

ENSURING DURABLE FISCAL SPACE THROUGH PUBLIC DEBT SUSTAINABILITY: AN INDIAN PERSPECTIVE

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Abstract: *There has been an animated debate on the subject of public debt sustainability for more than seven decades, ever since the publication of Domar's classic stability condition. This has resulted in a plethora of erudite body of literature. These discussions, however, engaged in three interrelated subjects – stability, solvency and sustainability. Country evidences suggest that the policy makers are confused with these three terms and usually interpret stability and solvency as sustainability. This paper provides a conceptual interpretation to these three terms and opines that while stability and solvency are necessary conditions, sustainability is a sufficient condition to create durable fiscal space. The paper with an analytical framework of augmented sustainability conditions taking into account the revenue surplus, primary revenue surplus and primary surplus concludes that India's public debt is not sustainable to ensure durable fiscal space. Even under the given FRBM Act, the Indian authorities were unsuccessful in adhering to the golden rule of government finance, that is, the elimination of the revenue deficit. Thus, the borrowings by the government are pre-empted for meeting current consumption expenditure. The continuation of revenue deficit has adversely affected growth through dissaving of the government. Furthermore, this has led to a lower provision for capital outlay. Inflation management is difficult as the expenditure pattern of the government fueled the demand side, thereby making monetary policy ineffective. It has also constrained the scope of fiscal space. Introduction of effective revenue deficit (ERD) is a classic case of creative accounting and is against any norm of fiscal prudence. The potential threat to public debt sustainability remains as the structural imbalances pre dominate the government finances in terms of high revenue deficit, resulting in preemption of borrowing for consumption expenditure, thereby making it difficult for capital asset creation for social and economic services. Due to non-zero debt dynamic wedge recorded during the FRBM period, the debt-GDP ratio has remained potentially unstable, questioning the sustainability of public debt even though the conventional Domar condition has been satisfied. The contributing factors are; (a) non-achievement of zero revenue deficit, (b) absence/inadequate surplus in primary balance, (c) negative/low real interest rate resulting out of high inflation, despite cost of borrowings exhibiting some improvements in nominal terms. Further, the asset-liability position reveals that the government has been continuously recorded in net liability position, and persistent revenue deficit contributed to such negative net worth of the government. Since debt management, monetary management and cash management are interwoven with the fiscal management, it is important to gauge fiscal space*

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in the context of public debt sustainability in a more compressive manner, rather than on revenue augmentation and enhancement of growth induced expenditure.

Key words: *Cash management, Debt management, Financial management, Fiscal deficit, Fiscal empowerment, Fiscal rule, Fiscal space, Primary Deficit, Public debt, Stability, Solvency, Sustainability.*

1. INTRODUCTION

The vicious cycle of deficit- debt resulting in adverse implications for savings and investment rates of the economy, there by impacting economic growth, crowding out of private investment through higher interest rates, inflation and spill over to external sector have been intensely debated in the theoretical literature. Country evidence amply reveal that high levels of debt-GDP ratio also lead to spiraling fiscal deficits, thereby giving rise to the issue of sustainability of debt.

The past seven decades since Domar's (Domar 1944) seminal contribution have witnessed animated debate on the subject, both in the context of industrially advanced and emerging market economies. Extant literature on debt sustainability is primarily aimed at explaining summary measures of such sustainability. Similarly, the approach in such literature towards assessment of debt or fiscal sustainability is based on application of time series unit root tests to discounted and un-discounted debt series, co-integration tests to revenue and government expenditure series and estimating fiscal or primary balance response functions. (ADB, 2010; Afonso, 2005; Bohn, 1998; Hamilton and Flavin, 1986; IMF, 2002; Trehan and Walsh, 1988 and Wilcox, 1989).

Contemporaneous with the global developments, the issue of debt sustainability has also assumed critical significance due to its potential to destabilize the India growth story, through its impact on macro stability. It is also recognized that sustainable level of public debt will ensure fiscal space to meet the financial need for social and economic infrastructure.

