State's Monetary Intervention through Sterilization and Crawling Peg during Domestic Currency Appreciation – A Lesson for India from China

Sukanta Chandra Swain
Faculty Member, IBS, Bhubaneswar, Orissa
E-mail: sukanta_swain@yahoo.com/sukanta@ibsindia.org

ABSTRACT

Multi-faceted human wants and very complex division of labour have forced the economies of recent years to be outward-oriented. To add this, the liberalization and globalization policies adopted by the economies now pave the way for free flow of international capital, thereby insisting the values of the currencies to fluctuate. Specifically, the currencies of highly progressing economies like China and India are facing tremendous pressure for their appreciation. As domestic currency appreciates, the exporters of the country lose international competitiveness, as exports become costlier and imports become cheaper, which may lead to severe macroeconomic imbalances like unexpected outflows of capital and unemployment. To avoid these repercussions of currency appreciation, the central bank of the country may try to resist currency appreciation by buying foreign exchange from the market in exchange of domestic currencies, thereby adding more money and inviting inflationary pressure to the system. In order to manage excess liquidity, the central bank resorts to sterilization, i.e. operations meant to suck out excess liquidity from the system. In recent period both china and India are experiencing the tendencies of currency appreciation backed by excess liquidity and inflation. While China has become successful in managing this complex problem with its protected exchange rate regime (Crawling Peg) and sterilization operations, India has failed to do so. This paper tries to focus on tackling this problem of India in line with the Chinese experience, of course not exactly imitating China.

Key Words: *Currency Appreciation, Sterilization, Crawling Peg, Exchange Rate Regime, Excess Liquidity, Inflation, India & China*

INTRODUCTION

The appreciation of Indian rupee (INR) against the US dollar (USD) has been the topic for hot discussion since last couple of months as it has pushed down the exporters' revenues. Particularly the Indian outsourcers, who were as such struggling with rising staff salaries, have got tremendous pressure as an appreciated rupee has added considerably to their worries. As a consequence, for their sustenance, they have started firing the employees without looking into the bread and butter of the skilled workers. Still some analysts comment that the present rupee appreciation is not a matter of concern as it has been cropped up automatically by the good performance in our BoP and the exporters may lose their revenue now for a shorter span but must not erode their competitiveness as other currencies too have appreciated against the US dollar. Those analysts are right on their stand as the rising rupee has two edges - to some it's a boon, where as for some others a bane.

But looking into the gloomy career of the skilled workers, particularly software personnel, we should think of how to manage the present situation in order to maintain a competitive exchange rate like China. Indian economy now is not facing the singular problem of exchange rate management. Rather, along with it, the problems of liquidity management and inflation have made the problem a composite one for the economy. Because of low credit off take in so called busy season, the bankers are as such having surplus liquidity with them and to it, rupee appreciation also adds fire as to counter excess inflow of foreign currency, the monetary authority has to purchase those from the public in order to resist rupee appreciation, thereby adding further liquidity to the system, which aggravates the inflationary pressure. Thus the present composite problem of rupee appreciation, excess liquidity and inflation is to be properly managed for the

betterment of economic health of India.

The objective of this paper is to focus on managing the present problem of currency appreciation in India through monetary intervention in exchange rate regime, as very effectively done by China in order to sustain its competitive exchange today in spite of every possibility of its currency appreciation considerably. More specifically, this paper tries to highlight two monetary tools – Sterilization and Crawling Peg for managing the present problem of rising rupee, as a lesson from China.

Currency of a country is said to be appreciated if one unit of it can command more of any foreign currency or for one unit of any foreign currency less of it is required to pay as compared to previous period. Domestic currency appreciates as the supply of foreign currencies goes up via more foreign inflows either in current account or in capital account or in both the accounts of the country's BoP. Since last couple of months the Indian rupee has been getting appreciated in terms of a basket of foreign currencies. However, this paper will primarily highlight the Indian rupee appreciation in terms of the US dollar. It's because the Indian outsourcers, who are the hardest hit for a rising rupee and basically for whom an appreciated Indian rupee is considered as a problem for the economy as a whole, have two-thirds of their business with the US. Thus the present composite problem of India economy is inherited from the Indian rupee appreciation in terms of the US dollar. To resist the rising trend of India rupee, the Indian government/the RBI may go for sterilization or Crawling Peg or both. While sterilization is an indirect approach to resist currency appreciation by de-motivating foreign investors, the crawling peg is a direct approach to it by setting the official exchange rate of the domestic currency in terms of foreign currencies periodically as per requirements.

