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RBI Study on Impact of Real Interest Rate on Growth and Investment

While lower real interest rates can stimulate growth and investment, central bank cannot adopt a policy of higher inflation tolerance as the means to lower real rates because beyond a threshold the negative impact of inflation on growth outweighs its positive impact through lower real interest rate. This was the conclusion of a study undertaken by the Reserve Bank of India.

The study titled “[Real Interest Rate Impact on Investment and Growth – What the Empirical Evidence for India Suggests?](#)”, examined the broad question that higher inflation tolerance is a convenient means to lower real interest rate; but should a central bank pursue such a path? The study was initiated in the backdrop of the difficult growth-inflation mix encountered in 2012-13, when persistently high inflation required resolute anti-inflationary thrust in the conduct of monetary policy on the one hand, and sluggish growth impulses warranted adequate and unambiguous monetary policy stimulus to spur growth on the other.

Monetary policy is often expected to adopt a pro-growth stance in a phase of prolonged slowdown in growth and sluggish investment activities, notwithstanding persisting risks to inflation and the external balance position. Since real activities are believed to be sensitive to changes in real interest rates, a central bank is expected to aim at ensuring a lower real interest rate - rather than a lower nominal interest rate - when it shifts the balance of policy focus from primarily anti-inflationary to primarily pro-growth.

Major findings of the study are:

- ❖ For the determination of growth and investment at the macroeconomic level the real interest rate is more relevant, even though the nominal interest rate is important for investment planning at the firm level.
- ❖ At the macroeconomic level, with rising incremental capital output ratio, the marginal productivity of capital has declined over successive quarters in last two years, indicating why a lower interest rate alone may not stimulate growth.
- ❖ At the firm level, both nominal expected cash flows from an investment project and the nominal hurdle rate would invariably presume some underlying inflation expectations, but neither cash flows nor the hurdle rate may be explicitly evaluated in real terms.

- ❖ Over different phases of the business cycle, the internal rate of return (IRR) and the hurdle rate change, and therefore the nominal interest rate should be compared with the IRR, rather than relative to a level prevailing in the past, to assess whether the interest rate environment is growth supportive.
- ❖ In a dampened investment climate, the IRR of firms may remain under constant pressure, as corporates face cash flow problems due to sluggish demand conditions, weak pricing power, high input costs, stalled projects at different levels of completion, and delays in collection of receivables after delivery of orders. In a phase of falling IRR, the interest rate must decline significantly to ensure that the hurdle rate remains below the falling IRR to be able to revive investment and growth.
- ❖ A central bank can influence real interest rates through financial repression/reforms and lagged monetary policy response to inflation. Real interest rate is a real phenomenon, but it could change in the short-run depending on how monetary policy responds to inflation and inflation expectations.
- ❖ Empirical estimates using both firm-level and macroeconomic data, and alternative methodologies such as panel regression, VAR, Quantile regression and simple OLS suggest that for 100 bps increase in real interest rate, investment rate may decline by about 50 bps and GDP growth may moderate by about 20 bps.