Research Title: “Three Essays on Monetary policy and Exchange Rate”

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Abstract: This thesis consists of three chapters on the monetary policy and exchange rate issues in Pakistan. In the first chapter we looked into State Bank of Pakistan’s response to the foreign exchange inflows, for the period from 2001:01 to 2007:06, to strike a balance between competing goals of internal and external equilibriums to draw lessons for its conduct going forward. Using a reaction function we tested the hypothesis that SBP fully sterilized its foreign exchange interventions. The results indicated that for the period under study, SBP only partially neutralized its foreign exchange interventions. In addition, we also found that changes in SBP’s domestic credit were counter cyclical as it had negative relation with the output gap. However, the changes in domestic credit were found to have positive relation with changes in inflation. This probably resulted from too much weight assigned to growth objective in the back drop of recession and low inflation environment at the start of 2001. It was also found that the SBP also change its domestic credit systematically to reduce interest rate variability at the short end. In the second chapter the forward market unbiasedness hypothesis (FRUH) is tested and its underline assumptions of rationally formed expectations and nonexistence of time varying risk premium is examined empirically in case of Rupee/US$. Taking in to account the non-stationarity of the spot and forward rates series, we tested this hypothesis by two approaches. First approach relates the changes in spot rates to the forward premium. The results overwhelmingly reject the hypothesis of forward rate unbiasedness hypothesis. In fact, the estimate is significantly negative and away from 1. This confirms the existence of forward discount anomaly or forward discount puzzle for 1-month forward market. Following the recent literature, we also tested forward rate unbiasedness hypothesis using the tests of co-integration. The result suggests the presence of the co-integration relation between spot and forward rates. However, it fails the restriction that this relation is (1,-1). This therefore implies that co-integration test too fail to accept the forward rate unbiasedness hypothesis. We also found that forward rate unbiased hypothesis fails due to fact that market’s expectation regarding exchange rate movements were not rational and also due to presence of time varying risk premium. In the third chapter we focused on the hypothesis that nominal shocks such as monetary policy have only temporary impact on long run equilibrium real exchange rate and the consequent misalignment. To do so we utilized two approaches to tackle this issue. The first approach to find out long run real exchange rate is through investigation a long run relation between real exchange rate and its theoretical determinants. The variables that have a long run relationship with the real exchange rate include the terms of trade, real interest rate differential, government spending, and tradable to non-tradable ratio. We found that monetary shocks have little impact in long run. Second approach used was the structural vector auto-regression by imposing long run restrictions in line with the Blanchard and Quah
(1989). Again, this approach has confirmed above results that only real shocks have lasting effects on long run real exchange rate. Nominal shocks only influence the equilibrium exchange rate temporarily in short run. The consequent misalignments measured through two approaches are then compared and policy implications are drawn. Although moving in the similar direction, there magnitudes are different. One important implication for this result is that policy makers' reliance on any one measure of to judge misalignment would be give inaccurate results.