

## THE INTERNATIONAL ADJUSTMENT MECHANISM UNDER RESTRAINT

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The benefits coming from international trade and globalisation through the integration and liberalisation of financial markets over the past two decades could be endangered by major international disequilibria that are normally identified by the large current account deficits of the US. These imbalances are not sustainable and could easily lead to protectionist measures, the disruption of foreign exchange markets and the “balance of financial terror”, in the terminology of Summers (2004). This implies that the US is relying on other countries to finance its current account deficit under the assumption that this will continue indefinitely. This paper describes the international dimensions of this problem while it demonstrates the restraints on the adjustment mechanism that could reverse these disequilibria. These restraints appear to be best resolved through international co-operation as has been signaled by Summers (2004) and Truman (2005).

### FORMULATING THE IMBALANCES

Following Alexander (1952) the disequilibria in the global economy can be formulated in terms of the following macroeconomic Keynesian equation for an open economy

$$Y = C + I + G + X - M$$

Where  $Y$  denotes national income while  $C$  and  $G$  are the expenditure components of households and government.  $I$  indicates investment expenditure.  $X - M$ , denotes the trade balance. If we define domestic expenditure including the government sector as domestic absorption  $A$ , we have the following expression

$$Y = A + X - M$$

$$\text{i.e. } Y - A = X - M.$$

It then follows that if domestic absorption is in excess of domestic output we have a trade deficit and *vice versa*. We therefore derive the following expression

$$(1) \quad Y - A < 0 \Rightarrow X - M < 0$$

$$\text{or } Y < A \Rightarrow M > X$$

Moreover we have

$$(2) \quad Y - A > 0 \Rightarrow X - M > 0$$

$$\text{or } Y > A \Rightarrow X > M$$

Expression (1) signals a situation of excess domestic demand (absorption) coupled with a trade deficit while (2) signals a situation of excess domestic output coupled with a surplus on the trade account. If we add foreign services and transfer payments to the

trade account the expression  $X - M$  refers to the current account. If we reformulate the above expressions by merely substituting  $Y - (C + G) = S$ , the excess demand and excess production cases above can be translated into a case of deficient saving, i.e. the alternative interpretation of (1) and a surplus saving situation which is the alternative interpretation of (2). The present international disequilibria are often formulated in this format as global surplus versus deficient savings (Bernanke, 2005, Wolf, 2005).

## **REFLECTIONS ON THE DEVELOPMENT OF THE IMBALANCES**

Trade liberalisation supported the growth in world trade since the Second World War and in global terms real trade growth exceeded real GDP growth. These patterns were enhanced when financial markets were liberalised towards the end of the 1970s and the 1980s. International financial markets became integrated and cross border financial flows increased as markets became more effective. The low cost characteristics and economies of scale of this international system contributed substantially towards a sustained lower inflation environment during the 1990s. These favourable developments have not yet run their course but the gradual escalation in trade and payments imbalances since the second half of the 1990s raise critical questions regarding the sustainability of these benefits. The US current account deficit deteriorated markedly since the second half of the 1990s and it is presently approaching 7% of that country's GDP. Research by the IMF confirms that a 3% US current account of GDP is likely to be sustainable over the long term. The escalating current account deficits in the US are, as indicated above, associated with excess demand or deficient savings in that country. Several developments contributed towards this outcome (Greenspan, 2005). The public sector, through large budget deficits, is an important contributor towards dissaving. There is of course not a direct and simple link between the budget deficit and the current account deficits. It would appear that only 20% of budget deficit reductions show up in reduced current account deficits (Greenspan, 2005). There is of course, a direct link between the large budget deficits and the inflow of foreign savings to fund these deficits. Excess demand or dissaving is a particular feature of the US fiscal situation during recent years. Moreover, the investment by foreigners in US Treasury bonds contributed towards downward pressures on US long-term interest rates, although the mechanism through which this occurs is not clear. Excess demand is also evident in the private sector where stimulatory fiscal and monetary policy measures encouraged private spending. Moreover, the US experienced relatively high economic growth rates, particularly during the 1990s and this added to the excess domestic demand. Low and falling interest rates encouraged a strong housing market that stimulated asset wealth during recent years. A strong sustained consumer demand followed while the private sector's saving rate declined sharply. The high and rising oil price during recent years resulted in a high US oil import bill that boosted the current account deficit.

