

Budget Deficit and National Debt: Sharing India Experience¹

Kanhaiya Singh *

SYNOPSIS

India suffered humiliations in terms of balance of payments crises in 1991 but since then it has weathered all crises, which have hit the world economies despite the fact that subsequent periods have seen even larger current account and fiscal deficits. It is in this context that an analysis of fiscal and debt problems of India is timely and assumes importance. The paper delves upon fiscal exuberance and debt management practices in India, the budgetary allocations, changing structure of the deficit and debt, and the sustainability. The external and internal balances highlight its dependence on external borrowing and the vulnerability of the economy and the important role played by the foreign exchange accumulation in avoiding crises. India's deficit and debt dynamics is characterised as adverse on following grounds: (1) while deficit is increasing, the share of capital formation out of budget is decreasing. Therefore, income multiplier to government expenditure may not be enough to cover the debt liability in long run. (2) Government debt dynamics is unstable with large variability and therefore, it lacks credible predictability of future path. (3) Exposure of the economy to non-government external debt is increasing and therefore, there is a case to conduct analysis about the economic returns to such borrowings in terms of long term sustainability. More flows in capital account is sought for than that required by current account, which is essential to meet its fiscal deficits. There are indications that acceleration in fiscal deficit causes current account deficit, which would make the debt dynamics more unstable. With debt to GDP ratio being very high and unstable, India faces potential risk of sovereign default. Increasing globalization has increased the external vulnerability as short term component of total external debt is sharply increasing. The external debt being driven by the private sector, the corporate governance issues have become more critical. The relevance of high foreign exchange reserves has increased further for sustaining growth and avoiding crises situations.

Key Words: India, Budget Deficit, Debt Sustainability, Internal and External Balance

JEL Classification: H0, H6, H7

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* Senior Fellow, National Council of Applied Economic Research, New Delhi, Kanhaiyasingh.in@gmail.com.

1. INTRODUCTION

1.1 The global fiscal problem

The global economy is in the midst of a very serious crisis, not experienced earlier. Indeed not surprisingly, many consider this as the mother of all crises. Prominent explanations include poor regulatory framework, global imbalances and growing budget deficits in the United States, the lead country of the episode. In fact, combating the crisis has led to a further increase in government budget deficits almost globally. According to Global Development Finance (GDF 2009) projections, the budget deficits were likely to increase by three percentage points in developed countries and by about 4.4 percentage points in developing countries. On the other hand the slowdown of the global economy has reduced export earnings and consequently, financing of fiscal stimulus has become difficult. The GDF-2009 estimated overall borrowing needs for developing countries to exceed net capital inflow by between \$350 billion and \$635 billion. Ironically, it was also argued that all countries would not take up fiscal stimulus on the scale it was required to lift the global economy from current crises, possibly, because of the fear of the after-effects of fiscal stimulus. This is equally worrisome as it may require monetary accommodation leading to inflationary pressure. Rising inflation and the interest rates are likely to increase the indebtedness of the countries and ultimately the economic growth would suffer. This view is generally subscribed by the classical school of thought, which often succumbs to the predominant Keynesian stimulus possibly because later is the only option left to the governments if they have to be seen as doing something about the crises.

However, the fear of sovereign defaults started taking shape in some countries from the late 2009. Globally, the debt started rising which fuelled downgrading of debts of some of the European Countries, particularly Greece, Ireland and Portugal as they found increasingly difficult to re-finance their debts. On 9 May 2010, Europe's Finance Ministers had to approve a rescue package worth EURO 750 billion aimed at ensuring financial stability across Europe by creating the European Financial Stability Facility (EFSF). In October 2011 the rescue package was reviewed and increased to EURO 1000 billion, it also allowed banks to accept a write-off of privately owned Greek Debt up to 50 per cent. At the time of writing this paper, it is feared that the contagion effect might engulf other European countries as well.

It is clear that the problem of debt is not something that has occurred overnight; it is a process which triggers into crises during adverse economic environment. A clear lesson from all these episodes is that there is no substitute to prudent regulatory framework and a pragmatic decision making as far as economic management is concerned. Irrespective of whether it is management of individual account or it is the case of management of National Accounts, it is always true that one cannot spend perpetually higher than her income and somewhere a 'Laxman Rekha' has to be drawn, what may come. This wisdom cannot be overemphasised in the case of management of government budget and national debt.

In a recent speech Ben S. Bernanke, Chairman, Board of Governors of the Federal Reserve System of United States noted that advanced economies like the United States would do well to re-learn some of the lessons from the experiences of the emerging market economies, such as the importance of disciplined fiscal policies, the benefits of open trade, the need to encourage private capital formation while undertaking necessary public investments, the high returns to education and to promoting technological advances, and the importance of a regulatory framework that encourages entrepreneurship and innovation while maintaining financial stability (Bernanke 2011).

Bernanke's remarks are partially inspired by the principles contained in Washington Consensus popularised by John Williamson and the dynamics of emerging market economies over the past decades. The principles that John Williamson enumerated included macroeconomic stability, increased reliance on market forces, and strong political and economic institutions are important for sustainable growth (Williamson 1990).

On the basis of the experience and perspective of the past 20 years, Bernanke (2011), finds that Williamson's recommendations were not complete. Reforms must be sequenced and implemented appropriately to have their desired effects. And a successful development framework must take into account that activities such as the adaptation of advanced technologies and the harnessing economies of scale are often critical to economic growth and depend on a host of institutional conditions, such as an educated workforce, to be fully effective (Bernanke 2011). Bernanke's comments are important but it has missed an important aspect about the uniqueness of political and socio-economic conditions prevailing in different countries. All recommendations may not be equally applicable to all countries and all recommendations may not give same outcome in all countries because they differ so much.

1.2 Importance of Country Specific Strategies

Take for example the comparison of China and India. While both are fast growing economies, China has done much better than India, a well-documented fact. But, there are some who would believe that India may do better than China in the long term, curiously however for the same reasons that India is lagging behind. The democratic system prevailing in India would not allow her to take unpopular decisions, which may otherwise be beneficial to economic growth in medium term, but the decisions which are taken after political and social churning are far more stable and resilient than those taken under an authoritarian regime.

India's bank-led financial system is considered as one of the better managed and prudently controlled systems. The competitive environment in banking is very healthy with effective presence of public sector banks; private sector banks; foreign banks; cooperative banks; and specialised financial institutions to finance, housing, small scale industries, agriculture and large corporations. Its stock market is well regulated and vibrant. The banking system has already achieved Basel-II requirements and geared to achieve Basel-III requirements, while similar prudential attainments cannot be claimed about Chinese institutions. Yet, China has done much better in terms of economic growth.

India has weak manufacturing sectors but it thrives on the progress of soft skills and services sectors, while China has converted itself into factory for the entire world. Why India lagged in manufacturing is a topic of deliberation in itself but that given as fact, its potential to generate large scale employment is constrained. The policies that may benefit Indian manufacturing may not be politically correct at this moment but consensus would build in due course of time and hopefully it would not be too late.

Often questions are raised about the accumulation of foreign exchange reserves (FER) in emerging economies, which is considered as one of the main sources of global imbalances. Both these countries have accumulated large reserves. Here again it is important to understand the structure of reserves in terms of sources of accretion and rationale for need and adequacy. FER is an insurance against external shock which is must for India's survival but the same is not true for China. China's reserve accumulation is mostly on account of persistent current account surplus, while India has mostly borrowed. Because, India runs consistently a current account deficit, its reserve management is much critical as also the management of external and internal debt. India is on much more slippery grounds and its institutions have to undergo stress test regularly and learn how to manage and diversify risks. Therefore, the macroeconomic policies of the two countries cannot be guided by the same yard stick. The role of banking sector and the governments ought to be different. The pragmatism demonstrated by India thus far has yielded good results and despite political constraints, she has weathered most of the bad effects of recent economic crises experienced elsewhere. Thus far China has also done extremely well during the global crises.

The understanding about differences in economic and socio-political condition across nations is also important for the developed countries, which is looking for alternative strategies to obtain sustained growth in long term future. The emergence of highly populous countries in forefront of growth trajectory of the global economy cannot be ignored and new dynamics is bound to emerge. The developed countries need to look at these countries and in particular, India, differently. The lessons from India

cannot be straight forward and simple because it is such a complicated and diverse country. Yet, she has done few things right including its engagement with the democratic system and may prove to be far more consistent business partner for the world economy in long term.

Indian economy is marked by a huge informal sector with flexible wage and inherent potential to absorb shocks. The beauty of these small informal businesses including retail trade is that they are by and large free of debts and work mostly through recycling internal resources. The public sector dominated banking sector of India has already fully compliant of Basel-II norms and its credit delivery system is largely collateralised. The loans and credits are not securitised and therefore, it does not face much of speculation. Yet, India suffered humiliations in terms of balance of payments crises in 1991 but since then it has weathered all crises, which have hit the world economies despite the fact that subsequent periods have seen even larger current account and fiscal deficits. It is in this context that an analysis of fiscal and debt problems of India is timely and assumes importance.

1.3 Structure of the paper

Given multiple constraints, how have India managed its debt and external balance is a subject of interest. Therefore, this paper is focused on India, a country that has faced crises with higher deficit condition but at the same time has also survived much adverse deficit conditions. Rest of the paper is structured as follows. The following Section 2 presents a glimpse of ongoing debate on the issue of management of fiscal deficit and provides a basis to look at Indian data in the context of sustainability of growth and macroeconomic stability. The debt structure of India is discussed in Section 3 and the fiscal history of India leading to the current debt conditions is discussed in Section 4. The external balance and its relationship with the internal balance are presented in Section 5. Finally, debt sustainability of India is examined in Section 6 and the concluding remarks are presented in Section 7.

2. DEBATE ON BUDGET DEFICITS AND ITS MEASUREMENT

Fiscal stimulus leads to fiscal deficit, which in turn may lead to unsustainable debt and risk of sovereign default. Therefore it is a double edged sword which needs to be treaded carefully. Peace time fiscal consolidation can have two distinct advantages: (1) it provides larger space for manoeuvrability during crises period; (2) it could avoid the crises itself by rendering more confidence to investors. However, there is lesser controversy during the crises time, threatening recession when there is almost no opposition to fiscal expansion. The debate is more about peace time deficit. Importantly, the fiscal stimulus suggested by Keynes is found to be handier to justify fiscal activism and sometimes even populist policies of governments across globe.

The key arguments favouring fiscal exuberance include points such as: (1) domestically held debt are not as harmful, while it provides stimulus to private sector; (2) the spending by the present government could not be treated as burden on future generations; (3) even if budget deficits reduce national savings, that in turn do not decrease growth in long-term. On the other hand, key arguments against fiscal exuberance include points such as: (1) crowding out of private investment; (2) rise in interest rate and increasing tax burden to service the debt; (3) Inflationary accommodation; (4) even if deficit is financed by domestic borrowing, in the long run it could be inflationary once it became difficult to service the debt; (5) increasing national debt leading to sovereign risk; and (6) crises.

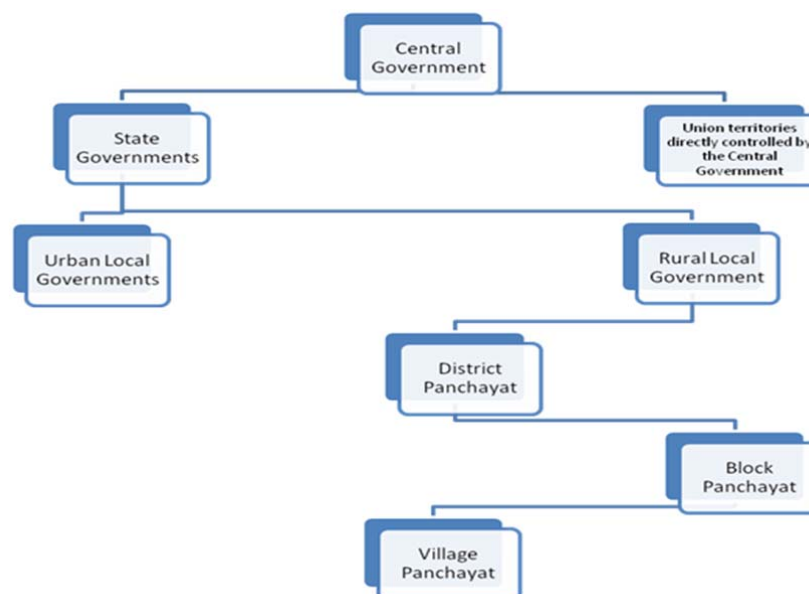
The experience suggests that both schools of argument are correct under specific circumstances and it is very difficult to generalise any of them. It is critical to understand how expenditures are made. If deficit is incurred by spending more in capital formation of long term use such as infrastructure for transport, health, education and human development, the returns to such expenditure may generate enough in long term to replenish the current debt. However, if deficit is generated for current consumption and populist programs with little multiplier effect, it may lead to unsustainable situations.

There is also an issue as to what constitutes fiscal deficit and debt. In cross country studies, often difficulty is encountered due to differences in accounting of fiscal deficit which can be called as Issues of measurement of fiscal deficit and debt. These issues are related to (1) transparency of government accounts, which is often found to be lacking; (2) extra-budgetary expenditures which may not appear in standard deficit calculations; (3) sub-national government accounts, which may affect the central government accounts in long term; (4) data incompatibility across Nations, which make it difficult to analyze linkages between deficit and economic outcome; (5) lack of analysis about the efficacy of populist budgets; (6) existence of non-conventional sources of revenue such as central bank profits, and disinvestment proceeds, which could distort the actual outcome; and (7) sovereign and state level guarantees to private sector debt, which often remain hidden and pop up during the crises in such proportions that may be threatening to financial stability. Such issues make it still important to study individual countries from as many perspectives as possible.

2.1 Fiscal Federalism in India: Issues of Measurement and Discipline

India has a federal structure of budget management. Revenues are collected at different levels and so are the expenditures but these are aggregated at the level of central government and States governments (Figure 1). Constitution provides specific rights to central and state governments to collect different form of taxes. States collect mainly sales taxes (now state VAT), royalty, inter-state border taxes, property tax etc; while Central Government collects Custom, Income tax, Central sales taxes (CST) on across border trade between states. Whatever taxes are collected by the states, remain with them but taxes collected by the Central Government are distributed through semi-structured transfer system. In fact taxes collected by the Central Government agencies form most of the resource of the country and these resources are required to be transferred to states to finance state government plans and non-plan expenditures under a constitutional framework.

FIGURE 1: FISCAL FEDERALISM IN INDIA



To do this effectively, the president of India constitutes a Finance Commission every five year with specific and general mandate to evolve a formula for distribution of central resources among states. Once the report of the commission is accepted, it is dissolved to be reconstituted again after five years. These commissions are backbone of Indian federal structure and huge amount of effort is put in to generate a comprehensive report each time it is constituted to fine tune the centre-state transfers in a dynamic context where new issues are addressed while lessons from the past remain guiding principle. Of late

fiscal discipline and fiscal/ tax reforms have been central themes of Finance Commission Reports. The Finance Commission Report being a constitutional document, its recommendations are broadly binding and strictly followed. Similar to Central finance Commission, there is provision of State Finance Commission which frames guidelines for fund transfer to local bodies and makes recommendations to increase the tax base for such local bodies. In addition to Finance Commission, the Planning commission of India is engaged to approve the annual expenditure plans of the State governments and the central Ministries. The Planning commission formulates Five Year plans and allocates funds for each of the programs. However, such allocations and expenditures are not strictly binding and each year, States are expected to get their annual plans approved.

The constitution was amended in 1992 to give power to local bodies for effective functioning but the actual implementation is still far from satisfactory. The 73rd Amendment 1992 of the constitution led to a mechanism to empower elected bodies at village and municipal corporations to collect tax and use fund to meet local development plans. In order to allow sharing of taxes collected in services sector with states the constitution was amended in 2000. This is called 80th Amendment 2000 of Constitution, enacted to include all taxes collected by the central government including services tax for sharing with the states. Until then services taxes were not shared with the states.

