CHINA AND ITS DOLLAR PEG – THE TRUE SOURCE OF GROWTH?

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In recent years, the Chinese economy has been growing rapidly and attracting attention of researchers worldwide. However, its policy of fixing Yuan to US Dollar has attracted criticisms from one of China's main competitors in the world market – the USA, demanding appreciation of Yuan. This essay by Maria Bridgeman makes an enquiry into the validity of these allegations. The author uses the Mundell-Fleming IS/LM/BP framework to analyse the situation, assesses the role played by the peg in this country's economic expansion, examines the theory of pegging in the context of other countries' experiences and presents her arguments for sustaining the peg, denying the American critique of this policy.

Introduction

US manufacturers have long called on the US government to put pressure on China to revalue its Yuan peg. They argue, due to high growth and rapid accumulation of foreign reserves (US$346.5 billion by the first half of 2003) that the Yuan should be appreciated from its current band of Renminbi (RMB) 8.276-8.28 per US dollar. They feel the artificially weaker Yuan is giving Chinese competitors an unfair advantage in the global markets, as well as flooding the US market with cheap Chinese imports. This has resulted in the US having a bilateral trade deficit with China of US$103 billion in 2002 (up US$20 billion from 2001). This has had an effect on employment with US unemployment figures up by about 2% on their 1990s averages. The dollar has weakened by 1.8% against the Japanese Yen and by 9.6% against the Euro in 2003 to September.

The Chinese, though realising the long run need to loosen the bands on its currency feel that for the moment the peg is justifiable. They argue the basis of China's competitive advantage is not its cheap currency, but factors such as labour costs, technology and infrastructure. I believe China has been used as a scapegoat for the global economic downturn. There is already fierce speculation about a policy change with likelihood of currency speculators betting on the appreciation. This

could result in a financial bubble that could prove detrimental. Monetary stability is another argument for changing China's currency policy. China's domestic credit rose by 38% of GDP last year, sparking off numerous credit scandals, many of which are still unfolding. To combat this China's Central Bank has declared its intention to develop a market for its short-term instruments, and has raised the level of reserves its banks must hold, which would act to stabilise monetary growth. The US market happens to determine global prices for tradable goods. Pegging its currency to the dollar minimises the risk to suppliers based in China. The absence of currency risk is a major factor in the rapid redistribution of global production capacity to China. Thus, China feels it should stick with the peg until inflation returns.

This debate involves many parties involved with conflicting interests, so there is no clear answer at this stage. I aim to look at the role of exchange rates, drawing on Mundell's work. International experience in currency pegs will also be analysed to see if there are any lessons to be learned. The Chinese situation must then be broken down to assess the true drivers of the blistering growth it has been experiencing of late. Is the US using China as a scapegoat and being somewhat neomercantilist in over emphasising trade deficits? Are the Chinese pushing their luck or is there real risk of crisis? I will endeavour to analyse the arguments on both sides and look to other pegging experiences to reach a conclusion on the best way forward for the global economy as a whole.

Mundell's exchange rate economics:

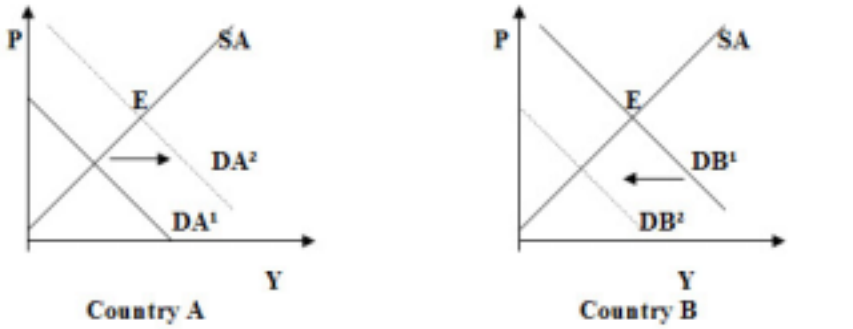
Nobel prize winner Robert Mundell (1961) is best known for his paper on optimum currency areas and has been dubbed 'the grandfather of the euro'. His thesis set out to decide whether it is preferable for countries to operate under fixed or floating exchange rate regimes. This developed into an advocacy of floating rates based not around national boundaries, but around regions known as optimum currency areas. These regions would have sufficient wage and price flexibility or labour mobility to replace the exchange rate as an adjusting mechanism.

