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RESERVE BANK OF INDIA

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RBI Bulletin – June 2022

The Reserve Bank of India today released the June 2022 issue of its monthly Bulletin. The Bulletin includes Monetary Policy Statement, 2022-23, Resolution of the Monetary Policy Committee (MPC) June 8, 2022, two Speeches, nine Articles and Current Statistics.

The nine articles are: I. State of the Economy; II. What is the Yield Curve Telling Us About the Economy? III. Capital Flows at Risk: India's Experience IV. Revisiting India's Natural Rate of Interest; V. Central Bank Balance Sheet Size and Inflation: Unravelling the Fuzzy Dynamics; VI. State Finances: A Risk Analysis; VII. Freight Costs of India's Trade; VIII. Industrial Revolution 4.0: Will it be different this time for India? and IX. Nowcasting Global Growth.

I. State of the Economy

Downside risks to global growth have accentuated with the risk of commodity price driven inflation turning more generalised. Despite global headwinds, domestic macroeconomic conditions continued to strengthen. With a growth rate of 8.7 per cent in 2021-22, India's gross domestic product (GDP) surpassed its pre-pandemic (2019-20) level by 1.5 per cent and the recovery remains robust in 2022-23 so far. The y-o-y Consumer Price Index (CPI) inflation print for May was lower than the previous month after seven months of continuous rise.

II. What is the Yield Curve Telling Us About the Economy?

The government securities yield curve is widely regarded as a valuable predictor of future macroeconomic developments. Following the dynamic latent factor approach suitably modified to fit Indian conditions, this article uses a state space yield-macro model to show that in contrast to advanced economies, it is the level and curvature of the yield curve rather than its slope that contain useful information on market expectations about economic prospects and inflation expectations.

Highlights:

- The government securities yield curve contains important clues on the likely behaviour of the economy.
- The slope of the yield curve steepened with the onset of pandemic-related policy easing which has reversed in the recent policy tightening phase.
- The curvature increased sharply during the pandemic-related easing and after the Union Budget announcement of a large market borrowing programme for 2021-22 till the announcement of G-SAP in April 2021.

- The yield curve is indicating an improvement in long-term growth prospects and an upshift in ex ante inflation expectations. At the same time, the fact that the yield curve has become steeper and concave reconfirms expectations of tighter monetary policy in the period ahead.

III. Capital Flows at Risk: India’s Experience

With the spate of emerging market crises since the 1990s and the experience with the global financial crisis and its aftermath, attention has turned from the benefits associated with capital flows to their consequences such as accentuating financial vulnerabilities, aggravating macroeconomic instability and spreading contagion. This paper draws on recent developments in the ‘capital flows at risk’ framework which estimates risks to capital flows conditional upon various pull and push factors so as to assess the effect of a range of risk factors.

Highlights:

- The findings suggest the predominant role of pull factors in attracting capital flows to India, key among them being growth differentials and domestic term premia. On the other hand, it is global risk aversion reflected in the volatility index (VIX) that drives capital outflows, particularly, portfolio flows which are most sensitive to shifts in risk sentiment globally and consequent spillovers.
- The empirical results indicate that there is a 5 per cent chance of portfolio outflows from India of the order of 3.2 per cent of GDP in response to (i) a COVID-type contraction in real GDP growth, or (ii) a GFC type decline in interest rate differentials vis-à-vis the US, or (iii) a GFC type surge in the VIX.
- In a black swan event comprising a combination of shocks, potential portfolio outflows can rise to 7.7 per cent of GDP, highlighting the need for maintaining liquid reserves, in addition to standard metrics of import and debt servicing cover, to quell such potential bouts of instability.

IV. Revisiting India’s Natural Rate of Interest

Natural rate represents an equilibrium real that is realised when inflation is aligned to the target and output is at or close to its potential level. Post-pandemic, several determinants of the natural rate have exhibited distinct shifts, with persisting uncertainty about whether and over what time frame they may normalise. It has been argued in the literature that the trajectory of potential growth, which is a key determinant of the natural rate, may rise due to large increase in public spending on infrastructure, digitisation, push to innovation from start-ups and new business opportunities, but it may also decline due to the scarring effects of the pandemic on education, labour market, deglobalisation and market concentration. After a major crisis, literature suggests that natural rate generally declines, and stays depressed for long. This article revisits the estimate of natural rate for India against this backdrop.

Highlights:

- The natural rate for India is estimated to lie in the range of 0.8 per cent to 1.0 per cent for Q3 of 2021-22, which is lower by about 80 basis points than the earlier comparable estimate of 1.6 -1.8 per cent for Q4:2014-15.

- The confidence band around the estimates has widened, reflecting heightened uncertainty about the evolution of key determinants of the natural rate during the post-pandemic period.
- Use of macro-prudential measures instead of monetary policy may be the preferred policy option to stabilise the leverage gap (or financial cycle in the asset market), as the magnitude of the impact of an increase in interest rate on the leverage gap is relatively small and it also involves greater lags

V. Central Bank Balance Sheet Size and Inflation: Unravelling the Fuzzy Dynamics

The global surge in inflation since the second half of 2021 has reignited interest in assessing the role of post-pandemic balance sheet policies of central banks (or unconventional policies) in fuelling inflation. In India also, concerns have been expressed surrounding the post-COVID growth in monetary aggregates (*i.e.*, reserve money and broad money) as a reason behind the subsequent high inflation. This article examines the relationship between RBI's balance sheet size, money supply and CPI inflation, while highlighting the critical role of crisis time large changes in velocity of money and money multiplier in influencing the relationship.

