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PERSPECTIVES

# Globalisation and Capital Flows: Unfinished Business in the International Financial Architecture

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**Globalisation and capital flows:**
**Unfinished business in the international financial architecture**

**Stephen Grenville**

Globalisation is both largely inevitable and generally beneficial. The debate should be about how to make it work better, not how to oppose it or wind it back. With this in mind, this paper looks at one specific aspect: international capital flows.

The need for reform here is clear. Capital flows have sometimes been very volatile: capital reversals were a central element in the Asian crisis of 1997-8. International financial flows to the crisis countries since then have been relatively modest until now, but some East Asian countries are beginning to experience some of the symptoms of the problems which preceded the Asian crisis. Equity markets in China and Vietnam are getting more inflows than they can sensibly absorb. Thailand is currently groping, rather clumsily, for some policy response to excessive capital inflow which is causing a loss of international competitiveness. East Asian central bankers, meeting in Tokyo in January, made this the centre of their discussions.

Why are capital flows to the emerging countries so disruptively fickle and what could be done to reduce this? This paper explores these issues and suggests that there is unfinished business in the rules and institutions surrounding international capital flows – the 'financial architecture'.

## The volatility of capital flows to emerging countries

Just as the law begins with a presumption of innocence, economics begins with a presumption that market outcomes will be beneficial: there is an *a priori* case that international capital flows are a Good Thing. Financial flows supplement domestic saving, allowing more investment to be done in those countries where returns are highest; they buffer the variations over time between exports and imports; foreign direct investment brings the advantages of technological transfer; there are gains for savers from diversification; and, to complete the case for free capital flows, we should record the argument that even speculative capital flows

can serve a beneficial purpose.[1] But Bhagwati (1998) makes the case that capital flows are different from trade flows (there is no equivalent, in exports and imports, to the reversals of flows which took place in East Asia in 1997), and potentially more disruptive.

Perhaps the classic model for the beneficial operation of capital flows is illustrated by Singapore in the 1970s and 1980s. The flows were very large – amounting on average to around 10 per cent of GDP and in some years 15 per cent. They were used to increase substantially the rate of investment (i.e. not for consumption), and there was a large technological transfer that went with the foreign direct investment which dominated the flows. Following the 'stages of development' academic literature, we can see these flows being used to fund partially the catch-up as Singapore moved towards the technological frontier and its living standards rose to equal those of the industrialised Western countries. In a mutually reinforcing process, the profit opportunities fostered the development of the institutional channels (a sophisticated financial sector, where most large international financial firms are represented) which, at the same time, facilitated the capital flows.[2]

What might have been the same sort of process turned out much less satisfactorily for some of the countries of East Asia in 1997, particularly Indonesia and Thailand. In the five years prior to the crisis, Thailand received foreign capital inflows averaging 10 percent of GDP, and the corresponding transfer of goods and services – the current account deficit – reached 7 percent of GDP in 1996. Precipitately, this inflow turned into outflow: private capital outflow was more than 16 percent of GDP in 1998. Having used up all the foreign exchange reserves in a futile defence of the baht, the Thais had to cut their coat to fit the cloth of this huge reversal in funding. Previously they had spent 7 percent more than their GDP: now, they had to spend 9 percent less – a turnaround of 16 percent of GDP. Such an adjustment could not be achieved simply by changing relative prices through a fall in the exchange rate. The *only* way such a huge and rapid adjustment could take place was though a dramatic and painful fall in GDP. A country which was accustomed to growing at 6 percent per year experienced a 10 percent fall in GDP. The Indonesian story has the same elements, with the added complication of more policy mistakes and political upheaval, which made the situation worse. The underlying method of adjusting to the capital reversal had to be the same way: national spending, which had been growing by 6 percent per year, contracted by 13 percent in 1998, a fall necessitated

[1] The case is, however, by no means convincingly proven as an empirical generality. Prasad et al (2003) summarise the conflicting evidence on whether foreign capital assists growth, and Stiglitz (2002) gives a more impassioned case of the doubters. It may be one of the many cases when something is beneficial if well handled, and creates risks for the unwary or when mishandled.

[2] China would serve as a more recent case study, with the conclusion not yet written.

by the need to turn what had been a small current account deficit into a surplus of over 4 percent of GDP.

This sort of capital reversal was characteristic of the Asian crisis and the Mexican crisis which preceded it by four years, but was a new phenomenon. The external debt crises in Latin America in the first half of the 1980s were different: a result of over-expansionary macro-policies and large budget deficits. The attacks on sterling and the Swedish krona in 1992 were pure speculation that these governments would not defend their over-valued exchange rates with higher interest rates. In none of these cases was capital reversal the trigger for the crisis. In the 'banana republic' crisis in Australia in the mid 1980s, the exchange rate fell by more than 25 percent, but capital continued to flow in, and the current account deficit never fell below 3 percent of GDP. Often, adjustment was relatively easy and not too painful. Once the sterling parity was reset, the UK economy moved forward quickly, as did Sweden. In Australia, with a lower exchange rate, growth was maintained. Why was the reversal so large, sudden and disruptive in East Asia?