The devolutions of central taxes are done under a two-step process. In the first step called Vertical Transfer, a ratio is fixed for the transferable resource. This means the Finance Commission takes a view about what proportion of central collections need to be transferred. In the second step called Horizontal Transfer, a decision is made about the distribution of transferable resources across states and union territories of India. The formula for horizontal transfer may change from Commission to Commission depending on the way a Commission is mandated about the theme of the Report (Table 1). For example, last two commissions have been particular about the fiscal discipline of the states. Accordingly, the weight given to fiscal discipline has increased in 13th Finance Commission, which would be reviewed in the 14th Commission. However, the basic structure of weight which includes population, area and some form of income indicator remain same across commissions. In earlier reports, Gross State Domestic Product (GSDP) used to directly measure the income distance but 13th Finance commission found it inadequate and replaced the same with of Fiscal Capacity Distance. The commission noted that the GSDP does not accurately capture the taxable base for two reasons. The first is that the sectoral composition of GSDP varies across states and the sectors are not uniform in their taxability. Agriculture, for example, is not effectively taxable in states, except where there are plantations. The second reason is that GSDP estimates presently available are at factor cost and therefore, exclude income such as that accruing in the form of remittances. The cross-state average ratio of tax to-GSDP is higher for general category states than for the special category, where this difference encapsulates the combination of factors underlying the relative fiscal capacity of the two groups. Thus, group-specific averages are applied to the two categories so as to obtain a closer approximation to the distance in fiscal capacity between states, which is ultimately what is sought to be captured. Ideally, tax frontiers specific to each state should be estimated, but an exercise of this kind was constrained due to lack of the necessary data (13th Finance Commission report).

TABLE 1: Criteria and weights for tax devolution

Criteria	Weight (per cent)		
	11 th Finance Commission (2000-2005)	12 th Finance Commission (2005-2010)	13 th Finance Commission (2010-2015)
Population	10	25	25
Income Distance	62.5	50	-
Fiscal Capacity Distance	-	-	47.5
Area	7.5	10	10
Tax Effort	5.0	7.5	-
Infrastructure Index	7.5	-	-
Fiscal Discipline	7.5	7.5	17.5
Total	100	100	100

Source: 11th, 12th and 13th Finance Commission Reports

2.2 Fiscal Reforms in India

Fiscal exuberance has been a chronic problem in macroeconomic management in India. After 1990 balance of payment crises, discipline was maintained to some extent but within few years it became matter of concern and the politicians had to seek legal refuge to contain the expenditure. Accordingly, the 12th Finance Commission was asked to prepare a basis for fiscal responsibility. Based on the recommendations of 12th Finance Commission the government of the day enacted Fiscal Responsibility and Budget Management (FRBM) Act 2003, which seeks to reduce and maintain fiscal deficit to 3 per cent of GDP by the central and States governments under a time frame. The Central Government extends guarantees primarily on loans from multilateral/bilateral agencies to various public sector undertakings/public sector financial institutions. The FRBM provides an overall cap of 0.5 per cent of GDP in any financial year on the quantum of guarantees that the Central Government can assume in a financial year.

Task forces were constituted to increase the efficiency in tax administration and accordingly, information technology was introduced in a big way to simplified administering of taxation and easy compliance. During the same regime process was initiated to introduce Value Added Tax (VAT) at State Level and laws were framed to initiate taxation of services sector.

The 13th Finance commission was mandated to find justification and method of inducing Goods and Services tax (GST) in order to further simplify taxation and removing double taxation and export of taxes. The 13th Finance Commission has concluded that GST would be beneficial and it would increase GDP and total tax collection. The implementation has faced stumbling blocks in the form of conflict of interest between states and centre and a group of Finance Ministers drawn from states is working to make it acceptable to all stake holders.

2.3 Measurement of Deficit and Debt

All said and done about the fiscal reform, the governments can always find ways and means to circumvent laws. Distortions to FRBM law has been reported through exclusion clauses and special purpose vehicle mechanisms to finance projects using extra budgetary means. Since extra-budgetary expenditures are excluded from the government reported financial statements, their effect on fiscal deficit goes unnoticed (Eisner 1984).

Therefore, for the purpose of this study following definitions of total deficit and total debt are utilized and calculated accordingly.

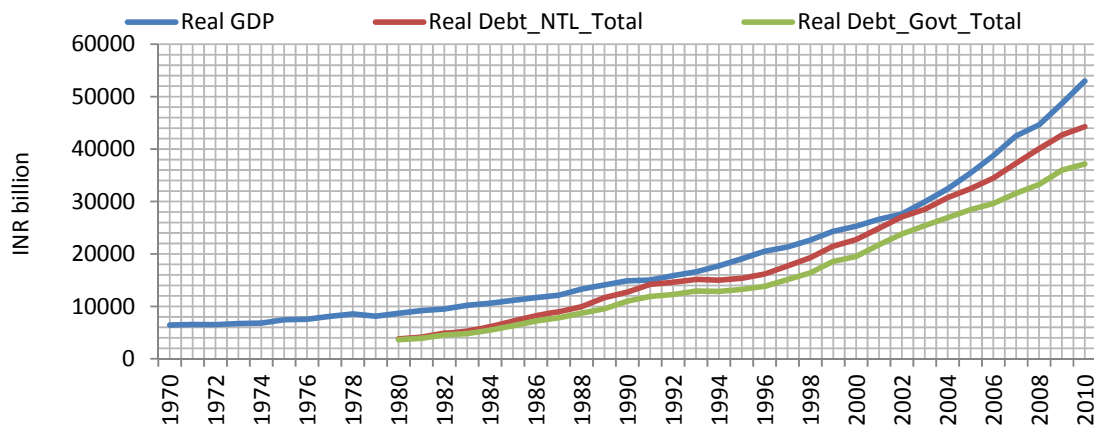
Since the government liabilities exist at both central government level as well as state government, it is prudent to consider combined deficit rather than that reported by the central government alone. In addition, extra-budgetary resources are allocated to government owned undertakings and government and institutions. The Economic survey of India reports the statement on combined revenue, expenditure and resource gap taking into account central government, state governments, union territories and budgetary support to public sector undertakings. The same has been used here as gross fiscal gap (GFG_Total). In addition to this, aggregate accounts of states and the central government are also discussed.

In terms of debt, differentiation has been made between domestic liability of the central and state governments and the external liability of the central government and the private sector. For this purpose, the total external liability of India (Debt_NTL_Extl) is added to domestic liability of the central and state governments (Debt_Gov_Dom) to arrive at what is named as total national debt (Debt_NTL_Total). The guarantees provided by the central and state governments have not been included. Accordingly, total government debt means total national debt less non-government external liabilities denoted as Debt_Gov_Total (=Debt_NTL_Total – Debt_NonGov_Extl). The external liability of the government is calculated as total external liability less non-governement debt (Debt_Gov_Extl = Debt_NTL_Extl – Debt_NonGov_Extl). Besides these aggregations, the broad components are also discussed in this paper.

3. TREND AND BUILDUP OF INDIA'S DEBT

During the recent period of 2000-2010 Indian economy has registered an annual growth of 7.67 per cent in real terms. At the same time annual growths of real government debts have been 6.64 per cent and when external borrowings of non-government agents are added to the government debt to call it real national debt, the growth rate jumps to 6.88 (Figure 2). This is result of increasing exposure of Indian private sector to global economy and shift in structure of external borrowing from government to non-government private sector. In this context it becomes important for the government to manage its own accounts in conjunction to non-government activities closely in order to keep the economy protected from internal as well as external vulnerability. The impact of monetary and fiscal stances affects the behaviour of business sector in global sense where, it is not only the domestic policies that are taken in to account in decision making but the existing opportunities available globally also play an important role.

FIGURE 2: Real GDP and national debt



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents; India's External Debt: A Status Report Ministry of Finance (Various)

By definition, government (sovereign) debt includes (i) external debt outstanding on account of loans received by Government of India under the 'external assistance' programme, and civilian component of Rupee Debt; (ii) other Government debt comprising borrowings from IMF, defence debt component of Rupee debt as well as foreign currency defence debt and (iii) FII investment in Government Securities. Non-government or on-sovereign (Other_External) includes the remaining components of external debt.

With the end of financial repression, disinflation and slowing down of growth there has been a steady rise in the Central government debt to GDP ratio (Figure 3). The governments (central + state) debt GDP ratio increased from 47.93 per cent in 1980-81 to 72.87 per cent in 1991-92. After the initiation of economic reforms and improvement in the fiscal position, the ratio declined to 64.21 per cent by 1996-97. However, with deterioration in the fiscal position in subsequent years, the debt had increased sharply to 83.84 per cent by the end of 2001-02². In addition, both the centre and states have pledged huge guarantees. However, since the implementation of fiscal responsibility and budget management bill, the total liability of the government has come down from almost 83.84 per cent in 2003-04 to 67.31 per cent in 2010-11. Nevertheless, when non-government external debt is also taken into account the total national liability jumps to 80.20 per cent of GDP. The external debt (Debt_NTL_Ext_Z in Figure 3) is 17.4 of GDP in 2010-11 compared to 17.3 per cent in 2003-04.

² In 1999-00, the accounting system was changed whereby government's substantial borrowing from small scale savings schemes was converted into government securities resulting in sharp increases in the internal debt component of liabilities.

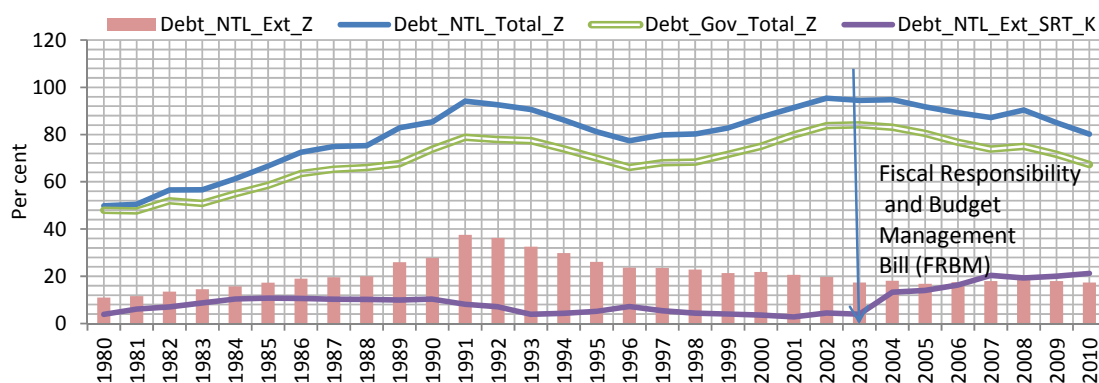
Whether it is national total debt as defined earlier or the government total debt, both have declined since 2003-04 but at the same time the proportion of the short term components of external debt is increasing sharply. It has increased from a level of 4.45 per cent in 2003-04 to 21.24 per cent in 2010-11 (Debt_NTL_Ext_SRT_K in Figure 3). This requires prudential measures to monitor capital market and debt management.

3.1 Crises of 1991

The period of 1980s was one of fiscal exuberance in the presence of weak external fundamentals, particularly the second half, which led to a crisis situation. The current account deficit increased from 1.48 per cent of GDP in 1980-81 to 2.96 per cent in 1990-91; combined fiscal deficit of the Centre and the states increased from 8.21 per cent of GDP to 11.24 per cent; and foreign reserves were reduced from 3.1 per cent of GDP to 1.95 per cent which could meet imports bill for one month only as compared to 4.4 months in 1980-81. The current account deficit and fiscal deficit kept increasing unthinkingly throughout the period and the foreign exchange reserves dropped sharply. Subsidies kept increasing. Collapse of Soviet Union added to the problem because of the fall in exports and industrial production connected with Soviet Union. The crisis was also greatly augmented by the surge in oil prices due to the 1990 Gulf War.³

The indications for 1991 crises were visible since 1989, when total external debt became 19.15 times the FER, while short term external debt, which formed about 9.96 per cent of total external debt, stood at 2.02 times the FER (Figure 4). In 1991-92 total external debt was 14.36 times the FER, while short term external debt increased to about 10.29 per cent of total external debt, and stood at 1.45 times the FER. Thus, India's balance of payment crisis was an episode of gross negligence augmented by fall in export due to collapse of Soviet Union and rise in import bill of oil due to gulf war, which together increased the current account deficit beyond payment capacity.

FIGURE 3: Broad indicators of India's debt

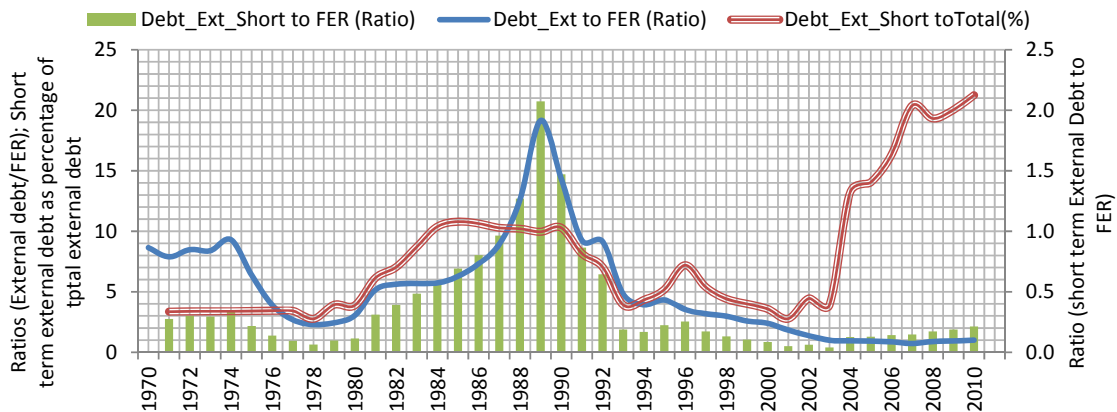


Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents; India's External Debt: A Status Report Ministry of Finance (Various)

In calculations of short term debt, when long terms debts with residual maturity period of less than one year is added the effective share of short term debt works out to be 27.5 per cent of total debt instead of 21.2 per cent as indicated in Table 2. Thus, short term component of debt at any point of time is much larger than the one with original maturity and as of end March it formed 27.6 per cent of FER.

³ The first sign of the payment crisis was evident in the second half of 1990-91. By June 1991, default on payment of debt became a serious possibility. Twenty tonnes of gold were sold in May 1991 and 47 tonnes of gold were sold in June in the same year. The exchange rate of the Rupee was also adjusted in July to a defensible level.

FIGURE 4: Debt sustainability indicators (ratio of total external debt to FER; short term external debt as percentage of total external debt and ratio of short term external debt to FER)



Source (basic data): India's External Debt: A Status Report Ministry of Finance (Various); Reserve Bank of India, Economic Survey and Central Government Budget Documents

TABLE 2: Short term external debt by residual maturity (million us\$) at the end of March

Component	Short Term Debt by Residual Maturity (Million US\$) at the end of March						
	2005	2006	2007	2008	2009	2010	2011
1. Short-term Debt (Original Maturity)	17,723	19,539	28,130	45,738	43,313	52,329	64,990
2. Long-term debt obligations maturing within one year	14,341	5,936	8,340	9,054	13,323	12,559	19,088
3. Short-term debt (residual maturity) (1+2)	32,064	25,475	36,470	54,792	56,636	64,888	84,078
<i>Per cent of GDP</i>	4.4	3	3.9	4.4	4.7	5.1	4.7
<i>Per cent to Total Debt</i>	23.9	18.3	21.2	24.4	25.2	24.9	27.5
<i>Per cent of foreign exchange reserves</i>	22.7	16.8	18.3	17.7	22.5	23.3	27.6

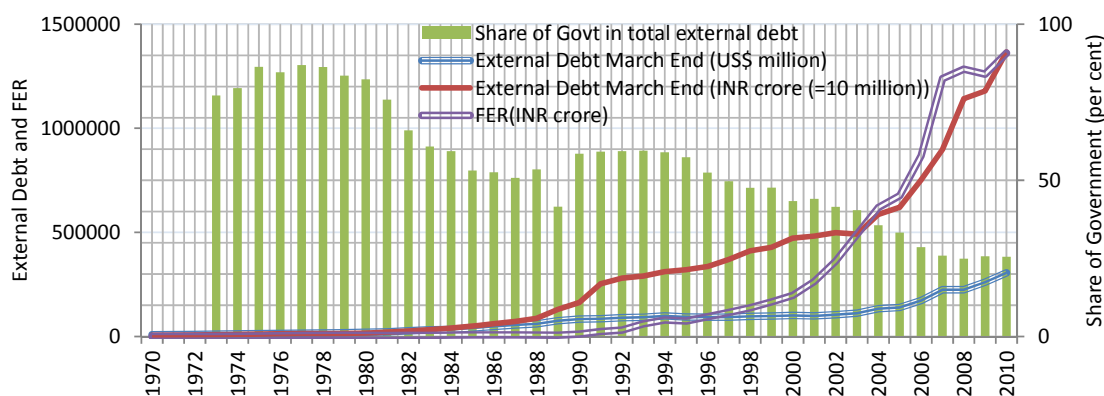
Source (basic data): India's External Debt: A Status Report Ministry of Finance (2010-11)

3.2 Build-up of Foreign Exchange Reserve

Clearly, the importance of accumulating FER cannot be understated and a watch on the combination of total debt and short term debt is critical for debt managers. Lessons from 1991 crises have been learnt hard way but these are perfect lessons and Indian Central Bank has identified its enemy accurately and sincerely.

