

Macroeconomic Policy Options for Managing Capital Flows

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1. Introduction

China has emerged from the recent financial crisis as the only “tiger” left in Asia, though it was never classified as such before! (Bottelier, 1998b). For China and its neighbours, however, the dramatic events of the last year have led to a fundamental reappraisal of how capital flows might be managed. Questions asked include: Is banking sector reform an essential precondition for capital account liberalisation? Is there a case for taxing short-term capital inflows, to reduce the vulnerability of the emerging market economies to reversals of capital flows? Should the IMF condone or encourage force rollovers of short-term debt to avert liquidity crisis? Should it delay writing the requirement of capital account liberalisation into its Articles? Answers to these questions are by no means unanimous. This can be illustrated by the contrasting positions on capital account liberalisation taken by the IMF and the World Bank.

As Stiglitz (1998) has recently suggested, the ideological basis for the prompt liberalisation of financial markets can be expressed most succinctly as follows: “Free and competitive markets are the basis of a capitalist economy and have delivered enormous fruits to those that have adopted them. There should be no more question about the virtues of the liberalization of financial markets than about the liberalization about trade or any other market within the economy.” The Managing Director of the IMF, Michel Camdessus (1998), has gone further in arguing that this ideology is in fact strongly supported by substantial evidence: “In practice, there has been ample evidence over the years of the benefits to be derived from an open capital account: for emerging market economies, higher levels of investment, faster economic growth, and rising standards of living; for investors, higher returns and new opportunities for portfolio diversification; for countries that also open their financial sectors to foreign competition, more efficient, sophisticated domestic financial markets; for global economy, new sources of economic dynamism to sustain world growth.”

But this liberal view has been challenged in two ways: on the practical front, by the severe crises afflicting one after the other of the emerging market economies who had wholeheartedly pursued the path of liberalisation; and on the theoretical ground that there is a crucial difference between financial and other markets which render suspect the simple analogy between trade liberalisation and capital account liberalisation made in the quotation above. Specifically, it has been argued that asymmetries of information (and incompleteness of contracts) in financial markets imply that appropriate regulation and not unregulated competition is needed for efficiency (Greenwald and Stiglitz, 1986).

Before pursuing this important debate later in the paper, we set the scene by considering key factors affecting the Y/\$ rate and the international value of the renminbi (RMB). Using a simple two country macro model of perfect capital mobility we show how severe contractionary demand in Japan has led to weakening of the Yen. Turning to China, we note that despite being pegged to the \$ it has been pursuing a relatively independent monetary policy thanks to capital controls. This is followed by discussion of the various policy options available in open economies.

2. The Effects of Demand Contraction in Japan on the Y/\$ Rate

The trade weighted external value of the RMB (its “effective” exchange rate) depends principally on its rate against the Japanese Yen and the US dollar. So long as the RMB is pegged against the dollar, of course, it all depends on the Yen/dollar rate. To see how the current constellation of a weak Yen and low Japanese interest rates can be attributed to a demand contraction in Japan, we use a two-country Keynesian model of floating exchange rates (-- a rational expectations version of Mundell, 1963).

Our account is illustrated in Figure 1, where the horizontal axis represents output and the vertical the nominal interest rates. Assume that both US and Japanese economies start from the full employment equilibrium at YF, but there is sharp contraction of aggregate demand in Japan (due, for example, to the bursting of the asset bubble in the early 1990s). At fixed exchange rates, this is represented by a leftward shift of the IS curve for Japan to IS_j. Money market equilibrium in each country is given by the LM curve. The reverse L-shaped schedule shown in the figure is taken from Krugman (1998); there the demand for money is interest inelastic when interest rates are positive, but infinitely elastic at zero interest rate, i.e., there is a “liquidity trap” where investors are indifferent between holding money and bonds. Note how, after the contraction in aggregate demand, IS_j intersects the horizontal part of the LM curve, sending Japanese economy into the liquidity trap (Makin, 1996; Krugman 1998).