This theory is illustrated with the simple model of two regions in which there is a shift in aggregate demand for goods from one to the other (in Figure 1 below from B to A). The demand curve shifts outwards for A and inwards for B. Both countries are moved from their initial full-employment equilibrium point E. At full-employment the increase in demand in A creates upward pressure on prices and wages. If A were to fully absorb the inflationary pressures of the increase in demand, B would quickly become more competitive causing an increase in aggregate demand and restoring equilibrium. However, the tendency is for A to resist a rise in the price level, resulting in a recessive tendency on B (as prices are generally inflexible downwards). The result of this will be a current account surplus in A coupled with

moderate inflation; while B on the other hand will experience a current account deficit and unemployment.

Mundell cites wage and price flexibility and labour mobility across countries as possible ways of restoring equilibrium, as well as a complex fiscal transfer system, where A would finance new domestic demand in B through a transfer of tax receipts.

FIGURE 1: SHIFT IN AGGREGATE DEMAND FOR GOODS FROM COUNTRY B TO A



Mundell (Ibid.) argues that demand shifts from the products of B to the products of A, a depreciation of country B or an appreciation of country A would correct the external imbalance and also relieve unemployment in country B and inflation in country A. This is the most favourable case for flexible exchange rates based on national currencies.

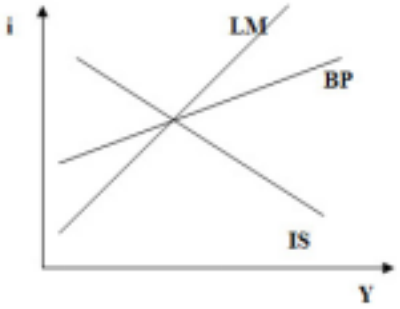
For countries to operate under fixed exchange rates or more extremely in an optimal currency area, the above adjusting mechanism would not be possible. Mundell (Ibid.) made two requirements for fixed exchange rates to work:

- High factor mobility between the countries or within a region.
- Similar experiences of economic shocks between countries or within a region.

The similar economic shocks would reduce the shifts in demand and the high factor mobility would play the adjusting role, when needed, in place of exchange rates. These points he used to pre-empt and later promote the European Monetary Union, which I will discuss in more detail later.

One of the most significant advances made by Robert Mundell was the extension of the standard workhorse of macroeconomics, the IS-LM model of the Hicks-Hansen synthesis to an open economy. This became known as the Mundell-Fleming model.

FIGURE 2: THE BASIC MUNDELL-FLEMING IS/LM/BP MODEL



The basic structure of this model is to divide the economy into three markets and study how they interact. The Goods market (IS), the Money market (LM) and the Balance of Payments (BP), which shows how an economy connects with the rest of the world.

The IS curve represents all points at which the goods market is at equilibrium given various combinations of interest rate (i) and national income (Y). It is derived from the investment function, which relates interest rate to capital stock in the economy, and the aggregate supply - aggregate demand framework for the closed economy. A decrease in the interest rate will cause investment to increase, which results in a higher level of national income, and a shift down the IS curve.

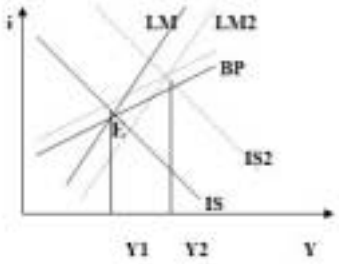
The LM curve represents all the points where demand for money is equal to the given and fixed supply in relation to interest rate and national income. The transaction demand for money consists of the active working balances held for the purpose of making business payments as they become due, and is positively related to national income. The speculative demand for money arises from the desire to hold money balances instead of interest bearing securities, the higher the interest rate, the smaller the speculative demand. The interaction between aggregate supply and aggregate demand, and the supply and demand for money is observed by an upward sloping LM curve.

