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RESEARCH NOTE

Thoughts on Exchange Rate: A Pedagogic Note

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Introduction

The purpose of the paper is to define a few concepts in the context of exchange rate management. This includes *inter alia* the underlying meaning of exchange rate, the genesis of different exchange rate regime and an analysis of the merits and demerits of the fixed and floating exchange rate. There is also a short note on the exchange rate arrangement in Bangladesh on a historical plane.

Definition

Exchange rate connotes the price of one currency in terms of another currency. Thus, the definition is akin to the price of a commodity for which we pay money in exchange for the good. Like the price of a commodity, exchange rate is also determined by the demand for and supply of one currency *vis a vis* the demand and supply of another currency. So, Japanese yen gets a higher value or appreciates in international market with US dollar when supply of US dollar is relatively higher than the demand for US dollar. The exchange rate is generally quoted in terms of number of units of domestic currency per unit of reference/anchor currency and is referred to as the bilateral exchange rate. However, there are a few derivatives. Thus, inflation adjusted exchange rate which takes account of the price index of one country in terms of price index of another country is known as the real exchange rate in contrast to nominal

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bilateral exchange rate that does not consider the price level. Again, when the currency value is determined on the basis of a basket of currencies generally the currencies of main trading partners, the exchange rate is referred to as Nominal Effective Exchange Rate [NEER]. On the other hand, the Real Effective Exchange Rate [REER] considers the price index of the home country and the aggregate price index of the most important trade partners. Both the variants consider weights in terms of volume of trade to each trade partner.

Exchange Rate Regimes

There are primarily three-exchange rater regimes. Fixed exchange rate, the polar case of which is the floating exchange rate; and the intermediate exchange rate characterized by the BBC rule, the basket, band and the crawl [Dornbush and Park 1999]. The basket indicates a peg to several currencies instead of a single currency, the band manifests the limit of fluctuations [say up to +/-10 percent] and the crawl helps exchange rate to settle in differential inflation situation between the trading partners. The world observed different regimes, from a fixed to floating or in between these two regimes; Fixed Exchange Rate Regime [1870-1914], Inter War Period [1914-1944] and Bretton Woods Period [1944-1971].

Fixed Exchange Rate Regime [1870 –1914]

The Fixed Exchange Rate is also referred to as the gold standard. This regime was characterized by the issuance of domestic currency supported by 100 percent of stock gold. Thus, volume of fiat currency is tied to the stock of gold and gold was used as the basic metal in settlement of different transactions. Central bank in each participating country was ready to buy and sell gold at a fixed price in terms of domestic currency though prices and wages were flexible in both downward as well as upward direction. United Kingdom was leading the world in commercial and financial affairs and had been on the gold standard since 1821. Other countries joined in the bandwagon in the early 70's and Sterling came to be identified with gold and was freely accepted and widely used. However, the pre 1914 gold standard did not encompass the entire World. Only a score of major European countries were actually on the gold standard and maintained fixed exchange rate. The success of the gold staddard hinged on an environment free from major shocks such as Great Depression of 1930 or the commodity price hike of oil or other basic metals the world is experiencing now a days. The exchange rate could fluctuate only within a narrow range known as gold points but were considered to be static in response to demand and supply and transaction costs. Gold was the common denominator and the only official reserve asset.

The Interwar Period [1914-1944]

Mutual understanding and partnership among the countries in the exchange rate management marked the interwar period into three distinct phases. Phase I was the period of the World War I[1914-1918]. The golden age of the gold standard came to an end with the outbreak of war and the belligerent nations suspended the convertibility of currencies into gold and also put an embargo on gold export.

