Mr. Reddy reports on the dilemmas of exchange rate management in India Inaugural Address by the Deputy Governor of the Reserve Bank of India, Dr. Y.V. Reddy, at the XIth National Assembly Forex Association of India held in Goa on 15/8/97.

I am thankful to the organisers of the XIth National Assembly of the Forex Association of India for giving me an opportunity to share with you the dilemmas that we face in foreign exchange management. The fifty years since independence have seen significant changes in our exchange rate regime. The exchange rate policy has evolved from the rupee being pegged to the pound sterling until 1975, pegged to an undisclosed currency basket until 1992 and after a year's experience with dual exchange rate system to a market-related system by March 1993. This has helped to bring about flexibility in exchange rate management. A couple of years ago, my predecessor, distinguished Dr. S. S. Tarapore, addressed this Assembly on some of the burning issues of foreign exchange markets. Last year, my colleague, Mrs. Usha Thorat gave an authentic and analytical account of the recent developments in forex markets and on the role of authorised dealers (ADs) in forex markets. Today, I will address the dilemmas that we, as policy makers, face in the conduct of exchange rate policy.

International Parity

- 2. I will briefly, as a backdrop, revisit the four parity conditions, that you are familiar with. First, the Purchasing Power Parity (PPP) which links the spot exchange rate and inflation. Secondly, the International Fisher Relation which links interest rates and inflation. Thirdly, the Foreign Exchange Expectations which link forward exchange rates and expected future spot exchange rates. Fourthly, the Interest Rate Parity, which links spot exchange rates, forward exchange rates and interest rates. The four parity relations could be combined in several ways to throw light on the four critical variables that are often used in exchange rate management policies, viz., the interest rate differential, the inflation differential, the forward discount/premium, and the exchange rate movement. The theories built around the parity relations help us to understand the foreign exchange markets better, but, they rarely give us ready-made solutions to the problems that arise in day-to-day, say, minute-to-minute operations in the exchange markets.
- 3. What could be the explanation for such a phenomenon? In the real world, expectations cannot be easily subjected to definitive formulae; goods cannot be transferred across countries simultaneously; shipping and other transactions costs can turn out to be much different from the initial conditions; trade and other restrictions often exist, distorting prices. Even in the most efficient markets, 'ideal' conditions do not exist, and forward premia as a result have not been able to predict future spot rates accurately. The actual exchange rates are usually overvalued or undervalued in terms of the purchasing power parity. Under Indian conditions, however, there are some additional questions. For instance, which is the correct risk-free interest rate to be compared while calculating interest rate differentials? Should we consider the 91-day T-bill rate or some other short-term rate? The theoretical forward premia could vary depending on the interest rate chosen. In the quest for answers to some questions, dilemmas do arise.

Objectives and Purposes of Exchange Rate Management

4. The main objective of India's exchange rate policy is to ensure that economic fundamentals are reflected in the external value of the rupee. Subject to this predominant objective, the conduct of exchange rate policy is guided by three major purposes.

First, to reduce excess volatility in exchange rates, while ensuring that the market correction of overvalued or undervalued exchange rate is orderly and calibrated.

Second, to help maintain an adequate level of foreign exchange reserves.

Third, to help eliminate market constraints with a view to the development of a healthy foreign exchange market.

Let us relate the above approach to the current context.