In the above context, the decision of the government to implement the Fiscal Responsibility and Budget Management Act (FRBM Act), 2003 is praise worthy development. This self-imposed fiscal discipline was enacted "*to provide for the responsibility of the Central Government to ensure inter-generational equity in fiscal management and long term macro- economic stability by achieving sufficient revenue surplus and removing fiscal impediments in the effective conduct of monetary policy and prudent debt management consistent with fiscal sustainability through limits on the Central Government borrowings, debt and deficits, greater transparency in fiscal operations of the Central Government and conducting fiscal policy in a medium- term framework and for matters connected therewith or incidental thereto*".

The Act contained two important provisions viz. those relating to, fiscal management principles and borrowings from the RBI¹. The fiscal management

principle stated *"The Central Government shall take appropriate measures to reduce fiscal deficit and revenue deficit so as to eliminate revenue deficit by 31st March 2008 and thereafter build up adequate revenue surplus"*. The provisions relating to borrowing from the RBI ruled that the Central Government should not borrow from the Reserve Bank of India, except for ways and means advances².

The Act laid the basis for the Fiscal Responsibility and Budget Management Rules, 2004, framed by the Central Government, which became effective on July 5, 2004. Originally, these rules set annual targets for a phased reduction in key deficit indicators over the period ending March 31, 2008³.

The global financial crisis and the resultant fiscal stimulus measures implemented in its aftermath by the Union government led to the non-attainment of these targets. Consequently, the Union Government amended the FRBM Act in 2012 (GoI, 2012). Under the amended rules, a new concept of effective revenue deficit was introduced⁴. Further, the amendment mandated the Union Government to take appropriate measures to reduce the fiscal deficit, revenue deficit and effective revenue deficit, in order to eliminate the effective revenue deficit by 31 March, 2015 and thereafter build up adequate effective revenue surplus.

The revised fiscal road map laid down by the government based on FRBM 2012, has set out elimination of effective revenue deficit and limiting revenue deficit to 2 per cent by March 31, 2015 as per the Union Budget 2014-15. The Union budget 2015-16 laid out that fiscal deficit would be reduced to 3 percent of GDP in 2017-18, from the budgeted level of 3.9 per cent. Further, revenue deficit would be reduced to 2.0 percent of GDP and effective revenue deficit to zero in 2017-18, as compared to the levels of 2.8 per cent and 2.0 per cent respectively budgeted in 2015-16. The government of India has also decided to do away with the distinction between Plan and Non-Plan expenditure by Union Budget 2017-18, and provide estimates for revenue and capital expenditures alone. It may be noted that the IMF estimates of gross debt indicate that India's (both center and states) debt-GDP ratio of 67.2 per cent in 2015 may be better than some of its emerging market peers (IMF, 2016, p. 5). Moreover, India enjoyed stable debt over the period 2012-2015 (IMF, 2016, p. 17).

A perusal of extant research may demonstrate existence of Domar's stability or weak applicability of Buiter's solvency in the Indian case; however, this does not imply the existence of sustainability. This is also evident in the fiscal outcome during the period 2004-2008 when the prudent fiscal management created some fiscal space but it was short lived and could not withstand the pressure of the 2008 crisis.

Against the above backdrop, the key objective of this paper is to assess public debt sustainability in India in the FRBM period in contrast to stability and solvency conditions. The research question the present paper seeks to answer is: (a) how to

ensure fiscal space through public debt sustainability? In doing so, the paper has developed two concepts viz; (a) augmented public debt sustainability concept and (b) augmented fiscal space concept.

The remainder of the paper is organized as follows. Section 2 comprises of an analysis of extant literature and presents the conventional and proposed analytics of debt sustainability and fiscal space. The assessment of fiscal developments and public debt sustainability indicators are presented in Section 3. Section 4 presents an analytical framework for public debt sustainability Section 5 discusses the required fiscal space in line with the augmented public debt sustainability. Concluding observations are in Section 6.

2. ANALYTICS OF DEBT SUSTAINABILITY: AN OVERVIEW

Several scholars have attempted assessing India's debt sustainability, both at the Central and State levels (Buiter and Patel, 1992, 1993; Dholakia et al., 2005; Pattnaik, 1996; Pattnaik *et al.*, 2004, 2005; Rajaraman and Mukhopadhyay, 1999; Rajaraman *et al.*, 2005; Rangarajan and Srivastava, 2005). The conclusions of these studies on India's fiscal sustainability (and hence macro stability) for the various periods considered vary, based on the definitions and methodologies used. The conceptualization of sustainability still remains a prickly issue, more so since stability, solvency and sustainability are interpreted as interchangeable.