Apart from these excess demand pressures the trading pattern of the US is not conducive to export growth. As indicated by Greenspan (2005) the level of US imports exceeds that of exports by 50%. It is virtually impossible to engineer a current account improvement in export growth in the short term. Moreover, as indicated by Obstfeld and Rogoff (2004), the US output structure is not particularly aimed at tradable goods. With US output focused primarily on non-tradable goods the autonomous forces of adjusting the current account deficit are likely to be weak.

There is little evidence of correcting policy measures in the US to address these excess demand pressures in the immediate future. Fiscal policy shows little progress in

addressing government expenditure while the present US government shows little interest in reversing some of the large tax cuts that were introduced during the first term of Mr. George W Bush's presidency. Monetary policy has been tightening gradually since June 2004 but the Federal Open Market Committee still regards US monetary policy as "accommodative" as reported in its meeting in August 2005. This means that a federal funds rate of 3.5% p.a. is still not curbing excess demand pressures.

The outcome of this exposition is that the excess demand pressures in the US that support the large current account deficits are unlikely to be reversed in the short term through either fiscal or monetary policy actions. Moreover, the structural bias in US production in favour of non-tradable goods, that enhances the problem, can only be resolved over the long term. Should this substitution be encouraged through relative price changes, i.e., a depreciation of the dollar exchange rate, the evidence shows that only large exchange rate movements could achieve this (Obstfeld and Rogoff, 2004).

As indicated above, the US current account deficit is closely related to developments in the international economy and this requires a closer analysis. The global dimension of the US current account deficit is evident if we look at the matching trade account surpluses in the trading partners of the US in Asia as well as the EU. In terms of our exposition these trade surpluses are evident in the saving surplus countries i.e. Japan, China, Taiwan, Korea, The EU and the oil producers of which Saudi Arabia is the most prominent (Truman, 2005).

Explaining surplus saving in the oil producing countries is not difficult since the excess accumulation of resources in these countries following recent sharp oil price increases. The surplus savings in the EU are probably best understood as a lack of investment opportunities owing to the relatively poor economic performance of the EU. Important rigidities, particularly labour market imperfections in the major EU countries such as Germany and France are important reasons for the EU stagnation. Moreover, the European welfare state has come under severe pressure because of the fact that the commitments in favour of redistribution are exceeding the available resources. Diverging fiscal policies and difficulties in implementing the Maastricht Treaty in respect of budget deficit criteria are contributing towards economic uncertainties. The EU is following a uniform monetary policy conducted by the ECB but the region does not appear to satisfy the conditions of an optimum currency area. A uniform monetary policy does not suit all the different countries because diverging economic conditions require different short-term interest rates for the different partners. The less regulated and more flexible US economy with its higher GDP growth rate appears to offer attractive investment opportunities to EU surplus savings.

The Asian position is more complicated. This region is well known for its relatively high saving ratio, coupled with relatively high investment rates. High economic growth rates in Asia in the wake of the Asian financial crisis encouraged high savings while the economic deflation in Japan was associated with a lack in investment opportunities. Demographic factors in China together with sustained high economic growth are responsible for high saving rates (Sanyal and Folkerts-Landau 2005). This development was further enhanced by the accumulation of foreign exchange reserves through current account surpluses (Bernanke, 2005). During the 1980s the Chinese authorities launched an export drive through tariffs and other direct measures. The exchange rate was manipulated in support of this export drive. During the 1990s the authorities became more sensitive to market forces and many trade and currency reforms were