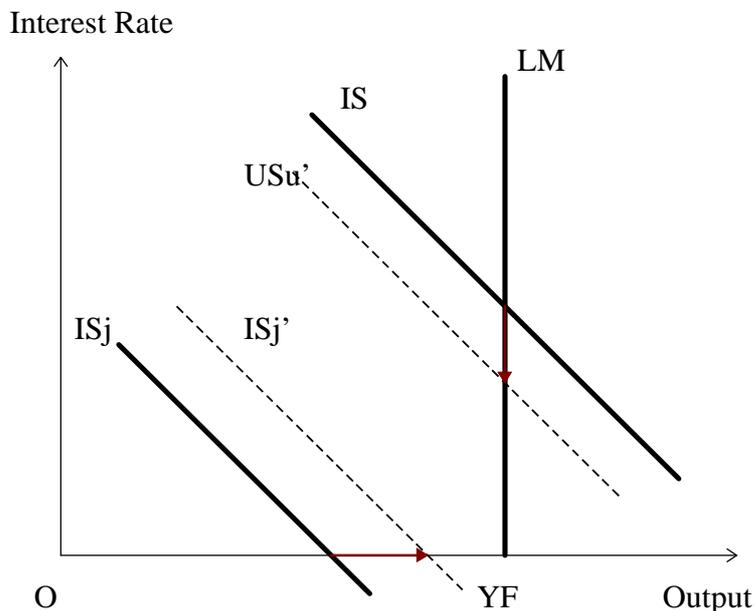


Figure 1 The current conjuncture: Japan in liquidity trap; US at full employment.

With the fall of Japanese interest rates, the Yen will of course weaken against the dollar; and this will shift demand from USA to Japan. As shown in the figure, this Yen depreciation pushes IS_j outwards to IS_j' , while the dollar appreciation drags the US IS curve inwards to IS_u' . Observe that interest rates in the US are still higher than those in Japan: this is because the demand contraction in Japan is assumed temporary, and so is the weakness of the Yen, i.e., the Yen is expected to appreciate as economy recovers. (A Yen appreciation of 21% from 140 to 110 to the dollar, spread over four years, would account for an interest differential of 5% per annum, which is approximately the current spread between the US and Japanese rates.)

An interesting implication of this analysis is that the *current* value of the Japanese Yen depends crucially on expectations of *future* demand. If the demand contraction in Japan were thought to be permanent, for example, then the Japanese Yen should continue to depreciate against the US dollar until interest rates in both countries were the same (the condition imposed by Mundell, 1963, in his classic paper). Is this what has been happening recently?

3. Using Monetary Policy for Internal Balance in China

Although there have recently been some significant interventions to stabilise the Yen, we have treated the Yen as floating freely in a context of perfect capital mobility; the RMB/dollar rate is, however, pegged and capital controls permit persistent interest differentials. In this context, changes in monetary policy can and have been used to influence domestic output in the face demand shocks. This can be analysed in terms of open economy model with a fixed exchange rate.

Let the goods market and money market equilibrium be represented by the IS and LM curves in Figure 2. Assume that they initially intersect at the same rate of interest as that prevailing overseas, i^* . Note that an increase in demand for Chinese output, shown as a rightward shift of the IS curve from IS to IS_d , can be offset by monetary policy which raises interest rate but leaves output unchanged. (Note that persistent interest differentials are possible due to the presence of capital controls.) Monetary policy in China was tightened in this way to offset the demand increasing effect of the 50% RMB devaluation of 1993/4.

Most of the gains in international competitiveness achieved by devaluing have been lost by the subsequent inflation and by the recent depreciation of the Yen against the dollar. As Bottelier notes "China's exports have continued to grow fast in spite of this large effective currency appreciation, (This) can only be explained with the reference to the export oriented investment boom of the early 1990s, the growing productivity of the Chinese export industries, improved marketing and decelerating domestic demand which forced many producers to look for outside markets."

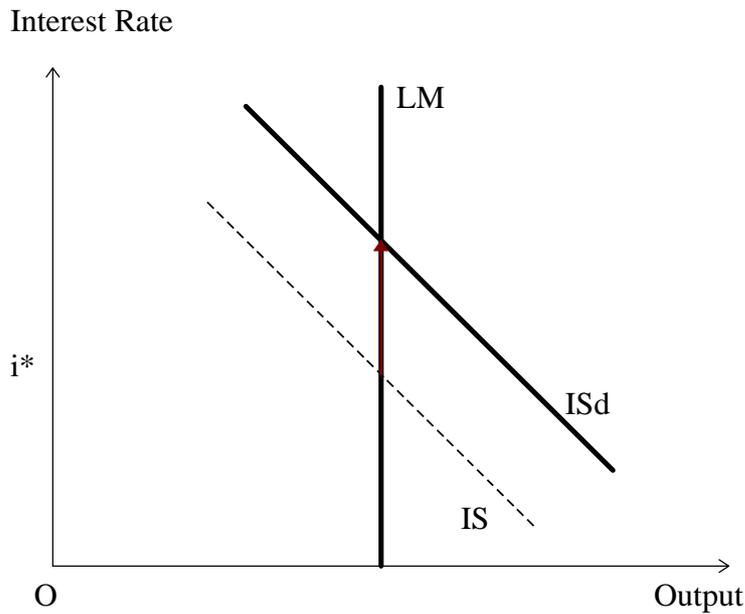


Figure 2 Stabilising output by higher interest rates.

