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Title of the Thesis: Accumulation of Foreign Exchange Reserves: A Comparative Study of India and China since Early 1990's

Abstract

The demand for reserves has been increasing since early 1990s and it is more prominent in the emerging market economies. The surge in reserve holdings in these economies is largely due to the increase in the volatility of cross-border capital flows, exchange rate management, maintaining emergency fund and having transactions safeguard etc. The existing studies have argued that holding high level of reserves not only involves high opportunity cost, but also aggravates additional macroeconomic cost arising out of sterilization of capital flows. So, it is very much appealing to examine the dynamic sources of accumulation of reserves and the prominent factors that are determining the demand for reserves in the emerging economies. The study in this context attempts to examine the determinants of the demand for reserves in the two emerging economies like India and China and also tries to identify the role of domestic monetary disequilibrium in their reserve demand model.

The unprecedented surge in foreign exchange reserves has also raised a concern for holding optimum reserves and its alternative uses. These countries have accumulated huge reserves to overcome the problems of liquidity and safety and also have paid attention for the long-term returns. India and China has been accumulating huge foreign exchange reserves and is perhaps managing the reserves keeping in mind the above defined objectives. This study in this concern tries to estimate excess reserves and also examines the alternative possible uses of foreign exchange reserves.

The accumulation of foreign exchange reserves and its alternative uses have different issues and challenges for both India and China. Both the countries have accumulated huge foreign exchange reserves. India is able to accumulate reserves despite its persistent current account deficits. The rising inflows of external assistance, FDI, FIIs and NRI deposits have contributed significantly to the reserves basket in India. On the other hand, China is accumulating its reserves through the twin surpluses both in the current and capital accounts over the period. India needs to improve its trade balance to keep pace with China in the accumulation of reserves. The initiatives may be taken for promoting domestic exports and import substitutions to improve trade balance. Further improvement in the capital account balances can be created by enriching investment friendly environment.

The study empirically established that, import, interest rate, reserves volatility and exchange rate are significant factors of demand for foreign exchange reserves in India. Whereas, GDP, exchange rate and reserves volatility are significant factors for demand for reserves, but domestic interest rate is insignificant in China. The growing volatility of external transactions has contributed significantly to increasing reserve demand in China but not in India. The estimated import elasticity

lends support to the square root law of reserve demand in India, that is, the demand for reserves in India increases with the square-root of its level of trade transactions. There are economies of scale in reserve holdings in China. It is also found that central banks are using foreign exchange reserves for defending the domestic currency. The disequilibrium in the money market is significant factor for the demand for foreign exchange reserves in the short run both for India and China.

China needs more reserves for maintaining its pegged exchange rate. As India is following flexible exchange rate system, it allows exchange rate to be determined by market forces. RBI intervenes in the market only to keep exchange rate orderly and calibrated. The study reveals that, RBI does not intervene actively to correct disequilibrium in the domestic money market. On the other hand, the monetary authorities in China are very quickly responding to any disequilibrium in the domestic money market. However, the speed of adjustment by the market forces is very slow in both the economies as found from the error correction terms. This suggests that both the economies may work towards removing impediments to free play of the market forces, and integrating deeply to the global economy.

Both the countries have excess reserves after maintaining adequate levels as suggested by the ratio analysis and rule-based measure. The accumulation of excess reserves is a cost for any economy. It is observed that, the major portion of India's reserves is invested in securities and showing an increasing trend. The portfolio of deposits with the other central banks has declined in recent years and diverted to investments in securities and deposits with foreign commercial banks. This suggests that India is cautious about outflow of foreign exchange reserves and hence parking larger portion of foreign exchange reserves in safe assets. This is perhaps not the bad idea given the volatility in exchange rate, oil prices, export uncertainty etc. It seems that both the countries have important considerations for liquidity and safety in the accumulation of reserves. However, China has expanded its investment of reserves to high yielding assets including stocks and bonds to utilize its excess reserves for high returns.

It is important for both the countries to manage its excess reserves. China has already instituted China Investment Corporation (CIC) for managing its huge level of reserves and the CIC is investing reserves in high yielding assets. However, there is a room for further investments including health, education and other socio-economic activities for better diversification. India can follow the cross-country experiences and institute a special corporation for managing its growing reserves in various channels like investment in financial institutions, real estate, new energy, stocks, and bonds and also in infrastructure development for enhancing economic growth and for efficient diversification of reserve portfolios.