introduced to qualify for WTO membership (Chow, 2002:292-93). The successful export performance that resulted in a sustained trade surplus, coupled with the inflow of long-term foreign capital, implied a sustained accumulation of foreign reserves. The underlying strength in the value of the renminbi was not reflected in the exchange rate owing to the official currency policy in terms of which the value of the renminbi was fixed against the US dollar. In maintaining a fixed exchange rate against the US dollar the Chinese authorities had to purchase dollars while issuing local bonds at relatively low and controlled interest rates. The proceeds were invested in US dollar denominated assets, primarily US Treasury bills. In view of the fact that the renminbi developed into an Asian anchor currency, other major Asian traders had to maintain their international competitiveness *vis-à-vis* the US dollar by following a similar policy of investing in US denominated assets. In Japan, with domestic interest rates approximating zero, the issuing of domestic bonds to invest in dollar denominated assets in order to manipulate the value of the yen was virtually without cost. The major Asian countries were therefore benefiting from “carry trade” by investing the proceeds from low cost domestic assets in high yielding US dollar denominated assets. At the same time they were achieving fixed exchange rates against the US dollar as a specific export stimulating policy. In this sense Asian countries are merely displaying 21<sup>st</sup> century mercantilist policies by following explicit policies in favour of exports and the accumulation of foreign exchange reserves.

As indicated by Chow (2002:71-76) the Chinese situation was very different from that in other Asian countries during the Asian financial crisis of 1997-99. As opposed to a lack of foreign exchange reserves in several Asian countries at the time, China was running large foreign exchange reserves. Moreover, China was receiving long-term foreign capital as opposed to other Asian countries that were dependent on short-term capital. These countries were following fixed exchange rate policies with currency values pegged at undervalued rates. As opposed to this the renminbi exchange rate was fixed against the US dollar but in terms of purchasing parity the currency was not undervalued. During the Asian crisis China played a stabilising role and did not follow other Asian countries in devaluing its currency (Chow, 2002:73-6). This experience proved to be an important aspect of the Chinese policy drive in favour of the accumulation of large foreign reserves in the period following the Asian crisis. This means that the large accumulation of foreign exchange reserves could be interpreted as a safeguard against collapsing foreign exchange markets. Presently Asia is still a region with a fragile financial system and with surging liquidity levels financial fragility is a continuous risk factor (Bernanke, 2005). These precautionary measures together with the mercantilist trade policies resulted in the peculiar situation where developing emerging market countries are creditor countries to the US (Dooley, Folkerts-Landau and Garber, 2005).

The global imbalances that evolved in Asia are very much different from those that existed prior to the Asian crisis. As opposed to overvalued currencies we experience under valued exchange rates. As opposed to a lack of foreign reserves we have extensive foreign exchange reserves, particularly in China, Japan, Taiwan and Korea. Moreover, the destabilising role of short-term capital flows has been reduced significantly in view of the large component of long-term foreign capital that flows into China. Furthermore, the renminbi evolved as an anchor currency and it, therefore, plays a more pronounced stabilisation role compared with the Asian crisis. Two major deficiencies that characterised the Asian crisis are still prominently evident today. The one refers to the fragile Asian financial system primarily because of slow progress in the

reform of the banking system. Non-performing loans, capital deficiencies and bureaucratic ineffectiveness, because of the important position of state banks, burden the banking system. The other deficiency is under developed foreign exchange markets owing to the importance of government controls regarding international capital flows and the existence of fixed exchange rates.

The outcome of this exposition is that the counter balance of excess demand in the US is surplus saving in the EU and particularly in Asia. Explicit policies are required to reverse these imbalances. In the EU economic reforms in order to open up new investment opportunities are imperative and the immediate outlook for such reforms is discouraging. In Asia the reform of the financial system is an imperative. This will no doubt discourage the investment of surplus saving in high yielding US dollar denominated assets as a precautionary measure against domestic financial fragility. Economic development in China should be more balanced in favour of consumption to relieve the upward pressure on savings. The Japanese economy has been stagnating for more than a decade with lacking investment opportunities and consequently surplus savings emerged. Economic reforms regarding the Japanese financial system and institutional renewal are imperative. The outlook for such far-reaching reforms is not encouraging.