The BP curve represents the various combinations of interest rates and national income at which the nation's balance of payments is in equilibrium at a given exchange rate; any trade deficit is matched by capital inflows or vice versa. The BP curve also depicts the elasticity of capital flows, as the flatter (more horizontal) the BP curve is, the more elastic the capital flows. The BP Curve is derived from the interaction of the goods market (imports and exports), capital flows (to neutralise trade imbalances) and foreign exchange rate (supply and demand for foreign currency). A depreciation of a nation's currency shifts the BP curve to the right; likewise an appreciation in currency would shift BP to the left.

In Figure 3 I depict a BP curve that is in equilibrium. If the IS and LM curves intersected to the left of BP, there would be a trade surplus, likewise if they intersected to the right there would be a BP deficit.

In a situation of flexible exchange rates at a point of unemployment, starting at point E where all three markets are in equilibrium with an external balance and unemployment, the nation could use easy monetary policy to shift the LM curve to the right. The nation has an external deficit, with flexible exchange rates, the nation's currency depreciates and this causes the IS curve to shift to the right and the BP curve to shift to the left until IS/LM/BP intersect. If this point is still below full employment, this procedure can be repeated until full employment is reached.

FIGURE 3: IS/LM/BP UNDER FLOATING EXCHANGE RATES



Under fixed exchange rates the depreciation shown above (or alternatively appreciation) could not happen and any expansionary (or contractory) monetary policy will not be effective to increase employment.

Mundell's work will form the background of my analysis of currency pegs and particularly, the role of exchange rates in promoting stability and competitiveness.

Pros and Cons of Currency Pegs

Having examined the theory of exchange rates and pegging; I will now examine the case for and against using a currency peg to promote stability in an economy. Although most developing countries' pegs have failed this could be because of timing, rather than the actual peg mechanism. I think time has shown that currency pegs can indeed serve a purpose, but have historically been implemented for longer than needed.

Honohan and Lane (1999) outline the pros and cons of the exchange rate stability provided by a currency peg or as they call it 'tracking.' They argue that although both anchor country and its trackers enjoy most benefits, there are at least two sources of asymmetry:

- If one zone is smaller than the other, exchange rate stability will be more important to the smaller, since it will be proportionally more heavily dependent on international trade.
- If one is a net creditor to the other, changes in the exchange rate have transfer effects between the two regions in the sense of adjusting the value of outstanding debts, posing risks to the financial system and/or debtors.

First, they outline the adverse effects of exchange rate uncertainty, namely discouragement of investment and the high price setting of risk-averse firms in an uncertain environment. This leads to a reduction in international trade as domestic transactions are less risky and this in turn leads to less growth.

They draw on Sapir, Sekkat and Weber's (1994) empirical work on the difference between the effects of short-term versus long-term variability in exchange rates. This can be quite substantial due to the use of hedging to combat short-term volatility and the power of longer-term misalignments to affect FDI and portfolio investments. Anchoring a currency gives less room for bubbles to develop on expectations of appreciation.

Honohan and Lane (1999) then list other positive effects such as pro-competitiveness through greater price clarity, reduced risk for foreign investors when buying domestic assets, creating a more liquid domestic capital market, reduced risk for domestic buyers of foreign assets, which would in turn improve competition in the credit market and provide greater opportunities for a wider range of financial contracts to be traded, which would improve risk management. These effects, as pointed out by Obstfeld (1994a) can contribute to a higher average, if more variable long-term growth rate, due to more high risk-high return projects being undertaken.

Honohan and Lane (1999) then examine the possible dangers of pegging and why most pegs eventually collapse. Inappropriate fiscal and monetary policies can cause misalignment. Unsustainable pegs can temporarily survive through adequate reserves, capital controls and excessively optimistic market expectations. International capital mobility also increases the probability of speculative attacks weakening the pegs sustainability. Argentina's pegging experience illustrates a peg that was kept long after its purpose was served. The Asian financial crisis is a blatant example of how international capital mobility can cause destruction.