Table 1: The inconsistent quartet (Padio Schioppa, ECB).

| Country/Region | Free Trade | Free Capital Movements | Independent Monetary Policy | Fixed Exchange Rate |
|----------------------|------------|------------------------|-----------------------------|---------------------|
| USA/Japan | Yes | Yes | Yes | No |
| China | Partially | No | Yes | Yes |
| Thailand | Yes | Yes | Yes | Yes |
| McKinnon Plan | Yes | Yes | No | Yes |

The discussion so far can be summarised as in Table 1 where the columns list the four policy options of which only three are possible simultaneously --- which is why Padio Schioppa dubbed them the “inconsistent quartet”. Both the USA and Japan have opted for free trade, free capital movements, independent monetary policy --- and effectively given up any hope of pegging the Yen/dollar rate. This is shown in line 1 of the table. China, too, has opted for independent monetary policy: but can only combine this with a fixed rate against the dollar by means of restricting capital movements. The credit controls which are a distinctive feature of Chinese monetary policy may have the effect of further increasing the degree of monetary autonomy available to policy makers, as we discuss next.

In their recent overview of monetary policy in emerging market economies, Kamin *et al* (1998, pp16--20) observe that “Direct controls and the quantity and allocation of credit gave given way in practically all cases to greater reliance on indirect mechanisms of monetary control such as open market operation”; except that “In China, credit controls remain the most important instrument of monetary policy.” How does the use of credit controls affect

macroeconomic equilibrium? Let us treat them as taxes on bank lending which raise the cost of credit to private borrowers above the interest rates paid by the government. Following the analysis of Bernanke and Blinder (1988), the effect of tightening of credit controls would be to shift the IS curve (in Figure 2) inwards as higher increased cost of credit to private sector reduces aggregate demand. Since the use of credit controls allows the authorities vary the cost of credit relative to the bond rate, it permits a greater degree of independence of monetary policy. (In the case of perfect capital mobility, for example, the bond rate will typically match that prevailing overseas.) This greater autonomy is, however, obtained by discriminating against private borrowers who are unable to finance themselves elsewhere.

Let us turn to the remaining two cases shown in Table 1. Thailand has been criticised for trying to run an independent monetary policy while pegging against the dollar and liberalising capital account. As it is evident from line 3, this, together with the liberalised current account, was an unsustainable or “inconsistent” policy mix; and in fact the high interest rates attracted vast capital inflows leading to a loss of domestic monetary control and later to financial crisis. Last but not least, consider the McKinnon plan for stabilising global exchange rates (between the USA, Japan and the EU in particular). What policy choices does this involve? Given the liberalisation of both current and capital accounts, pegging the Yen/\$ and Euro/\$ rates involves the sacrifice the independent monetary policy in favour of supra-national monetary coordination. How this might be achieved without creating one world money and global central bank was first discussed in McKinnon (1984) --- and the plan has been updated from time to time since then. (Note, however, that European countries entering the EMU, who have effectively made the same policy choice, have signed the treaty creating an all powerful European Central Bank to act as the supra-national authority responsible for setting Europe-wide interest rates.)

A Shift in the Fundamental Equilibrium Exchange Rate for China?

Williamson (1985) defined a country’s “fundamental equilibrium exchange rate” (FEER) as the rate which would equate current account to sustainable capital flows, assuming internal balance (full employment). Let us assume that by devaluing in 1994 the RMB achieved its FEER in the sense that the resulting current account surplus allowed for the steady acquisition of foreign currency reserves, a desirable objective at that time. Since then, China has surely lost some of its international competitiveness as a result of the weakening of the Yen and of substantial devaluations by east Asian countries in crisis. Does this mean that its exchange rate is above its FEER and that the RMB should be devalued?

We believe the answer is no. A devaluation is not called for at this time essentially because the FEER has changed. An emerging market economy attracting FDI at the rate of 3%-4% of GDP can surely afford to run modest current account deficit of, say, 1%-2% of GDP, using some of the inflows to finance the domestic capital formation instead of simply accumulating reserves. As Bottelier (1998b) notes: “China’s foreign exchange reserves, at over \$140 billion, are very large relative to imports and other relevant indicators. Moreover, the bulk of reserves

is held in relatively liquid form and therefore useable in the event of a crisis.... (consequently) the Chinese monetary authorities wish to avoid a further build-up of official reserves.” When reserve accumulation was called for, the FEER was necessarily lower than now when it is appropriate to run a current account deficit to match sustainable capital inflows of 1%-2% of GDP.

