this wish, the size of IMF loan packages soared in response to the East Asia crisis (see Lane et al., 1999). But although these levels of lending were in excess of politically sustainable levels, the packages were nevertheless insufficient to solve the problem (again see Lane et al. for a discussion of this).

It is impossible to avoid the conclusion that the IMF is not in a position to provide lender-of-last-resort financing. A lender of last resort (LOLR) is one which lends freely against good collateral at a penal rate. 'All three aspects of this principle – "lending freely", "good collateral", and a "penal rate", are problematic at the international level' (King, 1999: 6). In particular, an effective LOLR must be willing to lend whatever it takes to prevent a run on liquidity. The current resources of the IMF – between $125 billion and $150 billion, depending on how they are measured – are wholly inadequate for an international LOLR. And it is clear that the IMF does not have the resources to make loans, of the size made in the East Asian crisis, in the face of future crises. In a world of a very high degree of capital mobility, the IMF will never have sufficient resources to deal with a crisis simply through the provision of 'jumbo loans'; what the IMF can lend will be dwarfed by what those withdrawing funds from a country will be able to mobilise.[9]

The clear implication of this is that the IMF should not be *asked* to act as a lender of last resort. However, whenever a crisis hits, those representing borrowing countries always lobby for liquidity support, and those representing lending countries (effectively, the US and some Western European governments) do this too, to prevent borrowing countries defaulting on loans. The result is likely to be a form of continual 'denial' which will be perpetuated in the absence of some institutional reform at this level. The Fund, even if it has insufficient money, finds itself under pressure to make larger and larger loans in the hope of providing at least some partial alleviation of the crisis in the

9. This problem is complicated by the fact that, in the East Asian crisis, lending was concerted not just from the IMF, but from the World Bank as well. Injecting large sums of money into short-run financial crises is not the function of the World Bank. Its lending role involves the provision of long-term loans for long-term development purposes (see Gilbert et al., 1999). Beyond this, lending was concerted from a group of OECD countries. But arrangements for doing this were vague and informal. It does not seem that there is the willingness to make large loans in this way in the face of future crises (King, 1999).

short term. Furthermore, these demands extend to the World Bank, threatening funding for longer-term development. This is a classic time-inconsistency problem: in the long term financial stability would be better served by recognising this weakness. But simply promising that intervention on a similar scale will not occur in the future lacks credibility: the Fund will always be under pressure, in the event of another crisis, to act 'one last time'.

This creates a moral hazard problem at the level of the international financial system. It can be argued that the way the Mexico crisis was handled created an expectation that future crises would be dealt with by large IMF loans, and that this helped to stimulate the growth of lending to the East Asian crisis countries. As a result of attempting to act, with strictly limited success, as a lender of last resort, the IMF makes the international financial system more crisis-prone in the long run.

(ii) Adjustment policies The second weakness exposed in the East Asian crisis was in IMF advice on adjustment policies. Tight macroeconomic policy is essential in the face of panic and threatened currency collapse. This is all the more so, the larger are the sums being withdrawn from a country in the crisis, in particular since the IMF lending is circumscribed. Thus, during the East Asian crisis, the IMF recommended monetary and fiscal policies which were highly contractionary, precisely in order to support the currencies of the crisis countries. These policies were seen by the IMF as necessary to prevent extreme falls in the currency from bankrupting the domestic private sector of the crisis countries.

These policies have been widely criticised, largely on the ground that they did not have the desired effect of preventing currency falls and that high domestic interest rates served to bankrupt the private sector by creating a domestic credit crunch (see, for example, Furman and Stiglitz, 1998). Furthermore, traditional stabilisation arguments suggest that at a time of crisis countries need fiscal loosening, the injection of funds to rebuild the balance sheets of troubled financial institutions, and a general macroeconomic loosening to mitigate the falls in output caused by the crisis. Indeed, once the East Asian crisis began to subside, both fiscal and monetary policy were loosened in this direction. Despite these objections, given that the IMF was not in a position to lend larger amounts, it is clear why these policies were considered necessary.