While stability and solvency are necessary conditions, sustainability is a sufficient. However, Domar's stability (1944), Buiter's solvency (1985) and Blanchard's sustainability (1990) are not the same condition. Extant literature on macroeconomic policy has witnessed a large body of work on public debt sustainability, especially following Domar's classic disposition linking debt, economic growth and interest rate. The term, however, has been used with different connotations (Balassone and Franco, 2000; Chalk and Hemming, 2000). Section 2.1 draws on extant literature (Hamilton and Flavin 1985; Rajaraman, 2005; Spaventa, 1987; Zee 1988) to set the agenda by distinguishing clearly amongst the concepts of stability, sustainability and solvency.

Sections 2.2. and 2.3 set out the sustainability conditions as developed by the body of literature which emphasised on debt stability conditions, and the importance of 'primary deficit' as a critical indicator of debt sustainability (Buiter 1985; Blanchard 1990; Blanchard *et al.*, 1990 and Blanchard and Weil, 1992). In the Indian context, research studies focusing on primary deficit included Buiter and Patel (1992), Government of India (2014), Kaur *et al.* (2014), Khunderpakam (1998), Moorthy *et al.* (2000), Pattnaik (1996), Pattnaik *et al.* (2005), Rangarajan *et al.* (1989 and 2003) and Rajaraman *et al.* (2005).

The adoption of fiscal rules by different countries in mid 1990s and during the past decade changed the course of the debt sustainability discussion to fiscal

correction and consolidation under fiscal legislation (Balassone and Franco, 2001; Bova *et al.*, 2014; Government of India, Fourteenth Finance Commission Report, 2014; Koptis, 2001; Liu *et al.*, 2001, Pattnaik *et al.* 2004; Schaechter *et al.*, 2012). Sections 2.4 and 2.5 discuss the underlying issues.

2.1. Sustainability, Solvency and Stability

Sustainability essentially refers to good housekeeping by the government and involves determining whether the government can continue to pursue its set of budgetary policies (in the present and probable future policy settings). Solvency is a term, which in the public debt context, is defined as positive net worth, while sustainability relates more to the sufficiency of liquid assets to meet current obligations of the government. Sustainability embodies concern about the government's ability to service its debt. A government which doesn't generate enough current revenues for debt service, must either default on its obligations or borrow more to service past debt and to cover ongoing imbalances. Continual borrowing of the government to service the debt will be reflected in the time path of debt-GDP ratio (Rajaraman *et al.*, 2005). Government solvency is a necessary but not sufficient condition for sustainability.

Solvency and sustainability are thus closely related, as an unsustainable time path would ultimately question the solvency of the government. Thus, the time path of debt-GDP ratio is an important indicator of sustainability status of public debt. Where debt- GDP ratio shows sign of stabilizing at some particular level, the debt path for that reason is seen as more sustainable, independently of the level at which the debt-GDP ratio has been stabilized, because stabilization in itself is an indicator of fiscal control. Stabilization is always defined to mean a constant percent of the GDP, which serves as a measure of the debt carrying capacity of the economy. Where debt stock is stable at absolute terms, it would decline over time relative to GDP.

2.2. Debt Stability Condition

Continuous and persistent borrowings by the government to meet the fiscal gap results in vicious cycle of deficit and debt, and debt servicing is eventually covered from further borrowing. The fear of sovereign credit risk and the drying up of credit sources from financial markets renders such debt servicing and the resultant accumulation of public debt unsustainable.

The dynamics of public debt as reflected in the debt stock to GDP ratio and fiscal deficit is set out below.

$$d_t = D_t / \text{GDP} = D_{t-1} / \text{GDP}_{t-1} (1+n) + f_t \quad (1)$$

Where, D = debt stock, n = nominal growth in GDP, f = fiscal deficit/ GDP ratio and t= time period.

