

Should China Revalue?  
Domingo Cavallo and Joaquín Cottani

According to many G7 analysts the solution to China's macroeconomic imbalance, which manifests itself in the form of a large balance of payments surplus and a negative output gap (overheating of the economy) is to revalue the renminbi (RMB). As Morris Goldstein (2004) puts it, this is nothing but the classic solution proposed by James Meade in 1951. Thus, in the view of these (mostly Western) observers the problem in China is her decision to peg the RMB to the dollar rather than letting it appreciate. In this note, we argue that this emphasis on China's exchange rate policy is excessive and may even be counterproductive.

Understanding the Nature of China's Macroeconomic Imbalance

Assume a country in which domestic prices are flexible, capital is freely mobile, and gross national saving is typically (structurally?) lower than gross domestic investment. The US and most countries in Latin America fit this description. Figure 1 shows what macroeconomic equilibrium would look like in this case, using a conventional Swan diagram representing the markets of tradable (T) and nontradable (N) goods and services, whereby the supply and demand schedules are drawn as functions of the real exchange rate ( $p$ ), defined as the relative price of nontradables with respect to tradables. Since  $p$  is flexible, supply of N equals demand at the equilibrium price  $p=p_0$ . However, since investment is higher than national saving, there is excess demand for T, hence a deficit in the current account (CAD).<sup>1</sup> This deficit is, in turn, is financed by a net capital inflow (KAS) of the same dollar magnitude. The balance of payments is, therefore, in equilibrium. Production levels are  $N_0$  and  $T_0$  for nontradables and tradables, respectively, and absorption levels are  $N_0$  for nontradables and  $A_0>T_0$  for tradables. Full employment prevails. Moreover, since  $P_N$  (the nominal price of N) is flexible, full employment holds independently of whether the exchange rate is fixed or flexible.<sup>2</sup>

Now, suppose that net capital inflows fall to zero. Absorption declines ( $D_N$  and  $D_T$  shift to the left). But, since  $p$  is flexible, equilibrium is quickly restored. At the new equilibrium, the RER is  $p_1<p_0$ , resulting in lower production of N ( $N_1$ ) and higher production of T ( $T_1$ ). Full employment is preserved. If, instead,  $p$  were inflexible downwards (which would require a combination of fixed exchange rate and "sticky" nontradable prices), the result would be unemployment, as shown in Figure 2. The economy produces the same amount of T as before ( $T_0$ ), but a lower amount of N ( $N_2<N_0$ , where  $N_2$  is effective demand at  $p=p_0$ ).  $N_2N_2'$  is a measure of the output gap. Mexico in 1994-95 is a good example of this situation.

---

<sup>1</sup> Technically, the excess demand for tradable goods equals the *trade* account deficit. For the horizontal distance between  $D_T$  and  $S_T$  to equal CAD, net factor income and transfers have to be added to  $S_T$  or subtracted from  $D_T$ .

<sup>2</sup> This macroeconomic equilibrium is not stationary, however. Over time, the current account deficit reduces the country's financial wealth while positive net investment increases the capital stock. Stationary equilibrium requires not only that national wealth be constant as a share of GDP, but also that the actual composition between net foreign assets and capital be constant and equal to the desired composition.

How does China compare to this? On the one hand, China has a capital account surplus, just as in the previous case. On the other, unlike the previous situation, China also has a current account surplus. According to Goldstein, the underlying current account surplus for 2004 is 2.5% of GDP and the “normal” capital account surplus is 1.5%, hence yielding a “sustainable” balance of payments surplus equal to 4% of GDP.<sup>3</sup> Figure 3 shows how these two surpluses can occur simultaneously assuming, for simplicity, that KAS is exogenous. In equilibrium, a positive KAS would lead to a current account deficit of the same size, just as in Figure 1. This, however, does not need to be true if there is disequilibrium. At a price such as  $p_3$ , there is both a capital account surplus ( $T_0A_0$ ) and a current account surplus ( $A_3T_3$ ). The latter implies there is excess supply of T. In the N market, on the other hand, effective demand ( $N_3'$ ) exceeds notional supply ( $N_3$ ). Since  $N_3$  is the amount that suffices to reach full employment given  $T=T_3$ ,  $N_3N_3'$  is a measure of the overheating in the economy. Because  $p$  is below equilibrium, producers of N goods face a higher demand than they would willingly supply. In trying to meet this demand, they overstretch. Inevitably, scarcities and black markets arise.