Sterilization is a form of monetary action; say lowering the bank rate, initiated to counteract the effects of a changing monetary base resulted from excess inflow of foreign exchange. But a Pegged exchange rate (or Fixed exchange rate) or simply a Peg is a rate the central bank of the country sets and maintains as the official exchange rate, which may be higher or lower than the market exchange rate(or floating exchange rate) depending upon the situation. If the central bank of the country reassesses the value of the peg periodically ahd changes the peg rate accordingly to stabilize the economy, then that peg is called crawling peg (or floating peg). In spite of much larger inflow of foreign currencies (particularly, the US dollar) to China than that to India, China has succeeded maintaining a competitive exchange rate by adopting these two tools. This paper tries to explain whether the Chinese experience to manage exchange rate, liquidity and inflation will work in Indian scenario.

The plan of the paper is as follows. While section-2 of this paper highlights the choice of India's exchange rate regime, in past and present, out of alternative regimes, section-3 outwardly focus on the present problem of Indian rupee appreciation vis-à-vis the US dollar; its causes and worries. In order to know the Chinese experience in such a situation or even in a graver situation, China's exchange rate regime has been briefly placed in section-4. Section-5 concentrates on the strategies during rupee appreciation; adopted so far and to be adopted in India in order to manage the problem of exchange rate and liquidity. And last but not the least is concluding remarks and suggestions placed in section-6 of the paper.

2. India's Exchange Rate Regime

The rate at which the currency of one country gets exchanged internationally is called the exchange rate of that currency. Due to rapidly increasing integration of global financial markets and increased capital mobility across the world, exposure to exchange rate risks has also increased in recent years. Accordingly, the problem of choice of an appropriate exchange rate regime has been cropped up in order to manage the foreign exchange reserves. Particularly, in countries like China and India this problem is very sensitive as the foreign exchange reserves in these countries are accumulated very fast in last couple of years.

2.1. Alternative Exchange Rate Regimes

The problem of choice is there where alternatives are there. In the context of exchange rate regime also three alternatives are available, out of which one is to be picked up, keeping the economic scenario of the country concerned in mind. Out of these three, two are extreme cases of exchange rate regime, such as the Fixed (or Pegged) exchange rate regime and the Floating (or Market-determined) exchange rate regime. And the third one refers to a number of intermediate

regimes which combine some important features of these two extreme regimes in different ways.

2.1.1. Fixed or Pegged Exchange Rate Regime

Fixed or pegged exchange rate regime is the protected one as the monetary authority of the country determines the official exchange rate of own currency keeping the economic situation of the country in mind. And to maintain the official exchange rate so determined, the authority buys and sells the domestic currency in exchange of the foreign currency with which the former is pegged. However, this pegged rate is not fixed for ever. The authority may change the official exchange rate by changing the pegged band whenever the economic situation demands to do so. As a pegged exchanged rate regime provides credibility, transparency, very low inflation and financial stability, it is suitable for developing countries in order to achieve the planned economic development.

2.1.2. Floating or Flexible Exchange Rate Regime

Under floating (or flexible) exchange rate regime, the rate of exchange of a domestic currency gets determined by the free play of demand and supply forces. In this case, there is no government/central bank intervention in the exchange rate regime of the country. If the demand for any foreign currency is more than its supply in a country then the exchange value of that foreign currency in terms of domestic currency will be more or alternatively, the exchange value of the domestic currency in terms of that foreign currency will be less and the vice versa. In this process, while the fall in the exchange value of a currency in terms of other currency/currencies is called currency depreciation or simply depreciation, the rise in the exchange value of a currency in terms of other currency/currencies is called currency appreciation or simply appreciation.

Floating exchange rate regime is quite simple in its operative mechanism as under this system, the exchange rate moves automatically and freely to equate supply and demand, thereby establishing equilibrium in the balance of payments of a country. Some critics of this regime advocate that because of frequent fluctuating exchange rate, the exporters and importers get discouraged as they lose confidence on their returns. But that can be easily avoided. The technique of forward exchange transactions can protect the importers and exporters from financial losses consequent upon fluctuating exchange rate.

2.1.3. Intermediate Exchange Rate Regime

Neither a constantly flexible nor a rigidly fixed rate of exchange is in the interest of any country for all time to come as both of these regimes have their situational flaws. While fixed exchange rate places the burden of adjustment in the balance of payments of a country on domestic income and prices, the floating exchange rate leads to massive capital outflows or unnecessary capital inflows as it encourages speculative activities. Between the two extremes of 'hard peg' and 'full float', there is a large spectrum of exchange rate systems, conveniently clubbed to designate 'intermediate exchange rate regime', that combine features of these two regimes in various degrees.