The Role Of The Dollar Peg In China's Steaming Economy

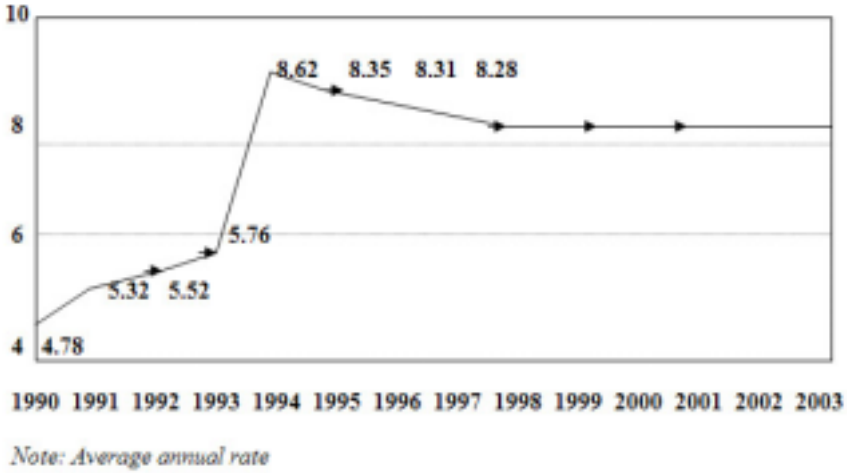
Prior to 1994, a dual rate system existed between China and the US, in which a 'market' and 'official' rate existed side by side, with most transactions, particularly for state-owned enterprises, being settled at an official rate. At

approximately RMB 5-6 to US$1, the official rate was an overvaluation, which benefited Chinese importers. This dual system was abolished in 1994, with the rate being decided at RMB 8.5 per US$1, appreciating to RMB 8.28 to US$1 in 1997, staying in the band of RMB 8.276-8.28 per US$1 since. Harner (1999) attributes the appreciation in 1996 and 1997 to:

- China's strong current account surpluses, driven by net exports;
- A strong inflow of FDI funds; and
- The requirement for Chinese companies to sell foreign exchange to the banks.

The Peoples Bank of China (PBOC) has tried to control this, as it does not want to see pronounced appreciation of the RMB.

FIGURE 4: TRENDS IN RMB/US$ EXCHANGE RATE:



Note: Average annual rate

Coupled with this firmer peg was a commitment to reform the banking sector, which had been characterised by lack of independence from local government and the influence of local and national officials over lending decisions and resulting bad loans particularly given to the weak SOE sector.

The Asian financial crisis of 1997 was caused by countries such as Thailand, Indonesia, Malaysia, the Philippines and South Korea that had their currencies pegged to the dollar, running current account and net external asset deficits. Speculators picked up on this and attacked the currencies and stock markets

of these countries. Subsequent devaluation caused these countries to seek financial assistance from the IMF.

China, although not in the same danger as these countries owing to its huge foreign currency reserves, positive international payments position and safer international debt levels, was worried by this and put even greater effort into accumulating reserves and cleaning up its banking system post-1997, its three main objectives being:

- Cleaning out bad debts and recapitalising the banks;
- Reorganising and downsizing bank organisations; and
- Modernising and improving management and accountability.

China's CPI growth, after months of being in negative territory, started to rise in October last year. The index's growth hit 1% in April, but subsided afterwards. It registered 0.5% in August.

The PBOC estimated that the 1% point hike in required reserves implemented in September will freeze 150 billion Yuan (US$18 billion) in base money, a term that includes cash in circulation and all reserves at commercial banks.

It is widely estimated that this number, multiplied with a currency multiplier, which stands at a little above 4 currently, may result in a potential total contraction in money supply of as much as 600 billion Yuan (US$72 billion) (People's Daily, 2003). This will stem worries about overheating of the economy due to a growing money supply fuelled by huge dollar reserves.