### Currency Revaluation

Clearly, one way to eliminate China's disequilibrium would be to revalue the RMB. This would allow  $p$  to rise up to the point where demand for N equals supply (from  $p_3$  to  $p_0$  in Figure 3). Goldstein, for example, argues if the current undervaluation of the Chinese currency (which he estimates as something between 15 and 30%) were totally eliminated the underlying current account balance would shift from a 2.5% of GDP surplus to a 1.5% deficit in line with the “normal” KAS, at which point persistent or systematic reserve accumulation would stop. This solution, however, implies that  $P_T$ , the price of tradable goods, would have to fall by 13 to 23%. As noted by Robert Mundell (2004), the ensuing deflation would hurt many Chinese borrowers, particularly those that produce tradable goods, by increasing the real value of their liabilities at a time when, already, there are serious concerns about the solvency of many Chinese institutions, including the banking sector.

### A Better Solution

In a predominantly market economy, such as Mexico, pegging the exchange rate to the US dollar in the context of a substantial accumulation of foreign reserves would lead to excessive money creation, hence high domestic inflation.<sup>4</sup> Thus, even if the nominal exchange rate does not appreciate vis-à-vis the dollar, the real exchange rate would.<sup>5</sup> What prevents this type of adjustment from taking place in China? The main explanation, in our view, is that many domestic prices, including of labor, are controlled by the government (as is output in many economic activities, such as food processing, transport,

---

<sup>3</sup> The actual current account surplus will be lower this year due to the overheating of the economy.

<sup>4</sup> Unless (a) there is a gradual process of monetization underway, whereby nominal money demand grows faster than nominal income; or (b) the central bank engages in monetary sterilization. In China, (a) is possible and (b) is true. However, (a) + (b) is unlikely to fully absorb the annual increase in money supply created by the monetization of China's massive balance of payments surplus.

<sup>5</sup> This is, in fact, what happened in Mexico in 1992-94 at a time when net capital inflows were very strong.

and energy distribution). In such conditions, the growth in aggregate demand, which is fueled by monetary expansion continually pushes real output beyond its potential level creating persistent overheating in the economy, but without the associated increase in (observed) inflation.

In Mexico, excessive liquidity stemming from the balance of payments would also pressure individuals, banks, and corporations to buy foreign exchange. Here, too, administrative controls stand in the way of market adjustment in China, a country in which the capital account is notoriously repressed, particularly the outflows. Were these controls eliminated, or even reduced, the surplus in the capital account would fall dramatically.

So, China's fundamental problem is not that it manipulates the exchange rate system but that it relies too heavily on price and capital controls. If China's price and capital market distortions are taken as given, introducing exchange rate flexibility can be justified as a second best.<sup>6</sup> The first best, however, is for China to liberalize domestic markets and the capital account. Figure 4 shows why. Suppose that the capital account is liberalized up to the point where the surplus disappears ( $KAS=0$ ). Clearing the N market would take a smaller increase in  $p$  than before (from  $p_3$  to  $p_1$ ), which can be achieved via a once and for all increase in  $P_N$ . This type of adjustment has the additional advantage that the real value of private and public sector liabilities would be reduced, hence improving loan performance.

### Strengthening Investment Efficiency

While China's gross domestic investment is huge by international standards (over 40% of GDP in recent years) its quality is not so great. It takes approximately \$4 of net new capital to increase GDP by \$1. By contrast, in the US it takes only \$2.<sup>7</sup> This implies investment efficiency is 50% lower in China than in the US. This is not surprising given relative price distortions, including real exchange rate undervaluation, and a lack of market-based mechanisms determining investment in China. What is remarkable, however, is the magnitude of the relative inefficiency gap. Should China invest as efficiently as the US, it could grow at 10% per year without overheating the economy while investing "only" 30% of GDP (20% in net terms). Assuming, more realistically, that China's investment efficiency improves to 2/3 of that of the US, the required gross ratio is 40%. By today's Chinese saving standards, this would still leave room for a current account surplus. However, as economic liberalization progressed and financial markets deepened, it would be natural to expect a reduction in the national saving rate, hence the current account surplus.

