1 THE THEME OF THE REPORT

There is a renewed focus on fiscal-monetary co-ordination in the wake of activist fiscal response to the global financial crisis of 2008. These developments have raised apprehensions of greater fiscal dominance at the global level particularly when the central banks have resorted to unconventional monetary policy measures to restore orderly conditions in financial markets and to stimulate aggregate demand in the economies affected by the global crisis. The Indian experience shows that the rule-based fiscal legislation may have reduced, but not eliminated fiscal dominance. The changing dynamics of fiscal-monetary interface has imparted flexibility in the Reserve Bank's balance sheet management amid greater challenges from the openness of the economy and the increase in government market borrowings. Keeping in view the international experience gained from the recent financial crisis that would impinge on debt management, monetary management and maintenance of financial stability, as well as the specific circumstances in India, a broad guidance on the implications of the evolving path of fiscal deficit, output gap and inflation gap for monetary policy over the medium term is provided.

1.1 Fiscal-monetary co-ordination continues to engage attention in macroeconomic theory and policy practice, and more so with the return to fiscal dominance after the impact of the global financial crisis. As both fiscal and monetary policies can influence aggregate demand and potentially complement/substitute for modulating economic activity, co-ordination between these twin arms of macroeconomic policymaking becomes essential. Expansionary fiscal policies could raise inflationary concerns for a central bank by fuelling aggregate demand pressures or by requiring the monetisation of deficits. Market financing of deficits may, at times, come in the way of keeping long-term interest rates low and conducive for investment and economic growth. On the other hand, a tighter monetary policy could raise market interest rates and interest payments on government borrowings, leading, in turn, to larger fiscal deficits. The monetary policy could also impact seigniorage and the inflation tax revenue for the government. More recently, issues of sovereign debt sustainability in the euro area are impinging on the financial stability concerns of central banks, either through the adverse impact of sovereign debt burden on the health of the banking system or through traditional concerns of fiscal dominance on monetary management.

1.2 The fiscal-monetary interface has remained one of the central tenets for the conduct of policymaking in the Reserve Bank over the years, and some policy-relevant analytical issues on this subject have been highlighted in the Bank's publications in the past including in earlier issues of the Report on Currency and Finance (RCF).[1] The motivation for choosing fiscal-monetary co-ordination as the theme for this issue of RCF is based on several considerations.

1.3 First, after the activist fiscal response to the global financial crisis of 2008, central banks in the advanced economies confronted the additional challenge of managing sovereign debt sustainability. There is apprehension that the conduct of liquidity

1 Various issues relating to fiscal-monetary policy co-ordination discussed in past issues of the RCF include: (i) the optimal level of monetisation of the fiscal deficit ('optimality' defined in terms of obtaining an inflation rate of 5 per cent) in India (prior to the Fiscal Responsibility Budget Management Act, 2003); (ii) counter-party relations between the government and central banks (*i.e.*, whether the central bank provides overdrafts/loans to the government or is permitted to operate in the primary and secondary government securities market and the extent to which central bank profits are transferred to the government) and the fiscal theory of price level; and (iii) theoretical underpinnings, cross-country experience and the Indian experience over the period 1935 to 2005 (including issues relating to the enactment of fiscal responsibility legislations by the centre and some of the states and the separation of public debt management and monetary management functions).

management operations by central banks could potentially monetise public debts indirectly at a scale much beyond the extent of traditional direct monetisation that was prevalent during the fiscal dominance era after the Great Depression up to the 1970s. Second, turning to India, there is a need to assess whether phasing out automatic monetisation of fiscal deficit and abandoning the practice of direct subscriptions by the Reserve Bank in the primary government securities market as well as introducing a rule-based fiscal policy have actually reduced fiscal dominance in the conduct of monetary policy. Third, the evolving phases of fiscal-monetary co-ordination in India have posed new challenges to the Reserve Bank in its balance sheet management. As monetary policy switched its operating procedure from monetary targeting to a multiple indicator approach, it had to manage capital flows in a more open economy and seamlessly fine-tune its liquidity adjustment facility. Fourth, over the last couple of years, while the fiscal deficit and inflation have remained high, investment has slackened on account of both structural factors and interest rates. In this context, the reform measures announced by the government since September 2012 and the imperatives of stepping up the growth rate as envisaged in the Twelfth Plan document[2], while maintaining macroeconomic and financial stability, may require careful calibration of fiscal and monetary policies. Finally, in the light of the strengthening interactions between sovereign debt management, monetary policy and financial stability in the aftermath of the global financial crisis, a need exists to revisit the nature of institutional arrangements for debt management over the medium-term in India.