The key reason was the nature of the flows. The characteristics which made them so flighty and damaging were:

- They were very large compared with the financial infrastructure of the recipient countries, but small for the foreign lenders
- Because these were 'small beer' for many foreign lenders, for whom it was a small-bet portfolio diversification motivated by fashion rather than any detailed knowledge, the understanding of the lenders was slight, and the arrival of any small piece of information might add significantly to their knowledge, and cause a complete reassessment.
- Many lenders had the same motivation as a bank depositor who sees a queue forming outside their bank. Assume the worst, and try to get your money out ahead of the others, before the limited repayment capacity is used up. This is a rational response. If there is no problem, little is lost: if there is a problem, a total loss has been avoided. Even if they had researched the issues properly and had good information, they would have learned that institutions for dispute resolution and general governance were not to be relied on in these countries, and it was a case of saving yourself. There was not only lack of confidence in the currency, but also in the country (see Caballero et al (2004)).
- The reversals were usually associated with a collapse of the fragile banking system ('twin crises'). Often this was a matter of coincident timing – the capital opening

often coincided with the deregulation of the financial system, which has routinely (even in developed countries) been accompanied by severe strain on the financial system.[3]

- Much of the capital inflow was denominated in foreign currency. Whereas in Australia most of our foreign borrowing is denominated in Australian dollars, borrowers in the emerging countries tend to borrow in foreign currency. Partly this is because the lender is unfamiliar with the domestic currency and reluctant to lend in domestic currency. But it is also attractive for the borrower, because local currency interest rates were often very much higher than US dollar or yen rates.[4] This might have been rational enough on the part of the borrower, but it did mean that they had the currency risk. They might have been prepared for 10-15 percent depreciation, but once the depreciation reached 25-30 percent, the damage to their balance sheets was so severe that bankruptcy was likely. This balance sheet risk spread to the domestic banking system. The banks, to remain competitive, had made loans denominated in foreign currency, which they funded by borrowing overseas. Their foreign exchange exposure was balanced, but when the exchange rate fell, their borrowers could not repay.
- Exit was easy. Even foreign investors with physical capital on the ground (foreign direct investment – FDI) could cover their currency exposure by buying foreign currency, and financial derivatives enlarged the range of possibilities.

## "It's not the speed that does the damage, it's the stopping"

There was no shortage of explanations offered for the crisis, including crony capitalism, corruption, lack of free-market orthodoxy (i.e. not having a freely floating exchange rate), absence of democracy, governance deficiencies, moral hazard and lack of transparency. Most of these explanations seem unsatisfying, if only because these circumstances had existed during three decades of extraordinary growth. For an economist, the key problems might be identified as excessive foreign capital inflows in the five years or so before the crisis, which fed a local asset boom and created the potential for volatile outflows (Mexican-style 'sudden-stop' capital crisis), combined with weak banking systems.

[3] In Australia, for example, there was the 'banana republic' episode and, fortunately separated by five years, the serious strains on the banking system in 1990. In Asia in 1997, the balance of payments and banking crises coincided.

[4] In Indonesia before the crisis, the differential would routinely have been 1000 basis points – 10 percentage points.

The policy-relevant insight here is that the central problem occurs *before* the onset of the crisis.

In economics, it is often assumed (without much basis) that the current account is the driver of the balance of payments. But in the case of East Asia in the five years leading up to the crisis, it can be argued that the driver of the balance of payments was the capital account. Asia had become the flavour of the month in financial circles, and every portfolio manager wanted to have some exposure to this 'economic miracle'. This was not irrational or poor judgment. These countries had uniformly recorded quite steady growth of 6-8 percent annually (twice the growth of developed countries), and were offering high rates of return on capital. Equity markets may have been embryonic, but they offered an entrée to this action. Domestically, borrowers in these emerging countries faced interest rates of 20 percent (a typical borrowing rate in Indonesia before the crisis), so were ready to offer lenders an attractive rate. This was exacerbated by the abnormally low interest rates in Japan, which encouraged the 'yen carry trade' – borrowing in yen to invest in other currencies such as baht or rupiah. While the financial institutions were often embryonic and inexperienced, some of them (notably the Bangkok International Finance Facility) were specifically tailored to encourage these flows.[5] All these factors combined to produce a weight of money to invest in these countries. The outcome, for Thailand, was five years in which capital inflow averaged 10 percent of GDP annually, and peaked at nearly 13 percent just before the crisis.