Under intermediate exchange regime, two alternatives are there to be highlighted; 'fixed but adjustable exchange rate' (or crawling peg) and 'managed floating exchange rate'. Fixed but adjustable exchange rate regime or Crawling peg regime is an exchange rate regime usually seen as a part of fixed exchange rate regimes which allows depreciation or appreciation in an exchange rate gradually for the sake of stabilization of the economy. In fact, it is a system of exchange rate adjustment in which a currency with a fixed exchange rate is allowed to fluctuate within a band of rates. Under this regime, the term 'adjustable' may mean to a tight band (or Target Zone) or crawling band. Under tight band or target zone, the exchange rate is restricted to moving in the space, defining the lower and upper limits of fluctuation. As in the tight band, there are also upper and lower bounds for the exchange rate in a crawling band system. However, the fluctuation band (range) is not constant but fluctuating each period as per requirements. If the crawl rate is sufficiently high, the crawling band is similar to a free float regime.

Intervention in the foreign exchange market by the monetary authorities or governments of the economies now is very common. Even those who claim for having a freely floating exchange rate are also not an exception. In most cases floating means 'managed floating' which, in fact, a form of intermediate exchange rate regime. Although the managed floating exchange rate is basically floating in nature, it invites state intervention in the exchange rate market if movements

are believed to be destabilizing in the short run. Due to full emphasis on 'opening up' in international trade by eliminating any sort of artificial restrictions, there is an increasing pressure on the developing countries to adopt a fully floating exchange rate regime. But most of these countries have resisted these pressures as free float carries the risk of volatility, which would unsettle entire external sector of these economies via speculative market activities.

Between the two intermediate exchange rate regimes, while 'crawling peg' or 'fixed but adjustable exchange rate regime is more fixed and less floating, the 'managed floating exchange rate' is more floating and less fixed. If a country is in transition from underdevelopment to developing or development, it should go for crawling peg as that will cause sustainable development of the economy.

2.2. India's choice: Past and Present

Among the alternative exchange rate regimes explained in the previous section, picking up the suitable one/s is vital as present day economic scenario of any country has strong bearing with the country's exchange rate regime. In fact, effective exchange rate management is now primary concern of any country and only befitted exchange rate regime will be capable to manage exchange rate effectively. Sustainable current account deficit and manageable foreign exchange situation are the indicators of an effective exchange rate management with minimal volatility and negligible destabilizing activities. The following paragraphs show India's choice of exchange rate regime in different periods and varied situations.

Over the last five and half decades since independence, the exchange rate regime in India has transited from a fixed exchange rate regime to the market-determined (floating) exchange rate regime. Up to 1970s since independence, Indian rupee was pegged to the Pound Sterling on account of historic link with Britain. During 1970s and 1980s it was pegged to a basket of currencies (most of the major currencies). But a market determined exchange rate regime has been prevailing in India since March 1993.

2.2.1. The Par Value Regime

During India's independence, the par value system of The IMF was operational in exchange rate regime of almost all the countries. Under this Par value system, country's currency was valued in terms of gold. Accordingly, the external par value of Indian rupee, after India's independence, was fixed at 4.15 grains of the fine gold as per the Par value system of the IMF. In terms of currencies, the exchange rate was equivalent to one pound sterling = 13.33 Indian rupees (or one US dollar = 4.76 Indian rupees) in September 1949. The country had been practicing this par value system of the IMF till the collapse of the Bretton Woods System in 1971.

2.2.2. The Pegged Regime

Since the break down of Bretton Woods System in 1971 the pegged regime replaced the traditional par value system and was operational up to 1992. India pegged its currency to the US dollar from August, 1971 to December 1991 and to the pound sterling from December, 1971 to September, 1975. After the break down of the Bretton Woods system, there was downward pressure on the pound sterling vis-à-vis major international currencies. As Indian rupee was pegged to pound sterling, there was misalignment of the Indian rupee vis-à-vis other currencies. Thus India experienced the flaws associated with a single currency peg. To overcome these flaws, with effect from September, 1975, Indian rupee was delinked from the pound and pegged to a basket of currencies of India's major trading partners. This system remained operational till 1992. So during the period 1975-1992, the exchange rate of Indian rupee officially determined by the Reserve Bank of India within a nominal band of ± 5 per cent of the weighted basket of currencies of India's major trading partners.