Post 1991, FER has been accumulated as a safeguard against balance of payment crisis. However, given the changing composition of external debt and exposure of private sector, and rigidity in imports, the current level of FER may not be all that adequate. It may also be noted that emerging countries such as China, Thailand, Malaysia, Russia, South Africa, Brazil, and Philippines maintain a very high ratio of foreign exchange reserve to total external debt. As of 2009, the FER to Total Debt Ratio for these countries was 5.73, 2.36, 1.46, 1.15, 0.94, 0.86, and 0.70 respectively (World Development Finance Report 2011). As against this India had a ratio of 1.19 in 2009 which has reduced to just about one in 2010-11 (Figure 5). The short term external debt is about 29 per cent of FER in 2010-11. Moreover, the accretion of FER in India is not through trade surplus; instead it is on account of foreign investment, NRI deposits, external commercial borrowings and other banking capital. Therefore, a higher level of FER is desirable.

FIGURE 5: External debt (US\$ & INR), FER and government share in external debt



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents; India's External Debt: A Status Report Ministry of Finance (Various)

3.3 Changing structure of India's Debt

The structure of external debt of India has undergone a significant change. The share of government in external sector borrowing is reduced from the peak of almost 87 per cent in 1977-78 to about 25 per cent in 2010-11 (Figure 5). However, when central government guarantees are also considered as sovereign liability this percentage rises to 28.3 per cent (Table 4). Most of the guarantees are given to public sector and financial sector and little guarantee is extended for the private sector borrowing. However, such guarantee is on decline over years (Table 3). The rise of non-government debt is an outcome of globalisation and liberalisation of capital account albeit selectively.

TABLE 3: Central government guarantees against external debt

Sl. No.	Component	Central Government Guarantees (Million US\$)					
		2006	2007	2008	2009	2010	2011
1	Govt. External Debt	46,259	49,360	58,070	55,870	67,067	78,165
2	Non-Govt. External Debt	92,855	123,000	166,337	168,628	193,969	227,727
3	<i>of which with Govt.</i>						
	Guarantee*: (a+b+c)	6,096	6,107	6,563	6,807	7,786	8,551
	a. Financial Sector	1,465	1,446	1,422	1,800	2,276	2,746
	b. Public Sector	4,506	4,557	5,040	4,926	5,450	5,763
	c. Private Sector	125	104	101	81	60	42
4	Total External Debt (1+2)	139,114	172,360	224,407	224,498	261,036	305,892
5	Govt. Debt and Guaranteed Debt (1+3)	52,355	55,467	64,633	62,677	74,853	86,716
6	Percentage of Govt. Debt and Guaranteed Debt to total External Debt	37.6	32.2	28.8	27.9	28.7	28.3
7	Percentage of Govt. Guaranteed Debt to Total External Debt	4.4	3.5	2.9	3.0	3.0	2.8
8	Percentage of Govt. Guaranteed Non-Govt. Debt to total Non-Govt. Debt	6.6	5.0	3.9	4.0	4.0	3.8

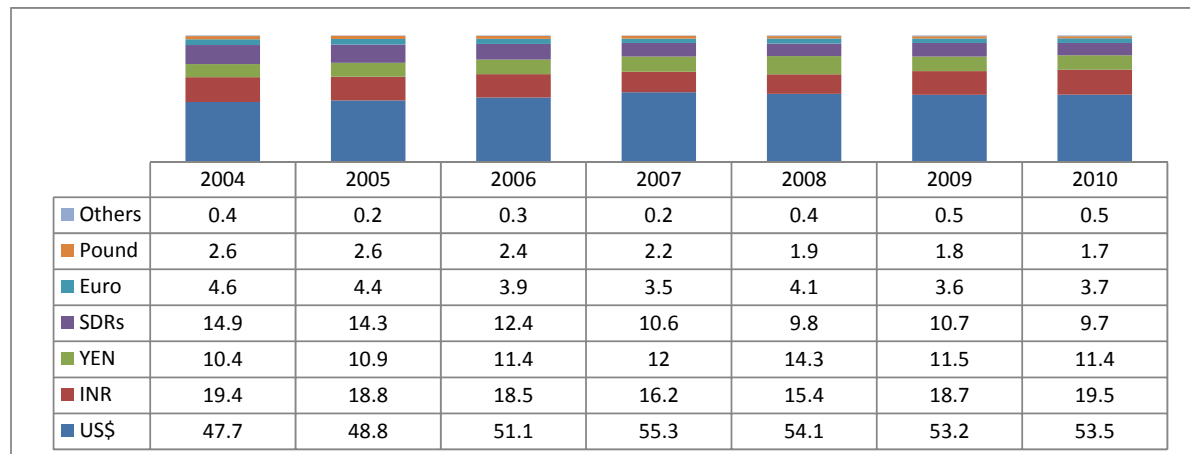
Source (basic data): India's External Debt: A Status Report Ministry of Finance (2010-11)

Another important aspect of India's debt is the difference in nominal growth when calculated with INR and US\$. Between 2001 and 2010 the external debt has increased by 209 per cent in US\$ terms but when calculated in rupee terms the growth is 415 per cent (Figure 5). This is result of continuous depreciation of currency. Therefore, the indebtedness of the Indian citizen is increasing fast and the only support that is in place is in the form of FER.

3.4 Currency and Instrument Composition of India's External Debt

Another important structural issue about debt is the currency diversification. In case of concentration of one currency denominated debt, the predictability is tied to economic conditions in one country but it is loaded with high risk as well. A diversified debt may be less risky. Currency-wise distribution of India's debt is presented in Figure 6. Clearly, more than half of its debt is denominated in US\$ although the share of US\$ has fallen from the peak of 55.3 per cent in 2007 to 53.5 per cent in 2010. This is in consonance with the global trend and possibly such trend would continue until a more neutral currency takes over as international currency. The other interest fact about Indian debt structure is a considerable share of Indian Rupee debt, which is mostly on account of defence purchase from Russia and it is payable through exports. Such diversification reduces risk as well as cost of borrowing. Other prominent currency is Japanese Yen, which is appreciating against Indian rupee for long time and thus increases the rupee value of debt considerably. It may be noted that during recent period rupee denominated debt content has increased over all other currencies.

FIGURE 6: Currency wise distribution of India's external debt



Source (basic data): India's External Debt: A Status Report Ministry of Finance (Various)

India's debt is held as bonds, loans, trade credits and deposits. A distribution across these instruments for major categories of borrowers is presented in Table 3. Clearly, government and non-financial debts are mostly in the form of loans while financial sectors have debt in the form of deposits, and short term debt is in the form of trade credit, which is generally export credit. Loan forms about half of India's external debt and more than 83 per cent of the loan component of total debt is shared between government and non-financial private sector (Table 4).

TABLE 4: Instrument-wise classification of external debt at end-March 2011

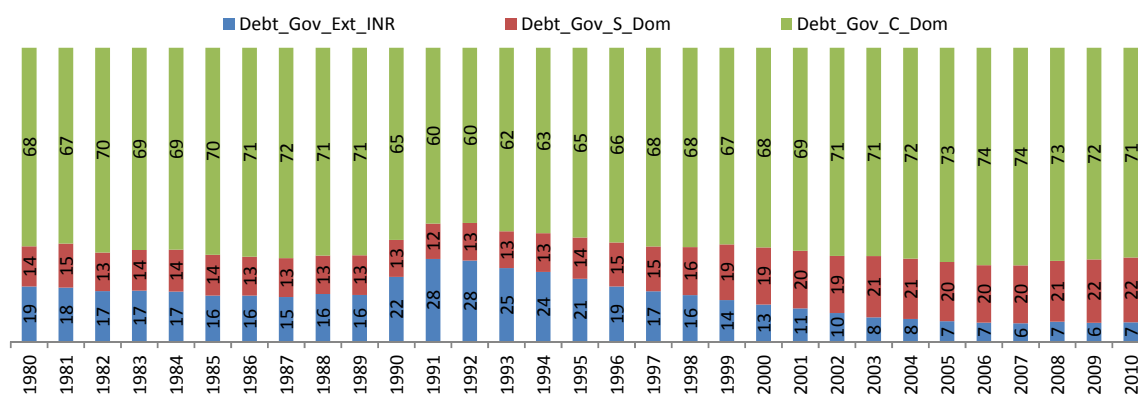
Borrowers	Instrument-wise Classification of External Debt at end-March 2011				
	Bond	Loans	Trade Credit	Deposits	Total
	US\$ Million				
Government	5428	62015	1572	6308	75323
Financial Sector	10054	9514		51682	71250
Non-financial public sector	1319	16003			17322
Non-financial private sector	12700	63677	630		77007
Short-Term Debt	6527		58463		64990
Total External	36028	151209	60665	57990	305892
	As percentage of Total External debt				
Government	1.77	20.27	0.51	2.06	24.62
Financial Sector	3.29	3.11	0.00	16.90	23.29
Non-financial public sector	0.43	5.23	0.00	0.00	5.66
Non-financial private sector	4.15	20.82	0.21	0.00	25.17
Short-Term Debt	2.13	0.00	19.11	0.00	21.25
Total External	11.78	49.43	19.83	18.96	100
	Row Percentage				
Government	7.21	82.33	2.09	8.37	100
Financial Sector	14.11	13.35		72.54	100
Non-financial public sector	7.61	92.39			100
Non-financial private sector	16.49	82.69	0.82		100
Short-Term Debt	10.04		89.96		100
	Colum Percentage				
Government	15.07	41.01	2.59	10.88	24.62
Financial Sector	27.91	6.29		89.12	23.29
Non-financial public sector	3.66	10.58			5.66
Non-financial private sector	35.25	42.11	1.04		25.17
Short-Term Debt	18.12	0.00	96.37		21.25
	100	100	100	100	100

Source (basic data): India's External Debt: A Status Report Ministry of Finance (Various)

3.5 Government Domestic Debt and its Captive Securities Market

Since 1991 government has reduced its exposure to international borrowings from 28 per cent to seven percent (Figure 7). Debt of state governments (Debt_Gov_S_Dom in Figure 7) form about 22 per cent of total government debt while domestic borrowing by the central government (Debt_Gov_C_Dom) is 71 per cent. The Indian banking system, which is dominated by nationalised banks, has provided a captive market for the government securities since early sixties when banks were nationalized (Figure 7). Government prefers to borrow from domestic market despite the fact that the external commercial borrowing is more attractive due to lower cost (Figure 8). Almost 80 per cent of the government securities are held by commercial banks and Insurance Corporations. Most of these banks and insurance companies are under public sector with almost full control of government. However, even by choice also, the commercial banks in India prefer to hold risk free government securities even in excess of the statutory requirements. Historically governments have engaged in recycling of domestic debt, thereby raising the yield on its securities. The yield on central government securities has come down and gone below effective cost of domestic borrowing indicating reduced recycling of loans (Figure 7).

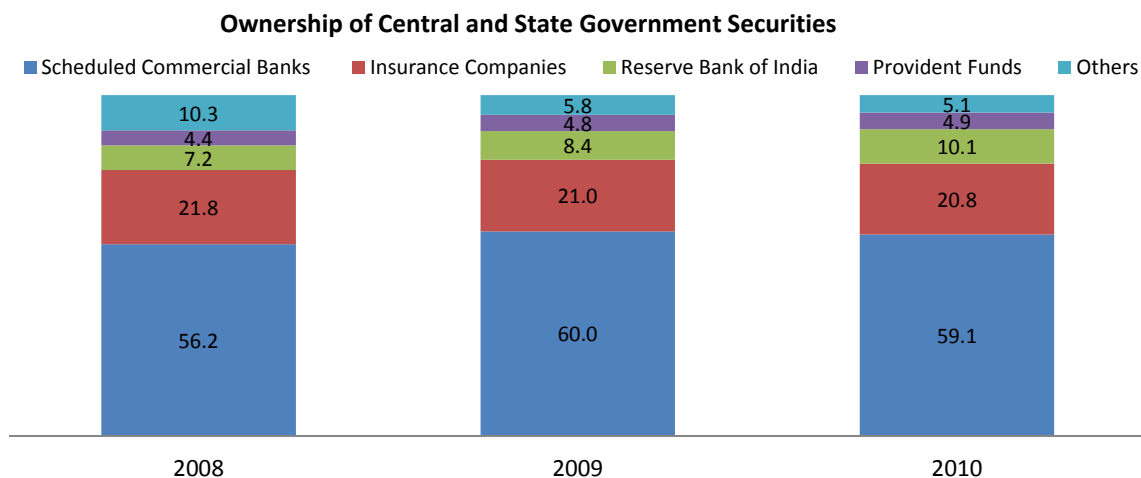
Figure 7: Domestic Component of Government Debt



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

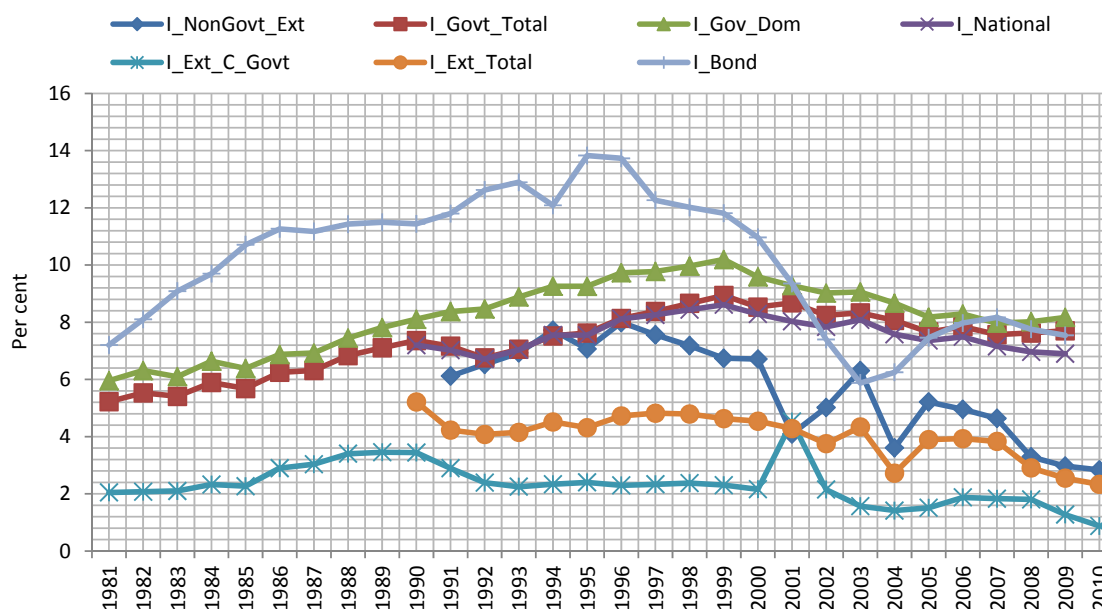
The effective interest rate structure presented in Figure 9 shows clear advantage of borrowing abroad both for government and the non-government. The effective interest rate for government external borrowing in 2010-11 was just about 1.06 per cent while it was 2.33 per cent for non-government sector. The main reason is that the government enjoys concessional loans. Nevertheless, the difference between domestic costs of borrowing and international cost of borrowing is too high. While borrowing in dollars results in to greater exposure to real exchange rate risk, borrowing in local currency results in exposure to real interest rate risk and a balance needs to be struck. The cost of external borrowing peaked during 1995-1999 but since then it has been on a downward trend. The implication of this differential is reflected in the extent of control the central bank applies on external commercial borrowing, which remained calibrated.