The Phase II [1919-1931] characterized by violent fluctuations in the exchange rate owing to shortage of gold in the aftermath of war. Financial Committee of the Genoa Conference recommended worldwide adoption of the gold exchange in 1922. United Kingdom reestablished the convertibility of Sterling into gold and removed all the restrictions on the export of gold. However, gold exchange standard collapsed in 1931 because the United Kingdom had to suspend the convertibility in the face of 1930 depression and a run on reserves. " His Majesty's Government have decided after consultation with the Bank of England that it has become necessary to suspend for the first time being the operation of Subsection 2, Section 1, of the gold standard act of 1925, which requires the bank to sell gold at a fixed price".[New York Times, September 21, 1931]

The world was divided into three competing hostile blocks; the sterling block organized around United Kingdom, the dollar block organized around USA and the Gold Block mainly France. The Phase III [1932-40] encompassed the decade of depression and a period of open economic warfare. Indeed, international cooperation on exchange rate arrangement reached its nadir. However, the tripartite agreement between the USA, United Kingdom and France during 1936 helped to devalue the Franc without retaliation. World War II put an end to any meaningful cooperation and the world needed to wait to design any reform until the end of the war.

Bretton Woods Arrangement [1944-1971]

Bretton Woods is the name of a place in the State of New Hampshire, USA. World leaders from 44 countries that included erstwhile U.S.S.R met to design an exchange rate regime helpful to streamline the stalled international trade. Harry Dexter White represented America and John Maynard Keynes represented the British side. The delegates considered two plans. Most textbooks on monetary economics elaborated on the Keynes's proposal. There were three important planks in Keynes proposal; creation of a clearing union with overdraft facilities and the ability to create reserves, designing of a new international unit of account [Bancor] to be used for the books of clearing union and the interest for both borrowers and the creditors to settle any trade deficit in the face of reserve stringency on a continuous basis. Though the Bretton Woods Final Act did not incorporate many of the Keynes's ideas, the act paved the way for the establishment of two institutions; known as Bretton Woods Twin institutions. The twin institutions are International Bank for Reconstruction and Development officially known as World Bank and the International Monetary Fund. The USA emerged as an economic power after the World War II and the dollar assumed the role of a reserve currency in the global money market. The regime that was known as Gold Exchange Standard assumed convertibility of dollar into gold at the rate of US $ 36 per ounce and coincided with the philosophy of Fixed Exchange Rate. International Monetary Fund was entrusted to oversee the exchange rate regime of member countries, help the deficit countries with financial support and to realign the exchange rate within a narrow band in the case of Fundamental Disequilibria in the Balance of Payments. The world observed uninterrupted reign of fixed exchange rate from 1945 to 1971. It is in our memory that during sixties exchange rate between US dollar and the Pakistani rupee was 1 US $ = Rs. 4.76. After liberation, we observe different alignment between Taka and US $ at different points of time.

The USA involvement in the Vietnam War and consequent pile of huge balance of payments deficit had the effect of undermining the confidence in US dollars and foreigners began to convert dollars into gold. France was particularly skeptical in terms of convertibility and the fixed parity between Dollar and Franc gave an edge to USA in import from France. France in particular tried to lessen its holding of US dollar and converted US $ 3 billion into gold during 1962-66. The final blow in the Bretton Woods system came with the unilateral announcement of President's Package by the then President Richard M. Nixon. The package that identified eight separate issues captured the frail state of the US economy during this time. The first item, " The U.S. will no longer convert foreign –held debts into gold; temporarily, at least, the dollar will no longer be the foundation of international monetary dealings, as it has been since 1944". The system thus broke down in August 15, 1971. This unilateral decision on non-convertibility of dollar into gold resulted in the floating exchange rate system that we now envisage in many countries of the world. Floating Exchange Rate envisages instantaneous adjustment in the exchange rate in response to the demand and supply in the market with reference to another currency.