4. Capital Controls or Capital Taxes

Demonstrations of the efficiency of competitive markets are usually based on the assumption of there is perfect information. In financial markets, particularly in the emerging economies, this is rarely appropriate. Hence as Stiglitz (1998a) concludes “the fundamental theorems of welfare economics, which assert that every competitive equilibrium is Pareto efficient, provide no guidance with respect to the question of whether financial markets, ... are efficient. On the contrary, ... there are feasible government interventions that can make all individuals better off.” While this provides the intellectual case for intervening in capital markets, it does not justify any and all forms of intervention. It is widely believed that in both Korea and Indonesia, government intervention *precipitated* financial crisis by misallocating credit (to the chaebol and to Suharto family respectively).

In a volume discussing forms of capital taxation designed to promote financial efficiency, Agosin and Ffrench-Davis (1996) conclude “it is essential to have in place a policy apparatus that distinguishes between long-term, stable capital inflows such as FDI and those that are considerably more volatile and that have adverse effects on long-term growth. ... These (short-term) flows cause very sharp increases (bubbles) in domestic asset prices and unsustainable exchange rate appreciations that are later reversed when the effects on domestic relative prices and the current account balance become evident. Then, an overshooting ensues in the other direction, with asset prices falling and the real exchange rate depreciating more than is justified by the underlying fundamentals.” This conclusion, based on Latin America crisis, is reinforced by what happened in East Asia.¹ The forms of intervention recommended are those that discriminate between long term investment and short term round-tripping, and “the clearest option is to impose a *small tax on inflows*. Such a tax is prohibitively expensive for very short-term round-tripping but a negligible small cost for long-term investors.” (Agosin and Ffrench-Davis, 1996)

¹ “The buildup of short-term, unhedged debt left East Asia’s economies vulnerable to a sudden collapse of confidence. As a result, capital outflows, and with them depreciating currencies and falling asset prices, exacerbated the strains on private sector balance sheets and thus proved self-fulfilling. The vicious circle has become even more vicious as financial problems have led to restricted credit, undermining the real economy, and almost inevitably leading to a slowing of the economy. Given the region’s financial fragility, the economic downturn may well feed on itself – worsening bankruptcies and weakening confidence.” Stiglitz (1998a)

5. Conclusions

Since the initiation of the economic reform in late 1970s, China has achieved impressive results. Economic growth of 9% per annum from 1978 to the present has more than quadrupled output per capita. There has been structural transformation, reducing the distortions of central planning and allowing a wider role for market forces, and there has been progressive opening of the economy (tripling China's share of world export markets) and integration with the rest of the world (China absorbs half the FDI for developing countries). Since the implementation of current account convertibility in 1994 the RMB has been kept stable against US dollar, and current account surplus used to build substantial foreign exchange reserves.

There are, however, some problem areas. The survey on growth and economic reforms in China (IMF, 1997) lists three: recurrent macro cycles, structural weakness in the financial sector and SOEs, and inadequate fiscal revenues. One lesson of the East Asia crisis is the need to sequence financial liberalisation. In particular to ensure that the banking system is commercially sound and well regulated before allowing it to act as a conduit for international capital. This has, it appears, been recognised. The survey of economic reforms quoted above notes that "A key component of the strategy is to commercialize China's state banks and provide them with greater autonomy in lending decisions. At the same time the authorities seek to strengthen balance sheets; address the outstanding stock of non performing loans through appropriate provisioning and, where necessary, injection of public capital and the development of appropriate supervisory framework to ensure prudent lending practice and deal with troubled institutions." (IMF, 1997, p125.)

Japanese experience suggests that it may take some time for China to improve the efficiency of its banking system (and to reduce its dependence on credit controls). Should it risk liberalising the capital account in the mean time? We note first that China currently attracts half the world supply of FDI to the emerging markets, i.e., it already enjoys one of the key benefits from world capital markets; and second that the lack of convertibility for current account transaction has protected the RMB from speculative attack. So the case for rapid liberalisation is far from clear. In any event, it would appear that taxes on short-term capital inflows are to be recommended as means to avoiding liquidity crisis.

Though China has lost some international competitiveness since 1994, any resulting current account deficit should be more than matched by these FDI inflows. So the maintenance of a dollar peg for the RMB should not pose any immediate danger of devaluation. Nevertheless, the peg may become unsustainable at some point in the future. This will pose the delicate challenge of managing "two currencies in one country", i.e., allowing the RMB to adjust while leaving the HK \$ on its current US peg.

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