FIGURE 8: Ownership of central and state government securities



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

FIGURE 9: Effective cost of borrowing



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents, India's External Debt: A Status Report Ministry of Finance (Various)

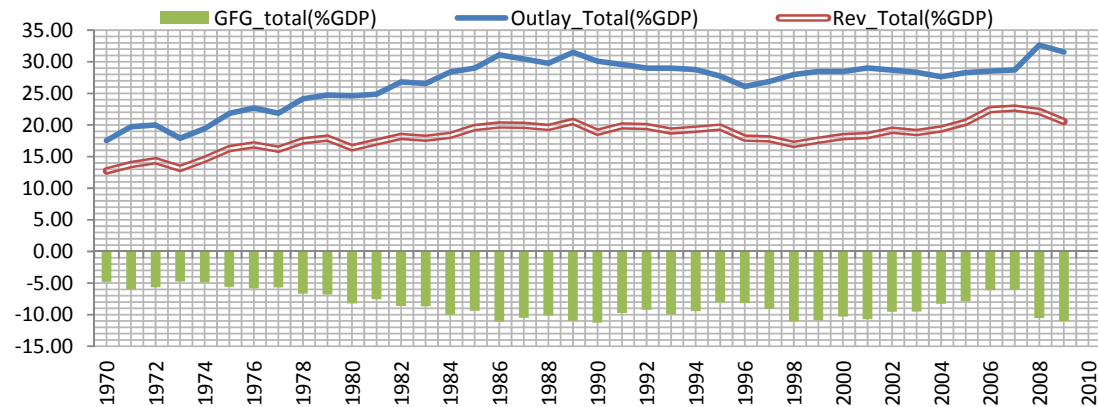
4. FISCAL HISTORY OF INDIA

The fiscal condition of a country is generally measured with respect to gross domestic product (GDP) as its percentage. Clearly, the percentage depends upon the growth in economy and the expenditure done by the government. If for any reason growth is hampered, the fiscal condition is likely to be affected adversely because of the committed expenditure of the government which is sticky and difficult to change. Such expenditure includes salary and wages of the government employees and interest on loans. Further, the government expenditure may be affected due to exogenous reasons such as currency depreciation or increasing cost of imports or bad weather. India's GDP growth during 1950-1990 has been highly volatile. The coefficient of variation of growth numbers was as high as 138 per cent during the 1970s, which has consistently improved reaching a low of 22 per cent during 2001-10. The five year growth trajectory of India measured by trend growth has been shifting upwards but such shifts have been rather small up to 1980-81 due to adverse supply shocks and negative growths during some of the intermittent years (Singh and Bery 2005). The two oil shocks coupled with draughts during this period deteriorated its current account as also the fiscal conditions seriously. As noted earlier, the period of 1980s was one of fiscal exuberance. Combined fiscal deficit of the Centre and the states increased from 8.21 per cent of GDP in 1980-81 to 11.24 per cent in 1990-91.

The crisis of 1991 prompted economic reforms and major corrections in the fiscal deficit. Within the framework of an IMF- supported programme the combined deficit for the Centre and States came down to 8.17 per cent in 1996-97, from 11.24 per cent in 1990-91. However, this improvement could not be maintained for long. With the implementation of the Fifth Pay Commission award in 1997, the deficit of both the central and state governments shot back to the crisis level of above 11 per cent. Increases have taken place both at the centre and states level. The states' deficit, after hovering around 3 per cent of GDP during most of the years in the nineties, increased to around 4.5 per cent since 1998-99, the major

increase being on the revenue account. In fact, the revenue deficit⁴ has become two thirds of the gross fiscal deficit. This reflects the extent of government borrowing to finance its consumption expenditure rather than capital expenditure. The crisis had forced cuts in subsidies and revenue expenditure. It is surprising that both are allowed to increase. In particular, central government subsidies have again gone back to the level of early nineties when it was close to two per cent of GDP.

FIGURE 10: Combined revenue, expenditure and deficit pattern



Source (basic data): India's External Debt: A Status Report Ministry of Finance (Various), Reserve Bank of India, Economic Survey and Central Government Budget Documents

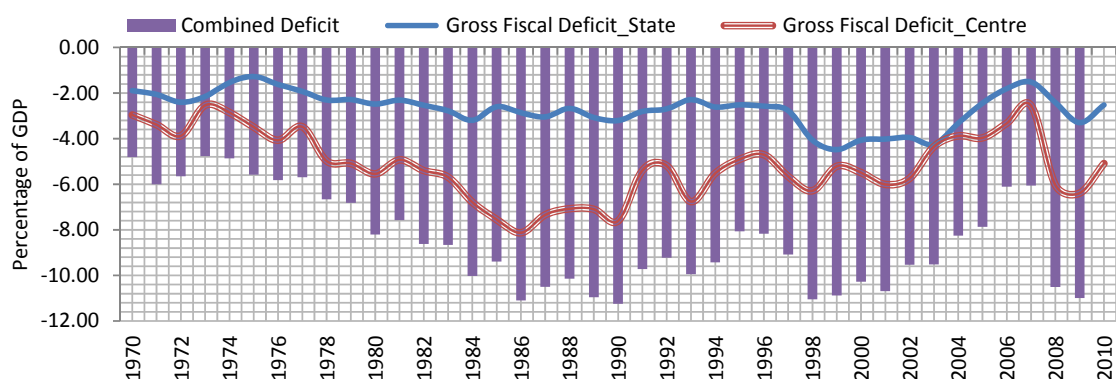
By 2000, it became widely clear that budget deficit cannot be controlled in absence of legal restrictions on expenditure. Therefore, the Indian Parliament, in August 2003, passed the Fiscal Responsibility and Budget Management Act (FRBMA), which imposes stringent fiscal discipline on the central government in its overall fiscal and macroeconomic management operations. No penalty on central government is imposed but the state governments face penalty in terms of negative weight in calculation of transfers from Centre to States as noted earlier as discussed earlier.

With FRBM in place, the deficit condition started improving. However, the financial crises of the United States led to global recession and almost all countries were advised to exercise fiscal stimulus. India also followed the same principles but its deficit accelerated to 11.6 per cent in 2009-10 (Figure 11). On top of that the central Government has flagship program of Mahatma Gandhi National Rural Employment Guarantee Scheme with budgetary outlay of about 9 per cent. The social audits of this program have revealed mixed results and its efficacy is still questionable.

The other disturbing feature of fiscal management is the continuing primary deficit or non-interest deficit, which has increased from a low of 1.3 per cent in 1996-97 to 4.67 per cent during 2009-10 (Figure 12). Primary deficit has long term implications of debt sustainability. Most of this is contributed by the Central Government. Given the fact that the current level of deficit has been generated from committed expenditures, there is no way to control it without strong initiatives. These include pruning government size, accelerating GDP growth, banning new recruitment in government service, and removing subsidies, increasing revenue base, and restructuring debts in a major way.

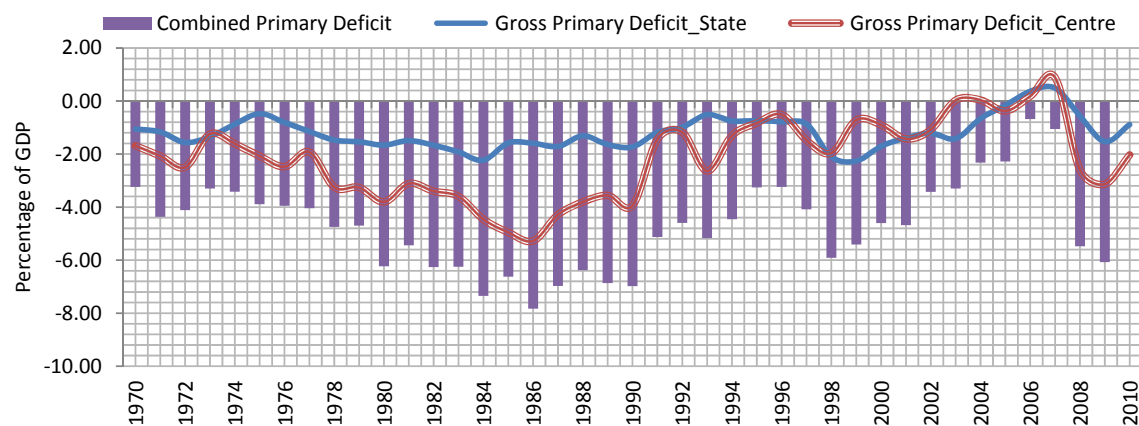
⁴ Revenue deficit is current revenue expenditure less total revenue collection where as gross fiscal deficit is equal to total revenue collection less aggregate expenditure including capital expenditure.

FIGURE 11: Measures of fiscal deficit - gross deficit as percentage of GDP



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

FIGURE 12: MEASURES OF FISCAL DEFICIT - PRIMARY (NON-INTEREST) AS PERCENTAGE OF GDP



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

The cost and consequences of large fiscal deficit are fiercely debated in India as the economy is apparently suffering from few adverse consequences, either through inflation or the balance of payments. However, it could be argued that India does bear other consequences of its loose fiscal stances. Such consequences can be in the form of real exchange rate appreciation affecting export of goods and upward pressure on interest rates affecting private investment, particularly in a situation where monetary policy is constrained by large inflows of foreign exchange reserves. For financing their fiscal deficit, state governments have increasingly been using small savings as captive source, where interest rates are administered at a higher level than market rates. Generally, interest rates on small savings are not market determined. Several studies ((Bhalla 2000), (Lal, Bhide et al. 2001)) have shown that such discrimination distorts market interest rate and jacks it at higher level affecting private investment.

Fortunately, during the recent years, the external shocks have not affected the economy severely. Indian economy appears to have become more resilient than earlier. Particularly, from 1997 till date, the period has been full of external and internal problems, probably more severe than faced earlier when the drought of 2002 is also taken into account, but the effects are not as adverse as might have been expected, given the past experience.

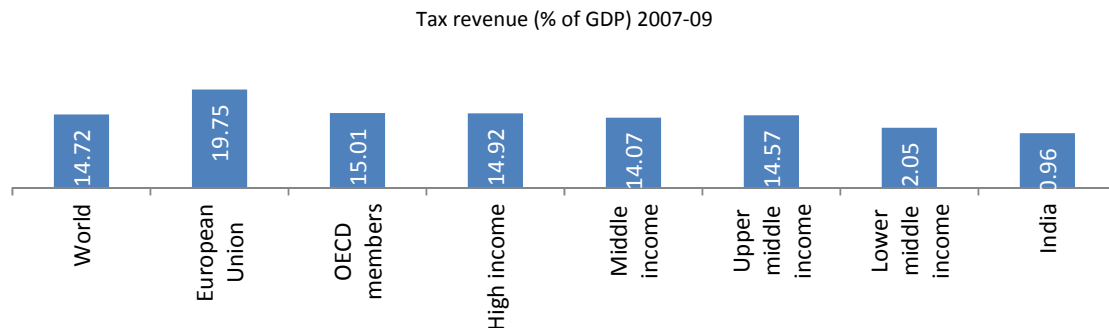
4.1 Structure of Revenue Collection

Fiscal deficit is a combined outcome of revenue collection and expenditure. Historically India has poor tax collection as compared to global standards (Figure 13). The main reason is lower tax base. Income tax is paid by about 35 million people in a country of 120 million and this number is stagnant despite population growth. Almost half of the services sector and half of the manufacturing sector are in informal sector, which remained un-taxed. Practically, entire agriculture sector is free from tax. During 1991-98, the tax revenue went down also because of trade reforms. However, since then it has improved (Figure 9).

Literature on composition of taxation is complex, both direct and indirect tax instrument are used in different proportions. There are also issues of double taxation, efficient allocation of resources, equity problem and cost of collection. Tax reform involves reduction and harmonisation of tax structure while ensuring equitable distribution of tax burden on different economic and social class of population. For example, custom duties are reduced in order to harness benefits of trade while goods and services taxes are reduced to increase consumptions. From cost of collection point of view, indirect taxes are relatively easier to collect and administer.

While indirect tax applies uniformly across all sections of people, income tax has flexibility to differentiate between rich and poor and could be calibrated to achieve some kind of equity. Practice of applying differential taxes on goods consumed by different class of people (a pre-conceived idea) in the name of equity also at times amounts to robbing individual's freedom to choose her consumption basket. In fact, even with income tax exemption poor could be deprived of enjoying several facilities and products in presence of a high goods and services tax. Also, goods and services tax can bring in distortions in production process and investment decisions particularly when quantum of these taxes is high and arbitrary changes are made frequently (Singh 2004).

FIGURE 13: GLOBAL COMPARISON OF TAX REVENUE AS PERCENTAGE OF GDP



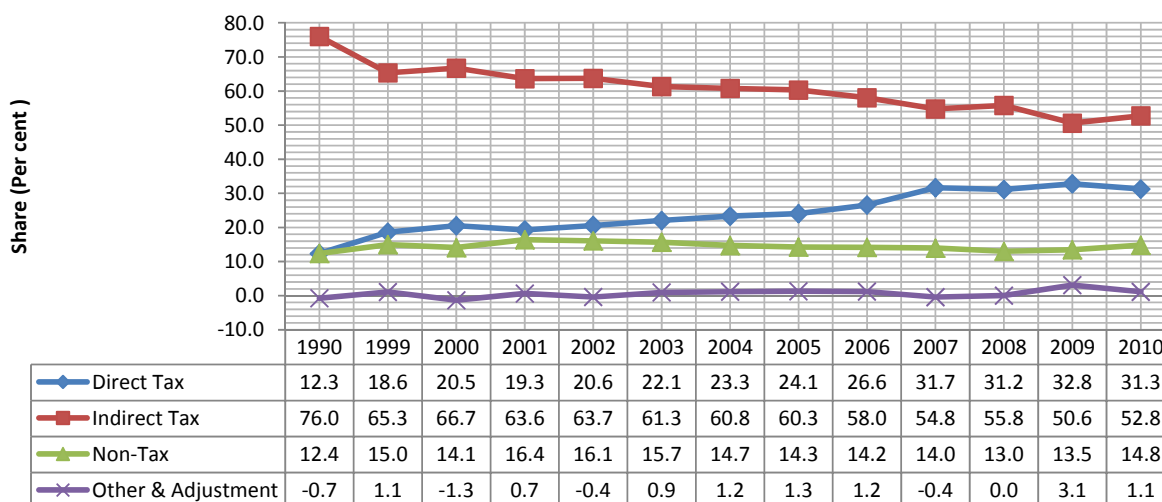
Source (basic data): World Bank

Cross country comparison indicates general preference to have higher proportion of income tax. For example, the United States heavily depends on income tax and social security tax; indirect taxes are almost non-existent. On the other extreme, during 1990s, China appears to have shifted its policy heavily in favour of taxing goods and services leaving income as minor source of tax revenue. During 1999, 74 per cent of China's current revenue came from goods and services with tax revenue to GDP ratio of 6.8 and a moderate average goods and services tax rate of 6.5 per cent, little higher than India. China's shift might have been motivated by her emphasis on foreign investments and increasing domestic saving by reducing consumption. In between there are several countries including India with mixed bag of taxation policy.