Theoretical literature does not designate a preferable benchmark for the debt/GDP value. However, based on Domar (1944), the following two conditions have been developed:

$$n-r>0 \quad (2)$$

$$r=IP_t/D_{t-1} \quad (3)$$

Where, r = nominal interest rate and IP = Interest payments. According to (2) and (3), the larger the gap between the interest rate and growth rate, the higher will be debt-GDP ratio. Thus, to stabilize the debt -GDP ratio, the rate of interest should be lower than the GDP growth.

2.3. Primary Deficit as an indicator of public debt sustainability

Over the years, the public debt sustainability has been discussed much more rigorously in an analytical framework of inter-temporal budget constraint, with primary deficit as the key guiding factor. The primary deficit (P_t) is defined as the excess of non-interest expenditure over total non-debt receipts. It is termed primary because it arises due to current budgetary flows of the government which excludes the expenditure on inherited debt from the past i.e. interest payments. In budgetary parlance, it may be defined as fiscal deficit (F_t) minus interest payments ($i \cdot D_{t-1}$).

$$f_t = p_t + \{iD_{t-1}/[GDP_{t-1} \cdot (1+n)]\} \quad (4)$$

$$\Rightarrow f_t = p_t + i \cdot d_{t-1}/(1+n) \quad (5)$$

where, p_t = primary deficit (P_t) to GDP ratio and

i = interest rate, is the average interest payable in year t on the debt stock accumulated up to the close of year $(t-1)$

From (1) we have $d_t = D_t/GDP = (D_{t-1}/GDP_{t-1} \cdot 1+n) + f_t$; substituting from (4), we have

$$\Rightarrow d_t - d_{t-1} = \{[D_{t-1} \cdot (1+i)/(GDP_{t-1}) \cdot (1+n)] - (D_{t-1}/GDP_{t-1})\} + p_t \quad (6)$$

From (6) we may infer that if the primary deficit relative to GDP (p_t) is zero and $i=n$, the difference between d_t and d_{t-1} will be reduced to zero and the debt would be stabilized. Even with zero primary deficit and $i=n$, borrowing to pay interest on accumulated debt itself raises the debt stock. Thus, it is not equivalent to sustainability.

Using the summation approximation,

$$d_t - d_{t-1} = d_{t-1} \cdot (i-n) + p_t \quad (7)$$

If $(d_t - d_{t-1}) = 0$ as will be the case for stabilization, we require :

$$p_t = -d_{t-1} \cdot (i-n) \quad (8)$$

$$\Rightarrow p_t = d_{t-1}(n-i) \quad (9)$$

If $(n-i) = 0$

$$\Rightarrow p_t = 0$$

Thus, a zero primary deficit is required in order to ensure stabilization of public debt as proportion of GDP, if the nominal rate of GDP is equal to interest rate on accumulated debt. If the interest rate is higher, a zero primary deficit will not suffice; there is need for a negative primary deficit or a primary surplus for stabilization.

The nominal rate of growth of GDP (n) could be higher either (a) if the real rate rises or (b) if inflation rate rises. Since either will lower the debt to GDP ratio, there are calls for “inflating your way out of a debt squeeze”. However, inflation as a policy to stabilize debt-GDP ratio carries harmful consequences.

Therefore, the “debt- dynamic wedge” is defined in real terms i.e. if

$$g-r-p=0 \quad (10)$$

(where, g is real GDP growth (GDP at constant market prices), r is real interest rate i.e. i (nominal interest rate) minus inflation measured by GDP deflator and p is primary deficit relative to GDP) then, the debt-GDP ratio remains stable .

2.4. Inter-temporal Budget Constraint

The fiscal/ debt sustainability issue has been examined empirically through the assessment of inter-temporal government budget constraint (Buiter and Patel, 1992; Hamilton and Flavin, 1986; Wilcox, 1989) . Empirically, this is analysed through test of stationarity properties of the government debt stock (in level and first difference), examination of the long-term relationship between government revenues and expenditures and that between primary balances and debt.

In this Section, we have made an attempt to test empirically, whether India’s fiscal policy stance is sustainable, *i.e.*, whether it satisfies the inter-temporal budget constraint. The test of fiscal policy sustainability examines whether the past behaviour of government revenue, expenditure and the fiscal deficit could be continued indefinitely without prompting an adverse response from the investors who finance government borrowings.