Current Context

- 5. The elements of continuity, contextual response and change would be present in the conduct of any policy, including the exchange rate policy. In this address, I will be focusing on the contextual response. After all, exchange rate policy will form part of the overall macroeconomic policy and will, therefore, have to be subservient to overall macroeconomic targets. The conduct of exchange rate policy during 1996-97 was primarily guided by market conditions resulting from the contraction in the current account deficit and resurgence of capital inflows. Foreign exchange reserves (including gold) scaled a peak of US\$ 26.4 billion by end-March 1997, without sacrificing exchange rate stability. In regard to 1997-98, the exchange rate policy needs to be seen in the context of the Monetary Policy Statement of April 15, 1997. The Statement indicates, given the real GDP growth for 1997-98 of 6.0 7.0 per cent, the expansion in M3 would be sought to be maintained in the range of 15.0 15.5 per cent to keep the inflation rate at around 6.0 per cent. Monetary policy would, in other words, continue to be directed towards maintaining a stable financial environment in relation to price, interest rate and exchange rate.
- 6. Against these broad parameters, we have to look at the variables that have a bearing on contemporary exchange rate management. Some of the crucial variables at this juncture, apart from price stability and money supply, which are always dominant, are, in my view, the revenue and expenditure position of the Government, the oil pool deficit, the buoyancy in industrial activity, the progress in infrastructure sector, and the developments in trade and capital flows. Besides, leads and lags operate, affecting the market. Moreover, major players in the market influence exchange rate movements and thereby the perceptions about policy. Let me illustrate this point with reference to the oil pool deficit. The IOC has, in the recent past, increasingly resorted to foreign currency borrowing rather than domestic borrowing to finance the deficit, presumably in view of the lower cost and the perceived stability of the rupee. To the extent the IOC resorts to additional overseas borrowing for oil purchases, the demand in the forex market is depressed, leading to pressure on the rupee to appreciate even further. There would be an exactly opposite effect when the IOC starts reducing the exposure to short term borrowing, simultaneously making the cash payment for current purchases, with implications for exchange rate management.

External Value of the Rupee

7. The deceleration in export growth during 1996-97 has emerged as an area of policy concern and exchange rate is often blamed for that. The slow down in export growth during 1996-97 could as well be attributed to the decline in world trade coupled with sluggishness in manufacturing goods prices in the global market, variations in cross-currency exchange rates and deceleration in domestic industrial activities. However, we should accept that, beyond a point, real appreciation of a currency can hurt exports. Given the disparate

movements over time of the exchange rates of the domestic currency and the domestic inflation rate relative to important trading partners, the Real Effective Exchange Rate (REER) is reckoned as one of the most important determinants of the country's external competitiveness. Using the trade based REER (1985=100), the REER was 61.02 per cent in August 1993 and 65.78 per cent in August 1995, i.e. an appreciation of 7.8 per cent. In August 1995, the volatility in the exchange rate of the rupee started and in the following months, the rupee depreciated and corrected for real appreciation by January 1996 when the REER was 59.32. For most of 1996, the REER remained stable. However, with the sharp appreciation of the US dollar vis-à-vis other major currencies since the last quarter of 1996, the rupee also appreciated in real terms. In August 1996, the trade based REER (1985=100) was 62.26 which rose to 65.41 in April 1997, i.e. an appreciation of around five per cent. Over January 1996, the appreciation in April 1997 was 10.3 per cent. There is considerable discussion as to whether the rupee is overvalued or not. As per the REER, it would certainly appear so, irrespective of the base chosen. The overvaluation has got exacerbated with the sharp appreciation of the US dollar against other major currencies, viz., the DM and the Yen. The relative "cheapening" of imports may not have resulted in increasing imports and larger current account deficits. This is because imports are relatively less responsive to exchange rate changes and are more sensitive to the level of economic activity. There could be a potential larger current account deficit as industrial activity rebounds - even at the present exchange rates and if oil demand picks up, a correction cannot be ruled out.

The optimal size of the external current account deficit, of course, depends upon the degree of openness of the economy. In the Indian context, the ratio of current receipts to GDP of 15 per cent, as at present, could sustain a current account deficit of the order of two per cent of GDP and would still enable a decline in the debt service ratio from the present level of 25 per cent. A current account deficit of two per cent of GDP in conjunction with the domestic savings rate of 25-26 per cent could ensure an investment rate of around 28 per cent which, even with ICOR of around 4.0 should be able to sustain a real GDP growth of seven per cent per annum. Since 1991-92, however, the current account deficit has averaged around only one per cent of GDP. Thus, enlargement of the current account deficit beyond the present level is sustainable.

Volatility

8. The Reserve Bank has been intervening in both the spot and forward markets to prevent undue fluctuations. In the context of large capital flows (inflows as well as outflows) within a short period, it may not be possible to prevent movements in the exchange rate away from the fundamentals. Hence, the management of rate fluctuations becomes passive, i.e., one of preventing undue appreciation in the context of large inflows and providing a supply of dollars in the market to prevent sharp depreciation. But, the correction, if any, has to be gradual and not sudden.