India's revenue structure can also be classified as indirect tax dominated system as it continues to form more than half of the revenue collection. However, the contribution of indirect taxes have reduced from 76 per cent in 1990 to 52.8 per cent in 2010, while during the same period contribution of indirect taxes have increased from 12.3 per cent to 31.3 per cent (Figure 14). About 15 per cent of the revenue is non-tax revenue, which come from public services, profits of government undertakings, profits of the reserve bank of India, interest receipts, dividend from non-departmental undertakings and external grants (Figure 15).

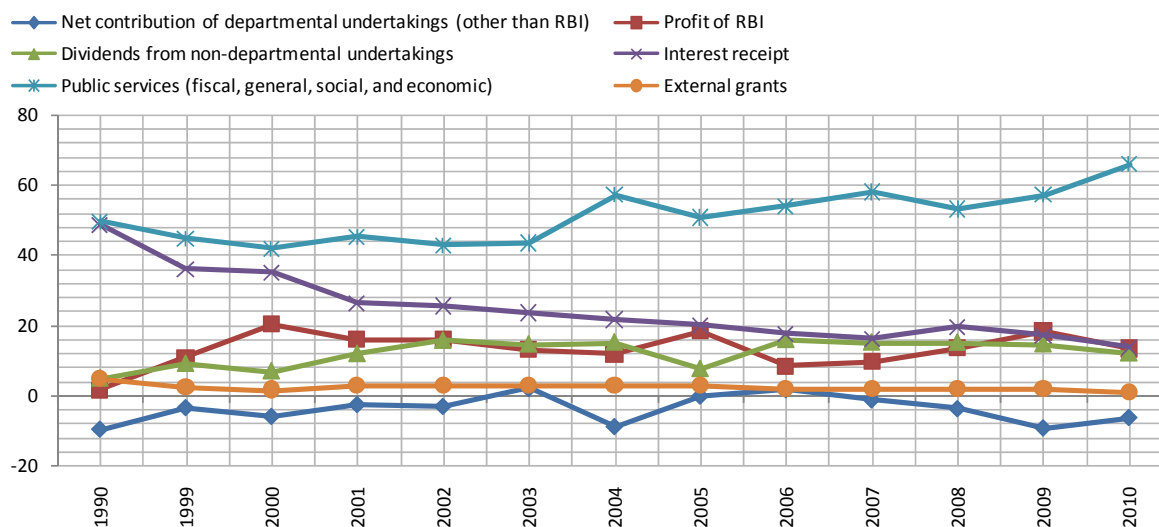
Among the non-tax category, the contribution of public services is about 65.8 per cent for the year 2011-11, while interest contributed 13.8 per cent and RBI profits contributed 13.4 per cent. There is definite increase in the contribution of share of public services in non-tax revenue.

FIGURE 14: Broad structure of revenue collection



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

FIGURE 15: Broad structure of non-tax revenue collection



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

4.2 Structure of Expenditure

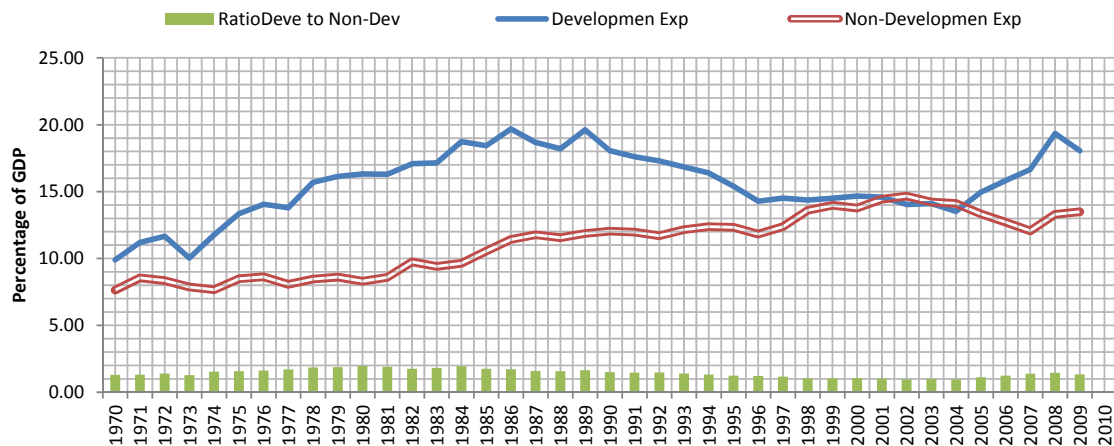
The government expenditures are reported broadly under two groups, namely development expenditure and non-development expenditure. The developmental expenditures include subgroups such as social and economic services while general services including defence form part of non-developmental component.

Social Services include Education; Sports; Art and Culture; Medical; Public Health and Family welfare; Water Supply and Sanitation; Urban Development; Welfare of SCs, STs and Other Backward casts; Social Security and welfare; Relief on account of natural calamities; and Others social services. Economic Services include Agriculture and Allied Activities; Agriculture (Crop Husbandry); Forests, Agricultural Research and Education; Rural Development; Irrigation and Flood Control; Energy, Power; Alternative energy sources; Industry and minerals; Transport; Science; Technology and Environment; General Economic Services; and Tourism.

The Non-Developmental or General Services expenditures include; Organs of states including Defence; Fiscal Services; Interest Payments and servicing of Debt; Interest Payments; Administrative Services; Police; Public development; and Pensions and Miscellaneous General Services.

The developmental expenditure of India has been growing faster than non-developmental expenditure as percentage of GDP until 1986 when it reached 19.7 per cent of GDP. However, the proportion of GDP spent on developmental expenditure fell sharply from 1989 onwards and it remained at about 14 per cent from 1996 to 2004. However, with launch of new programs such as MNREGS, and fiscal stimulus of 2008-10 the developmental expenditure picked up again (Figure 16).

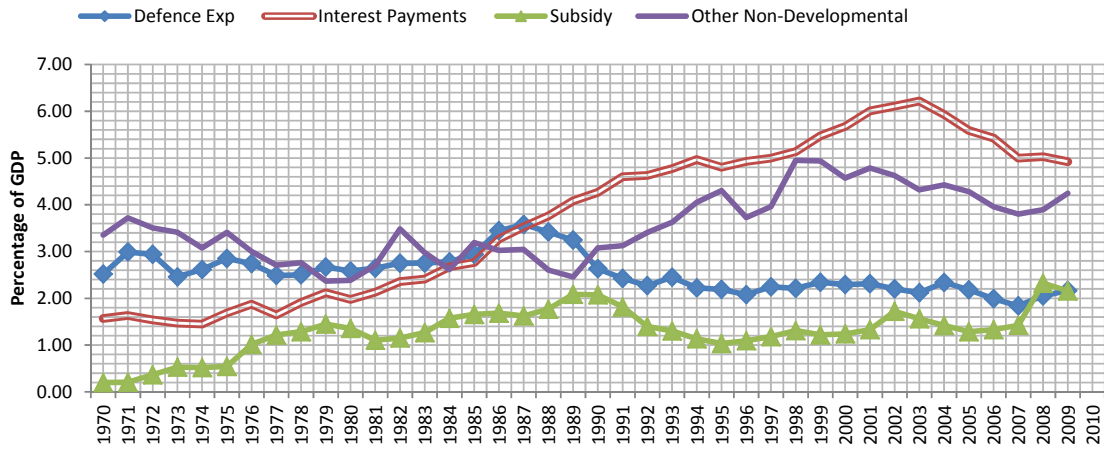
FIGURE 16: Development and non-development expenditure as percentage of GDP



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

On the other hand, share of GDP spend on non-development expenditure has been growing consistently and in 2002 it even crossed the GDP-share of developmental expenditure (Figure 17). However, since 2003-04 share of non-developmental expenditure is reducing. Most of the changes, either increase or decrease in non-development expenditure can attributed to two components namely interest payment and other. On the other hand GDP share spent on defence has been reducing consistently, while subsidies remain sticky issue and it is on rise.

FIGURE 17: Selected components of non-development expenditure as percentage of GDP

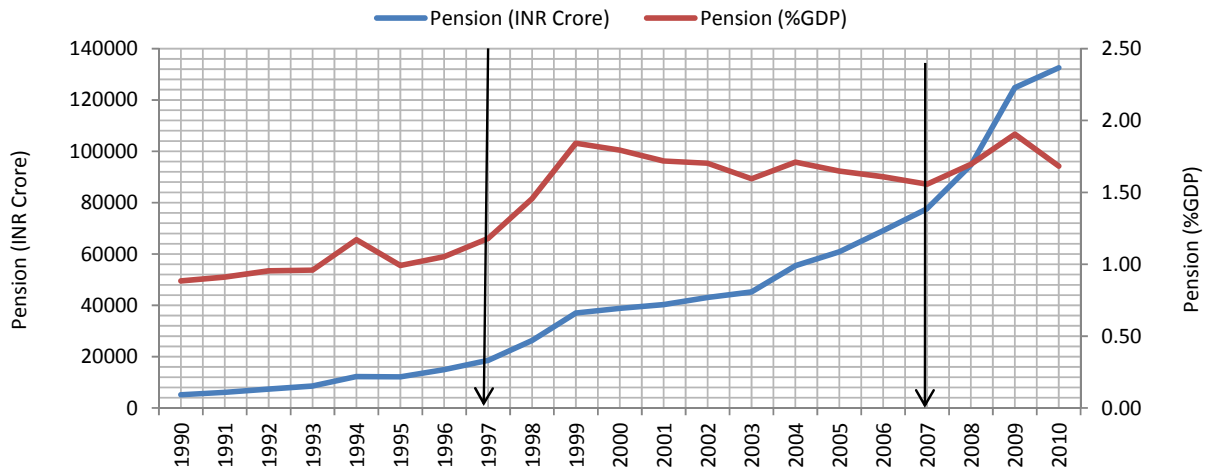


Source (basic data): Reserve Bank of India

4.3 Pension and retirement benefits

The pension and retirement benefit given to government employees is a major expenditure of government that is considered as un-noticed liability. Expenditure on this account has increased from 0.88 per cent of GDP in 1990-91 to 1.68 per cent of GDP in 2010-11. However the peak expenditures were in 1999 and 2009 when pensioners were given benefits in lieu of wage revision of the government employees with effect from 1996 and 2006 respectively. With respect to the problem of predictability and its role in disturbing the stability of government project appears to be overstated. For most periods the proportion of GDP spend on pension and retirement benefits is stable. With increasing income and the growth the liability would jump to upper levels and create problems in modelling such jumps in budgetary process.

FIGURE 18: Government expenditure on pension and retirement benefits

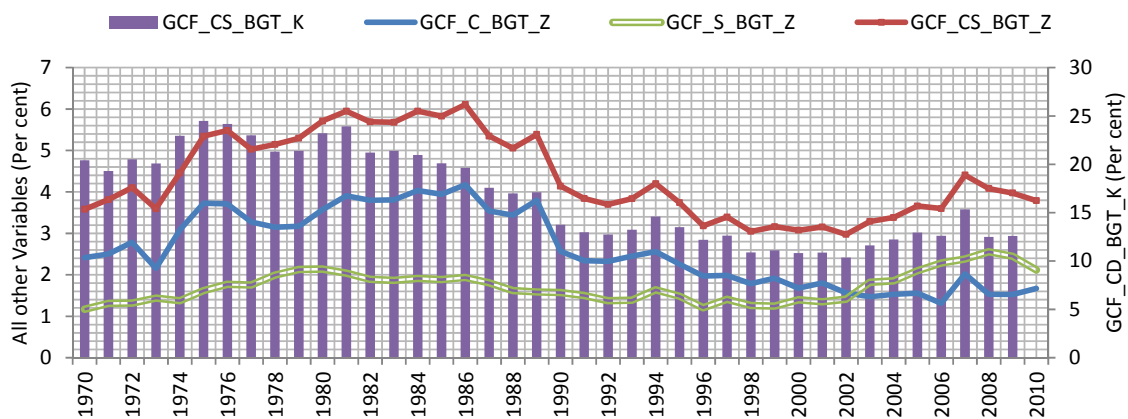


Social security has been inadequate in India and therefore governments have been considering to bring in comprehensive pension reform in India. Only small section of work force working in central government and state government are covered by pension schemes. The other section of workforce in organized sectors, are covered under the Employees' Provident Fund (EPF) (defined contribution scheme) and the Employees' Pension Scheme (EPS) (defined benefit scheme). There was no pension scheme for unorganised work force. In order to make pension scheme broad-based, the government launched on January 1, 2004 a New Pension System (NPS). Under the NPS all new central government employees are covered under a defined contribution plan instead of existing non-contributory benefit scheme. With this change the retirement financing would partially shift from the government to individuals. The participation in this scheme is open on a voluntary basis to nongovernment workers, including those in the unorganized private sector. An independent Pension Fund Regulatory and Development and Authority (PFRDA) have been established to regulate and develop the pension market.

4.4 Budgetary Resources used in Capital Formation

Budgetary allocations for capital formation by central and state governments measured as percentage of total budget (GCF_CS_BGT_K in Figure 19) has come down from an average of 21 per cent during 1970s to about 13 per cent during 2001-10. In terms of share of GDP (GCF_CS_BGT_Z in Figure 19) the budgetary allocations for capital formation work out to be 4.7 per cent and 3.7 per cent for 1970-71 and 2001-10 respectively. Thus, the direction of budgetary allocation has shifted away from capital formation to revenue expenditure. However, most of this reduction is on account of central government budget (GCF_C_BGT_Z in Figure 19), which had been sharply falling since 1986. On the other hand States have taken lead in creating fixed assets (GCF_S_BGT_Z in Figure 19), particularly in the area of infrastructure development.

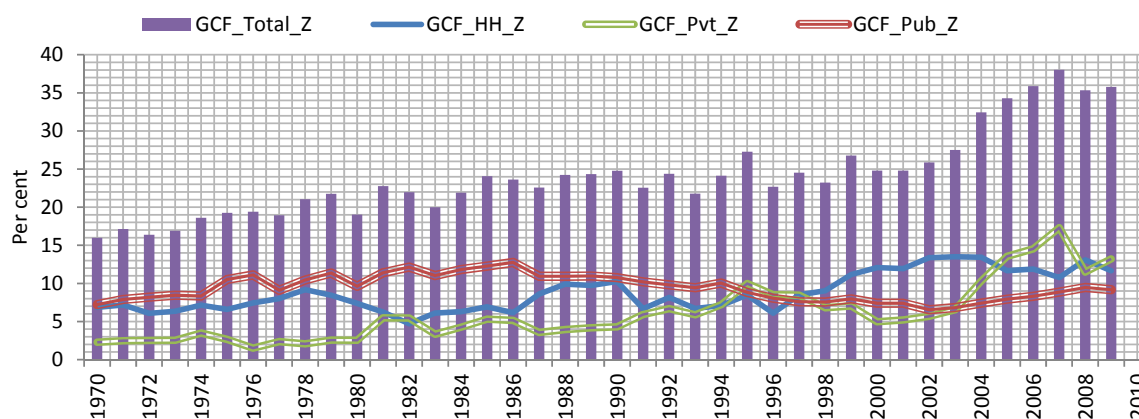
FIGURE 19: Budgetary resources used in capital formation (percentage of GDP)



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

Of Late, it is the private sector, which has taken the leading role in investment. The public sector investment has been relegated to last place from its commanding heights till 1994. Clearly private investment is more efficient, which is reflected in accelerating investment and higher economic growth. Gross capital formation by household as percentage of GDP (GCF_HH_Z in Figure 20) has increased considerably after 1996, and gross capital formation by private sector as percentage of GDP (GCF_Pvt_Z in Figure 20) accelerated after 2001 but it has reduced sharply after 2007. Capital formation by public sector as percentage of GDP (GCF_Pub_Z in Figure 20) is almost stable at about 8.5 per cent. The overall capital formation as percentage of GDP (GCF_Total_Z in Figure 20) has improved sharply after 2001.