1.4 Accordingly, the present Report seeks to examine various facets of fiscal-monetary co-ordination in India as it has evolved, particularly in the recent past and keeping in view the likely developments over the medium-term, especially the macroeconomic outlook and policy priorities. The following chapter traces the evolution of fiscal-monetary co-ordination across a few advanced and emerging market and developing economies (EMDEs) and assesses the implications of the recent global financial crisis for the fiscal-monetary interface. Chapter 3 presents the Indian experience in this regard, noting that fiscal dominance of monetary policy has moderated over last two decades, though large fiscal deficits, suppressed inflation and debt dynamics continue to feed into reserve money. Chapter 4 traces the substantial transformation in the Reserve Bank's balance sheet over the years in line with the shifts in the regimes of monetary policy operations and different phases of fiscal-monetary co-ordination. Chapter 5 examines the outlook for fiscal-monetary-debt management co-ordination in India, particularly in the context of the post-crisis return to the prescribed fiscal roadmap and the renewed thinking on the institutional arrangements for debt management, against the backdrop of the global financial crisis. The concluding chapter identifies a few key lessons and future challenges for fiscal-monetary co-ordination internationally as well as in India in the light of recent experience. The coverage of various chapters along with key questions analysed therein are set out below.

How has fiscal-monetary co-ordination evolved in theory and practice? What have been the implications of the recent global financial crisis for the fiscal-monetary interface?

1.5 Addressing these questions, Chapter 2, 'Fiscal-Monetary Co-ordination: Theory and International Experience', begins by setting out the macroeconomic orthodoxy which favoured a lead role for fiscal policy to address aggregate demand deficiency in economies during the Great Depression of the 1930s and to support the post-World War II reconstruction process. With monetary policy becoming ineffective at high unemployment levels, direct monetisation of fiscal deficits and keeping

2 As approved by the National Development Council.

interest rates low were the prescribed channels whereby central banks had to acquiesce to fiscal dominance. With the failure of Keynesian policy prescriptions during the period of co-existence of high inflation and high unemployment in the 1970s amid oil price shocks and the breakdown of the multilateral fixed exchange rate system, monetary policy independence was sought to be achieved by adopting a monetary targeting approach. Nonetheless, monetary policy had to be co-ordinated with fiscal policy, particularly in cases where independently pre-set inter-temporal paths of fiscal deficits, uncertainties and objectives outnumbered the available independent instruments. Fiscal policy's potential for directly impacting price levels was brought forth by the 'Fiscal Theory of Price Level' developed in the 1990s, thereby identifying another channel of fiscal constraint on monetary policy's pursuit of price stability. Open economy extensions, particularly after the formation of European Monetary Union (EMU), and the need to address the financial stability objective, brought in more explicitly during the post-2008 global financial crisis, have also favoured the co-ordination of fiscal and monetary policies in recent years.

1.6 The experience of select advanced economies in the context of fiscal-monetary co-ordination shows that following the high inflation of the 1970s, the issue of central bank independence in the conduct of monetary policy gained importance during the next two decades. During the 1990s, many countries adopted inflation targeting, while fiscal policy increasingly became rule-based. These developments were reflected in commensurate changes in monetary policy operating procedures, while government borrowings reduced as fiscal rules came into play. The policy co-ordination mechanism between the central banks and the governments improved further during the 1990s amidst an emphasis on price stability in the UK and some other advanced countries[3]. By the early 1990s, many OECD countries had set up committees for consultation and co-ordination between fiscal authorities and central banks on public debt policy. At the same time, the operational responsibility for managing government debt was largely assigned to independent debt management offices with their own clear-cut objectives. This realignment of the operational framework often went together with the independence of central banks with explicit inflation mandates. Nonetheless, it is difficult to conclude whether the degree of fiscal dominance actually diminished significantly with central banks becoming more independent since the 1990s. As far as EMDEs are concerned, fiscal policy dominance was often the outcome of the importance assigned to socio-economic objectives that they had set for their respective economies. However, major economies like South Africa, India, Brazil and Russia eventually recognised that fiscal consolidation was essential to pursue and achieve the monetary policy objectives. An analytical assessment for the period up to the crisis shows that with the improving co-ordination mechanism between fiscal and monetary authorities, advanced as well as EMDEs have used both fiscal and monetary policies to deal with cyclical fluctuations.