(iii) Standstills The third weakness revealed by the East Asian crisis was that the Fund was unable to facilitate 'timeouts', or payments 'standstills', at the time of crisis. We know that in any modern financial system standstill mechanisms are essential in the context of corporate restructurings and bankruptcy procedures: they force creditors to share in the burden of crisis. Such burden-sharing serves efficiency objectives as well as equity objectives: it enables debt overhangs to be removed. In the context of international crises standstill mechanisms are also essential: they 'bail-in' the foreign private sector creditors, who in the new world of capital mobility are so important, thereby forcing them to share the burdens of the country in crisis. Standstills have the potential to remove international debt overhangs of the kind which are still crippling Indonesia and Thailand three years after the East Asian crisis began.

'Constrained discretion' and the need for a standstill mechanism

These three sets of policy difficulties are interconnected. Standstill mechanisms are almost certainly essential if the first two sets of policy problems are not to recur in future crises. Standstills would remove the need for jumbo-sized loans. Standstills would also make it unnecessary to pursue excessively tight monetary and fiscal policies in order to stem the flight of private capital. Progress on this front is advocated by De Gregorio et al. (2000), Williamson (2000) and King (2000); it is our own preferred solution.

Modest steps were taken in the right direction on this issue at the Annual Meetings of the IMF and the World Bank in Prague in September 2000. It is now generally accepted that if the IMF cannot move in the direction of being a LOLR, and if it is not to respond to this problem simply by continuing to recommend unduly contractionary policies, then further progress on the issue of standstills or timeouts is essential. The challenge for the IMF over the coming years will be to move forward to elucidate the circumstances in which it will endorse the suspension of payments by countries facing a crisis. This will require the establishment of *ex ante* criteria for the imposition of payments standstills, in order to give private sector lenders a greater degree of clarity about when this will happen, and so make the process an orderly one when it does occur. There is now a commitment on the part of the G7 countries to work in the direction of formalising how such 'constrained discretion' would operate in the solution of crises.

If such a framework can be devised, then how the IMF operates in a crisis will become more formalised. The IMF will need to commit credibly to assisting a debtor with liquidity support only in truly exceptional circumstances. At the same time, it will need a credible commitment to keeping open the option of allowing a payments standstill. Some means must be found to ward off undue pressure against this outcome, pressure which is likely to come from the United States and the governments of other countries in which lending banks and bondholders are located. Such a mechanism, if it can be found, will prevent the burden of liquidity crises from falling entirely on borrowing countries. It will spread the burden of crisis-without-liquidity-support onto lenders, and lessen debt overhangs.

The lesson from the Korean crisis at the end of 1997 is that, if successful, standstills can benefit all parties. The Korean crisis was one of liquidity, with no underlying solvency problem. Although payments were not formally suspended, considerable pressure was collectively applied on banks to roll over their lending which had fallen due. However, in the fullness of time, Korean debt has been repaid and the banks collectively have not suffered.

Nevertheless, the constrained discretion proposal is a radical one. There is no escaping the fact that it will necessarily have a strong political component. This is because it will impinge more sharply on some creditor interests than on others. For junior creditors a standstill is better than a disorderly outcome in which they suffer disproportionately (relative to senior creditors). As a result of this difference of interest, some form of coercion will be required. Given the difference in interests just described, it will be very difficult to negotiate this during a crisis. It will therefore be necessary to formalise the rules *ex ante*. Nevertheless, the conclusion is that the existence of such a system can lead to good outcomes.

It is encouraging that steps in this direction were taken in Prague. But in a time free of crisis, as at present, there will be less perceived urgency to move in this direction. The IMF management bears a heavy burden of responsibility to ensure progress.

The Meltzer Commission proposals

An alternative response to the problems identified is to be found in the IFIAC (2000) Report (the 'Meltzer Commission'). At its core this report identifies the Fund's discretion to act as part of the problem to be dealt with, because it creates moral hazard. In this there is some similarity with the argument presented above. But the Meltzer Commission's proposed solution to this problem is very different from ours. Specifically, the Commission proposes formal constraints around the Fund's LOLR function. We believe this approach to be fundamentally misguided. Here we briefly summarise the Commission's proposals and then compare these proposals with the approach that we favour.

