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Credit and Growth Cycles in India: An Empirical Assessment of the Lead and Lag Behaviour: RBI Working Paper Series No. 22

The Reserve Bank of India today placed a Working Paper Series No. 22 titled "[Credit and Growth Cycles in India: An Empirical Assessment of the Lead and Lag Behaviour](#)" by Kritika Banerjee.

Procyclicality of credit has received significant policy attention in the post-crisis period, given the role of credit in fostering growth on the one hand and the role of excessive leverage in magnifying risks to financial stability on the other. For the conduct of monetary policy and for forging appropriate macro-prudential policies, assessment of the credit cycle relative to the business cycle in the country specific context has become important. Set against this background, this paper studies the extent of procyclicality of credit in India focussing on the lead and lag relationship between credit cycles and growth cycles. It starts with the basic question, as to whether credit leads or lags behind growth in the economy as a whole and how the relationship varies over time and across sectors/industry groups and then empirically examines the position at both macro and micro levels. The paper also discusses existing literature on procyclicality and business cycle analysis and emerging trends in finances to Indian corporate sector.

It uses Hodrick-Prescott filter to estimate growth cycles in output and credit. Granger causality test and cross correlations are used to understand the lead-lag dynamics between these cycles. Growth rate cycles have been used for the industry-wise analysis.

The major inference this paper draws is that output leads credit in the post-reform period contrary to the pre-reform period when credit used to lead output growth. The non-agricultural sector is also seen to have output causing credit. This paper also suggests that credit intensity of growth declines only in the second half of a contractionary phase of the business cycle, which generally continues in the first half of the expansionary phase of the business cycle. Similarly, the increase in credit intensity becomes more visible only in the second half of the expansionary phase, which persists in the first half of the contractionary phase of the business cycle. Examining the extent of procyclicality across industries, the paper suggests that unlike monetary policy, macro-prudential policies could be sector-specific, depending on the assessment of financial stability risks from specific sectors. The lead role of credit over certain phases of the business cycle and for some of the industry groups suggests that monetary and macro-prudential policies could be aligned accordingly so as to improve the assessment of inflation and financial stability implications of business cycles. Procyclicality risks have been found to be higher in certain industry groups relative to others.

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