

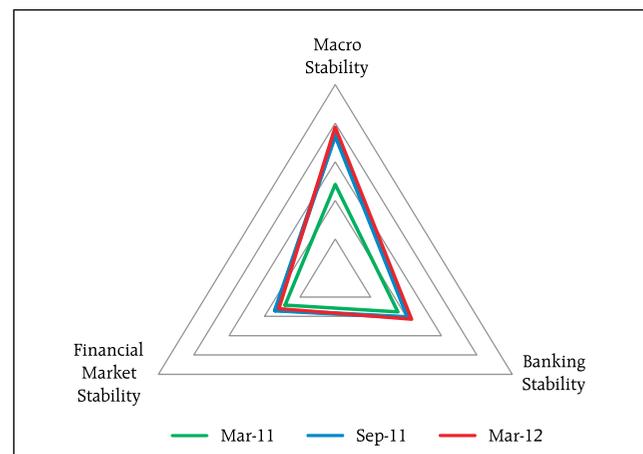
## Overview

*The financial system of the country remains robust, though risks to stability have increased since the publication of the last Financial Stability Report (FSR) in December 2011. The combined effect of the dismal global macroeconomic situation and the muted economic performance on the domestic front has caused marginal increase in risks to stability. The financial sector stakeholders, however, continued to repose confidence in the stability of the domestic financial system, as revealed by the findings of Reserve Bank's second Systemic Risk Survey, though there has been some reduction in the level of confidence. Threats to stability are posed by the global sovereign debt problem and risk aversion, domestic fiscal position, widening current account deficit and structural aspects of food inflation. Falling international crude oil prices and a normal monsoon could, however, be positives for the domestic economy, going forward. The foreign exchange and equity markets witnessed high levels of volatility while investor confidence and sentiments ran low. Indian banks' soundness indicators remained robust, although the pressures on asset quality persisted. Given a decelerating deposit growth, banks' reliance on borrowed funds, especially short term funds increased. The country's financial market infrastructure functioned without disruption. But, potential vulnerabilities such as settlement lags in the Real Time Gross Settlement (RTGS) System and large uncollateralised intra-day exposures assumed by the Clearing Corporation of India Limited (CCIL) on its designated settlement banks need to be addressed. The results of a series of stress tests to study the impact of adverse macro-financial shocks showed that the banking system remained resilient even under extreme stress scenarios.*

### **The financial system remains robust though risks to financial stability have worsened**

1. Risks to financial stability have worsened since December 2011, primarily due to global risks and domestic macroeconomic conditions. Risks to domestic growth are accentuated by fiscal and external sector imbalances. Financial markets, particularly the foreign exchange market, continue to correct downwards and experience heightened volatility. The recent decline in international crude oil prices, if sustained, could provide relief. A normal monsoon could also alleviate pressures on the growth front and provide impetus towards reviving the domestic economy, given its inherent strength. Banks are well capitalised, though trends in asset quality and their ability to withstand sustained liquidity pressures pose some concerns. The overall stability of the system remained robust as indicated by the trends in the Financial Stability Map (Chart 1)<sup>1</sup>.

Chart 1: Financial Stability Map



**Note:** Risks increase with the distance from the centre<sup>2</sup>  
**Source:** RBI staff calculations

<sup>1</sup> The composite financial stability map, which attempts to capture the movements in the risks on the three major dimensions of the Indian financial system – macroeconomy, financial markets and banking sector. Detailed methodology is in the Annex.

<sup>2</sup> Position of the Financial Markets Stability Indicator is as in May 2012

***Survey respondents express concerns about global risks and twin deficits; remain confident about stability***

2. The respondents of Reserve Bank's second Systemic Risk Survey, conducted in April 2012, expressed their concern about the evolving global risks as well as a host of domestic factors including the current account deficit, fiscal deficit, asset quality of banks and potential funding risks. However, the participants remained relatively sanguine about the stability of the domestic financial system, despite some fall in the level of confidence since the previous Survey, conducted in October 2011.