How could this be absorbed? Economic analysis takes us some way in understanding this.[6] The capital flow is a *financial flow*, and needs to be converted into a flow of real goods and services. That means the current account has to widen into deficit as these goods flow in. An exchange rate appreciation is needed to encourage imports, and if in the euphoria of the times, this also means that the domestic economy runs hot, this will also help to widen the current account deficit. But such was the press of foreign capital that the current accounts could not (or did not) widen enough to absorb all the available foreign capital – the residual went into foreign exchange reserves in the central banks' balance sheets, making the task of maintaining firm monetary policy and internal equilibrium harder. After the crisis, some commentators saw the current account deficits as an important factor in the problem, and others pointed to the over-valued exchange rates as the key problem.[7] But this ignores the fact that these were the *symptoms* of the excess capital flows, not the root cause. What mechanism

[5] Although they may not have been intentionally designed to encourage small Thai firms to borrow in dollars, as they did.
[6] Keynes wrote about this problem in 1929 in relation to German reparations (Keynes (1929)
[7] For example, Feldstein (1999) sees large current account deficits as the number one cause of the Asian crisis.

would have allowed the real transfer, if the current account deficit did not widen and the exchange rate appreciate?

**Has the solution been found?**

If this painful experience is not to be repeated, we need some assurance that these underlying preconditions are not duplicated in the future or that the institutional system will be able to cope better next time. After all, these sorts of capital flows are intrinsic to the globalised world with integrated capital markets. The responsiveness of global capital to changing perceptions of opportunities around the world will get stronger, with larger, swifter flows, rather than weaker.

Influential analysts (e.g. Stan Fischer, IMF Senior Managing Director during the crisis) have seen the key issue as fixed exchange rates, so the remedy is to be found in free-floating exchange rates.[8] Most of the countries of the region have adopted exchange rate regimes which are more flexible – closer to floating – than before. There are technical issues here – are they floating freely enough? But leaving this aside, this is the solution only if fixed rates were the initial problem. Let's look at this more closely.

Fixed exchange rates – if they had been in place – might have artificially encouraged foreign borrowing and encouraged unhedged currency mismatch by domestic borrowers. If borrowers saw the fixed rate as a 'guarantee' by the government to always sell them foreign exchange at the current price, it would, indeed, have been a big encouragement to borrow at the lower rates available for foreign-currency loans. But it would have also ignored the fact that Indonesia, for example, had devalued vis-à-vis the US dollar three times in the previous twenty years. It also doesn't fit the case where the borrowings were in non-US dollar currencies (half Indonesia's foreign borrowings were in yen – the 'yen-carry-trade' – which currency had moved over a range of 79-149/ $US during the first half of the 1990s). So any borrower who thought they had a guarantee was ignoring the obvious reality.

[8] "Had exchange rates been flexible, the six crises we have discussed in these lectures would either not have happened, or would not have taken the form they did. That is why the shift to flexible rates among the emerging market countries is the most important change in the international financial architecture during the past decade. It will not prevent all external crises, for debt sustainability crises will still occur, but it should greatly reduce the frequency of crises." Fischer (2001)
"Fixing the exchange rate or protecting an exchange rate provides an invitation to the private sector to bet against the authorities if the capital account is open: in short, the impossible trinity. I believe that the move to flexible exchange rates has made more of a difference to the international financial system than any other change. That change takes away a major risk factor." Fischer (2006)

Fischer blames the so-called fixed rates for the failure of borrowers to 'cover' or hedge their foreign exchange exposure. This not only ignores the reality that borrowers faced shifting exchange rates, but as well, this view misunderstands the macro-level characteristics of hedging. An individual borrower exposed to foreign currency risk can easily arrange with a bank for a hedge – essentially an insurance policy against depreciation. But at the macro-level, a country as a whole cannot do this. If there is a capital inflow, someone (either resident or foreigner) has a currency mismatch. The individual can pass on the risk to a fellow countryman – a resident to another resident, or a foreigner to another foreigner. But they could only extinguish the risk at a macro level by buying the currency of their exposure, which effectively reverses the capital flow. So if there is capital flow, there is unhedged exposure and if the cumulated flows have been large, the mismatch will be large.[9]

The optimists predict that more flexible exchange rates, combined with the encouragement of domestic bond markets, removal of any government guarantees (with the moral hazard that goes with this) and better prudential supervision, will encourage borrowers to hedge their currency exposure. Currency mismatch is seen as the key vulnerability (see Goldstein and Turner (2004)).