1.7 Favourable economic and financial conditions during the pre-crisis period masked debt build-up in certain advanced economies, which got accentuated during the crisis. The recent financial crisis reinforced some of the traditional questions about the co-ordination between monetary policy and fiscal/debt management policies. A build-up of fiscal imbalances and sovereign debt during the crisis was observed as both advanced economies as well as EMDEs had to respond in terms of tax cuts and higher public spending. This situation has continued in the post-crisis period, particularly in the advanced economies. During the crisis, major central banks used their balance sheets to pursue accommodative monetary policies. The post-crisis debate that has emerged in respect of fiscal-monetary co-ordination is whether fiscal dominance or monetary dominance will prevail. It

3 More recently, the US in January 2012, and Japan in January 2013, have introduced indicative inflation goal of 2 per cent.

is quite likely that if fiscal dominance prevails, near-term interest rates would need to be kept lower than under monetary dominance. However, fiscal policy can be accommodated by monetary policy only till inflation expectations remain contained. Therefore, it is necessary that countries, particularly the advanced economies, work out credible medium-term fiscal consolidation plans, which could ensure a balance between short-run needs for supporting recovery in growth with medium-term fiscal sustainability. Central banks' interaction with fiscal authorities is likely to be critical not only from the viewpoint of the smooth conduct of monetary policy to anchor inflation expectations but also from the perspective of sovereign debt sustainability and financial stability. The chapter also highlights current concerns relating to the sovereign debt crisis in the euro area and the efforts being made to strengthen the economic pillar of the EMU by adopting a set of rules envisaged to foster budgetary discipline through a 'fiscal compact', strengthen the co-ordination of economic policies and improve the governance in the euro area.

Has fiscal dominance of monetary policy in India reduced post-FRBM? Did the legislation cease monetisation of deficits? Have the large fiscal deficits in India been inflationary? Is government spending pro-cyclical or counter-cyclical? Do debt-deficit dynamics impact monetary policy?

1.8 Chapter 3, 'Fiscal-Monetary Co-ordination: An Assessment in India', which makes an assessment of the fiscal-monetary co-ordination through shifts in institutional arrangements for monetary and fiscal policies in India, addresses these questions. The regime shifts that first curbed automatic monetisation by phasing out *ad hoc* treasury bills and later prohibited the Reserve Bank from subscribing to the primary issuances by the Government under the Fiscal Responsibility and Budget Management (FRBM) Act has reduced, but not eliminated, the fiscal dominance of monetary policy. Newer forms of dominance have emerged, particularly, due to suppressed inflation, deficits and inflation feeding on one another. The debt-deficit dynamics of large fiscal deficits can potentially cause monetisation in a broad sense. This is because open market operations (OMOs) create reserve money in case of net purchase of government securities by the Reserve Bank. Whether such monetisation reduces the efficacy of monetary policy depends on whether OMOs conflict with monetary policy objectives. In practice, it is not always easy to determine what part of OMOs affects liquidity or monetary conditions and what part of OMOs facilitates debt auctions. The size of government market borrowings has increased nearly ten-fold in the past eight years (2004-05 to 2012-13). The Reserve Bank conducted large OMO purchases during this period. As long as fiscal deficits remain large, fiscal policy dominance is likely to remain. To the degree that OMOs do not affect the monetary expansion targets of the Reserve Bank, fiscal dominance is muted. However, when additional liquidity injected into the system through the OMOs is in excess of the limit that is commensurate with inflation objectives, fiscal dominance becomes detrimental to monetary stability. It can impinge upon monetary policy operations, as it provides a game-theoretic setting for a game of chicken.