**Global environment**

***Global macroeconomic risks have deteriorated***

3. Deepening crisis in the Euro area and continued global slowdown contributed significantly to the deterioration in global risks. The downside risks to the global macroeconomic environment are expected to intensify further in the coming months, owing to the political uncertainty in the Euro area, the persistence of global imbalances, fiscal stress and sluggish growth prospects. Debt and gross financing needs continue to be high in several Advanced Economies (AEs), even as sovereign yields are rising for some Euro area countries.

***The contagion from Euro area spreads to other advanced and emerging economies***

4. There are signs of spillover of the developments in the Eurozone to other AEs and emerging and developing economies (EDEs) through the trade, finance and confidence channels. Weakening demand for exports, decreasing trade finance owing to deleveraging by banks in Europe and possible impact on the capital flows to emerging economies are threatening a sustained global recovery. The persistently high unemployment rates in several AEs and moderating internal demand in some of the emerging economies are adding to the problem.

***Global financial markets under stress***

5. The global financial markets remained under stress and experienced high volatility during the period under review. There was a brief period of improvement

in sentiments following the two rounds of Long Term Refinancing Operations by the European Central Bank. Reduced institutional appetite for the sovereign bonds of the troubled Eurozone economies has translated into funding pressures for European banks. With worsening access to unsecured funds, these banks remain vulnerable to funding market freezes and dependent on central bank support.

***Extended run of accommodative monetary policies in AEs could create vulnerabilities***

6. The existing regime of very low policy rates in US and other AEs is generally expected to continue for some more time. This has further reduced the cost of debt capital relative to equity. Going forward, this could result in greater use of leverage and lead to a 'search-for-yield' behaviour among investors.

**Macroeconomic environment**

***The domestic economy has decelerated sharply***

7. Domestic GDP growth declined sharply to 6.5 per cent during 2011-12 from 8.4 per cent in the previous year, weighed by global uncertainties as well as domestic cyclical and structural factors. The trend reflected the experience of similar EDEs, especially the BRICS countries. The deceleration in GDP growth was reflected across all the three segments of the economy – agriculture, services and industries. The downside risks to growth may persist given the headwinds from the global economy and moderation in private and government consumption and investment demand.

***Inflationary pressures have moderated but risks remain***

8. Core inflation has moderated during the period under review. Nevertheless, the persistence of overall inflation, in the face of significant growth slowdown, points to serious supply bottlenecks and sticky inflation expectations. While falling global commodity prices could aid in checking inflationary trends in the coming months, the potential impact of the lagged pass-through of rupee depreciation, suppressed inflation in energy and fertilisers and possible fiscal slippage continue to pose a threat.

***External sector risks aggravated; recent trends in oil prices provide comfort***

9. The external sector vulnerability indicators point to increased risks. The current account deficit has deteriorated with decelerating growth in exports even as imports remained high on the back of sustained demand for gold and crude oil. The net international investment position of the country worsened with rising short term debt relative to total external debt. Falling international oil prices, if sustained, will help moderate external sector risks. But, domestic factors *viz.*, a fast depreciating exchange rate, reduced capital inflows and the risk of downgrade of the sovereign rating of the country, continue to pose challenges for the financing of the deficit.

***Trends in the composition of fiscal deficit pose concerns***

10. Fiscal risks remain elevated, given that both fiscal and primary deficits have increased during 2011-12. Recent trends in terms of an elevated ratio of revenue deficit to gross fiscal deficit and the increasing proportion of revenue expenditure relative to capital outlays are also disquieting. Gross financing needs of the Government remain high with consequent impact on private investment and growth.

***Plans for fiscal consolidation afoot; risks of slippages remain***

11. The Union Budget for 2012-13 set out a roadmap for fiscal consolidation during the 12<sup>th</sup> Five Year Plan period. The proposed fiscal consolidation for 2012-13 is primarily based on the revenue-raising efforts of the Government. The achievement of proposed reduction in the ratio of gross fiscal deficit to GDP would also depend on the commitment of the Government to contain its expenditure on subsidies within the stipulated cap of 2 per cent of GDP in 2012-13.