An alternative and more pessimistic view has been given the catchy title of 'original sin' (Eichengreen, Hausmann and Panizza (2005)). Here, the key issue is that this high degree of currency mismatch is *inevitable and intrinsic* in emerging markets. Foreign capital flows always leave one party (either the borrower or the lender) with a currency exposure: this is another way of restating the point made above that, at the macro-level, it is not possible for a country as a whole to hedge its accumulated currency exposure. The special characteristic of 'original sin' is the inability of the borrowers to shift this currency exposure to foreigners, and this leaves borrowers vulnerable to catastrophic balance sheet shocks when the currency depreciates.

But the analysis needs to be taken one step further. Even if foreigners *could* be persuaded to take the currency risk, this means that the balance sheet risk has been shifted to them, and they are unlikely to want to go on holding it when a substantial depreciation occurs: as they unload their exposure, they will drive down the exchange rate in a way that may be as

[9] Some might note the possibility of shifting the exposure onto a countryman who has an opposite exposure through trade: a borrower shifts the exchange risk to an exporter. There may be limited opportunities to do this, but importers also want cover for their exchange exposure, so most of the natural risk-offset capacity has been used up – certainly there is nowhere near enough to provide an offset for large capital inflows. As a rough approximation the trade flows cancel out the opportunity for using exports to cover foreign borrowing.

catastrophic as if the currency risk remained with borrowers. Unless there is a confident belief that foreigners, exposed to currency risk, would have maintained their capital in place, then the problem caused by large capital inflows remains.[10]

**The exchange rate adjustment**

Academic analysis has been of limited use in understanding this and developing suitable policy responses. Since generalised floating in the early 1970s, there has been a strong academic presumption that markets are efficient and that the resulting exchange rates will be 'right'. At that time, leading academic Harry Johnson said that: "A freely flexible exchange rate would tend to remain constant so long as underlying economic conditions (including government policies) remain constant; random deviations from the equilibrium level would be limited by the activities of private speculators" (Johnson (1972)). Stability and 'return to normal' (mean reversion) are the basis of much forecasting. Economic analysis has to be simplified to be tractable: much of it makes the heroic assumption that foreign and domestic assets are close or even perfect substitutes. Where different currencies are acknowledged, they are often linked by the assumption of uncovered interest parity (UIP), which asserts that interest differentials will be the best estimate of future movements in the exchange rate. Analysis has trouble coping with very large sudden changes in prices which come about because the market as a whole changed its mind about the circumstances ('correlated errors'). While much portfolio analysis is conducted in terms of 'risk' (i.e. where different outcomes can be given a reasonably precise probability), the real world contains more 'uncertainty' (where probabilities are not known, and the prospect of loss cannot be predicted).

This theory is confronted by the uncomfortable facts that UIP does not remotely hold (see Engle (1995) and Isard (2006)) and that exchange rates (even the major currencies) regularly make large movements which cannot plausibly be explained in terms of the 'fundamentals'. And this is for the currencies of the larger developed countries, where markets have breadth, depth and resilience, and there is a plethora of information and historical data over a lengthy period of floating. How much more difficult in emerging countries with little market history to guide investors. No-one had expected the rupiah to depreciate by 80 percent (i.e. to one

[10] One suggested solution (see Greenspan 1999) is that countries should hold foreign exchange reserves equal to their soon-to-mature debt. This may have some relevance in Latin America (where the idea was developed in the context of longer-term government debt maturities, known as the 'Guidotti Rule'). But for East Asia, with the dominance of short-term capital inflows, this would make no sense – why borrow at all if all the money will be put into low-earning foreign exchange reserves?

quarter of its value), but as it did so investors were prepared to accept that anything was possible and that rational analysis based on fundamentals was not relevant.

The central analytical issue here is the intrinsic vulnerability of capital flows because one party to the transaction is exposed to currency risk which cannot be hedged. Their capital-flight sensitivity will depend on their confidence that the exchange rate is somewhere near its equilibrium value, and that if it is displaced by a shock, it will have a strong tendency to return. For Australia, for example, this would be a reasonable assumption. Although the exchange rate has experienced sharp cycles, with swings between peak and trough of 40-50 percent, these swings have been anchored in a way that gives longer-term confidence.