2.2.3 Market-Determined Regime (Managed floating Regime)

The transition to a market determined system was sequenced on the basis of the Report of the High Level Committee on Balance of Payments (BoP) chaired by C. Rangarajan. The first step in this transition was the introduction of partial convertibility of rupee in 1992-93 Budget, known as Liberalized Exchange Rate Management System (LERMS). This was followed by market-determined exchange rate regime in 1993. Under LERMS, a dual exchange rate was fixed, on the basis of which, 40 per cent of foreign exchange earnings were to be surrendered at the official exchange rate while the remaining 60 per cent were

to be converted at a market-determined rate. That was nothing but 60 percent convertibility of Indian rupee. Since the official exchange rate was lower than the market rate, this system meant taxing the exporters to subsidize the government's bulk imports. Due to LERMS India achieved a fair degree of stability as it helped to build up a considerable foreign exchange reserves in the country.

Looking into the size of our foreign exchange reserves, the government felt necessity to abandon the dual exchange rate so far existed in the system. Therefore Indian Union Budget 1993-94 adopted the unified exchange rate regime under which the 60:40 (i.e. market-determined to official) ratio was extended to 100 percent conversion. This 100 per cent conversion was extended for almost the entire merchandise trade transactions and all receipts, whether on current or capital account of BoP, but not all payments. On the contrary, the official RBI rate also stayed on for the conversion of items not permitted under the unified market rate. Thus more than half a dozen of invisible items of current account as well as capital account were covered by the official RBI rate.

It clearly shows that the 1993-94 Budget adopted full convertibility on trade account, i.e. a part of current account. However, in February 1994, the RBI undertook several steps towards achieving current account convertibility. It announced relaxations in payment restrictions for a number of invisible transactions and liberalizations of exchange control regulations up to a specified limit relating to i) exchange earners' foreign currency (EEFC) accounts, ii) basic travel quota, iii) studies abroad, iv) gift remittances, v) donations, and vi) payments of certain services rendered by foreign parties. Current account convertibility was finally achieved in August 1994.

Regarding capital account convertibility, India has been bit conservative as the financial crisis witnessed in a number of countries across the world during 1990s was due to the problems in capital account of BoP. However, capital account transactions were gradually liberalized in India. Restrictions on inflows were relaxed first. While liberalizing the inflows, there was an emphasis on encouraging foreign direct investment and portfolio investment which were progressively liberalized. Liberalization of commercial borrowings was also undertaken but focus here was concentrated on liberalization of long term borrowings while short term borrowings were discouraged. Recently, with consolidation in the external sector, restrictions on outflows have also been liberalized. In fact, a number of steps have been taken in recent years to liberalize the capital account of India's BoP but we are still far away from full capital account convertibility as capital account convertibility has more risks than benefits. Therefore, although India's present exchange rate regime seems to be floating, it's in reality a managed floating exchange rate regime. However, the regime is more floating less managed.

3. Recent Indian Rupee Appreciation: causes and worries

As we flex our economic muscle, rupee appreciation would be a natural consequence as a currency reflects the brand image of a nation. Since we have been performing better in the economic arena for last couple of years, our currency has to do well in terms of others and also has done the same. It's in fact not all of a sudden or very strange as we have been struggling for the same. But in reality the point to analyze is 'are we really good in our performance?', which can be well-assessed by looking into the BoP statements of our country. The subsequent part of this section of the paper deals with this issue. It is not right to show our indifferent attitude by feeling that the extent of rupee appreciation is not enough to create worries. The very fact that the rupee has moved from Rs 46.20 for an US dollar in May 2006 (or Rs 49.00 for an US dollar in 2002) to the recent level of Rs 39.58 (October 4, 2007), with intermittent ups and downs is a clear indication that the RBI has allowed some flexibility in the key exchange rate. The table - 3.1 shows the performance of Indian rupee in terms of major foreign currencies in recent period.

Table 3.1: Indian Rupee vs. US dollar, Yen, Euro and GBP				
Currencies	**May 2006**	**July 2007**	**October 4, 2007**	**Per cent change w.e.f. May 2006**
Rupees in terms of USD	46.2	41.05	39.58	14.32
Rupees in terms of Euro	59.05	55.35	56.14	4.9
Rupees in terms of Yen	41.1	33.2	34.06	17.12
Rupees in terms of GBP	86.6	82.2	80.72	6.78

Source: Business Standard, Date- 27th July and 4th Oct 2007, Section II, Money & Market

The table above clearly depicts that Indian rupee has been appreciated in terms of all four major foreign currencies in recent period. Although the percentage wise it has been appreciated the maximum in terms of Yen, even higher appreciation than in terms of the US dollar, this paper concentrates on Indian rupee appreciation vis-à-vis the US dollar because of the following two points. First, India's economic condition is largely dependent on the US, the most important trade partner of India. For example, the Indian outsourcing companies, which are the worst affected due to rupee appreciation, have two thirds of their business with the US. Second, Most of India's international trade is invoiced in the US dollar. And from the table it's found that between May 2006 and October 2007 there is 14.32% appreciation of Indian rupee in terms of the US dollar. Being a developing economy, this percentage of rupee appreciation is really a point for head ache. And accordingly, pondering over the reasons for the same is inevitable.