The inter-temporal budget constraint as derived by Cashin and Olekalns(2000) can be written as:

$$Gt - Rt = \sum_{s=0}^{\infty} (1+r)^{-s+1} (\Delta Rt + s - \Delta Gt + r \Delta Bt + s - 1)$$

Where G is government expenditure including interest payments, R is government revenue, B is the stock of debt, and r is the real rate of interest.

The inter-temporal budget constraint, under the assumption that the funding of interest payments are not made from the new debt issuances (*i.e.*, no-ponzi scheme), imposes restrictions on the time series properties of government expenditure and revenues. This requires that government expenditure, revenue and the stock of debt are all stationary in the first differences. The stationarity property also restricts the extent of deviation of G_t from R_t over time. In case G_t and R_t are I (1) and cointegrated, then the error correction mechanism would push government finances towards the levels required by the inter-temporal budget constraint and ensure fiscal and debt sustainability in the long term.

2.5. Fiscal Correction and consolidation through fiscal rules

Two important points emerge from the analysis. First, a rising debt path is unsustainable by definition, unless corrected. Second, the primary deficit is a guiding indicator of the direction of the debt path. Therefore, in order to ensure public debt sustainability, it is important to have the following conditions put in place.

First, the growth in nominal GDP should be higher than the nominal growth in debt.

Second, real interest rate should be lower than the real GDP growth rate.

Third, adequate primary surplus should be maintained to finance debt service.

The first two are necessary conditions and the third one is sufficient condition.

To the extent the discretionary fiscal policy limits the scope to ensure these conditions due to a deficit bias, fiscal correction and consolidation are undertaken by fiscal rules to achieve fiscal sustainability.

A fiscal policy rule is a permanent constraint on fiscal policy, expressed in terms of summary indicators of fiscal performance, such as government budget deficit, borrowing, debt or a major component thereof. Rules are classified as debt rules, budget balance rules, expenditure rules, or revenue rules according to the aggregate targeted. *Debt rules* set an explicit limit or target for public debt in percent of GDP. *Budget balance rules* set a limit on the overall balance (including or net of capital expenditures), the structural or cyclically-adjusted balance, or the balance "over the cycle." *Expenditure rules* set limits on total, primary, or current spending; while *revenue rules* set ceilings on revenues and specify how unanticipated revenues should be allocated.

2.6. Operationalization of the Debt Analytics to the Indian Context

2.6.1. Concepts and Definition of deficit

Currently, three concepts of deficits are used in India, *viz.* revenue deficit (RD), fiscal deficit (FD) and Primary deficit (PD), defined as follows.

$$RD = RE - RR \quad (11)$$

$$FD = (RE + CE) - (RR + ROL + DISP) \quad (12)$$

or, $(RE + CO + L \& A) - (RR + ROL + DISP) \quad (13)$

or, $\{RE + CO + (L \& A - ROL)\} - (RR + DISP) \quad (14)$

or, $(RE - RR) + CO + (L \& A - ROL) - DISP \quad (15)$

or, $(RD + CO + NL) - DISP \quad (16)$

$$PD = FD - IP \quad (17)$$

or, $[(RD + CO + NL) - DISP] - IP \quad (18)$

where,

RE= Revenue Expenditure, RR- Revenue Receipts, CE= Capital Expenditure, ROL= Recovery of Loans, DISP= Disinvestment Proceeds, CO= Capital Outlays, NL= Net Lending and IP= Interest Payments, L & A= Loans and Advances

2.6.2. Concept and definition of Debt

The concept 'debt' used in this paper is based on the GoI definition presented in the budget document. It includes internal debt, external debt and other liabilities. Internal debt broadly comprises government borrowings from the open market through instruments like dated securities and treasury bills. External debt in the budget document is recorded in book value and represents loans from foreign governments, multilateral agencies (World Bank, ADB, IMF), deposits received from non-resident Indians, trade credit and external commercial borrowings. Other liabilities are essentially non-marketable borrowings and include small savings, provident funds, reserve funds and deposits.