---

<sup>6</sup> It is not surprising that Meade's classic recommendation, formulated at a time when prices were assumed to be institutionally inflexible and capital mobility was low, is found to be valid today in China.

<sup>7</sup> These are back-of-the-envelope calculations based on the following assumptions: (a) full-employment growth is 7% in China and 3% in the US; (b) normal net investment is 28% of GDP in China (38% gross minus 10% depreciation) versus 6% in the US.

## Conclusion

Proponents of revaluation in China take market distortions as given. Two such distortions are domestic price controls (particularly in the nontradables sector) and capital controls (particularly on capital outflows). Given China's history of reform gradualism, assuming that these distortions will be maintained for a long time may be realistic. Yet, an alternative solution would be for China to liberalize domestic prices and the capital account more rapidly. Allowing prices and the capital account to adjust in response to excessive reserve accumulation would reduce the need for the nominal exchange rate to take the brunt of the adjustment.

Market distortions are at the root of another, perhaps more fundamental, problem in China that Western analysts often ignore: the low quality of its investment. If China invested more efficiently, it could grow even faster than it is growing while investing the same or less. While the current account surplus would not necessarily decline in the short or medium run, high growth would be possible without overheating in the economy, thereby averting the risk of a hard landing. Just as lower distortions at home would improve capital productivity, a freer capital account would result in more efficient investments abroad. Instead of the Central Bank of China accumulating US Treasuries, there would be private Chinese investors accumulating a broader diversity of global assets, including those of other emerging markets, hence facilitating a more efficient global rebalancing of external surpluses. Eventually, as China becomes a more prosperous nation, the current account surplus would disappear.

The bottom line is, thus, very simple: China would be better advised by Western analysts to embrace the market economy more forcefully and rapidly than to simply revalue its currency.

## References

Goldstein, Morris (2004), "Adjusting China's Exchange Rate Policies." Paper presented at the IMF seminar on "The Foreign Exchange System," Dalian, China, May 26-27.

Meade, James (1951), *The Balance of Payments*, Oxford University Press, London.

Mundell, Robert (2004), "China's Exchange Rate: The Case for the Status Quo." Paper presented at the IMF seminar on "The Foreign Exchange System," Dalian, China, May 26-27.