The Report is in favour of 'quasi-LOLR lending' in the case of macroeconomic imbalances and of financial crisis. But it presents a list of qualifications which would hedge in this lending to the extent of making the Fund a lender of last resort in name only. The restrictive features which are proposed are as follows.

a) There would be pre-qualification for assistance and no negotiation of policy reforms upon the onset of crisis; there would be no conditionality attached to lending programmes.
b) Lending would be for a short term only, '*e.g.*, a maximum of 120 days with only one allowable rollover'.
c) Lending would be confined to solvent countries with 'fundamentally sound policies and finances'.
d) Credit limits would 'restrict the amount of assistance that a country can receive from the IMF'. These would 'reflect the capacity of the sovereign to repay its debt to the IMF'. 'A borrowing limit equal to one year's tax revenues might be a reasonable credit limit.'

The Report further proposes that, when crises occur, governments and the private sector should be left to resolve claims, unimpeded by any IMF intervention, and certainly without anything as radical as the endorsement of payments standstills.

We regard these proposals as highly problematic for two essential reasons (see also Williamson, 2000). First, pre-qualification fails to deal with the moral hazard problem. Williamson points out that problems would arise if circumstances began to deteriorate, or good policies began to be abandoned, in a country which had pre-qualified. In these circumstances it would be very difficult to withdraw pre-qualification, because that in itself might provoke crisis. Also, pre-qualification fails to deal with the consequences of a crisis in an important non-qualifying country; it would be much better to attempt to prevent the crisis from developing instead of having to prevent contagion in other qualified countries. As a result, countries in breach of pre-qualification conditions would remain pre-qualified and would receive loans, *and* the commitment to deny lending to important non-qualifying countries would be incredible. The time inconsistency problem which we identified above

would remain. We believe that the pre-qualification system would almost completely unravel.

Secondly, the proposals completely fail to deal with our central argument above. The IMF does not have, and is unlikely ever to have, sufficient funds to act as a lender of last resort. Because of this standstills are necessary. The Meltzer Report fails to deal with this issue. It is not enough to argue, as the Report does, that if its proposals *were* to deal with the moral hazard problem then the Fund's difficulties would go away. King's criticisms – that an international lender of last resort needs more money than the Fund has available – still holds.

From the point of view of the poorest countries, these proposals are very bad news. First, if the pre-qualification conditions are going to bite anywhere, it will be in the poorest developing countries, many, perhaps most, of which would fail to pre-qualify. Secondly, there is little likelihood that any crises that they experience will be regarded as having systemic implications. It is therefore unlikely that, under the Meltzer Commission proposals, they will have any possibility of availing themselves of the LOLR facility.

Conclusion

We live in a world in which international capital markets are becoming increasingly integrated. There are many advantages in this, as the experience of advanced industrial countries shows. But the experience of middle-income countries in the 1990s suggests that we should pause before arguing that the poorest developing countries should rapidly embrace open international capital accounts. We have argued that, in the absence of the appropriate institutional reform, a move to capital account convertibility may not be welfare-improving. It may also increase vulnerability to financial crisis. If and when crises do occur, the outcomes can be very costly. And if such crises are not well handled, they can also be politically destabilising, and can undermine support for the whole process of liberalisation and global integration. That will, in turn, reduce countries' growth prospects.

The second part of this article argues that crises cannot be well handled within the framework of the current international architecture. When hit by a crisis, a country wants to avoid having to attempt to defend its currency with extremely tight monetary and/or fiscal policies. To do this it needs access either to a lender-of-last-resort facility or to a mechanism for calling a standstill in its international payments. At present the international community can offer a crisis-hit country neither of these forms of succour. We argue that the first of these alternatives is not feasible. There are now encouraging signs that the international policy-making community is at least beginning to recognise the need for standstill mechanisms. But much more work is needed.

These two sets of arguments are interconnected. In the absence of a good international crisis resolution mechanism, crises will be more costly and more frequent. That is a further reason for poor developing countries to be cautious in liberalising their capital accounts.