**Financial Markets**

***India's foreign exchange market corrected and remained volatile***

12. The turmoil in the Euro area, a widening current account deficit and perceptions of slowdown in policy-making in India affected the domestic foreign exchange market during the review period, resulting in a rapid

depreciation of the Indian rupee. These trends were, however, broadly in line with the wider trend evidenced in case of currencies of EDEs, especially those with high current account deficits. A combination of administrative measures and foreign exchange market intervention were taken to address the stress.

***Potential rating change could impact overseas borrowing***

13. The process of deleveraging underway amongst European banks has had some impact on the cost of borrowing of Indian firms and banks. A change in the current external rating of the country could have 'cliff effects', impacting both, the availability and the cost of foreign currency borrowing for Indian banks and firms.

***The domestic equity markets reflecting weak sentiments***

14. The domestic equity markets appreciated in the first two months of the calendar year. Thereafter, the markets retraced to their December 2011 levels as Foreign Institutional Investment (FIIs) flows reversed in the wake of worsening global outlook, weak domestic sentiments and the sharp depreciation of the Indian rupee.

***Implications of increasing use of Algorithmic and High Frequency Trading need to be watched***

15. Some recent episodes in Indian markets have highlighted the need for a carefully calibrated approach towards technological advancements like direct market access supporting algorithmic and high frequency trading. Globally, too, the balance between the benefits of such advancements *vis-à-vis* the risks posed by them is a subject of debate.

**Financial Institutions**

***Banks' reliance on borrowed funds growing***

16. Credit growth in the banking sector decelerated to around 16.3 per cent in 2011-12, as compared with about 22.6 per cent as at end March 2011, reflecting the overall slowdown in the economy. Deposit growth also decelerated and, at less than 14 per cent as at end March 2012, was the lowest growth rate recorded in the past 10 years. The disproportionate slowdown in deposit growth *vis-à-vis* credit growth led to increased reliance of banks on borrowed funds, which may translate into

liquidity risks.

***Asset quality concerns persisted; comfortable capital position act as cushion***

17. An increase in slippage ratios, rise in the quantum of restructured assets and a high rate of growth in Non Performing Assets (NPAs) relative to credit growth implied that the concerns on asset quality of banks remain elevated. The Gross NPA ratio for scheduled commercial banks (SCBs) increased to 2.9 per cent as at end March 2012 (2.4 per cent at end March 2011). The position is not alarming at the current juncture and some comfort is also provided by the strong capital adequacy position of banks.

***Growing interconnectedness warrants closer monitoring of the 'most connected' banks***

18. Distress dependencies between banks have been on the rise, as evidenced by the trends in the Banking Stability Measures. The analysis of the network of the Indian banking system reveals that the maximum potential loss to the banking system due to the failure of the 'most connected' bank has risen during 2011. These trends would need to be carefully monitored, through rigorous microprudential supervision of the 'more connected' banks.

***Regulatory measures aim to mitigate risks from the rapid growth of gold NBFCs***

19. The rapid growth of NBFCs engaged in lending against gold in recent years could pose risks due to the business model of such companies, concentration of business amongst a few companies and their growing interconnectedness with the banking system. These risks are sought to be addressed through various regulatory prescriptions.

***Interconnectivities in the Indian financial system could pose risks***

20. Insurance companies and mutual funds are the major lenders in the Indian financial system with banks, especially public sector banks, being the major borrowers. The insurance companies and mutual funds are, therefore, vulnerable to the risk of contagion from the banking system. Banks, on the other hand, are considerably reliant on borrowings from these entities. As borrowings from mutual funds are largely short term,

they could engender greater liquidity risks for the banking system.