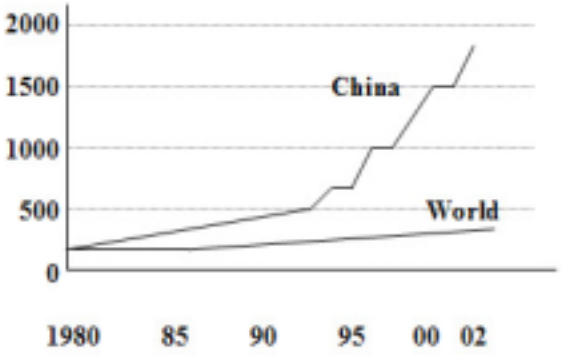
In the period 1992 to 2002, China's real GDP growth has averaged about 10%. This has been in part because commitment to these and many other reforms, in part because of the labour costs, technology, quality control, infrastructure and of late in part because of the downward slope of the dollar; giving it extra competitiveness with its parallel devaluation. In particular with the US, China has a competitive edge of cheaper manufacturing and labour costs and hence cheaper prices for its exports, which are replacing domestic US goods at a fast pace. There has also been significant relocation of manufacturing facilities out of the US and into China. The proportion this undervalued currency has played relative to the other instruments in China's blistering growth has caused much debate, as I will discuss in the next section.

US Woes:

The huge US current account deficit and subsequently weakening dollar has cast a disproving eye on China, whose bilateral trade surplus with the US is $125 billion (The Economist, 2003b), the biggest US bilateral trade deficit worldwide. It is claimed China's 'unfairly' low currency and 'unfair' trading strategy are the cause of the jobless recovery, the US is currently experiencing. The

price adjustment mechanism, which brings countries back into balance of payments equilibrium with competitive exports as a result of devaluation, has not been able to happen bilaterally with China due to the peg. The US debate over the Yuan peg has been much politicised and publicised. We have seen mass meetings of new anti-China trade groups such as Wisconsin's 'Save American Manufacturing' and 'Mad as Hell' in Connecticut, on their self-proclaimed Manufacturing Awareness Day on the 1st of August 2003. Banners waved 'Leave China in the sink' and 'Free trade is a myth' in such protests fuelled by anger at the activities of big firms buying from Chinese firms and/or moving manufacturing to China (The Economist, 2003b). The 2.7 million manufacturing jobs lost in the US (one in six) in the past three years lead to increasing political pressure from such grass roots groups for protectionism and tariffs, especially since China's recent WTO ascension. As China's importance in the world economy grows, (see Figure 5 below) these fears have grown.

FIGURE 5: MERCHANDISE EXPORTS, $ TERMS 1980=100



Part of China's terms of ascension to the WTO was 'safe guards' for other countries to have the option to impose tariffs on Chinese goods if they are deemed to be causing 'market disruption'. The US succumbed to the political pressure for protectionism, using one of these clauses to impose protection on $500 million worth of Chinese textile imports. There are also half a dozen bills lurking around in congress, with the intention of imposing more tariffs if China does not revalue.

The US critics argue that after years of fast growth and huge inflows of foreign investment, the Yuan should be stronger. Instead, as the Dollar has fallen steadily over the past 20 months, the Yuan has fallen and is clearly undervalued. According to economic theory, Mundell's being testament to this, exchange rates should be appreciating in countries with rapid productivity growth. China's economy has been growing much faster than the rest of the world and its current

account has been in surplus since 1994. It is argued for a fast growing, emerging economy with high levels of investment, a current account deficit is more normal. In 2002, China was the largest recipient of foreign direct investment, with inflows totalling $53 billion. This is also a factor that should theoretically push up a currency's value. China's huge build up of reserves are the final factor that suggests an appreciation would be the order of the day.

The Economist documents various estimates of the degree of overvaluation. Its own informal 'Big Mac Index' estimates the Yuan as being undervalued at a whopping 56%; Ernest Preeg, of America's Manufacturers alliance estimates the Yuan should rise, according to market forces by 40%; the bank UBS estimates the figure at 20%. Other estimates can be as low as 10-15%. The tight capital controls China enforces, as well as its state of restructuring makes it difficult to use traditional measures and hence the variation of estimates (The Economist, 2003a).

Arguments For Sustaining The Peg

Roach[1] (2003) speaks of the irony of the growing Worldwide support for a revaluation. Chinese subsidiaries of global multinationals and joint ventures with industrial-world partners have accounted for 65% of the total increases Chinese exports from 1994 to mid-2003. A high-cost industrial world has made a conscious decision that it needs a Chinese-based outsourcing platform to increase productive efficiencies. He argues that dismantling the Yuan peg would destabilise the very supply chain that has become so integral to new globalised production models. He then moves on to argue China does not compete on the basis of an undervalued currency. Instead competing, mainly in terms of labour costs, technology, quality control, infrastructure, and an unwavering commitment to reform. He estimated, if China were to revalue the Yuan upward by 10% or even 20% (a change he does not expect nor advise), its exports would suffer minimal loss of market share. A key reason for this is that China's export prowess is mainly in the role of an assembler and its exports have a high content of materials and products made elsewhere.