References

Bevan, D., Collier, P. and Gunning, J.W. (1990) *Controlled Open Economies: A Neo-Classical Approach to Structuralism*. Oxford: Oxford University Press.

Bosworth, B.P. and Collins. S.M. (1999) 'Capital Flows to Developing Countries: Implications for Savings and Investment', *Brookings Papers on Economic Activity* 1: 143-80.

Collier, P. and Gunning, J.W. (1999) 'Explaining African Economic Performance', *Journal of Economic Literature* 37: 64-111.

Cooper, R. (1998) 'Should Capital-Account Convertibility be a World Objective?', *in Should the IMF Pursue Capital-Account Convertibility?* Essays in International Finance 207. Princeton, NJ: Princeton University Press.

Cooper, R. (1999) 'Should Capital Controls be Banished?', *Brookings Papers on Economic Activity* 1: 89-141.

Corbett, J., Irwin, G. and Vines, D. (1999) 'From Asian Miracle to Asian Crisis: Why Vulnerability, Why Collapse?', in D. Gruen and L. Gower (eds), *Capital Flows and the International Financial System*. Canberra: Reserve Bank of Australia.

Deaton, A. (1992a) 'Saving and Income Smoothing in Côte d'Ivoire', *Journal of African Economies* 1: 1-24.

Deaton, A. (1992b) *Understanding Consumption*. Oxford: Oxford University Press.

De Gregorio, J., Eichengreen, B., Ito, T. and Wyplosz, C. (2000) 'An Independent and Accountable IMF', *Geneva Reports on the World Economy* No. 1.

Dehn, J. (2000) 'Commodity Price Uncertainty and Shocks: Implications for Investment and Growth'. D.Phil. thesis, University of Oxford.

Diamond, D.W. and Dybvig, P.H (1983) 'Bank Runs, Deposit Insurance, and Liquidity', *Journal of Political Economy* 91(3): 401–19.

Diaz-Alejandro, C. (1985) 'Good-bye Financial Repression, Hello Financial Crisis', *Journal of Development Economics* 19: 1-24.

Dooley, M.P. (1996) 'A Survey of the Literature on Controls on International Capital Transactions', *IMF Staff Papers* 43: 639-87.

Dooley, M.P. and Walsh, C.E. (1999) 'Academic Views on Capital Flows: An Expanding Universe', in D. Gruen and L. Gower (eds), *Capital Flows and the International Financial System*. Canberra: Reserve Bank of Australia.

Dornbusch, R. (1998) 'Capital Controls: An Idea Whose Time is Past', in *Should the IMF Pursue Capital-Account Convertibility?* Essays in International Finance 207. Princeton, NJ: Princeton University Press.

Eichengreen, B., Masson, P., Savastano, M. and Sharma, S. (1999) *Transition Strategies and Nominal Anchors on the Road to Greater Exchange Rate Flexibility*. Essays in International Finance 213. Princeton, NJ: Princeton University Press.

Fane, G. (1998) 'The Role of Prudential Regulation', in R.H. McLeod and R. Garnaut (eds), *East Asia in Crisis: From Being a Miracle to Needing One*. London: Routledge.

Fischer, S. (1998) 'Capital Account Liberalisation and the Role of the IMF' in *Should the IMF Pursue Capital-Account Convertibility?* Essays in International Finance 207. Princeton, NJ: Princeton University Press.

Furman, J. and Stiglitz, J.E. (1998) 'Economic Crises: Evidence and Insights from East Asia', *Brookings Papers on Economic Activity (Macroeconomics)* 2: 1-135.

Gilbert, C., Powell, A. and Vines, D. (1999) 'Positioning the World Bank', *Economic Journal* 109: F598-633.

Giovannini, A., and de Melo, M. (1993) 'Government Revenue from Financial Repression', *American Economic Review* 83: 953-63.

IFIAC (2000), *Report of the International Financial Institution Advisory Commission*. Washington, DC: Department of the Treasury.

Irwin, G. and Vines, D. (1999) *A Krugman-Dooley-Sachs Third Generation Model of the Asian Financial Crisis.* Global Economic Institutions Working Paper No. 46. London: Centre for Economic Policy Research.