1.9 Large fiscal deficits have impacted inflation in India in several ways. First, to the degree that these deficits reflect price rigidities in the economy on account of prices being administratively determined – such as energy prices, *viz.*, price of diesel, electricity, coal or fertilisers – they remain potentially inflationary, although they result in suppressed inflation in the short-run. Such prices often need large sudden revisions when subsidy-induced expenditures lead to an unsustainable fiscal position. These discrete changes not only lead to a surge in inflation, but also impact inflation expectations. Second, large fiscal deficits, when used to finance current rather than capital spending affect investment and delay supply responses that are necessary to curb medium-term inflation. They also lower potential output, making monetary policy easing more difficult. Third, financing of large fiscal

deficit by market borrowings crowds out private investment through its impact on interest rates and availability of credit in the economy. This further slows necessary supply responses. Fourth, the liquidity position at time tightens in response to large fiscal deficits with a build-up of government's cash balances with the Reserve Bank. If this is accompanied by OMO purchases, there is a monetary impact that can be inflationary. Empirical work presented in this chapter, using a Vector Error Correction Model (VECM), shows that the long-term impact of inflation is much larger on government expenditure than on government revenues. High inflation can lead to higher government expenditure, which, in turn, could lead to higher inflation, leading to a self-perpetuating cycle.

1.10 Fiscal policy has an important counter-cyclical role that has been envisioned and practised ever since Keynes recommended the same in the face of the Great Depression. However, government spending is often found to be pro-cyclical in the case of EMDEs. Pro-cyclical fiscal policy implies that fiscal policy is expansionary in times of boom and contractionary in times of recession. Fiscal policy should ideally aim to borrow more during cyclical slowdown when revenues shrink and 'social' spending rises, and reduce debt in upswings. Fiscal policy should try to dampen business cycle fluctuations, especially when shocks to the tax base or spending are transitory and not permanent. This often does not happen. All this raises macroeconomic volatility, depresses investments, reduces growth, redistributes income and wealth away from the poor and reduces the general level of welfare in the economy. It also produces a large deficit bias and poses the risk of debt unsustainability and defaults. Empirical evidence presented in this chapter for a long period (1950-51 to 2011-12) suggests that fiscal spending in India is pro-cyclical, both in the long-run and the short-run. Given that government final consumption has been largely expansionary, it has a limitation in addressing cyclical fluctuations in aggregate demand. This exerts added pressure on the monetary policy. However, counter-cyclical fiscal expansion was undertaken during 2008-09 amidst global financial crisis.

1.11 The debt-deficit dynamics interacts with monetary policy in several ways. The government can finance its spending either through tax or non-tax revenues or by running deficits that are financed through debt. The way the debt is raised also has a bearing on the monetary policy. Further, debt financing may also impact future fiscal and monetary policies. Its impact may depend on whether or not the Barro-Ricardo equivalence, that requires debt to be financed by future tax and non-tax revenues, holds. If debt does not add sufficiently to the future revenue stream, it may be difficult to meet future obligations. Empirically analysing the dynamics of the relationship between deficit, debt and money, using an auto-regressive distributed lag (ARDL) model, the chapter finds a long-run co-integrating relationship between the combined government debt of the centre and states and the change in reserve money.

How has fiscal dominance impacted the Reserve Bank's balance sheet over the years? Have phasing out of direct fiscal constraints and the increased external openness of the Indian economy influenced the Reserve Bank's autonomy in balance sheet management? What was the impact of policy response to the crisis on the Reserve Bank's balance sheet?

1.12 Chapter 4, 'Fiscal Operations and the Reserve Bank's Balance sheet', addresses these issues by seeking to detect inflexion points in the balance sheet of the Reserve Bank in the context of changing fiscal-monetary dynamics. Historically, fiscal dominance was evident in India during the period of social control (1968–1990). As a banker to the government, a crucial development goal for the Reserve Bank during the pre-reforms era was to bridge the resource gap of the government in the Plan process. The size of the Reserve Bank's balance sheet increased significantly during this phase, reflecting its growing accommodation to the Government and its use of monetary policy instruments to curb attendant inflation. Fiscal conditions deteriorated significantly during the 1980s, leading to monetisation of fiscal deficit,

which eventuated in a balance of payments crisis in 1990-91.

1.13 The size of the Reserve Bank's balance sheet continued to expand during the first half of the 1990s due to an increase in the reserve requirements of the banks to neutralise the monetary impact of foreign exchange reserve accretion following the opening up of the economy. The post-reforms period has been characterised by a gradual move towards dilution of fiscal dominance, resulting in greater flexibility for the Reserve Bank in the conduct of monetary policy as manifested through a shift towards more market-oriented monetary policy operating procedures. The discontinuation of automatic monetisation of government deficit through the phasing out of *ad hoc* treasury bills by April 1997 and the simultaneous development of the government securities market allowed the Reserve Bank to progressively bring down the cash reseve ratio (CRR), which, in turn, resulted in contraction of the balance sheet size during the second half of the 1990s.