FIGURE 20: Distribution of gross capital formation (percentage of GDP)

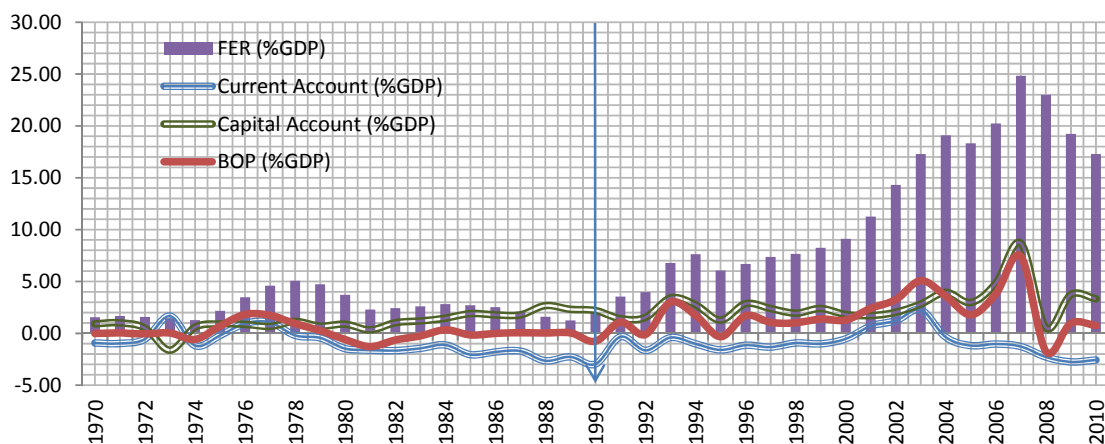


Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

5. EXTERNAL AND INTERNAL BALANCE: THE IMPORTANCE OF FOREIGN FLOWS FOR INDIA

1990-91 balance of payment crises was marked by acute shortage of foreign exchange reserves, and high fiscal deficit. Fiscal deficit is much higher now and current account is almost at the same level (Figure 21).

FIGURE 21: Balance of payment indicators of India and the crises situation



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

The BOP was negative during 2008-09, which has improved marginally and become positive since then. Yet, the economy is doing well and nobody thinks of crises. This could be possible due to presence of huge foreign exchange reserves and the resulting confidence. But, this does not mean government should remain exuberant in fiscal management. The central Bank has become cautious during recent period particularly with falling FER in terms of share of GDP.

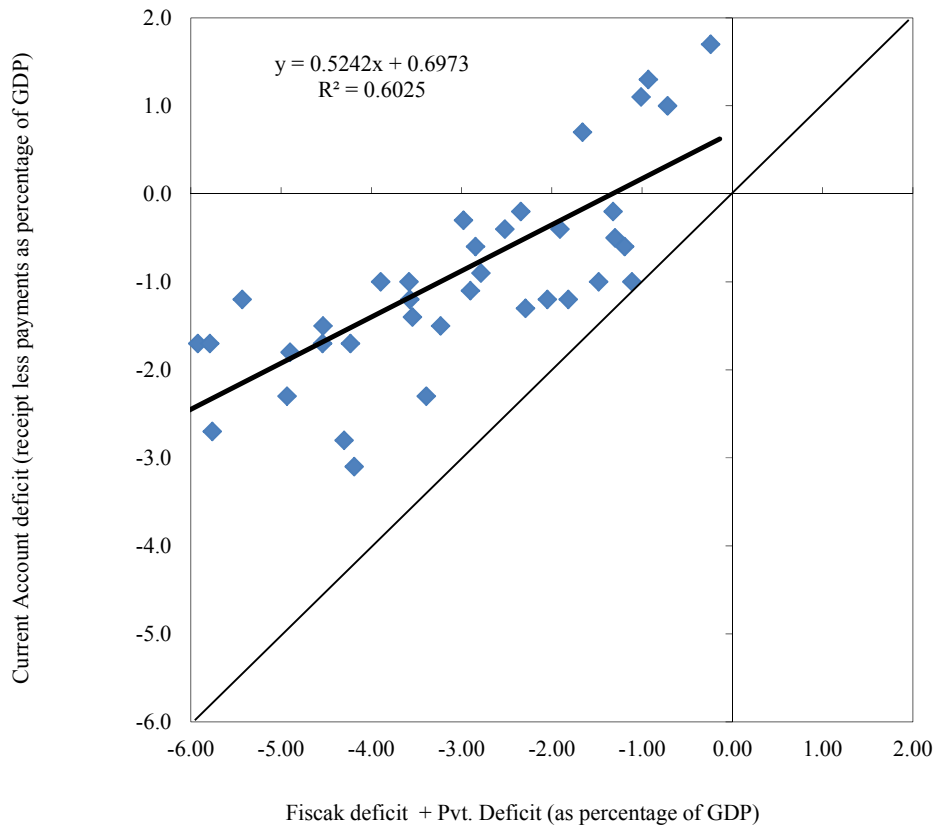
The problem is serious and one of those that requires attention. The characteristic of Indian economy is such that she requires consistent inflow of foreign capital to avoid crises. Why this is so? Recall the national account identity relating internal and external balances, which says:

$$(T-G) + (S-I) \equiv (X-M)$$

Sum of fiscal deficit and private deficit (internal balance) \equiv current account deficit (external balance) ___
(1)

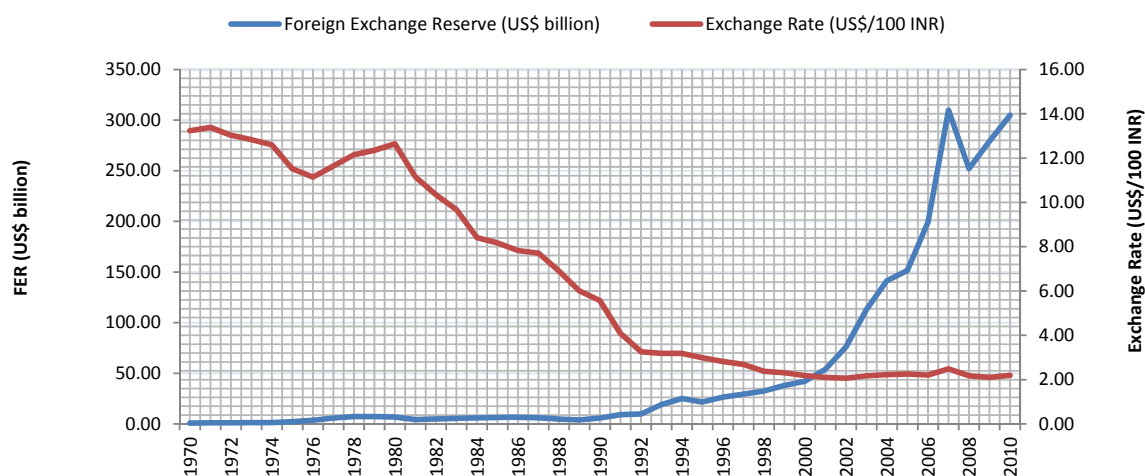
The internal balance and the external balance as defined in Equation 2 are plotted in Figure 22 as scatter plot. Theoretically, the trend through the data should have a slope of 45 degrees and current account should be equal to the capital account leading to zero balance of payment (BOP) situation. However, in practice this is not true and countries have either surplus or deficit BOP. The Indian data (1970-10) show: (1) a positive relationship between the twin deficits; (2) all points in scatter plot are above 45 degree line; and (3) that every percentage point current account deficit (external balance) is associated with two percentage points of total deficit (internal balance). This means more flows in capital account is sought for than that required by current account. This additional foreign inflow is required to meet fiscal deficits in addition to private sector surpluses mopped up in the domestic economy through savings and insurance instruments. Fortunately, there is enough inflow in capital account and the crisis situation is avoided. The current account deficit is also causing currency to depreciate despite sharp increases in FER (Figure 23). This accelerates the external liability in rupee terms.

FIGURE 22: Scatter plot between internal and external balance of INDIA



Source (basic data): Reserve Bank of India, Economic Survey and Central Government Budget Documents

FIGURE 23: India's foreign exchange reserve and exchange rate



Source (basic data): Reserve Bank of India

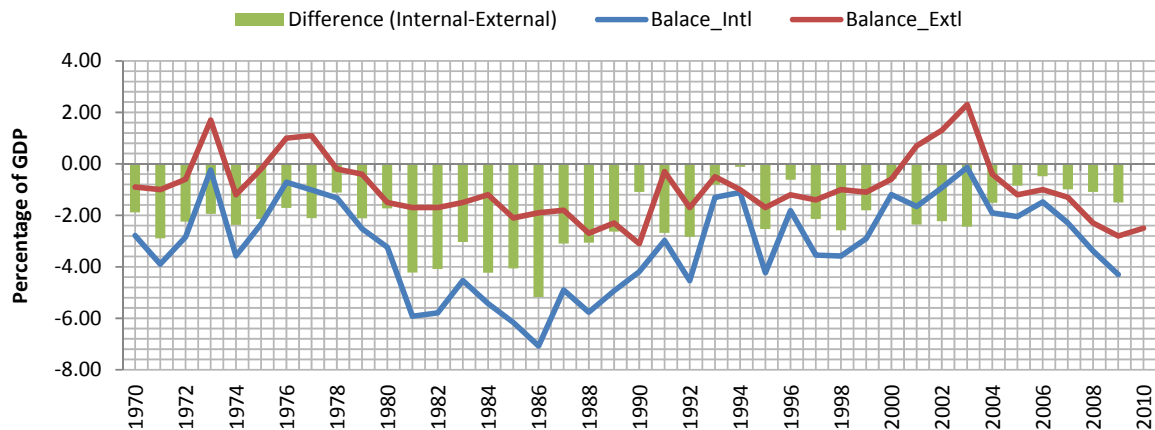
Besides accounting relationship between current account and fiscal deficit, the behavioural linkage between the 'twin deficits' have also attracted the attention of analysts. All kinds of relationships have been found in literature including co-movement, bi-directional causality, one-way causality and even no relationship. In the context of huge current account deficit of the United States, Bernanke refuted co-movement (Bernanke 2005). However, such strong view has not been accepted by others. For example, Jeffrey Frankel (2007) argues that U.S. Fiscal expansion led to both budget deficit and the current account deficit in the 1980s and 2000s, while budget deficit and current account deficit can and do at times move in opposite directions, as in the US investment boom of 1990s (Frankel 2007).

Similar to United States, both kinds of relationship in movements of current account and fiscal deficit can be observed in India also (see Figure 24). However, the episodes of opposite movement are fewer and broadly the two series seem to follow similar cycles. Answer to the question, whether India's external balance is caused by internal balances, is not clear when data is examined in level or first difference. However, when second order effects are tested it is clear that acceleration in internal balance does cause external balance and this relationship is unidirectional. The relationship between fiscal gap and external balance are also less clear.⁵

India's problem of internal and external balance is compounded by the rigidity in its import, particularly on account of oil imports. Oil forms about 30 per cent of India's import bill and this ratio is likely to rise with acceleration in economic growth leading to increase in use of energy per capita. This is one of the most rigid components of Indian Import. In fact, the aggregate trade balance of India is highly affected by the trade balance of oil sector (Figure 25). India's exports in other sector have to increase considerably if trade balance of oil sector is to be made up. This would also reduce pressure to maintain a high FER. High dependency on oil imports and its international prices have profound effect on India's macroeconomic conditions. Domestic prices are sensitive to oil prices and any such supply shock creates problem for the monetary authority in taking official stand on inflation and growth. Successive governments have tried to maintain an oil pool to absorb shocks but this has not been enough. Oil sector is also marked by huge subsidy provide to moderate prices of diesel and kerosene. Thus, the fiscal balance is affected by oil management both directly as well as indirectly. Of late, petrol prices have been decontrolled but in the presence of dominant public sector for procurement and distribution of oil, market distortions and resulting uncertainties cannot be ruled out.

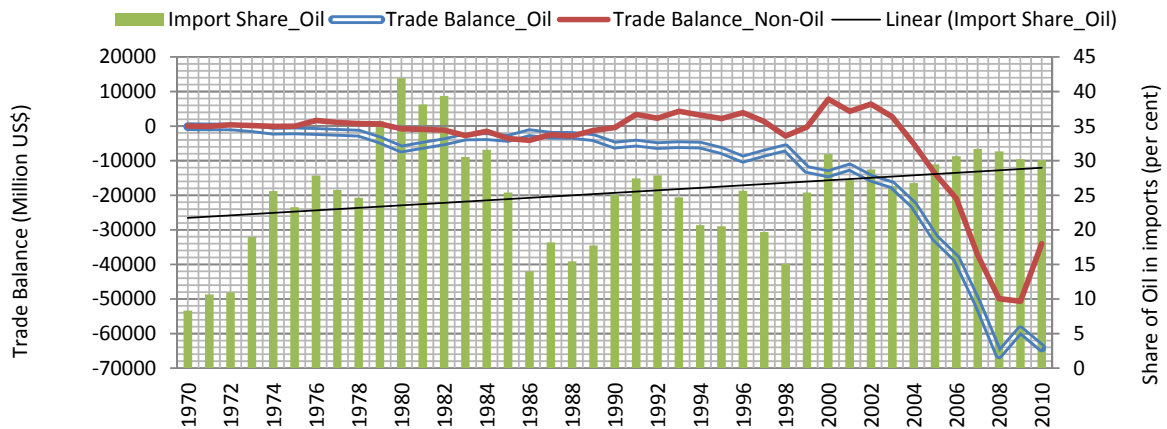
⁵ Test results are not presented to save space

FIGURE 24: Gap between internal and external balance of India



Source (basic data): Reserve Bank of India

FIGURE 25: Oil content in imports of India and its trade balance



Source (basic data): Reserve Bank of India

6. INDIA'S VULNAREBILITY TO DEBT

Sustainability of debt is one of the important issues relating to sovereign rating. It includes exposure of the country to risk not only because of government borrowings but also private sector external borrowing. Large primary deficits have led to large fiscal deficits and spiralling debt resulting in the emergence of a vicious cycle of deficit, debt and debt service payments. Debt sustainability is defined in several ways. For example, in order to ensure that tax burden does not rise continuously, the public debt ratio should converge to a finite value (Domar 1944). In other form this specifications require debt ratio to converge back to its initial level (Blanchard 1985; Buiter 1985; Blanchard 1990). Fiscal policies are also considered to be sustainable if discounted value of all future primary surpluses equals the current level of public debt provided debt to GDP ratio is lower than the interest rate (Blanchard, Chouraqui et al. 1990). World Bank – IMF debt sustainability framework (DSF) use ratio of Present Value (PV) of debt to GDP for examining the external sustainability of low income countries. In this section an attempt is made to understand the sustainability of India's international exposure to debt as well as the total national debt.

6.1 External Debt

The joint World Bank – IMF debt sustainability framework (DSF) considers low-income countries with weaker policies and institutions tend to face repayment problems at lower levels of debt than countries with stronger policies and institutions. Therefore, classifies countries into one of three policy performance categories (strong, medium, and poor) using the World Bank's Country Policy and Institutional Assessment (CPIA) index, and uses different indicative thresholds for debt burdens depending on the performance category. Thresholds corresponding to strong policy performers are highest, indicating that in countries with good policies debt accumulation is less risky. Present Value (PV) of debt in percent of Export; and GDP vary from 100 to 200; and 30 to 50; for weak policy, medium policy and strong policy countries respectively. Comparing these norms with the ex-post data of India and other countries for 2007-09, the case of India appears to be within limits (Table 5). However, when compared with other emerging market economies such as China, Mexico, South Africa, Thailand, India's vulnerability measured by export performance is poor.

India's import cover of FER measured in terms of months is just about average of developing countries (LMY), which were 10 during 2007-09 as compared to China and other EAP countries (Table 6). More recent data indicates that import cover of FER for India is just about nine months for 2010-11. Consequently, the external debt to FER ratio has also reduced to 100 per cent as compared to average of 124 for the period 2007-09. Thus, India's vulnerability is quite sensitive to its export performance, while imports are rigid and increasing. It may also be noted that the average FER cover of external debt is quite high for all group of countries and it is not unique to a few emerging economies.