Irwin, G. and Vines, D. (2000) *Government Guarantees, Investment, and Vulnerability to Financial Crisis*. CEPR Discussion Paper. London: Centre for Economic Policy Research.

King, M. (1999) 'Reforming the International Financial System: The Middle Way'. Speech delivered to a session of the Money Marketeers at the Federal Reserve Bank of New York, 9 September.

King, R.G. and Levine, R. (1993) 'Finance, Entrepreneurship and Growth', *Journal of Monetary Economics* 32: 523-42.

Knight, M., Schembri, L. and Powell, J. (2000) 'Reforming Global Financial Architecture: Just Tinkering Around the Edges?'. Paper presented to the meeting on Reforming the Architecture of Global Economic Institutions, Bank of England, 5 and 6 May.

Krugman, P. (1998) http://web.mit.edu/krugman/www/DISNITER.html. 'What Happened to Asia'.

Lane, T., Ghosh, A., Hamann, J., Phillips, S., Schulze-Ghattas, M. and Tsikata, T. (1999) *IMF-Supported Programs in Indonesia, Korea, and Thailand: A Preliminary Assessment*. IMF Occasional Paper 178. Washington, DC: International Monetary Fund.

McKinnon, R.I. (1973) *Money and Capital in Economic Development*. Washington DC: The Brookings Institution.

McKinnon, R.I. (1992) *The Optimal Order of Economic Reform*. Baltimore, MD: Johns Hopkins University Press.

McKinnon, R.I. and Pill, H. (1997) 'Credible Economic Liberalisations and Overborrowing', *American Economic Review* 87 (2): 189-203.

Obstfeld, M. (1986) 'Rational and Self-Fulfilling Balance-of-Payments Crises', *American Economic Review* 76(1): 72–81.

Obstfeld, M. (1991) *The Destabilising Effects of Exchange-Rate Escape Clauses*. NBER Working Paper No. 3603. Cambridge, MA: National Bureau of Economic Research.

Obstfeld, M. (1994) *The Logic of Currency Crises*. NBER Working Paper No. 4640. Cambridge, MA: National Bureau of Economic Research.

Obstfeld, M. (1995) *Models of Currency Crises with Self-Fulfilling Features*. NBER Working Paper No. 5285. Cambridge, MA: National Bureau of Economic Research.

Quinn, D. (1997) 'The Correlates of Changes in International Financial Regulation', *American Political Science Review* 91: 531-51.

Razin, A., and Sadka, E. (1991) 'Efficient Investment Incentives in the Presence of Capital Flight', *Journal of International Economics* 31: 171-81.

Rodrik, D. (1998) 'Who Needs Capital-Account Convertibility?', in *Should the IMF Pursue Capital-Account Convertibility?* Essays in International Finance 207. Princeton, NJ: Princeton University Press.

Schneider, B. (2000) 'Issues in Capital Account Convertibility in Developing Countries'. London: Overseas Development Institute (mimeo).

Shaw, E.S. (1973) *Financial Deepening in Economic Development*. New York: Oxford University Press.

Vines, D. (1997) *The Fund, The Bank, and The WTO: Functions, Competencies, and Reform Agendas*. Global Economic Institutions Working Paper No. 26. London: Centre for Economic Policy Research.

Vines, D. (2000) 'Reforming the Architecture of Global Economic Institutions: An Outline of the Issues'. Paper presented to the meeting on Reforming the Architecture of Global Economic Institutions, Bank of England, 5 and 6 May.

Warr, P. (1998) 'Thailand', in R. McLeod and R. Garnaut (eds), *East Asia in Crisis: From Being a Miracle to Needing One*. London: Routledge.

Williamson, J. (2000) 'The Role of the IMF: A Guide to the Reports'. Washington, DC: Institute for International Economics (mimeo).

Wilson, D. (2000) 'Managing Capital Flows: A Distortions Approach', *Pacific Economic Papers*.

Wyplosz, C. (1986) 'Capital Controls and Balance of Payments Crises', *Journal of International Money and Finance* 5: 167-79.