1.14 The emergence of a market-based government borrowing programme, the cessation of the Reserve Bank's involvement in primary government securities issuances as well as the substantial reduction in its contribution to various long-term funds ushered in a new era in the interface between the central bank's balance sheet and fiscal policies. The size of the Reserve Bank's balance sheet increased between 2001 and 2007, reflecting the Reserve Bank's efforts to contain the destabilising effects of large capital flows on the domestic economy through interventions in the foreign exchange market. Surges in capital inflows added a new dimension to the balance sheet of the Reserve Bank, as net foreign assets were accumulated alongside a reduction in net domestic assets on the Reserve Bank's balance sheet. The introduction of the market stabilisation scheme (MSS) under which government securities were issued for sterilisation purposes was an important milestone in the interface between the fiscal and monetary authorities, with the fisc also sharing the cost of sterilisation. The situation changed after the onset of the global financial crisis in 2008, which led to a reversal of capital flows. It is important to note that in contrast to the expansion of the balance sheets of several central banks as a result of their unconventional monetary policies and quantitative easing measures during the global financial crisis, the balance sheet of the Reserve Bank contracted in 2008-09 despite extensive use of both conventional and unconventional measures. On the asset side, the expansion of domestic assets through OMOs and liquidity accommodation was more than offset by the reduction in foreign assets to stabilise the exchange rates. On the liability side, the decline in bank reserves and government balances due to CRR reductions and unwinding of MSS balances, respectively, led to the contraction of the balance sheet. The Reserve Bank's balance sheet has expanded significantly since then reflecting its liquidity management operations, aimed at strengthening the recovery process while supporting the government market borrowing programme and simultaneously containing inflation.

How do we visualise the outlook of fiscal-monetary-debt management co-ordination in India given the global uncertainties, the imperative of attaining the growth target envisaged in the Twelfth Five-Year Plan document, the fiscal roadmap laid out by the Government of India in October 2012 and the proposed change in institutional arrangements in the conduct of cash and debt management?

1.15 The Central Government would need to return to the path of rule-based fiscal consolidation as its fiscal deficit-GDP ratio has been generally ruling high since 2008-09. The Twelfth Plan (2012-13 to 2016-17) document has set an average targeted rate of growth of 8.0 per cent and has, *inter-alia*, estimated the public sector savings rate to improve by around 3.5 percentage points by 2016-17 over that in 2011-12. Beginning mid-September 2012, the Government of India has announced a series of measures to restrain the fiscal deficit and improve the investment climate. In late October 2012, the

Finance Minister announced the government's decision to adopt a fiscal consolidation plan during the Twelfth Five Year Plan that would progressively bring down the fiscal deficit from 5.3 per cent of GDP in 2012-13 to 3.0 per cent of GDP in 2016-17. Further, with the government's move towards setting up a Debt Management Office under its ambit, there could be an institutional change in cash and public debt management in India, which used to come under the purview of the Reserve Bank. Accordingly, Chapter 5, 'Fiscal-Monetary Policy Co-ordination and Institutional Arrangements for Government Debt and Cash Management – A Medium-Term Outlook' assesses the relationship between fiscal and monetary policies in the post-reforms period. In this context, the empirical exercise estimates a linear function with the call rate – which is the operating target of monetary policy and can be generally used as a proxy for the monetary policy rate – as the dependent variable and the inflation gap (*i.e.,* the difference between the WPI inflation rate and its trend component), output gap (*i.e.,* the de-trended or cyclical component of GDP), the ratio of the Centre's fiscal deficit to GDP (with a one-period lag) and the one-period lagged call rate as explanatory variables. The estimated equation provides broad guidance on the implications of the evolving path of fiscal deficit, output gap and inflation gap for monetary policy over the medium-term.

1.16 The chapter also summarises the debate, or rather the rethink, on the institutional arrangements for debt management that has been triggered by the global financial crisis. In India, a Middle Office has already been set up in the Ministry of Finance, Government of India and a proposal to introduce a Bill on the Public Debt Management Agency of India has been in the offing to complete the transit of the debt and cash management function from the Reserve Bank to the Government of India. Even so, keeping in view the international experience gained from the recent financial crisis that would impinge on debt management, monetary management and maintenance of financial stability, as well as the specific circumstances in India, this chapter highlights some issues that may call for a nuanced approach in this regard.