TABLE 5: Present value of indebtedness across selected countries, 2007-09

Country	Total external debt, 2009 (\$ millions)	Present value of debt, 2009 (\$ millions)	Ratio of present value of debt to exports of goods and services (%)	Ratio of present value of debt to GNI (%)
Brazil	276,932	260,697	125	17
China	428,442	404,026	25	9
India	237,692	212,262	71	17
Indonesia	157,517	140,615	99	30
Mexico	192,008	176,766	61	18
Pakistan	53,710	38,732	157	24
Philippines	62,911	54,814	90	35
Russian Federation	381,339	348,913	74	26
South Africa	42,101	42,043	44	15
Sri Lanka	17,208	13,257	136	35
Thailand	58,755	54,554	28	22
Turkey	251,372	231,439	144	35

Source: GDF (2011), World Bank data

TABLE 6: Debt sustainability indicators across selected countries, 2007-09

Country / Group	Debt service to exports (%)		External debt stocks to exports (%)		External debt stocks to GNI (%)		Multilateral to external debt stocks (%)		Reserves to external debt stocks (%)		Reserves to imports (months)		Short-term to external debt stocks (%)	
	1990	2007-09	1990	2007-09	1990	2007-09	1990	2007-09	1990	2007-09	1990	2007-09	1990	2007-09
CHN	12	2	92	26	15	9	11	8	62	502	9	20	17	53
EAP	18	5	133	35	36	14	15	10	31	300	5	15	16	38
IND	35	11	367	80	27	18	26	18	7	124	2	10	10	18
LAC	25	17	248	96	42	23	14	12	13	57	4	6	17	16
LIC	26	5	556	127	70	34	33	50	6	27	2	3	8	11
LMY	22	10	192	66	36	22	16	12	14	124	3	10	15	22
MIC	21	10	181	65	34	22	14	10	15	128	3	10	16	22
MNA							11	23	12	191	2	12	14	16
SAS	32	11	355	96	32	20	30	28	7	95	2	8	10	15
SSA	14	5	225	58	63	23	22	26	9	76	2	5	12	22

Source: GDF (2011), World Bank data

6.2 Total Debt: The Fiscal View of Debt Sustainability

While external debt can be covered by having a large FER, there is no medicine to the internal debt of government, which crowds out private investment and cripples the government of any proactive development initiative. It is in this context that entire debt is important to analyse for its sustainability. The foregoing discussion has already indicated that India is not in the league of most riskless countries. It is more vulnerable than many.

With budget deficit, national debt increases but most of the increase is financed by domestic borrowing, which too has a social cost. A continually increasing ratio of debt to GDP may become too high or it may acquire an explosive path and become unsustainable leading to national insolvency. Therefore, it is desirable that the debt to GDP ratio decline from the existing level. However, the ratio of the national debt to GDP decreases only if the growth rate of the national debt is less than the growth rate of GDP. During 2001-2010, India's real GDP growth has indeed been higher than the growth rate in real debt (Figure 2). Therefore, at face value, it may be reassuring in near-terms. Nevertheless, it is important to examine the data more rigorously to ensure whether the dynamics of debt and primary deficit is significantly stable in behaviour.

The fiscal approach to debt sustainability analysis attempts to understand the drivers of the ratio of debt to GDP. The standard gross fiscal deficit is comprised of primary deficit and interest payments. The primary deficit is also known as non-interest deficit calculated by subtracting non-interest outlays from total revenue.

Let B = total debt; Y = real GDP; P = price level or GDP deflator; b = debt to GDP ratio (B/PY); i = nominal effective interest rate on loans; r = real interest rate ($i - \pi$); π = dP/P ; G = non-interest government Expenditure; T = Tax; Z = primary deficit ($G-T$); δb = change in debt to GDP ratio; z = primary deficit to GDP ratio (Z/PY); g = growth in real GDP (dY/Y); g_N = growth rate in nominal GDP ($g_N = g + \pi$); and δb = change in debt to GDP ratio; then assuming that debt changes only because of the interest to be paid on the previous period debt and the primary deficit of the current period the equation for change in debt can be written as:

$$\delta B = iB + zPY \quad 2$$

$$b = B/PY \quad 3$$

Total differentiating (3) and using equation (1) after simplification leads to the following

$$\delta b = b(r-g) + z \quad \text{OR} \quad 4$$

$$\delta b = b(i-g_N) + z \quad 5$$

Equations 4 and 5 decompose change in debt to GDP ratio between current primary deficit and the capacity to pay interest which is expressed by the excess of interest component over growth. Sustainability of debt in the medium to long run requires δb and $b(r-g) + z$ should converge to zero or a negative value. Equation 5 tells us that the ratio of debt to GDP will unambiguously rise if there is a primary deficit z and if the interest rate on the national debt exceeds the growth rate of GDP. The primary deficit adds to the national debt while the positive difference between the interest rate and the growth rate of GDP means that the interest payments itself cause the debt to rise faster than GDP. Thus, if debt to GDP ratio has to fall then it must be the case that (1) there is primary surplus (z is negative) and (2) the interest rate is less than GDP growth. Alternative either of this condition is large enough to off-set the effect of other.

When national debt is considered after including non-government external borrowing such that $B_NTL = B + \text{non government external borrowing}$, the equations 4 and 5 would need to be modified as equations 8 and 9, where $K = Z + \text{non government external borrowing}$ and $k = K/PY$, $b_NTL = B_NTL/PY$

$$\delta B_NTL = iB_NTL + kPY \quad 6$$

$$B_NTL = B_NTL/PY \quad 7$$

$$\delta b_NTL = b_NTL(r-g) + k \quad \text{OR} \quad 8$$

$$\delta b_NTL = b_NTL(i-g_N) + k \quad 9$$

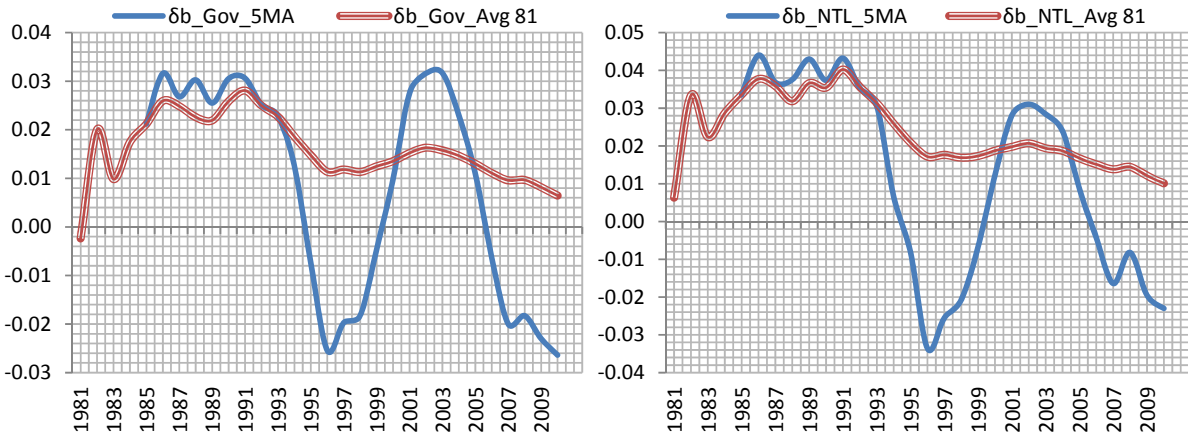
Figures 25 plot the behaviour of change in debt to GDP ratio for the government debt, δb_Gov and national debt δB_NTL in terms of 5-year moving average and average since 1981. Clearly, the movements in debt to GDP ratio are highly volatile, the changes are moving in both directions, positive as well as negative. The five-year moving average shows high amplitude cyclical behaviour. However, over a long time it can be said that the extent of net positive movement in the debt to GDP ratio has decreased but it has not reached into long-term declining mode.

A better understanding of debt sustainability can be had by looking at the plots of left hand and right hand variables of equations 4-5 and 8-9.

Equations 4 and 8 are plotted in Figure 26 while equations 5 and 9 are plotted in Figure 27. Clearly, interest rate is less than the GDP growth rate both in terms of nominal rates as well as real rates for most of periods. (Rangarajan 2003) also made similar observations that except in two recent years, the nominal interest rate had been below the nominal growth rate. However, primary deficit (z or k) is large enough to offset this advantage making debt unsustainable in the medium run. It may be noted that δb and $b(r-g) + z$ move in similar directions and at times converge to same value. It is also observed that both these variables for national debt as well as government debt and in real form or nominal form have acquired positive as well negative values. Therefore, it is important to test (1) whether in long term they are mean-reverting or not, (2) whether mean is less than zero or equal to zero, and (3) how much is the variability about mean. A series which is not mean-reverting (not stationary) would be unstable even if its mean were zero. In such cases, it is expected that the variability of the series would be very high, which itself is indicator instability.

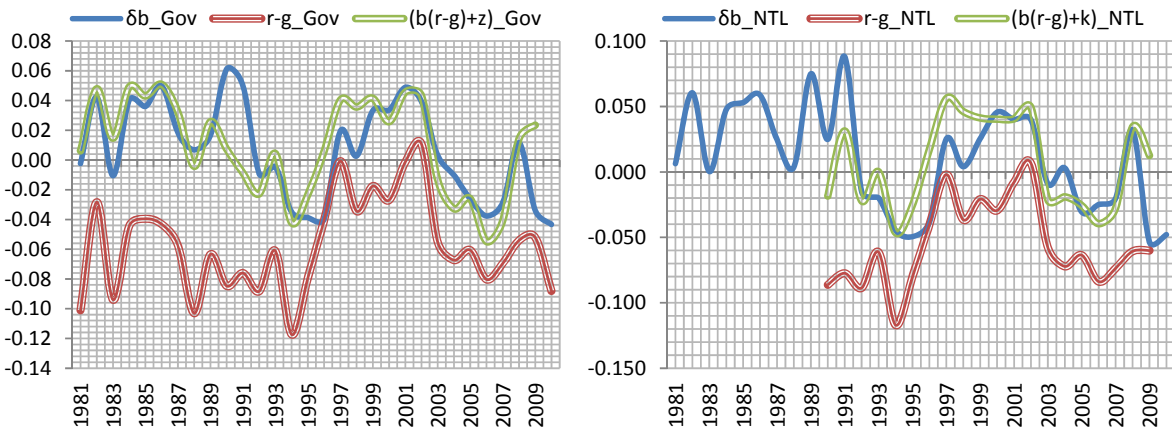
It may be noted that the left hand variable δb is an outcome of government policy variables contained in the right hand side variables of equations 4-5 and 8-9. Therefore, it is important to examine both series for stability analysis. If government behaviour represented by right hand variables is unstable, it may lead to unsustainable path for debt anyway (see for example (Trehan and Walsh 1991)). The behavioural part has been increasing during the recent periods, which is more pronounced when real variables are considered (Figure 26).

FIGURE 26: Government debt (domestic + external) and national (government total + non-government external) debt



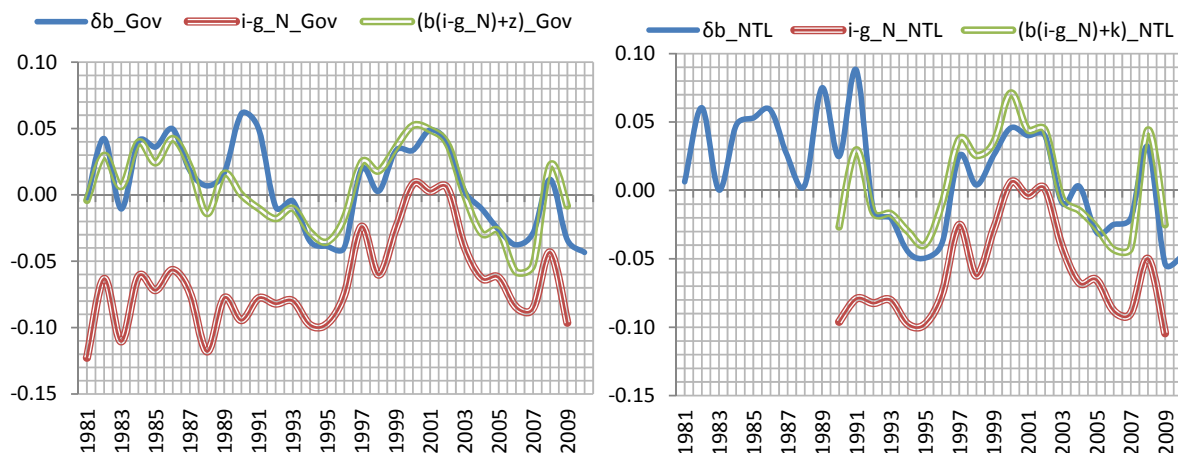
Source (basic data): India's External Debt: A Status Report Ministry of Finance (Various), Reserve Bank of India, Economic Survey and Central Government Budget Documents

FIGURE 27: Debt sustainability indicators with real growth and real interest rate (government debt in first pane and national debt in second panel)



Source (basic data): India's External Debt: A Status Report Ministry of Finance (Various), Reserve Bank of India, Economic Survey and Central Government Budget Documents

FIGURE 28: Debt sustainability indicators with nominal growth and nominal interest rate (government debt in first pane and national debt in second panel)



Source (basic data): India's External Debt: A Status Report Ministry of Finance (Various), Reserve Bank of India, Economic Survey and Central Government Budget Documents

6.3 Mean and Unit root Tests

Generally common form of test of stability is conducted by testing whether a series is stationary using unit root tests (Hamilton and Flavin 1986). Simplest form of unit test namely ADF test is used for testing relevant variables for this purpose and the results are reported in Table 7.

δb_{Gov} , δb_{NTL} , $(b(i-g_N)+z)_{Gov}$, $(b(i-g_N)+k)_{NTL}$, $(b(r-g)+z)_{Gov}$, $(b(r-g)+k)_{NTL}$ are tested for mean as well as unit root. Clearly, except for $(b(r-g)+z)_{Gov}$, all these variables have zero mean but the coefficient of variation (CV) is very high. However, all these measures of change in debt to GDP ratio have unit root except δb_{NTL} , and $(b(i-g_N)+z)_{Gov}$. Thus, $(b(r-g)+z)_{Gov}$ has positive mean with high variability and at the same time it is non-stationary. Its left hand counterpart δb_{Gov} also has unit root. Thus change in debt to GDP ratio when measured ex-post or through real behavioral variables, it is found to be unstable. Relatively, δb_{NTL} appears to be less unstable but its variability is also very high. All other measures of change in debt to GDP ratio are unstable according to unit root test. Therefore, it is pragmatic to consider that dynamics of debt in India is unstable and can lead to economic problem, particularly, because its instability is also associated with high magnitude.

Next it is important to consider the key variables in level. Primary Deficit "k", Primary Deficit "z", $\text{Log}(\text{Real Debt}_{GOV_Total})$, $\text{Log}(\text{Real Debt}_{NTL_Total})$, $\text{Debt}_{GOV_Total_Z}$, and $\text{Debt}_{NTL_Total_Z}$ all are non-stationary with high mean. In particular, by both measures, primary deficit is unpredictable and high, which can be detrimental to economic development.