## **THE INTERNATIONAL ADJUSTMENT MECHANISM**

The International adjustment mechanism refers to price and income (aggregate demand) adjustments following excess domestic demand (saving shortfall) or excess supply (surplus saving). These disequilibrium features are associated with balance of payments problems. Excess aggregate demand is associated with trade account deficits coupled with foreign capital inflows that are associated with a rising net foreign debt position. The excess saving situation is associated with a trade account surplus and capital outflows, coupled with a net foreign creditor position. This asymmetric adjustment pattern has long been referred to as the transfer theory.

Income or aggregate demand adjustments refer to stimulatory (contractionary) macroeconomic policies in the event of a trade account surplus (deficit). Price adjustments refer to exchange rate appreciation in the event of trade account surpluses and exchange rate depreciation in the event of trade account deficits. Although aggregate demand measures were inspired by Keynesian theory and price adjustments by neo-classical theory, the final outcome of the analysis is that both measures are needed simultaneously to address disequilibria on the trade account (e.g. Tsiang, 1961; Alexander, 1959).

Closely related to this subject is the vast literature on exchange rate determination, particularly one aspect, namely, the portfolio balance theory. This literature does not explicitly deal with the international adjustment mechanism but it is important in demonstrating the direct link between the current account and the capital account of the balance of payments. It also emphasises the importance of asset markets that feature prominently in the era of globalisation. Moreover, it emphasises the current account as opposed to the trade account in the conventional adjustment process. It provides an effective framework explaining international transfers in wealth. The restrictive neo-classical assumptions of this approach, such as a lack of uncertainty in asset markets and the prominence of perfect foresight on the side of market participants render it less helpful in making a meaningful contribution towards our understanding of the

international adjustment mechanism. Recently Blanchard, Giavazzi and Sa (2005) have applied this approach within an interesting price adjustment framework.

Empirical evidence has since long shown that the effectiveness of price changes in addressing trade account disequilibria is doubtful. Import and price elasticities appear to be relatively small, therefore, the so-called Marshall-Lerner condition is not readily satisfied. The effectiveness of price adjustments in addressing trade account imbalances is not only hampered by the size of price elasticities but also by the size and nature of pass-through of price adjustments from one economic agent to the other following an exchange rate adjustment (Obstfeld and Rogoff, 2004). Recent research has shown that exchange rate pass-through effects could be disappointingly low (Marazzi, M., Sheets, N. and Vigfusson, R et al., 2005). Pass-through effects are governed by complicated relationships regarding inter firm connections, market share and the role of retailers. Pass-through effects of depreciation and appreciation are following asymmetric patterns. It would appear that for the US, foreign manufacturers could absorb, on average, approximately 30% of an exchange rate depreciation. Moreover, retailers could absorb as much as 20% of currency depreciation (Hellenstein, 2004). Pass-through effects appear to be relatively small and the effectiveness of price changes following exchange rate changes is hampered by long time lags. This means that exchange rate changes have to be large in order to have an effect on the trade account.

As long as Asian countries adhere to fixed exchange rate regimes exchange rate adjustments will be limited to the US dollar and the major floating currencies. In terms of our exposition this is not an effective solution to the present international imbalances. Income adjustments together with domestic economic reforms are to supplement exchange rate adjustments in order to address international imbalances effectively. Our exposition suggests that income adjustments and institutional renewal in support of these adjustments are unlikely to be introduced in the short term. That applies to Asia, the US and the EU.

The outcome of our exposition is that there are little incentives to market participants to reverse the global imbalances. As a matter of fact market participants are encouraged by present market variables to maintain the *status quo*. Policy incentives to reverse the imbalances do not appear to be forthcoming. Such incentives are likely to be forthcoming when the stability of the international payments system will be at risk. In such an event international co-operation such as the Smithsonian agreement in 1971 comes to mind (Summers, 2004; Truman, 2005).