For the emerging countries, the anchoring seems much less secure. It is not clear how to operationalise the concept of equilibrium value. These economies are not in equilibrium, in any sense that the economist can model. The countries of East Asia are transforming their productive structures to fit the globalised world, undergoing substantial structural change, which will change the equilibrium exchange rate over time vis-à-vis the mature economies. This might be seen in terms of the Balassa/Samuelson Hypothesis (that fast economic growth is accompanied by an appreciation of the real exchange rate because of differential productivity growth between the tradable and the non-tradable sectors (see Ito et al (1997)). In addition to the Balassa/Samuelson issues (which are about changing relative prices), there are more complex aspects of structural change. Most of the countries of East Asia are currently operating well inside the technological frontier, with capital/labour ratios around 1/200 of those in mature economies. As capital is gradually built up and technology is transferred, they move towards the frontier, and during this extended process there are high returns to capital. For foreigners, there is the magnet of these potential large profits. But they are surrounded by uncertainty and a changing environment. Little wonder that there are waves of euphoria and pessimism, which are translated into big fluctuations in what the market regards as a ‘correct’ exchange rate. With this environment in mind, investors will be flighty: when the exchange rate starts to move, they will look to close off their exposure, because their forecasts of the exchange rate are based on extrapolation of the most recent movements rather than mean reversion.

Take, for example, the current case of China. Its exchange rate is no longer absolutely fixed, but is very tightly managed so that it appreciates only slowly. If it was freely floated now, there is little doubt that it would appreciate significantly: Goldstein (2005) puts the equilibrium exchange rate 20-30 percent above the current level. But how should this equilibrium rate be calculated? There is no historical experience in China of a floating exchange rate which might supply some relevant data. In addition, China is receiving

substantial capital inflow in response to the perceived profit opportunities there, which will persist for some decades. This implies that it should be well above the appreciation envisaged by Goldstein, to help in the 'transfer problem'. As well, with the economy running hot, interest rates should be much higher than they are at present, for short-term cyclical reasons, and this would put further upward pressure on the exchange rate. On top of this, there are capital controls (on both inflows and outflows) which will be progressively removed over time, which might affect the exchange rate in either direction.

Economic theory suggests that Purchasing Power Parity (PPP) ought to help in tying down the equilibrium exchange rate: the price of similar goods should be the same, wherever they are produced or bought. It doesn't seem to apply even in mature countries with a long-standing high degree of international integration (why is everything in Switzerland much dearer than in Australia?). The lack of fit is even more obvious in relation to emerging economies: on The Economist's Big Mac Index (a simple version of PPP), the Chinese exchange rate is undervalued by nearly 60 percent.

The nearest the economic analysis comes to addressing this range of transitional issues is thorough the Dornbusch (1976) 'overshooting' mechanism. A higher interest rate (or profit) attracts capital and bids up the exchange rate until the expectation of a future depreciation (return to the long-run equilibrium rate) balances the higher return. But how long will this take to reach this long-term equilibrium, and how might this equilibrium have changed in the interim? It doesn't help to observe that no-one has ever observed this Dornbusch sequence (upward step-jump in the exchange rate followed by a steady depreciation over time) in practice.

In short, it is all so uncertain that perceptions of the appropriate current exchange rate can be easily diverted (by a long way) and it is hard for those taking a currency exposure to know what is the proper rate. Capital is flighty because the exchange rate is unanchored, and the exchange rate is unanchored because capital is flighty.

Economic practitioners spend much time expounding on the so-called 'Impossible Trinity': that a country cannot, at the same time, have an open capital market, a fixed exchange rate and its own independent monetary policy. Where this is interpreted as making a case for a pure free float, it seems to be a misstatement of the issue: provided there is enough flexibility in the rate so that investors do not have a one-way bet on future exchange rate movements, a country can manage its exchange rate in a less-than-pure float (and many have done so over long periods of time, including Australia). On the other hand, even when a country *has* a flexible exchange rate, it is not immune from exchange rate problems. The problem is not the

Impossible Trinity, but the near-impossibility of a stable floating rate. This is not to argue against floating rates: just to observe that they will not have the sort of stability promised by Harry Johnson. The corollary is that, as the emerging countries embark on flexible rates and move down the path of financial integration, other measures will be needed to support this transition if disruptive crises are to be avoided.

**Unfinished business: what more needs to be done?**

Making international capital flows work better involves a number of elements. Of course individual countries need to do much more domestically to strengthen their institutions (notably their banking supervision) to make a repeat less likely. Learning by doing, and building up the institutions both take time, so this should happen as quickly as possible. There are useful measures which could insulate the domestic banking system more effectively from the problems (making sure they have little or no direct or indirect exposure to currency). Flexible exchange rates will help.

The focus here, however, will be on just one aspect among the myriad of measures which might be taken – what should be done to the international rules (the 'architecture') to make a crisis less likely, and its resolution, if it occurs, less painful. Here are three suggestions:

- Measures to discourage short-term capital inflows, particularly when markets have become euphoric and inflows are excessive
- More effective Lender-of-last resort (LoLR)
- Greater efforts to 'bail in' the private sector creditors.