Fixed *vs.* Floating Exchange Rate

The term floating in the context of exchange rate regime refers to an arrangement where exchange rate fluctuates in response to market supply and demand with reference to demand and supply of another vehicle currency. The alternative arrangements are fixed or crawling peg, where exchange rate parity is maintained at all circumstances or exchange rate moves in a narrow band in the face of continuous balance of payment deficit or surplus. On the other hand, managed floating associates deliberate intervention by the Central Bank in setting a new parity when the currency continuously experience pressure in the foreign exchange market at the existing parity. Many countries regularly monitor the bilateral exchange rate with an index called the real effective exchange rate, which takes account of the weighted value of a currency in terms of major trading partners.

Floating currency regime allows market forces in the exchange rate determination episode and is currently practiced in many countries of the world including India, Pakistan, Sri Lanka and Nepal. Indeed, floating is the consequence of the collapse of the Bretton Woods Arrangement in 1971 when USA unilaterally withdrew commitment in the convertibility of dollar into gold as promised and enunciated in Gold Exchange Standard. We now see a unique exchange rate instead of multiple exchange rates during late seventies and early eighties. Foreign exchange control is minimum and Bangladeshi Taka is convertible in current account.

There are no theoretical or empirical reasoning to establish superiority of floating exchange rate over fixed exchange rate. Dollarization of currency or currency board arrangement is considered as one of the modicum to stifle wild movement of currency. This is rather a tough arrangement that requires cautious steps of monetary authority to issue domestic currency to match exactly hard currency reserves. Domestic money supply gets a prop with augmentation of reserves i.e., full sterilization and loss of reserves result in contraction in domestic money supply. Dollarization may dethrone the country from the benefit of seigniorage and also limit exercise of independent monetary policy, akin to a common currency such as Euro. However, the experience of dollarization for many countries, e.g, Argentina was not pleasant. On the other hand, the design of unified currency is gaining ascendancy. Euro is the manifestation of one to one parity among the member countries for sound environment of trade among the member countries. Individual countries in the union sacrificed pursuance of the monetary policy in the embodiment of the Stability and Growth Pact. Though it may sound little odd, fifty states of the USA are on the fixed exchange rate regime through the Federal Reserve System. A dollar note printed in the Federal Reserve System in New York carries the same value to a dollar note printed in the Federal Reserve System in Atlanta.

Fixed exchange rate promotes international trade and investment because exchange rate fluctuations cause additional uncertainty and risk in transactions and thus inhibit the growth and development of such transactions. Moreover, fixed exchange rate goad the authority in careful domestic macroeconomic policy. When the authorities are in a fixed rate, the adoption of reckless macroeconomic policy such as excessive monetary growth will unleash pressure on domestic price, the exchange parity cannot be maintained and thus lead to pressure for devaluation of the currency. This is not considered as a sound political decision. Sometimes, speculation detached from the market fundamentals, the well known 'bandwagon effect', may irate speculators and as a result the exchange rate may overshoot.

The case for floating exchange rate rests on the premise that floating rate automatically ensures equilibrium in the balance of payments. The currency depreciates in the face of continuous balance of payments deficit, helping export through the competitive edge of depreciation and discouraging imports until the balance of payments is restored at the sustained level. Floating exchange rate also helps in monetary autonomy. Individual countries are free to choose inflation target, a tight monetary policy results in currency appreciation and an expansionary monetary policy evokes inflationary pressure in the first trail and ultimately results in depreciation. However, to be fair, floating does not empower market to exercise its uninterrupted power. Intervention is there in the name of light management or in dirty floating. Clean float precludes the possibility of any intervention and may be considered as the true float. On the other hand, dirty float is the deliberate intervention that almost coincides with pegging, which is common with fixed exchange rate. Bank of Japan's intervention in currency market in the face of appreciation of yen is a case in point. A devalued yen may force other countries in the region to do the same.