3.1. Causes of INR appreciation vis-à-vis USD

While appreciation refers to the rise in the price of currency in terms of another currency, depreciation refers to the fall in it. Generally the demand for and the supply of any currency determines the price of the said currency. In recent period the INR has been appreciating in terms of the USD or the USD has been depreciating in terms of the INR. How is that? Pertaining to this query, following three genuine alternatives come into mind; i) if the demand for the USD remaining unchanged, the supply of it increases in India, ii) if the supply of the USD remaining unchanged, the demand for it falls in India and iii) if both the supply of and demand for the USD in India increases but the rate of increase in supply is more than that in demand. Out of these three, the third alternative is responsible for the INR appreciation in terms the USD.

After knowing the above mentioned fact, any one will definitely be keen to know the sources of the demand for and the supply of the USD in India. The items of the Balance of Payments (BoP) statement of India will best explain this point. BoP of India is a systematic record of its monetary transactions with other countries of the world during a given period. While the receipts side of India's BoP exhibits the supply of the USD in India, the payments side of it reflects the demand for the USD in India. The current account and the capital account taken together constitute the BoP statement of the country. The items such as export of goods, export of services, unilateral receipts or transfers (receipt of gifts, donations, grants, etc.), factor income received and investment income received are the sources of the supply of the USD in India under current account, the items such as import of goods, import of services, unilateral payments or transfers (payment of gifts, donations, grants, etc.), factor income paid and investment income paid are the sources of the demand for the USD in India under capital account. Similarly under capital account, the items such as external assistance to India, commercial borrowings (both short term and long term) to India, NRI deposits in India and foreign investment (both direct and portfolio) in India are the sources of the supply of the USD in India, the items such as external assistance by India to abroad, commercial lending (both short term and long term) to abroad, Indian deposits in abroad and investment (both direct and portfolio) made by India in abroad are the sources of the demand for the USD.

As we know, the appreciation of the INR vis-à-vis the USD is the result of the higher rate of increase in the

supply of the USD in India as compared to that in the demand for it. If this situation is due to the better performance in current account of BoP then it is good and for that no need of resisting the INR appreciation. But if this outcome is due to greater surplus in capital account of BoP, then that is not good and for that our trial to resist the appreciation of the INR is useful. Again if the supply of the USD in India is more due to large exports of goods and services, the situation is still better and is most welcome. And if it's due to more export of goods (visibles) only, i.e. due to merchandise trade surplus or simply trade surplus, then the situation is the best. To know which of the above alternatives is to take the credit of recent appreciation of INR vis-à-vis the USD, we have to look into the BoP performance of India in recent periods.

The data presented in table 3.1.1 reflect the BoP statement of the country in the first half of the financial year 2007-08, where in the partially revised (PR) data of the first quarter and the preliminary (P) data of the second quarter are considered.

Table 3.1.1: Major Items of India s BoP: April-September 2007 (US $ million)

Item	April September	
	2007-08 (P)	2006-07 (PR)
1	2	3
1. Exports	73,665	61,450
2. Imports	116,066	95,224
3. Trade Balance (1-2)	-42,401	-33,774
4. Invisibles, net	31,688	23,434
5. Current Account balance (3+4)	-10,713	-10,340
6. Capital Account Balance*	51,149	18,989
7. Change in Reserves# (- indicates increase)	-40,436	-8,649

*: *Including errors and omissions. #: On BoP basis excluding valuation. P: Preliminary. PR: Partially Revised*

Source: Press Release, RBI, December 31, 2007

On the basis of the information presented in table 3.1.1 pertaining to the BoP of India for the first half of the financial year 2007-08, the following legitimate conclusions can be drawn.

1. As per the data released by DGCI&S (Director General of Commercial Intelligence and Statistics), the widened merchandised trade deficit of USD 42.4 billion in the first two quarters of 2007-08 as compared to USD 33.8 billion during the same period in the previous fiscal was due to fall in export growth and hike in non-oil imports. In such a situation there is no point to give the credit to merchandise trade for highly increasing supply of USD in India leading to the appreciation of INR.

2. The invisible surplus was higher at USD 31.7 billion in April-September 2007 as compared to USD 23.4 billion in April-September 2006 only because of larger private transfers (USD 19 billion in April-September 2007 as compared to USD 12.7 billion in April-September 2006) and substantial investment income (USD 6142 million in April-September 2007 as compared to USD 3816 million in April-September 2006).