***A macro mapping of the non-banking financial segment may be warranted***

21. Strengthening the regulatory framework for banks globally adds to risks of migration of financial sector activity to the relatively less regulated 'shadow banking' sector. In the Indian context, the non banking financial sector in the country functions within a regulatory framework appropriate to the activities undertaken by these entities. Nevertheless, a review of the extant regulatory arrangements and a complete macro mapping of all kinds of credit intermediation activities, with regulatory focus on more systemically important activities and entities, may be warranted in the light of the international reforms.

***Financial institutions remain largely resilient to credit, market and liquidity risks***

22. Credit risks continued to remain the primary source of vulnerability for banks, while risks from adverse movements in interest rate appeared manageable, as evidenced by the results of a series of sensitivity stress tests. The banking system, as a whole, is, however, well positioned to absorb even severe credit risks stresses. Statutory Liquidity Ratio (SLR) investments lend resilience to banks in managing their liquidity risks. A sample of banks reported a positive net marked to market (MTM) position on the derivatives portfolio, indicating that they are in a position to absorb adverse market movements in case of simulated historical stress scenarios and random sensitivity shocks.

23. NBFCs are also well positioned to withstand credit risk shocks given their comfortable capital adequacy positions. Stress tests conducted for Urban Cooperative Banks point to some vulnerability to both credit and liquidity risks.

***Regulatory Infrastructure***

***Unintended consequences of key reform measures will need to be managed***

24. Gaps and challenges in implementation of the post crisis reforms are emerging, especially with respect to the resolution framework for systemically important financial institutions and reforms in the OTC derivative markets. There could be unintended consequences of

these reforms, particularly for EDEs. Differences in the calibration of reform measures in different jurisdictions may leave scope for regulatory arbitrage.

***Domestic Basel III guidelines aim at a smooth transition***

25. In line with the present regulatory requirements, the final guidelines for Basel III also require banks in India to maintain a capital ratio at 9 per cent of risk weighted assets (RWAs), which is higher than the 8 per cent prescribed by the Basel Committee. The timelines suggested by the Basel Committee have been retained to enable a smooth transition. Going forward, challenges will be faced as the additional capital needs could impact the cost of capital and return on equity of banks, especially in the short run. The fiscal impact of the increased capital requirements of public sector banks has also to be reckoned with.

26. A more stringent leverage ratio has been prescribed for the period of the parallel run considering that the leverage ratio of banks in India is currently well above the minimum ratio of 3 per cent prescribed by the Basel Committee.

***Variations in RWAs will need to be monitored as banks migrate to advanced approaches under Basel II***

27. Significant differences in the RWA density (RWAs to Total Assets) have been observed across jurisdictions and also across banks in the same jurisdiction. These are generally driven by differences in the risk profile of banks, their business mix and also the stage of regulatory evolution in the jurisdiction. There may, however, be

practice-based inconsistencies in the calibration of risk parameters. Migration to advanced approaches under Basel II may create further scope for the emergence of interpretational differences. Variations in RWA density across bank segments have been evidenced in the Indian context as well, and the underlying trends will need to be studied.

**Financial Market Infrastructure**

***Real time gross settlement reduces risks ... but settlement lags need monitoring***

28. Delays in settlement of transactions in the RTGS system, notwithstanding proactive intraday liquidity management by banks, the provision of intraday liquidity by the central bank and the availability of prudential reserve balances, could pose risks. The underlying trends of variations in settlement lags across different banks will also need to be monitored.

***Newly issued standards and the risks posed by settlement banks warrant a review of CCIL's risk management framework***

29. The newly issued international 'Principles for Financial Market Infrastructure' proposing stringent risk management requirements necessitate a relook at the risk management practices of domestic central counterparties such as CCIL. Risks are also posed by the designated settlement banks of CCIL which act as 'quasi' payment systems and require CCIL to assume significant uncollateralised intraday exposures to these entities. The trends in this regard need to be assessed *vis-à-vis* CCIL's financial resources and its liquidity and credit risk management framework.