An Overview of Current Exchange Rate Regime in Bangladesh

With the introduction of floating exchange rate, the policy planners in Bangladesh are saved from pursuing the vexing policy of devaluation. Devaluation constitutes deliberate intervention to re fix exchange rates when the balance of payments experiences continuous deficit. On the other hand, floating exchange rate indicates instantaneous adjustment in the exchange rate in response to the demand and supply in the market with reference to the same for another currency. Common people seldom understand the inner meaning of devaluation because of conflicting opinions by different group of stakeholders when monetary authority resorted to such measure. It was common in Bangladesh that garment manufacturers used to express satisfaction when government succumbed to their demands in helping them garnering an edge in the export market. On the other hand, fledgling industrial entrepreneurs often balked at the sudden cost increase of machineries, spare parts and raw materials owing to devaluation. However, the ramifications are not so straightforward and acceptance of the desirability or undesirability of such a policy on simple ground warrants a careful analysis. The J-Curve explains the ramifications of devaluation on an economy in the context of several lags that have been proved empirically.

The previous practice in exchange rate arrangements in Bangladesh was managed floating. The bilateral exchange rate was adjusted with the movement of the real effective exchange rate. When real effective exchange rate index exceeded 100, the currency is devalued. When the index drops below 100, the policy suggests overvaluation of currency. Though there may be ambiguity in the composition of basket of currencies, relative weights, relative price index of the trading partners and the estimation procedure, the usual practice is to fix the alignment through monitoring of the real effective exchange rate index.

Though there are no theoretical or empirical reasons to establish the superiority of the floating exchange rate over the fixed exchange rate, Bangladesh embarked on the system of floating exchange rate from May 31, 2003 amid a lot of speculations. However, the mild fluctuations in exchange rates after ten months of floating of Bangladeshi Taka, no doubt manifest a smooth transition. There is a general proclivity of depreciation of currency at the initial onslaught of floating e.g., the Thai Baht experienced an initial depreciation against the vehicle currency of US $ to an extent of 24 percent, Pakistan and Sri Lanka experienced depreciation of their currencies to the extent of 10-20 percent immediately after the floating. Philippine peso experienced the same fate when market forces put pressure to float on July 11, 1997. The central bank asked IMF for immediate support of US $ 1 billion to meet exigency. However, for India after the initial onslaught of floating, the subsequent experience tells a different story. With a current reserve of over US$ 80 billion and six months back January 3, 2003 US $71 billion; Indian economy was poised to meet any challenge and was not taking any help from multilateral donors. Foreign reserves augmentation had given the confidence to repay overseas debt of US $ 13 billion well ahead of time. The rupee has appreciated by 5.5 percent against the US $ and last February, 2002 India retired US $ 2.8 billion worth of debt to World Bank and Asian Development Bank that saved about US $ 200 million in interest payments. Prudent monetary and fiscal policies are taking care of other macro fundamentals such as fiscal deficit target [5.6 percent of GDP] and inflation target at 5.4 percent. IMF document catalogues that India's management of foreign exchange reserves has generally been in accordance with International Monetary Fund guidelines and comparable to global best practice. India intervenes in market to even out lumpy demand or supply in thin markets and to prevent destabilizing speculation while facilitating foreign exchange transactions at market rates for all permissible purposes. Liquidity is, therefore, an important consideration in reserve management policy.

The experience of Bangladesh, however, was fair. The Bangladeshi Taka remained firm against the US dollar; the variation in parity was rather in a narrow range. Bangladesh Bank was rather cautious at the very initial stage and through the repo withdrew over Tk. 1120 million immediately after the flotation; through liquidity withdrawal triggered an overshoot in the call money rate to 35 percent. Subsequently, the rate eased due to lower government borrowing from the banking system against treasury bills. The reserve position was satisfactory even after payment of 250 million US dollar to Asian Clearing Union (ACU) in the aftermath of flotation.