3. Despite an invisible surplus, the current account deficit increased to USD 10.7 billion in April-September 2007 from USD 10.3 billion in April-September 2006 due to higher trade deficit. So the credit of increased supply of USD in India leading to appreciation of INR vis-à-vis the USD can never go to current account items.

As there is no contribution from current account of India's BoP for recent appreciation of the INR vis-à-vis the USD, it's the capital account which is solely responsible for this. As per the above BoP statement,

the capital account balance (including errors and omissions) in April-September 2007 (USD 51,149 million) is nearly three times of that in April-September 2006 (USD 18,989 million). To know, under capital account, which are those items mainly responsible for this exceptional hike in capital inflows to India, the contribution of different items to this is compiled below in table 3.1.2.

Table 3.1.2: Net Capital Flows during April-September 2007 (US $ million)

Item	April-September	
	2007-08	2006-07
1	2	3
1. Foreign Direct Investment	3,880	4,491
2. portfolio Investment	18,334	1,644
3. External Assistance	729	386
4. External Commercial Borrowings (ECBs)	10,557	5,735
5. NRI Deposits	-78	2,210
6. Other Banking Capital	5,341	1,133
7. Short-term Trade Credits	5,711	3865
8. Rupee Debt Services	-44	-67
9. Other Capital	5,978	-241
Total (1 to 9)	**50,408**	**19,156**

Source: Press Release, RBI, December 31, 2007

As per the table 3.1.2, under net capital flows, portfolio investment, External commercial borrowings (ECBs), banking capital and short term trade credits showed higher growth during April-September 2007. So these items are the real players for recent appreciation of the INR vis-à-vis the USD as they cause considerable inflow of the USD to India. Because of these items of capital account, foreign exchange reserves recorded an increase of the USD 48.6 billion during April-September 2007 as against an increase of the USD 13.7 billion during the corresponding period of the previous year. In this context, a pertinent question comes into mind – why this substantial change? The reasons for this great change are:

- Sustained momentum of domestic economic activity
- Better corporate performance
- Positive investment climate
- Long term view of India as the investment destination
- Favourable liquidity and interest rates in global market

However, the major sources of net capital flows to India were ECBs and portfolio investment. The causes of higher net ECB flows to India were favourable liquidity and the interest rates in the global markets on the one hand and rising financing requirements for capacity expansion domestically on the other hand.

Under portfolio investment, two items are covered – i) Foreign Institutional Investment and ii) Overseas equity issues of Indian companies via Global Depository Ratio (GDR) and American Deposit Ratio (ADR). Net inflows by foreign institutional investors were USD 7.1 billion during Q_1 of 2007-08 reflecting the better corporate performance as well as strong domestic equity markets in consonance with the trends in Asian stock markets. The inflows under ADRs/GDRs amounted to USD 308 million in April-September 2007. Taken together, net portfolio flows amounted to USD 7.5 billion in Q_1 of 2007-08. Participatory Notes (PNs) also contribute a lot for capital inflow to India. An estimate entails that out of total foreign portfolio inflows, the share of PNs was around 50 per cent by October 2007 as compared to 32 per cent during 2006.

However the RBI's choice to remain passive in foreign exchange market and considerable relaxation on capital account transaction of the country are the route cause of greater capital inflows mostly through the

ECBs and portfolio investments.

3.2. Worries of recent appreciation of the INR vis-à-vis the USD

Capital is the basis of economic growth. If domestic capital is not enough to achieve the required rate of growth of the economy and the gap inherited thereof is filled by foreign capital, it is so far so good. When the foreign investors find favourable atmosphere for investment, the surge of capital inflows will be inevitable as both supply and demand sides are ready to interact. In the context of the rate of growth of the economy, one will definitely consider this as a welcome phenomenon. However, like a double-edged sword it has its dark side too as high capital inflows may force the domestic currency to appreciate, what is now experienced in India.

As a currency appreciates, the exporters of the concerned country can get higher returns in terms of foreign currency, as for their same goods and services the foreign buyers are going to pay more, provided the demand for domestic goods and services in foreign market remains unchanged. And the demand for domestic goods and services in foreign market remains unchanged provided these goods and services have strong monopoly power in supply side of foreign market. But Indian exportable goods and services face strong competition in the world market as these goods and services are widely exported by almost all the developing countries. As a result of which, Indian rupee appreciation discourages the foreign purchasers of Indian goods and services as the currencies of other competitive countries are not appreciated at all or if at all appreciated, it's very meagre. In such a situation, as the demand for our exports falls, the producers of exportable goods and services get a setback and to get rid of that they may go for the minimum use of factors to save cost there by leading to massive unemployment, what the Indian textile and software industries are facing now. The subsequent discussion focuses on this issue. However, not just exporters but also domestic manufacturers competing with imports also lose competitiveness due to rupee appreciation as domestic consumers will get the imported product by paying less because imports become cheaper during rupee appreciation.