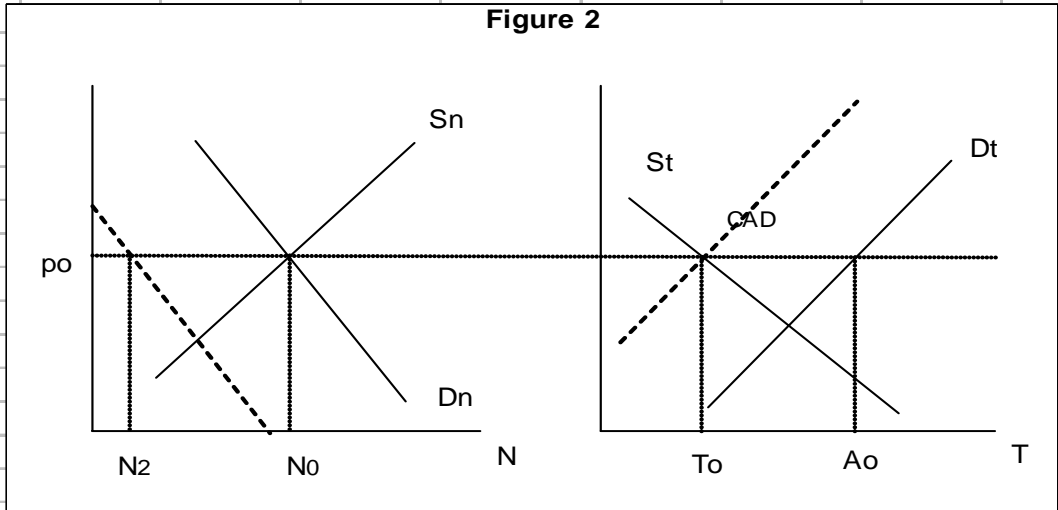
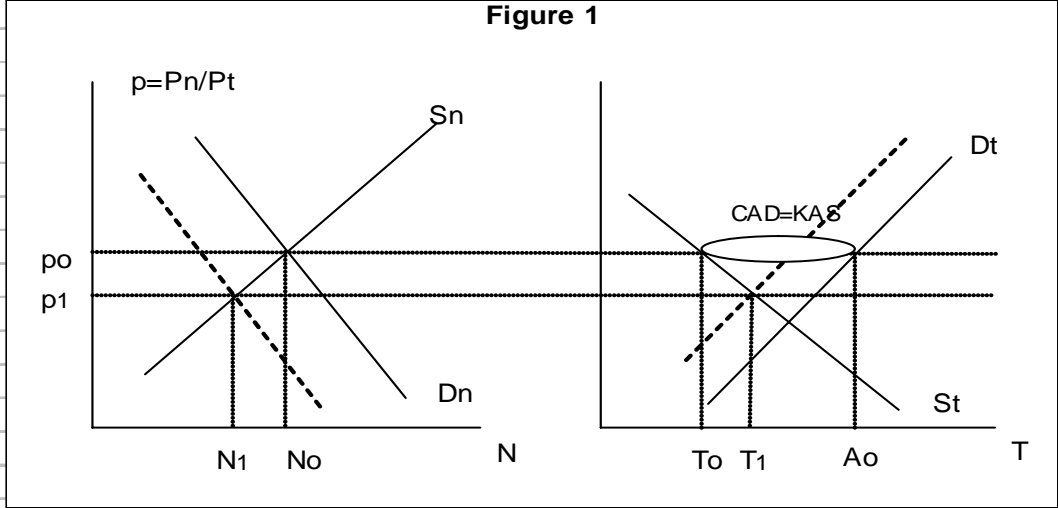


Figure 3

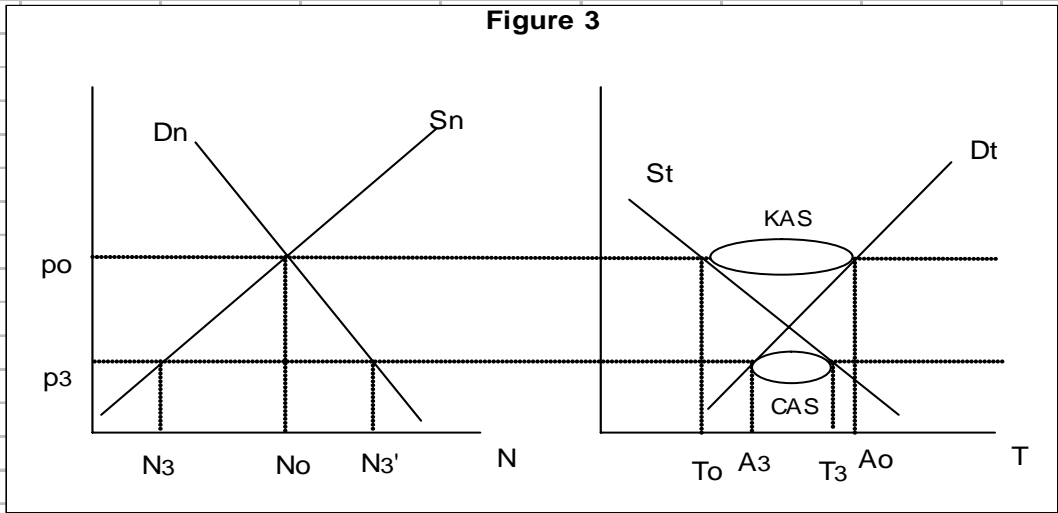


Figure 4