(a) A variable inflow tax

If the initial cause of the problem was excessive capital inflow (in the sense of larger than the recipient country could smoothly and efficiently absorb), then the first response might be to slow the flow – in Tobin's terminology, put some sand in the wheels. While the idea of taxes on short-term capital inflows is usually associated with the Chilean introduction in 1991, other countries had used this earlier (for example, Australia with the Variable Deposit Requirements in the 1970s). The academic world gives these a very lukewarm appraisal. Much of this empirical work is, however, testing the wrong issue. The issue is not whether the taxes enabled the recipient to have a different interest rate from overseas or even whether it pushed the inflow into longer instruments (although both these characteristics should be seen as helpful). The central issue here is whether it made the flows a bit smaller and more

manageable, and diminished the likelihood of a crisis. As we can't know the counterfactual, this is a hard one to prove either way, unless we start with the presumption that the market always gets it right and therefore any interference will result in a sub-optimal outcome. But the alternative presumption is that if something is taxed, less of it is used, so there ought to be some hope of success, even if some flows were pushed into non-taxed channels (there is always tax avoidance, and this isn't used as an argument for abolishing income tax). The best summary of the current state of this debate may be in IMF Independent Evaluation Office (2005): "The findings of this study (Gallego et al (2002)) broadly support the conclusions of previous work: (1) the Unremunerated Reserve Requirement temporarily allowed domestic interest rates to increase relative to international rates; (2) it had no significant effect on the real exchange rate; (3) it significantly decreased the volume of capital inflows, though the effect diminished over time; and (4) it unambiguously changed the composition of capital inflows in favour of longer maturities."

The problem with this instrument was demonstrated in Thailand in December 2006: it gets a bad press and is seen as market-unfriendly. No-one likes being taxed, and financial market participants (like most people) start with the assumption that what they are doing is desirable and therefore should not be taxed. It is a brave administration that, when told that these measures will slow capital inflows, weaken the exchange rate, make financing more difficult to obtain and weaken financial asset prices, replies "yes, that's exactly what it is meant to do."

What is needed is to have this instrument broadly and specifically endorsed at the international level (especially by the IMF), perhaps in the context of offering operational guidelines on how to make it effective in achieving its objectives, weighing up the pros and cons and identifying the specific circumstances when it might be most effectively used. This measure has desirable qualities: it is market-based, upfront and *ex ante*, and is on inflows rather than outflows. The size of the deposit requirement could be varied over time depending on the volume of capital inflow.

While now acknowledging that temporary controls like these may be required in certain circumstances, the international consensus has a rather disparaging tone. Just as 'real men don't eat quiche', real countries don't resort to capital controls. Note the tone in Stan Fischer's endorsement: "Evidence from the Chilean experience suggests that controls were for some time successful in allowing some monetary policy independence, and also in shifting the composition of capital inflows towards the long end. Empirical evidence presented by Edwards (2000) suggests that the Chilean controls lost their effectiveness after 1998. They have recently been removed." (Fischer (2006)).

If such short-term capital controls *are* a legitimate instrument of policy, we need the IMF to provide a more fulsome endorsement than this. What is needed is an unambiguous statement that these measures are not only acceptable, but desirable policymaking in some specific circumstances. That, in itself, would make the measures more effective because the market would spend less time in the sort of counter-productive response seen in Thailand.

(b) More focused LoLR

The second modification that might be made is to the IMF emergency lending. The Fund did learn from its mistakes in East Asia, and Brazil was much better handled – with larger funds, less conditionality and less doctrine. It might also be noted that Brazil did much more 'intervention' to support its exchange rate, but it was by way of the government's taking over the currency exposure of indebted Brazilians, so there was no immediate call on foreign exchange reserves (Bevilaqua and Azevedo, 2005). So this might work better next time. But if it is truly a LoLR facility, it cannot be dispensed in tranches, as is IMF practice. It's not hard to understand why the Fund wants to hold back part of the money, but all the money needs to be not just 'in the shop window', but available as needed: you can't hold back withdrawals by the promise of funds in three months' time. By its nature, LoLR succeeds by convincing would-be withdrawers to change their minds, so it needs ample money upfront. Mexico had this in 1994 and it worked. Thailand and Indonesia in 1997 didn't, and it didn't work.

After the Asian crisis, the IMF attempted to introduce a Contingent Credit Line – a line of funding which would be available immediately to 'pre-approved' countries. This sounds like a neat idea, but it failed because no country wanted the opprobrium of seeking this safety net – even Argentina (for which country it may have been designed), which by then was well on the way to credit default. Central banks know that you can't promise LoLR in advance to specific ailing banks heading for a crisis. They need a degree of constructive ambiguity, but then the ability to make quick decisions with large amounts of money when the crisis arrives.