During Indian rupee appreciation, Indian imports become cheaper although the prices of the imports remain unchanged. So the sectors like auto, engineering and aviations appropriate the gains in the form of reduced costs from rupee appreciation as they are highly dependent on imported raw materials and fuels. But this benefit is of no use for the sectors like leather, textile and handicrafts as they rarely use imports for their production and on the other hand primarily depends on exports for their revenue generation. Hence the appreciating rupee does not fetch any gain in the form of cost savings to these sectors. Instead, the revenue earning in rupee terms of these companies has been hit hard. As a result, these sectors which provide huge employment, due to appreciated rupee, registered a negative growth. The negative growth in these sectors has direct link with unemployment. We can cite the case of Indian textile industry in this context. As India is the biggest cotton grower in the world, it exports finished yarn and in international market India's strong competitors are China, Pakistan, Sri Lanka and Bangladesh. Because of strong international competition, India textile exporters were exporting at a very reasonable price with only manageable margin. Now because of appreciated rupee, for the Indian finished yarn, the foreign buyers had to pay more although the price of it is unchanged. If the same product becomes available to them from other countries by paying the same amount as before, why will they prefer Indian product?

However, if the Indian textile industry can go for a price cut to an extent that the impact of appreciated rupee on the foreign buyers be nil, then the existing export demand can be kept intact. But this is impossibility as the exporters are already operating on edge, so far as the profit margin is concerned, due to strong international competition. As a result, India is losing the international orders in textile sector as the foreign buyers are getting that from other countries with the same payment. In fact, China, Pakistan, Sri Lanka and Bangladesh are getting the orders that India lost. It's because the currency of Pakistan, Sri Lanka and Bangladesh are not appreciated like India as their capital inflows are much less than that in India and the currency of China, which ought to be appreciated at a higher rate than Indian rupee because of much larger capital inflows to China and greater trade surplus in China's BoP, was resisted by the government and the central bank to be appreciated. In fact, China does not allow its currency to appreciate to preserve jobs, what India couldn't do for which five lakh textile workers lost jobs.

The effect of Indian rupee appreciation has already been felt in the economy as in a number of sub-sectors; the export down-turn is already set in. For substantiating this claim, we can cite the case of Indian apparel sector, one of India's major export industries. On year-on-year basis, in January-April 2007 there has been a 3.5 per cent decline in the value of exports to the US in Indian apparel sector, where as there has been a 57 per cent rise in the exports of Chinese apparel to the US during the same period. As a result, while India is losing its importance in international market, its most important competitor China is gaining its dominance. The same situation is also there in IT and BPO industry. As such the Indian outsourcers were already struggling with rising staff salary and with the appreciated rupee, as their margins are affected further; they started adopting pay cuts and job cuts in order to save cost. If we look into the BoP data, we can conclude that a stronger rupee has started taking its toll on software receipts. While the rate of growth of software receipts was 37.2 % in April-September 2006, it has been reduced to merely 15.2% during the same period in 2007.

Because of this, now almost all the software companies are firing their employees. TCS, the well known name for employee retention in software sector, is also not an exception from the attack of rupee appreciation. Just recently, TCS, as a measure of pay cuts, has opted for deducting 20% of variable pay of all its employees and it insisted 500 employees at different management levels to resign voluntarily on performance ground. In an attempt to assuage fears, the IT majors, however, say such sackings are routine and part of their 'quality control exercise'. As per the views of the employees of IBM, in the month of January 2008, about 1500 employees of the company have already been sacked. Thus, rising rupee and recession in the US economy are causing uncertainty and insecurities among the techies.

A stronger rupee also hits the companies with global commodity stocks (i.e. Indian Multinationals) like Reliance, Hindalco, Tata Steel and Software companies like Satyam, Infosys, etc. The biggest problem posed by rupee appreciation in recent time is not an export slow down and the resultant job losses. The problem is that it creates the belief among market players that the rupee has become a one way bet. This belief of market players along with higher interest rates in India compared to other countries will cause further huge capital inflows as the market players will expect windfall gains from Indian financial market. Then the gravity of rupee appreciation will be stronger which will lead to a serious export slowdown and massive unemployment.