The encouraging situation was due to rapid increase in remittances and augmentation of export earnings. Moreover, the lower price of dollar helped the Bangladesh Bank in the reserve augmentation by way of purchase from the market. Excellent macroeconomic conditions provided enough elbowroom to avert any disaster at the initial state of flotation. Another leverage was the funding by the IMF, World Bank and Japanese debt relief fund that boosted reserves close to US $ 2.5 billion during the first week of July 2003 and helped in building confidence. The three year funding by IMF under the Poverty Reduction and Growth facility [PRGF] to an amount of SDR 400 million [65 percent of quota] boosted reserves and salvage the currency from depreciation. Another support was provided by the World Bank through the 3-year target of strategic development embedded in the interim poverty reduction towards the millennium goal of the UN. The 536 million dollars interest free credit- 300 million to support the first phase of implementation of the government's 3 year Interim Strategy for Poverty Reduction and 236 million to develop rural roads infrastructure and capacity building of Bangladesh Telephone Communications Regulatory Board and strengthening the operational efficiency of the Bangladesh Bank may help avert any calamity associated with these steps.

Economists generally underscore the importance of three fundamental parameters in the sustenance of sound macroeconomic management that may help in averting a disaster in exchange rate depreciation. First, a balance between expenditures and earnings dubbed as fiscal prudence, secondly, a pragmatic monetary policy; whereas a fixed exchange rate such as the arrangement of currency union upheld the sacrifice of independent monetary policy, floating exchange rate endorses genuine adoption of market based interest rate, money supply consistent with growth fundamentals and regulation of bank loan. Third, a cautious look at the current account deficit, a widening gap between export earnings and import payments may be a genuine factor in currency depreciation.

This requires careful interventions in many crucial sectors. Fiscal deficit should not exceed the prescribed target, though now over 4 percent as percentage of GDP is teetering on the margin. The foreign exchange reserve position and the current account deficit should follow a rigid norm. Inadequate reserves and a sliding current account deficit are two factors responsible for nosedive in exchange rate. Though trade deficit is negative, the current account that includes services is in surplus. An analysis of current account data depicts a seesaw movement with increase or decrease in the remittances flow. Thus, though the current account surplus declined to $ 321 million from $ 538 million in the first four months of current fiscal year due to lean flow of remittances but regained during the next four months. Higher remittance inflow and increase in export earnings are two important determinants in maintenance of a reasonable exchange rate. The current reserves of US$ 2.8 billion fulfill the reserve requirement in terms of 3 months of import payments. However, the pressure on foreign currency may not be sustainable in the face of increased L/C on import, which is currently on a rise when compared in terms of export performance. Indeed, the trade deficit widens when import payments outstripped the export earnings and further put the current account in a precarious position when remittance flow declined. This situation is further aggravated in the absence of capital control and a proper monitoring mechanism to regulate capital outflow.

Market fundamentals that ensure stability among basic macro aggregates are essential in sustaining a parity value of the currency that is convenient to both exporters and importers. " A massive current account deficit, a crippling foreign debt burden and excessive monetary growth encourage speculators to attack its currency". Though performance in debt management is excellent in Bangladesh, the vulnerability lies in two other areas, current account deficit and in fiscal deficit. Fiscal deficit may trigger the inflationary pressure beyond the sustainable level and low remittance flow may turn the current account balance in red. Maintenance of a pragmatic exchange rate that promotes integration with the outside world in balancing external trade, FDI flow and in augmenting remittance flow is a sine qua non in development fundamental. This requires careful steps in many crucial sectors. Indeed, dexterity in macroeconomic management well ahead of the crisis may ensure success. Otherwise, a straw in a confluence may end up in a narrow strip when its float is not properly monitored. " The foreign exchange market is a world where winks, nods and secret handshakes from key policy makers mean a lot". [John Snow, Treasury Secretary, U.S.A.].

Adoption of an exchange rate regime fixed or floating or intermediate may not be answered in a clear-cut way. Even well managed intermediate regime is susceptible to contagion such as in Indonesia or fixed exchange rate in Venezuela, where the exchange rate between the official and black market rate is over 1000 Boliver. The official parity is 1600 Boliver to US$ 1 with capital control. The rate was 4.70 Boliver = 1 US $ during 1978.

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