Highlights:

- In India, the size of the RBI's balance sheet does not exhibit any statistically significant causal relationship with CPI inflation.
- The transaction velocity of money (*i.e*, nominal GDP divided by M3 or money stock) declined sharply after COVID from 1.3 in 2019-20 to 1.1 in 2020-21 and 2021-22 in India. The money multiplier (*i.e.,* M3 divided by base money) also declined from 5.57 in 2019-20 to 5.48 in 2020-21 and further to 5.2 in 2021-22. A higher order of growth in monetary aggregates was warranted to compensate for the decline in velocity and money multiplier, which is not inflationary.
- It is important to assess money growth at any point in time recognising the asymmetric impact of money growth on inflation during periods of economic slowdown and periods of overheating. Empirical results suggest that money growth does not pose risks to inflation in the presence of economic slack. When the economy is in an expansionary phase, however, an increase in money supply can cause higher inflation.

VI. State Finances: A Risk Analysis

The sovereign debt crisis in India's neighbourhood is a stark reminder of the importance of bringing government finances on a sustainable path after the prolonged COVID crisis. In India, sub-national finances have deteriorated significantly in 2020-21 though there is considerable variation in the vulnerability of individual states. Against this backdrop, this article attempts to put the spotlight on fiscal risks confronting state governments in India, with emphasis on the heavily indebted states.

Highlights:

- The slowdown in own tax revenue, a high share of committed expenditure and rising subsidy burden have stretched state government finances exacerbated by COVID-19.
- While debt-sustainability concerns loom large for the five most indebted states, new sources of risks have emerged in the form of rising expenditure on non-merit freebies, expanding contingent liabilities, and the ballooning overdue of DISCOMs.
- Stress tests show that the fiscal conditions of the most indebted state governments may deteriorate further, with their debt-GSDP ratio likely to remain above 40 per cent in 2026-27, warranting strategic corrective measures.

VII. Freight Costs of India's Trade

The container shipping industry that forms a significant part of global supply chain logistics, came under severe pressure when the world trade recovered swiftly from the initial impact of the pandemic, which was reflected in the surge in freight cost across all transoceanic trade routes. In this backdrop, the study explores the greater role of freight charges in India's imports and exports in the recent period and examines its role in exacerbating inflation dynamics.

Highlights:

- Freight charges in India have been trending up and contributing to the rising value of India's exports and imports in the recent quarters.
- The freight shocks are found to have an impact on domestic retail prices, through import quantum and wholesale price channels.
- Higher freight charges also appear to exacerbate the pass through of import costs to retail inflation.

VIII. Industrial Revolution 4.0: Will it be Different This Time for India?

Technological changes in the last decade have revolutionised the organisation of industrial production. Industry 4.0 which integrates new technologies – like Internet of Things (IoT), cloud computing and analytics, artificial intelligence and machine learning — into manufacturing production processes and operations, has ushered in a new era of 'smart manufacturing'. Having been sidelined during the previous industrial revolutions, the article explores India's readiness in adapting to the technological developments and examines the corresponding prerequisites to benefit from IR-4.

Highlights:

- The manufacturing sector in India is capital intensive, with the organised sector contributing nearly three-fourths of the manufacturing sector Gross Value Added (GVA). The sector is dominated by low and medium R&D

industries, though high and medium R&D intensive industries are increasingly playing an important role reflecting scope for benefitting from IR-4.

- At the firm level, a panel data analysis reveals firm maturity, size, profitability and technical know-how as determinants of R&D expenditure in India's manufacturing sector.
- Lower than average quality of physical infrastructure and human capital could be a constraint for reaping the benefits of IR-4 going ahead.

IX. Nowcasting Global Growth

Incoming data suggests that global growth is losing steam in the first and second quarter of 2022. This article attempts to bridge the gap between the availability of and the arrival of global GDP estimates and higher frequency indicators of global economic activity.

Highlights:

- Several indicators such as global index of industrial production (IIP), trade volume and purchasing managers index (PMI) that are known to be highly correlated with global GDP are tested for their ability to predict global GDP growth. Using an autoregressive integrated moving average (ARIMA) framework with exogeneous regressors, global IIP emerges as the strongest predictor of global GDP growth.
- Two alternate scenarios are considered for the forecasting exercise. Under the baseline scenario, global IIP during April-June 2022 is assumed to grow at the same year-on-year rate as during the previous six months. The alternative scenario assumes a much slower growth rate of 2.0 per cent for April-June 2022 to capture risks to the global economy.
- As it emerges, the article finds that the momentum of global GDP growth during Q1:2022 has lost steam sequentially and annually, possibly entering contractionary zone. In the second forecast exercise, global GDP growth is forecasted to have lost momentum in Q1:2022 under the baseline scenario and likely to enter contractionary zone in Q2: 2022. The decline is expected to be much sharper under the alternative scenario.

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