There is a downside to the inability to assure these emerging countries that there is an effective LoLR in place which will be promptly available on acceptable terms. These countries are self-insuring – building up high levels of foreign exchange reserves, which seems a perverse use of foreign funds for capital-short emerging economies.

(c) 'Bailing in the private sector'

The third – very much harder – objective would be to establish, in the international context, some of the elements of domestic bankruptcy. The elements needed are a 'standstill'on

payments while the issues are resolved, and some mechanism for resolution (although most of these will remain in the domestic jurisdiction). Of course all the recipient countries have domestic bankruptcy procedures, but these are often deeply flawed. The critical element is the one analogous to J.P. Morgan's use of his library in 1907 – the parties are brought together and told to resolve the financial crisis, with suitable incentives to do so: in that case, they were released from the library only when agreement had been reached.[11] Without a standstill, creditors will be competing with each other to get money out while the door is still open.[12] It might not be perfect, but a generalised outflow control in the event of a crisis does not seem such a bad idea.[13] At the time of the Asian Crisis such a measure was dismissed as being impractical and confidence-destroying. But there was a *de facto* standstill in Korea in December 1997, where the foreign exchange markets were effectively closed until the foreign bank lenders agreed to a rescheduling. This standstill was vigorously enforced at the individual creditor level by the IMF and the US administration, helped by the central banks of the creditor countries. It might be worth noting that this sort of short-term bank lending was the most flighty during the Asian crisis, so measures targeted at these flows (rather than, say, the more stable FDI flows) seem sensible.

Malaysia is a more nuanced example. The capital controls were introduced at such a late stage (a year after the crisis began) that they may not have had much effect. But at the same time the dire effects that were predicted didn't eventuate, and Malaysia may have come through the crisis better than any of the affected countries (excluding Singapore). The key point is that instruments which are strongly endorsed in the context of the international architecture will be effective.

One other aspect that might be endorsed more vigorously in the international architecture relates to the nature of the private capital flow: it was 'risk money', compensated by high returns: creditors have to accept that sometimes downside risks come to pass and their money is lost. Again, history provides precedents here, with the large losses of foreign capital that had funded South American railways in the 19th century.

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[11] "A key problem is that we have no accepted framework in which a country in extremis can impose a payments suspension or standstill pending agreement with its creditors to support the restoration of viability" Fischer (2003)

[12] "Again, both the logic and empirical evidence behind such proposals is clear. If crises are self-fulfilling panics, investors are in a prisoners' dilemma, in which it is not only in the country's interest but their own to impose a sort of curfew that gives the market a chance to calm down. And in 1997-1998, it was overwhelmingly a reversal in the direction of short-term bank flows that made up the reversal in the overall capital account of the crisis countries." Krugman (2000)

[13] "If a country cannot use conventional macroeconomic policy to fight a crisis and cannot get enough external resources to offset private capital flight, what is left? The logically obvious answer is to cut the Gordian knot directly, by simply preventing the capital flight. The gentlemanly form of such action is a negotiated standstill with foreign banks, as was done in Korea and Brazil; the ungentlemanly form is a *de jure* imposition of capital controls, as in Malaysia." Krugman (1999)

While it is the job of the IMF to try to get 'bailing in' more widely accepted, it should be noted that the Fund has not found this to be an easy sell, with financial markets ready to assert the sanctity of debt, rather than accommodate the reality of occasional bankruptcy. The much more limited idea of a Sovereign Debt Restructuring Mechanism promoted by Anne Krueger when she was at the IMF failed to find agreement.

**Conclusion**

More than a century ago, Bagehot observed: "the same instruments which diffused capital through a nation are gradually diffusing it among nations". He went on to warn that while "the effect of this will be in the end much to simplify the problems of international trade … for the present, as is commonly the case with incipient causes whose effect is incomplete, it complicates all it touches" (Bagehot, 1873).[14]

Substantial capital inflows to the emerging countries are not irrational, unnatural or undesirable. While all sensible observers point to the benefits of capital flows, the *variability* is clearly harmful, but hard to correct: "boom and bust cycles are hardly a sideshow or a minor blemish on international capital flows: they are the main story" (Rodrik 1998). As Bhagwati (1998) notes: "the 'panics, manias and crashes' that characterise capital flows have no counterpart in trade flows". The issue is: what to do? Any policy that attempts to isolate an economy from international capital markets would be costly, in terms of forgone growth. The need, now, is to devise an institutional structure which can reap the benefits of capital flows while diminishing the risks to those countries whose financial infrastructure is not yet resilient enough to cope. Krugman (1998) reminds us that Keynes saw his interventionist active fiscal proposals as necessary to save the market system. Now, changes are needed in international financial markets to safeguard the continuance of international capital flows, with all the benefits they bring.