TABLE 7: Unit root tests and mean test against sustainability of debt of India

Variable	Series Mean					H0: Series has Unit Root	
	Mean Value	SD	CV	P-value for H0: Mean = 0	Inference at 5%	ADF _ P-value	Inference at 5%
Primary Deficit "k"	0.066	0.02	37			0.225	Accepted
Primary Deficit "z"	0.049	0.02	37			0.489	Accepted
Log(Real Debt_GOV_Total)	9.470	0.68	7			0.113	Accepted
Log(Real Debt_NTL_Total)	9.610	0.70	7			0.140	Accepted
Debt_GOV_Total_Z	69.30	10.40	15			0.100	Accepted
Debt_NTL_Total_Z	80.14	13.30	17			0.180	Accepted
δb_{Gov}	0.008	0.031	393	0.142	Accepted	0.084	Accepted
δb_{NTL}	0.012	0.039	318	0.102	Accepted	0.024	Rejected
$(b(i-g_N)+z)_{Gov}$	0.003	0.030	1118	0.396	Accepted	0.010	Rejected
$(b(i-g_N)+k)_{NTL}$	0.002	0.036	2100	0.133	Accepted	0.113	Accepted
$(b(r-g)+z)_{Gov}$	0.011	0.030	274	0.031	Rejected	0.110	Accepted
$(b(r-g)+k)_{NTL}$	0.006	0.034	557	0.318	Accepted	0.144	Accepted

Source (basic data): India's External Debt: A Status Report Ministry of Finance (Various), Reserve Bank of India, Economic Survey and Central Government Budget Documents and author's estimates; author's estimates

6.4 Cointegration and Causality between Primary Deficit and Debt

If debt (Debt_GOV_Total_Z, or Debt_NTL_Total_Z) and primary deficit (k or z) are cointegrated such that increasing debt is associated with decreasing primary deficit (or increasing primary surplus) then fiscal policy could be considered as sustainable (Trehan and Walsh 1988). If cointegration is rejected, it means that the linear combination of primary deficit/ surplus and debt produces a non-stationary series that is unstable.

Results of cointegration test between Debt_GOV_Total_Z and z, and between Debt_NTL_Total_Z and k are presented in Table 8. There is indication of cointegration in only case of DEBT_GOV_TOTAL_Z, Z when trend is included in the VAR. However, it would not be expected that Debt to GDP ratio follow a linear trend and therefore, outcome of other test types are more relevant. Accordingly, cointegration is rejected in both cases at 5 per cent significance level and it can be concluded that fiscal policy needs to be careful.

In order to get more insight about the dynamics of debt with primary deficit, a Granger Causality test is conducted in VAR framework taking the variables in first difference both measured as percentages of GDP. The results of Granger causality is presented in Table 9 while impulse responses are presented in Figure 29. There is no causality when government debt alone is considered but in the case of national debt, a unidirectional causality is observed from primary deficit to national debt.

TABLE 8: Cointegration test results for DEBT_GOV_TOTAL_Z, Z AND DEBT_NTL_TOTAL_Z, K

Details	Selected (0.05 level*) Number of Cointegrating Relations by Model			
	None	None	Linear	Linear
Test Type	No Intercept, No Trend	Intercept, No Trend	Intercept, No Trend	Intercept, Trend
Series: DEBT_GOV_TOTAL_Z, Z				
Sample: 1983 2009, Lags interval: 1 to 2				
Trace	0	0	0	1
Max-Eig	0	0	0	0
Series: DEBT_NTL_TOTAL_Z, K				
Sample: 1983 2009, Lags interval: 1 to 2				
Trace	0	0	0	0
Max-Eig	0	0	0	0
*Critical values based on MacKinnon-Haug-Michelis (1999)				

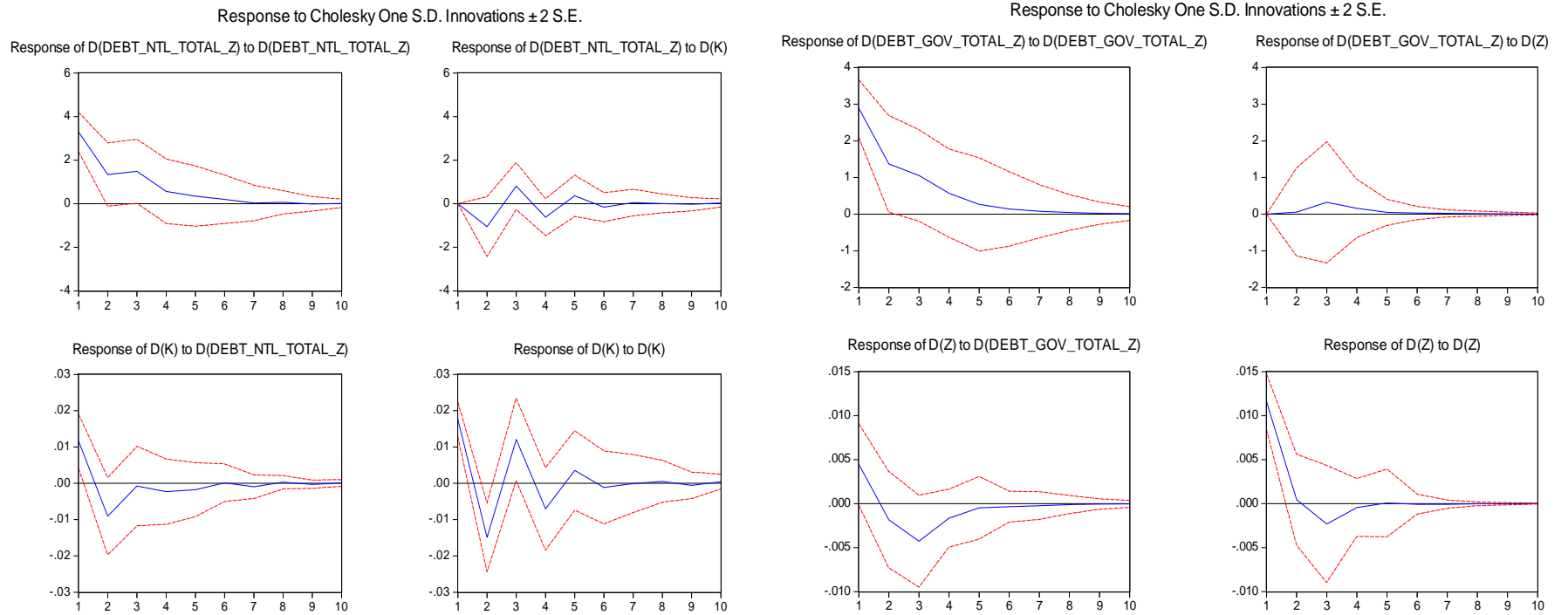
When primary deficit increases, it does not affect the government borrowing intensity but it does affect the national debt intensity, which means the primary deficit in a way affects non-government external borrowing. In the first period it reduces the national borrowing but after one period there is significant rise in national borrowing which takes four periods to get neutralised. From national sustainability point of view, this result is encouraging to some extent but in absence of cointegration it cannot be considered as sustainable. In addition, the behaviour of government is random, unstable and shows no sign of responsibility towards FRBM Act.

This also means that government might be transferring its own responsibility of reducing debt to non-government sector by restricting the volume of their external borrowing, while government itself keeps borrowing from domestic market. Thus, in effect, the government is causing double damage to the economy: (1) by way of restricted the non-government sector to take advantage of lower cost of capital and (2) by crowding out domestic borrowing by its own borrowing program.

TABLE 9: VAR Granger causality/block exogeneity Wald tests

System	VAR Granger Causality/Block Exogeneity Wald Tests; Sample: 1983-2009			
		Chi-sq	df	Prob.
D(DEBT_NTL_TOTAL_Z) and D(K)	Dependent variable: D(K)			
	Excluded			
	D(DEBT_NTL_TOTAL_Z)	3.977	2	0.137
	Dependent variable: D(DEBT_NTL_TOTAL_Z)			
	Excluded			
	D(K)	6.0878	2	0.048
D(DEBT_GOV_TOTAL_Z) and D(Z)	Dependent variable: D(Z)			
	Excluded			
	D(DEBT_GOV_TOTAL_Z)	2.678	2	0.262
	Dependent variable: D(DEBT_GOV_TOTAL_Z)			
	Excluded			
	D(Z)	0.15257	2	0.9266

FIGURE 29: IMPULSE RESPONSE FUNCTION IN VAR SYSTEMS: (1) D(DEBT_NTL_TOTAL_Z) AND D(K) AND D(DEBT_GOV_TOTAL_Z) AND D(Z)



6.5 Current State of Economy: Adding fuel to the Fire

After the financial crises in the United States in 2008, India has demonstrated greater resilience but that appears to have been provided by reasonable FER, it has accumulated over time. The economic management has not shown any innovations. With persistence of crises in Euro Zone, the internal management of India economy is under a stress test. The forecasts for 2011-12 are grim. For over two years, the economic managers have not been able to control inflation despite 13 revisions in interest rate. Supply driven inflation is being treated with demand side instruments leading to proportionately greater loss in real output compared to gains in terms of control on prices. No effort is visible to correct supply chain and infrastructure. Indications are there that the GDP growth for the year 2011-12 would slide below seven per cent mark and may be so even for the next financial years given the state of fiscal deficit, rising current account deficit and depletion of FER. The currency is on slide and Indian rupee is at its all time low at INR 53-54 per US\$. It may also be attributed to strengthening of US\$ against EURO in response to the spreading crises in EURO area. The entire nation is agitated over the issues of unprecedented corruptions and demand for a strong and effective ombudsman agency independent of government to address this cancerous disease. Several union and state level ministers and corporate chiefs are facing criminal charges and many have been sent to jail, while many more may face similar scrutiny. All this is happening not so much because the government of the day is very active about eradicating corruption but because the judiciary has taken proactive stand on certain cases and is directly monitoring the investigative process. News of disclosure of stolen wealth of staggering volume by international agencies has added fuel to the fire leading to political indecisiveness and uncertainties.

The effects of above circumstances are reflected in falling industrial production and stagnating investment with foreign investors either withdrawing from the financial market or restraining from investment. There is definite loss in confidence as government is not able to bring desired reforms and several of its policies are going hay way affecting real activities. Controversies over Go NO-GO policy of environment ministry with respect to mining in forest areas has affected the coal production considerably, which is proving to be detrimental to energy supply besides reducing growth. The flagship programs such as MGNREGS with huge public outlays at the cost of infrastructure development have become a backdoor tool to buy votes. There is no credible study to demonstrate its real effect on economy. The debate is centred on the question whether money has reached the beneficiaries or it has been pocketed by the system and whether this program belongs to party X or party Y and who is disbursing the money and who is not ensuring it to reach the voter.

7. CONCLUDING REMARKS AND WAY FORWARD

While fiscal consolidation is essential for several reasons, perhaps the most important of them is to widen the space required for conducting policy. With an extremely high deficit, even if it may not create a crisis, it certainly limits the government's potential to stimulate the economy when needed. There may be some substance in recent arguments of fiscal stimulus through infrastructure development to resuscitate the economy, but the question remains as to why non-developmental expenditure keeps increasing and no administrative reform could be initiated.

India's deficit and debt dynamics can be characterised as adverse on following grounds: (1) while deficit is increasing, the share of capital formation out of budget is decreasing. Therefore, income multiplier to government expenditure may not be enough to cover the debt liability in long run. (2) Government debt dynamics is unstable with large variability and therefore, it lacks credible predictability of future path. (3) Exposure of the economy to non-government external debt is increasing and therefore, there is a case to conduct analysis about the economic returns to such borrowings in terms of long term sustainability.

With debt to GDP ratio being very high and unstable, India faces potential risk of sovereign default. Increasing globalization has increased the external vulnerability as short term component of total external debt is sharply increasing. The external debt being driven by the private sector, the corporate governance issues have become more critical. The relevance of high foreign exchange reserves has increased further for sustaining growth and avoiding crises situations unless global reserve system is modified.

India's debt and deficits are large and government efforts are not adequate to curb them decisively. The crises could have hit Indian economy any time but for one safeguard, the FER. Crises have been avoided due to the presence of large foreign exchange reserves but rising short term debt and holding of private external borrowing need extra efforts to ensure corporate governance. The populist programs followed by the central government have rendered the more important expenditures related to infrastructure development inadequate to meet the rising demand of growth.

The Indian economy requires consistent inflow of foreign capital to avoid crises. More flows in capital account is sought for than that required by current account, which is essential to meet its fiscal deficits. Fortunately, there is enough inflow in capital account and the crisis situation is avoided. The current account deficit is also causing currency to depreciate despite sharp increases in FER, which in turn accelerates the external liability in rupee terms. There are indications that acceleration in fiscal deficit causes current account deficit, which would make the debt dynamics more unstable.

Given that India's fiscal and debt conditions are not very healthy, some efforts must be made to keep her growth story going. The ways the fiscal deficit and debt can be reduced are fairly standard. The debt to GDP ratio can be reduced by reducing debt and or increasing the GDP. Thus all policies that lead to higher growth are likely to help in reducing equilibrium debt to GDP ratio provided primary deficit is either zero or neutralised by exchange rate and/or interest rate. A prudent monetary policy that can insure a low interest rate - low inflation regime would encourage investment. Similarly, capital expenditure oriented budget that can create adequate infrastructure are essential ingredients for sustainable growth leading to reduced debt.

The external borrowing by the private sector is expected to increase national income but if that is used to increase private wealth through arbitrage, it may be counterproductive. Therefore, monitoring of external borrowing by the non-government sector with respect to its end use and returns to such investment is important. The external borrowing is also being used to finance fiscal deficit and therefore, it is all the more important that deficit is reduced.

To reduce the budget deficit one has to look at (1) cutting non-interest government expenditure including subsidies and extra-budgetary supports to quasi government organisation and enterprises, (2) increasing revenue either by increasing tax base or non-tax revenue, and (3) reducing the rate of interest on the government debt.

In a democratic country such as India, successive governments have resorted to implementing populist programs with huge outlays but little returns. Such programs need to be reviewed and rationalised. There is multiplicity of programs for same goal requiring channelizing of funds through different route. Such programs reduce efficiency and become difficult to monitor. For example, there is no need to have separate programs for education of weaker section, girls, adults, general, rural, integrated child development and so forth. It can be done under one program that ensures education to all. Several such duplicities can be cited which lead to leakage of fund and inefficiency.

Subsidies and inefficient government owned business enterprises are other sources that siphon out scarce resources. Such expenditure needs to be reviewed one by one for actual worth or more efficient way to target the beneficiaries.

Feldstein (2004) argues that 'the key to thinking about all forms of government expenditures is to recognize that the cost of providing a government outlay includes not only the direct outlay itself but also the deadweight loss associated with raising the revenue to pay for that outlay. That incremental deadweight loss depends on the means of financing the increased outlay. An increase in the income tax that distorts work behaviour and the form of compensation or an increase in the budget deficit that reduces national saving can produce deadweight losses that are as large as the outlay itself, thus doubling the true cost of the outlay. Paying attention in this way to the total cost of spending may help to reduce the level of spending therefore that source of the deficit'(Feldstein 2004).

Revenue can be increased by increasing tax revenue or non-tax revenue or both. However, the important issue is about the choice between tax rate and tax base. As pointed out earlier only 35 million people in India are taxed out of 120 million populations. This number can be increased through administrative reform. Similarly, the services provided by the government may be priced adequately and competitively such that revenue is maximised. Often raising tax rate is regressive as it leads to increase in deadweight loss. Every year government of India published a huge amount of tax foregone. Such schemes and relaxations need to be reviewed. Similarly, better monitoring can lead to decrease the case of tax avoidance. Thus, collection by improving tax administration would be better strategy than raising taxes.

Finally, effective co-ordination between the fiscal policy and monetary policy has become extremely important under the evolving global financial order. Requirement of low interest rate - low inflation cannot be implemented by monetary policy alone. Coordination with the fiscal decisions is equally important. With persisting deficit, monetary policy would always be under pressure and desired impact cannot fructify.

The federal structure of India provides opportunity to control fiscal exuberance at the state level through conditionalities of finance commission transfers. Therefore, it may be prudent to allow more finances to flow through states for development purposes. Decentralisation of expenditure between Centre and States has been debated in India and it is argues that expenditure by states governments tend to stimulate private sector capital formation but the same is not true of central government expenditure (Bhide and Singh 2009). In other cases, political and economic competition among the States may lead to positive fiscal outcomes, if States come to depend on financial markets for borrowing, so that markets can pass judgment on State governments' financial management (Singh and Srinivasan 2004).

More important than anything is the political will to implement FRBM in letter and spirit and if that is done sincerely, most of the problem of India related to fiscal sustainability could be addressed automatically. Some institutional changes that will change political incentives, such as independent scorekeeper for monitoring FRBM compliance (Hausmann and Purfield 2004) can be a strong instrument.

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