## **SUMMARY AND CONCLUSION**

The large and rising current account deficit of the US has stimulated recent research on the likely outcome of this international imbalance. Our exposition demonstrates that this imbalance has global dimensions involving several counter-balancing disequilibria. In view of the shortcomings and deficiencies associated with the price aspects of the international adjustment mechanism exchange rate changes on their own are unlikely to be effective in reversing the global imbalances. The presence of fixed exchange rate regimes in Asia implies that price adjustments are restricted to countries subscribing to floating exchange rate regimes. Even a partial exchange rate adjustment through market forces appears to be limited because our exposition demonstrates that market participants have limited, if any, incentives to initiate such changes. Price or exchange

rate adjustments have to be complemented by income (or aggregate demand) adjustments in order to be effective. It would appear that policy makers show little enthusiasm to introduce these policy instruments. In order for these instruments to be effective important institutional reforms are imperative, particularly in the EU and Asia. In the interim international financial markets will experience short-term instabilities with the major adjustment pressures on countries with floating exchange rate regimes. These adjustments will nevertheless fall short of the adjustments that are required to reverse the international imbalances. From time to time emerging market countries with flexible exchange rate regimes and attractive asset yields could experience upward pressure on their exchange rates, as surplus savings tend to pursue these relative attractive yields.

## REFERENCES

- ALEXANDER, S.S. (1952) Effects of a Devaluation on a Trade Balance, *IMF Staff Papers*, 2:263-78.
- ALEXANDER, S.S. (1959) Effects of a Devaluation: A Simplified Synthesis of Elasticities and Absorption Approaches, *American Economic Review*, 49(1):22-42.
- BERNANKE, B.S. (2005) *The Global Saving Glut and the U.S. Current Account Deficit*, Remarks at the Homer Jones Lecture, St. Louis, Missouri, [www.federalreserve.gov](http://www.federalreserve.gov)
- BLANCHARD, O., GIAVAZZI, F. AND SA, F (2005) *The US Current Account and the Dollar*. Cambridge (Mass.): NBER, Working Paper 11137.
- CHOW, G.C. (2002) *China's Economic Transformation*, Oxford: Blackwell.
- DOOLEY, M., FOLKERTS-LANDAU, D. AND GARBER, P. (2005) Savings Gluts, Deficits and Interest Rates: The Missing Link to Europe, *Global Markets Research*, July, Deutsche Bank.
- GREENSPAN, A. (2005) *Current Account*, Remarks at Advancing Enterprise 2005 Conference, London, [www.federalreserve.gov](http://www.federalreserve.gov)
- HELLERSTEIN, R. (2004) Who Bears the Cost of a Change in the Exchange Rate? The Case of Imported Beer. *Federal Reserve Bank of New York*, Staff Report No. 179.
- MARAZZI, M., SHEETS, N. AND VIGFUSSON, R. et al (2005) *Exchange Rate Pass-through to US Import Prices: Some New Evidence*, Board of Governors of the Federal Reserve System, International Finance Discussion Papers No. 833.
- OBSTFELD, M. AND ROGOFF, K. (2004) *The Unstable US Current Account Position Revisited*, NBER Working Paper Series, Working Paper 10869, Cambridge (Mass): NBER.
- SANYAL, S. AND FOLKERTS-LANDAU, D. (2005) Demographics, Savings and Hyper-Growth, *Global Markets Research*, July, Deutsche Bank.
- SUMMERS, L. (2004) *The US Current Account Deficit and the Global Economy*, Washington, D.C.: Per Jacobsson Foundation.
- TRUMAN, E. M. (2005) *Postponing Global Adjustment: An Analysis of Pending Adjustment of Global Imbalances*, Washington, D.C.: Institute for International Economics, Working Paper Series No. WP 05-6.
- TSIANG, S.C. (1961) The Role of Money in Trade-Balance Stability: Synthesis of the Elasticity and Absorption Approaches, *American Economic Review*, 51(5):912-36.
- WOLF, M. (2005) The Paradox of Thrift, *London Financial Times*, 12 June, <http://news.ft.com>