This issue has been in the background since the Asian crisis, because the crisis countries have been growing more slowly, investing less, running current account surpluses and exporting capital to the United States (particularly in the form of foreign exchange reserves). When international capital once again runs downhill to the emerging countries, we will see even more pressures on the small equity markets in these countries, and they will raise their interest rates in response to pressure on domestic resources. All this will attract foreign capital, and exchange rates will be under upward pressure that will threaten international competitiveness.

[14] Quoted by World Bank (1997)

Higher foreign reserves will make it trickier for their central banks to maintain banking-sector liquidity in balance. It will be more apparent, then, that there is still a missing element in the international financial architecture.

**Bibliography**


Bagehot, W. *Lombard Street.* London, John Murray, 1873.

Bevilaqua, A. and R. Azevedo. Provision of FX hedge by the public sector: the Brazilian experience. *BIS Papers* 24 2005 pp 119-126.

Bhagwati, J. The capital myth: the difference between trade in widgets and dollars. *Foreign Affairs* 77(3) 1998 pp 7–12.

Caballero, R., K. Cowan and J. Kearns. Fear of sudden stops: lessons from Australia and Chile. *NBER Working Paper* 10519 2004.

Dornbusch, R. Expectations and exchange rate dynamics. *Journal of Political Economy* 84(6) 1976 pp 1161-1176

Edwards, S. Exchange rate regimes, capital flows and crisis prevention. *NBER Working Paper* 8529 2001.

Eichengreen, B., R. Hausmann and U. Panizza. The pain of original sin, in B. Eichengreen and R. Hausmann (eds), *Other people's money: debt denomination and financial instability in emerging market economies*. Chicago, University of Chicago Press, 2005.

Engle, C. The forward discount anomaly and the risk premium: a survey of recent evidence. *NBER Working Paper* 5312 1995.

Feldstein, M. *Avoiding currency crises*. Remarks presented at the Jackson Hole Federal Reserve Conference on August 28 1999.

Fischer, S. Exchange rate regimes: is the bipolar view correct? *Journal of Economic Literature* 15(2) 2001 pp 3-24.

Fischer, S. *The international financial system: crises and reform.* The Robbins Lectures, London School of Economics, October 2001.

Fischer, S. Globalisation and its challenges. *American Economic Review* 93 2003 pp 1-29.

Fischer, S. Financial market liberalisation. *BIS Papers* 32 2006 pp 4-11.

Galego, F., L. Hernandez, and K. Schmidt-Hebbel. Capital controls in Chile: were they effective? in *Banking, financial integration and international crises,* ed. L. Hernandez and K Schmidt-Hebbel. Santiago, Central Bank of Chile, 2002.

Goldstein, M and P. Turner. *Controlling currency mismatches in emerging economies*. Washington, Institute for International Economics, 2004.

Goldstein, M. *Renminbi controversies***.** Paper prepared for the Conference on Monetary Institutions and Economic Development, Cato Institute, November 2005.

Greenspan, A. *Lessons from the global crisis.* Remarks made before the World Bank Group and the International Monetary Fund on 27 September 1999.

IMF Independent Evaluation Office. *The IMF's approach to capital account liberalization.* Washington, International Monetary Fund, 2005.

Isard, P. *Uncovered interest parity*. IMF Working Paper 06/96. Washington, International Monetary Fund, 2006.

Ito, T., P. Isard and S. Symansky. Economic growth and the real exchange rate: an overview of the Balassa/Samuelson hypothesis for Asia. *NBER Working Paper* 5979 1997.

Johnson, H.G. *The case for flexible exchange rates 1969*. Further Essays in Monetary Economics. London, Allan and Unwin, 1972 pp 198-228.

Keynes, J.M. The German transfer problem. *Economic Journal* 39(153) 1929 pp 1-7.

Krugman, P. The confidence game. *The New Republic* 5 October 1998, pp 23-25.

Krugman P. *Crises: the price of globalization?* Paper presented at the 2000 Symposium on Global Economic Integration organised by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, 2000.

Prasad, E., K. Rogoff, Shang-Jin Wei, and M. Ayhan Kose. *Effects of financial globalization on developing countries: some empirical evidence.* IMF Occasional Paper 220. Washington, International Monetary Fund, 2003.

Rodrik, D. Who needs capital-account convertibility?, in S. Fischer *et al., Should the IMF pursue capital account convertibility?* Essays in International Finance, No. 207. Princeton, Princeton University, 1998.

Stiglitz, J. *Globalization and its discontents.* New York, W.W. Norton, 2002.

World Bank. *Private capital flows to developing countries: the road to financial integration.* World Bank Policy Research Report. Oxford, Oxford University Press, 1997.

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