4. China's Exchange Rate Regime

After taking the control of the government in China in the late 1940s, the communists established the People's Bank of China (PBC) in December 1948. Immediately after its advent, the bank started issuing the Renminbi or the Yuan (the official symbol CNY) and in the early 1950s, the government started focusing on financial and monetary system of the country in order to maintain stabilized prices and centralized exchange rate management. At that time, like most currencies, the Renminbi was also not convertible. Initially, the foreign exchange rate of the Yuan was fixed taking into account price comparisons of China's imports and exports. The value of Yuan was gradually rising from 1972 and it reached to 1.50 to the USD by 1979. However, this value of Yuan was in fact considered an over-valuation. Because of this over-valuation, exporters lost a lot. Since a majority of exporters were government companies, the losses were compensated by benefits that accrued due to cheap imports.

In the late 1970s, the Chinese government started relaxing controls on foreign trade and adopted a 'dual track currency' system. As per that system, an 'internal settlement rate' of the Yuan was maintained for China's trading firms to settle foreign exchange earnings/ payments with the government and the official rate of around 1.5 was maintained for non-trade related foreign exchange transactions. As the internal settlement rate was quite low in value, Chinese exports became competitive and that led to an increase in exports. As a result, Chinese exporters were able to make quick profits. The USA, a major trading partner of China by then, and the IMF raised objection against the Chinese dual system. And under compulsion, China scrapped the internal settlement rate and fixed the official rate at 2.8 Yuan to the US dollar in 1985. In 1989, the Yuan was devalued to 4.72 to the US dollar and further to 5.8 in 1993. In spite of these devaluations, the Yuan was still regarded as overvalued. However, the late 1990s and early 2000s saw the Yuan stabilize at around 8.3 to the US dollar. However, for the sake of the obligations pertaining to

the IMF Articles of Agreement, China with much hesitation opted for current account convertibility in 1996.

After becoming a member of WTO in 2001, China got integrated into the global trading system, giving the economy greater access to foreign markets and helping attract foreign investors who now felt secured about working in China's domestic market. Trade between China and the USA increased significantly after China joined the WTO. Despite the increasing trade between these two countries, the USA was not satisfied with China's efforts to implement some of its WTO commitments like the subsidies given to Chinese manufacturers and the under-valuation of Yuan. In spite of exceptionally large trade balances of China against the USA, as represented in table-4.1, the Yuan continued to hover around 8.0 to the dollar.

Table 4.1: US Trade with China (1995-2007)

Year	Exports (US $ Millions)	Import (US $ Millions)	Balance of Trade (US $ Millions)
1995	11,753.7	45,543.2	-33,789.5
1996	11,992.6	51,5128	-39,520.2
1997	12,862.2	62,557.7	-49,695.5
1998	14,241.2	71,168.6	-56,927.4
1999	13,111.1	81,788.2	-68,677.1
2000	16,185.2	100,018.2	-83,833.0
2001	19,182.3	102,278.4	-83,096.1
2002	22,127.7	125,192.6	-103,064.9
2003	28,367.9	152,436.1	-124,086.2
2004	34,744.1	196,682.0	-161,938.0
2005	41,925.3	243,470.1	-201,544.8
2006	55,224.2	287,772.8	-232,548.6
2007 (till March)	14474.2	71425.0	-56950.8

Source: www.census.gov

That's why the USA claimed that the Yuan had been undervalued and hence it emphasized that the exchange rate should be determined by market forces. In fact, the US Chamber of Commerce advocated a gradual shift to a floating system in China. However, China didn't share American views on the matter. Rather, in defence of China's currency policy, the Governor of the PBC said that the fixed exchange rate helped maintain China's high levels of employment and the Chinese government clamed a stable Yuan was in the interest of China and the world.

Till July 21, 2005, China's economy was under the umbrella of a fixed or pegged exchange rate regime. On that day, the Chinese authority announced a new regime called 'crawling peg' under which the daily trading price of the US dollar against the Yuan was to be allowed to vary by as much as 0.3 per cent each day above or below the central parity published by the central bank and the trading prices of the non-US dollar currencies against the Yuan were to be allowed to move within a certain band announced by the central bank. Under this system, Yuan was to have link not only with the USD but with a basket of currencies.

On this move of China, both the IMF and the US government officials expressed their satisfaction as they felt that the change in China's exchange rate regime was a move in the direction of greater exchange rate flexibility. But surprisingly, on July 27, 2005, contradicting the announcement of July 21, the Chinese central bank announced that no further changes in the value of the Yuan were to be expected in the near future. Immediately after the July 21 announcement, the Yuan strengthened marginally moving from 8.28 to 8.11 to the dollar. This prompted some analysts to conclude that Chinese authority was adopting a managed float but in reality, the regime they followed was the crawling peg.