It is true that the end game of China's reform is to open up its capital account and make its currency fully convertible, however the Chinese argument is that it is too early. An ill-timed revaluation could cause deflation just after China has pulled itself out of that value destroying process. Financial bubbles are also a threat that comes with revaluation, particularly in the housing market. It is clear that the road of reform is a long one and all the hard work could be easily wasted with an early revaluation. The instability that a revaluation would bring could cause damage to world markets, not forgetting China's role in the upkeep of stability in the 1997 Asian crisis.

[1] Of Morgan Stanley

Standard & Poor's warned on the 15th of September 2003, that confidence in Chinese banks was already so low that a heightened debt crisis could lead to their collapse. Paul Coughlin, Managing Director of Standard & Poor's Asia-Pacific Corporate & Government Ratings, said:

> "We learned from the Asian currency crisis in the 1990s that the combination of a weak banking system, floating exchange rates and free flows of capital can be a very dangerous combination. China's banking system is insolvent, with problem loans estimated by Standard & Poor's at 45 percent of total loans, and its risk control systems are ill-prepared to deal a rapid liberalisation of the exchange rate and capital controls." (Chan, 2003)

Mundell himself has been quoted in support of keeping the peg for the time being, stating in a speech in Taipei on 19th of September 2003 that revaluation of Yuan will be a disaster for China. He declared:

> "It would not solve the problems of the US, Japan and Europe. It would cut off the brightest light for global expansion in China. China has said 'no' and rightly so, that is the right position to take (Ibid)"

In an earlier comment in Beijing, Mundell predicted that the 40% increase in the Yuan being called for in some circles could halve China's annual economic growth, aggravate deflation and produce a financial crisis similar to that experienced in Asia in 1997 (Ibid.).

This might sound strange when you look at Mundell's criteria for fixed exchange rates. However, his model was based on developed countries with full employment. China is a developing (albeit rapidly) country with less than full employment and the currency peg is needed to promote stability in the short run. He believes that the US should not be allowed to increase its own employment as per his IS/LM/BP analysis at the expense of China, whose revaluation would be at the cost of great opportunity. This peg and subsequent surplus is giving China a chance to play a stable, important part in the global economy.

Conclusions and Policy Recommendations:

Having examined the evidence, it seems that a theory cannot be objectively applied to any situation. Mundell himself agrees with the sustenance of a currency peg that goes against the tenets of his most famous theory on exchange rates. However, its advantage is clearly seen when applied to his IS/LM/BP. I think this comes back to the difference between developing and developed countries and giving the developing ones a chance to reform and become developed. This gives a

new texture to a playing field that would otherwise be level between two equal players.

Looking at the huge US current account deficit, I, along with many others would blame an insatiable consumer goods and debt market coupled with high investment rather than a competitive Chinese economy. America has a serious lack of domestic saving. George Bush's economic advisor, Gregory Mankiw has argued that most American jobs have been lost in industries (machinery, transport equipment and semi conductors) where Chinese competition is slight (The Economist, 2003b).

I think China's commitment to financial reform and aim of opening up its capital account in a long term is commendable given the amount of bad debts in existence. I can see a possible movement of fixation to a basket of currencies that would include the Euro as the next step, but at least not before the Olympic Games in Bejing in 2008.

China has just escaped the painful process of deflation and to echo Mundell is emerging as one of the brightest lights in the world economy. The basis of its competitiveness is not an undervalued Yuan, but factors that lend to much longer-term economy that the world relies on in its manufacturing supply chain.

I conclude that the US is using China as a scapegoat for its self-imposed current account problems and subsequent weak currency. The Bush administration is acting in a blatantly neomercantilist fashion, over its balance of payments deficit and in turn using protectionist policies (I estimate the Dec tariffs are not to be the last, especially in an election year) to countervail its biggest threat that has ironically long supplied it with cheap imports and components.

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