Level of Reserves

9. Adequacy of reserves is, as I mentioned, an important consideration. The level of foreign exchange reserves rose to US\$ 29.8 billion by August 1, 1997 - equivalent to seven months of imports. In the context of the changing interface with the external sector and the importance of the capital account, we have to evaluate reserve adequacy in terms of both conventional indicators and non-conventional norms. The present level of foreign exchange reserves is equivalent to about 30 months of debt service payments and 5.7 months of payments for import and debt service taken together. In the context of mobile capital flows, it may be

useful to assess the level of reserves in terms of the volume of short-term debt which can be covered by reserves. At the end of March 1997, the ratio of short-term debt to the level of reserves amounted to a little over 25 per cent, compared to about 100 per cent for Indonesia, 50 per cent for Argentina, and 25 per cent for Malaysia. In fact, the level of reserves exceeds the total stock of short-term debt and portfolio flows which, taken together, constitute little less than 75 per cent of the level of reserves. The present level of external reserves is a source of comfort as it provides a measure of insulation against unforeseen external shocks or shocks created by domestic supply shortages. Besides, it helps to meet the precautionary motive and satisfy the need for liquidity, which in itself instils confidence in the Indian economy among international investors and financial markets. Such confidence has also a bearing on the extent and of course cost of external borrowings.

As the economy becomes more open, external shocks need a cushion which reserves alone can provide. The volatility of some of the capital flows needs to be kept in mind. It is true that reserves are not required to meet the transaction motive which is to be taken care of by changes that will naturally occur in the market determined exchange rates. But, in a period of transition, when structural shifts can release strong excess demand or throw up temporary bottlenecks, reserves smoothen the process of change and mitigate pains of adjustment. So, some addition to reserves, in my view, would give additional comfort.

Forex Markets

10. Developing exchange markets is another important consideration in exchange rate management. Recently, several measures were initiated to further integrate the Indian forex market with the global financial system. Banks were permitted to fix their own position limits and Aggregate Gap Limits (AGLs) in January 1996. Banks were permitted in October 1996 to provide foreign currency denominated loans to their customers out of the pool of FCNR - B deposits.

In order to achieve greater integration between domestic and overseas money markets, authorised dealers (ADs) were permitted in April 1997 to borrow from their overseas offices/correspondents as well as to invest funds in overseas money market instruments up to US \$10 million. With a view to imparting flexibility to corporates and improving liquidity in the forward markets for periods beyond six months, ADs were also permitted to book forward cover for exporters and importers on the basis of a declaration of exposure supported by past performance and business projection, provided the total forward contracts outstanding at any point of time did not exceed the average export/import turnover of the last two years. ADs were also allowed to arrange forex-rupee swaps between corporates and run a swap-book within their open positions/gap limits without prior approval of the Reserve Bank.

Now, as per the decision taken last week, FIIs are allowed to cover as a first step their debt exposures in the forward market.

In order to further facilitate integration between domestic and overseas markets, banks with adequate capital strength may be encouraged to have higher limits for investments in overseas markets. This will help in developing further the forward markets.

East Asian Experience: Relevance to India

11. Speaking of correction in external value and of volatility in forex markets, the question that is often asked is "would India go the East Asian way?" In the early stages of

development, East Asian countries adopted a conscious policy of export-led growth stimulated by real depreciation of their currencies. It was only much later, when capital inflows became strong, after 1992, that their currencies appreciated in real terms.

The currency overvaluation, declining exports, overheated property markets and the fragile banking system had fuelled intense foreign currency speculation, as the market participants felt that the natural course of the currency was to depreciate. Given the huge short-term borrowings, the fund managers started exiting the economy with the first sign of trouble, leading to a de facto devaluation of the Thai baht. An important point to be noted here is that the currency crises in these countries was managed quite efficiently with the help of reserves which most of these countries had to defend their currencies. Thailand, as also other East Asian economies, despite a large current account deficit, are high-saving economies with good underlying growth rate and strong competitiveness.

What are the lessons for India?

12. The recent experience of the emerging economies shows that any currency could come under speculative attack if its exchange rate is out of alignment with fundamentals for a prolonged period of time.

Second, once the speculative attack is launched on any currency, the neighbouring currencies are also vulnerable, no matter how sound their policies may be.

Third, the overvaluation of a currency acts as a catalyst when there is a run on the currency as all the market players base their action on the information that the currency is due for correction.

Presently, compared to March 1993, the appreciation of the Indian rupee in real effective terms is around 14 per cent. The Indian economy does have certain favourable factors in terms of a moderate CAD/GDP ratio, high foreign exchange reserves and a ratio of short-term debt to reserves much lower than that of the East Asian countries. Our inflation rate is also edging downwards. We have a fairly solid banking system despite the NPAs; the number of NBFCs are not that large; and the financial sector is subject to reasonably effective regulation by the RBI. Our financial sector is, therefore, less vulnerable than many of the East Asian economies, notwithstanding the fact that there are corporates operating with unhedged positions.

It is unlikely that any turmoil in South East Asian economies would have a direct impact upon the Indian rupee as India's trade with the five countries of the South East Asian region (Thailand, Indonesia, Malaysia, Philippines and Singapore) constituted only 7.8 per cent in 1996-97. Also, the currencies of this region are more internationally traded, larger number of hedging products are available, and the central banks of several South East Asian economies pool their resources to counter any attack on their currencies. It is possible that the sentiments that govern the interest of investors in these countries are different from the sentiments of investors coming to India.

In brief, the experience of these countries should provide some lessons for us in terms of potential risks. Of immediate relevance to us is the impact of their devaluation on export competitiveness if the rupee continues to appreciate.

Capital Inflow

13. Capital inflows constitute a major factor affecting the value of the rupee now. With the resurgence in capital inflows, the net surplus on the capital account more than doubled to about US\$ 11,600 million during 1996-97, thereby exceeding the previous peak of US\$ 9,695 million touched in 1993-94. Reflecting these developments, surplus conditions prevailed in the foreign exchange market throughout the year. In general, the policy response has taken the form of partial sterilised intervention through open market operations, liberalisation of capital outflows, raising of reserve requirements and deepening of the foreign exchange market by routing increased volumes of transactions through the market. To prevent appreciation of the rupee, and to protect international competitiveness, the Reserve Bank made substantial purchases of US dollars in the market. During 1997, the RBI intervened in the spot and forward markets, both in the outright and swap segments. Outright spot and forward purchases of US dollars during 1996-97 amounted to \$7.9 billion and \$0.9 billion, respectively. Swap purchases amounted to \$2.4 billion. While spot sale of US dollars was marginal, forward and swap sales amounted to \$0.3 billion and \$3.1 billion, respectively. Thus, net purchases of US dollars during 1996-97 amounted to \$7.8 billion.

The influx of capital continues during 1997-98. The Reserve Bank has accumulated US\$ 3.9 billion of foreign currency assets until August 8, during the current financial year. Total spot and forward purchases and swap sales of US dollars up to end-July 1997, totalled \$4.3 billion, \$1.1 billion and 0.9 billion, respectively. Thus, net purchases of US dollars by the Reserve Bank of India up to end July, during the financial year 1997-98 amounted to about \$4.6 billion.

The optimal policy response to capital inflows is very much a function of the anticipated persistence of capital inflows. The design of policy depends upon the expectation of whether the inflow of capital is temporary or is expected to continue. A temporary increase in inflow, perceived as such by the public, which may lead to a temporary real appreciation of the exchange rate, is unlikely to have major effects. Problems, however, arise if the inflow is temporary, but the public expects the inflow to continue. But, in real life, nobody knows with confidence, what is temporary, how temporary it is, and what the public perception is, and indeed how temporary the public perception is! So, let me straightaway go into the instruments.

Internationally, a number of instruments have been used to sterilise capital inflows, the chief among them being the sale of government bonds through open market operations. This policy is useful temporarily and if used for long, leads to renewed inflows. We in the Reserve Bank are, however, well equipped with physical stock of government securities. We have been active in the repo market in recent months to manage temporary liquidity conditions. The idea is to realise a fine balance in order to achieve the objectives of sterilisation without putting pressure on yields.

Discount policy, which implies restricting the access of banks to central bank credit or raising the cost of refinance, has also been used by countries to sterilise capital inflows. This instrument cannot, however, be used in the current context when there is plenty of liquidity in the money market and there is no borrowing from the central bank. However, this instrument may go against the long-term objectives of monetary and credit policy.

Varying the reserve requirements is yet another policy tool. Mobilising Government deposits has served as a variation to absorption of reserves in some countries. Variable deposit requirements in the nature of interest-free deposits with the central bank is

another form of discouraging capital inflows. This measure, while it reduces the need for costly sterilisation through the sale of bonds, may result in misallocation of resources and reduce the facility to borrowers to take advantage of lower international interest rates. We have used the CRR successfully in the past to stem inflows. After the imposition of CRR on incremental NRI deposits there has been some deceleration in the growth of foreign currency deposits during the current financial year.

Entering into foreign currency swaps (spot sell - forward buy) is another way of sterilising capital inflows. The foreign currency purchased by banks may be used to finance domestic activities or for investment abroad. Our experience shows that the market is fairly thin and, in such a market, the use of foreign currency swaps for sterilisation only adds volatility to the forward market unless there is a constant swap window.

Central banks can employ outright forward exchange transaction, i.e., buy outright forward instead of spot. This will have the desired effect on the spot rate only if it is not countered by very large spot inflows from participants like FIIs and forward supplies by exporters who wish to take advantage of the increase in premium.

Taxing on capital inflows is yet another form of dissuading flows. For foreign investors, it effectively lowers the rate of return on local assets. This instrument also carries the disadvantage of raising the cost of capital. This option was considered at one time, but deferred, considering its disadvantages.

Conclusion

14. I have explained the dilemmas, mainly to show that we are committed to the stated objectives, and assert that we are equipped to handle the problems - equipped with the requisite will and skill. However, some believe that we are cautious - whether in allowing the rupee to appreciate or inducing adequate depreciation. Perhaps some explanation would be in order.

First, we are going through a process of economic reform. In a democratic federal set-up, going through such economic reform, we require a general mandate on essential complementary policies.

Second, we are vulnerable to supply shocks, especially food stock and oil prices.

Third, the East Asian countries support each other. The G-10 countries coordinate with each other. The Latin American countries are generally supported by North America. We are not members of any blocks. We have gone through the trauma of a balance-of-payments crisis in the early 1990s and we cannot ignore the threat to economic sovereignty if we take undue risks.

Fourth, and most important, price stability is critical to the economy as a whole, to both the poor and exporters. In fact, as our Governor at the Reserve Bank of India, Dr. C. Rangarajan, mentioned in his address at the Annual Presentation Ceremony of the Engineering Export Promotion Council earlier this month, "containment of domestic price increase has the same beneficial effect as the depreciation of the nominal exchange rate. If the nominal exchange rate is stabilised at a certain level by letting the foreign exchange assets of the central bank increase, it may have an adverse effect on the exporters through price increases arising from more than the desired increase in money supply. There can therefore, be no rigid

formula governing exchange rate determination. Monetary authorities need continually to perform a balancing act between ensuring an exchange rate which will be supportive of exports and the need to contain monetary expansion within reasonable limits."

During the current financial year up to August 1, deposits have grown rapidly by 4.1 per cent (3.7 per cent in the corresponding period last year). M3 has grown by 4.4 per cent up to July 18 (3.7 per cent last year). The year-on-year growth in M3 is 16.7 per cent. The positive features during the current year are that interest rates have come down, both in the short and long term, and so has the inflation rate. The area of concern relates to money supply. Any further measures in terms of exchange rate should consider the money supply effect so that the gains already made on the interest rate and inflation fronts are not eroded. This is the critical aspect of the current exchange rate management stance.

Finally, the extent, the pace and the manner of correction of the exchange rate will have to be taken in conjunction with money supply, since price stability continues to be the dominant objective of monetary policy. We in the Reserve Bank seek your assistance, advice, cooperation and understanding. For my part, I am happy to announce that henceforth the Reserve Bank will make available weekly data relating to its intervention in the forex market.