The definition of debt broadly refers to any obligation having a repayment and interest payments. Extant literature distinguishes between gross and net debt. It is gross debt that is reported in the budget documents and net debt is obtained by making adjustments to some intra governmental transactions and non-interest bearing securities. However, in this paper, the concept of gross debt is used, as is consistent with the FRBM Act.

3. DATA AND METHODOLOGY

Following conventional measures, the stationarity properties of the stock of debt, tax revenues and revenue expenditure of the central government in India have been tested by applying the unit root test to annual data for the period 1993-94 to 2014-15. The variables have been converted into real terms using GDP deflator. Logarithmic values of the variables have been considered for the analysis.

This is followed by an indicator analysis comprising of an assessment of public debt sustainability through the sustainability indicators, undertaken for the Central Government (GoI)⁵ in the FRBM period. The paper proposes various sustainability indicators based on the magnitude of deficit, debt, economic growth, debt-GDP ratio, rate of growth in debt, revenue receipts and interest payments.

These indicators are set out below.

Based on the Debt, Economic growth and Interest rate

- i) Rate of growth in total debt should be lower than the rate of growth in nominal GDP.
- ii) Rate of growth in total debt should be lower than interest rate.
- iii) Real interest rate should be lower than the real output growth.
- iv) Debt to GDP ratio should decline gradually and remain stable based on Deficit Indicators
- v) Elimination of Revenue deficit and gradually recording revenue surplus in the budget
- vi) Reduction in Fiscal deficit (as per FRBM Act)
- vii) Elimination of primary deficit and gradually recording a primary surplus
- viii) Primary revenue surplus should meet the expenditure on interest payments
- ix) Debt dynamic wedge defined as the difference between the real rate of growth and real cost of borrowing and the primary deficit (refer to equation 10) should improve and equal to zero.

Based on capital Asset -Liability mismatch: Solvency and sustainability

- x) Capital assets: Capital assets as percentage to GDP (Total and components)
- xi) Total liabilities: Liabilities as percentage to GDP (Total and components)
- xii) Excess of liabilities over assets :(Rate of growth and percentage to GDP)

3. ANALYSIS

3.1. Public debt sustainability through Unit root test

The stationarity properties of the stock of debt, revenue expenditure and tax revenues of the **central government** in India have been tested using annual data for the period 1993-94 to 2014-15. The variables have been converted into real terms using GDP deflator and logarithmic values of the variables have been considered for the analysis. The results for the Augmented Dickey Fuller (ADF) unit root test indicate that the null hypothesis of unit root cannot be rejected in case of all the three variables. It was also found that all the series are integrated of order 1, *i.e.*, stationary in the first difference (Table 1).

Table 1
Unit Root Test

Variable (X)	ADF	
	Log X	D log (X)
Stock of Central Government Debt (B)	-0.28	-4.15*
Central Government Revenue Expenditure (G)	-0.46	-4.02*
Central Government Tax Revenue (R)	-0.56	-3.78*

Note: * denotes significant at 1% level.

Since $\log R_t$ and $\log G_t$ were found to be I (1), the cointegration between the two series have been tested through the standard Engle and Granger's (1987) procedure. Following Hakkio and Rush (1991), cointegration between $\log R_t$ and $\log G_t$ are tested by estimating the regression:

$$\text{Log} (R_t) = \alpha + \beta \log (G_t) + \varepsilon_t, \text{ where } 0 < \beta \leq 1$$

Cointegration requires that residuals from the above equation are stationary. The equation is estimated using simple OLS. The residuals series obtained from the estimated equation was found to be stationary, *i.e.*, I(0). The value of ADF test statistic for the estimated residual series was found to be -3.05 which is significant at 5 per cent level. Thus, the two series $\log R_t$ and $\log G_t$ were found to be cointegrated indicating a long-term co-movement between the two series and suggesting that the current fiscal policies in India are sustainable in the long run.

Unit Root Test Results

1. Tax Revenue

Null Hypothesis: LTAX has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag = 4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.556236	0.8607
Test critical values: 1% level	-3.788030	
5% level	-3.012363	
10% level	-2.646119	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(LTAX)

Method: Least Squares

Date: 10/30/15 Time: 14:30

Sample (adjusted): 1994 2014

Included observations: 21 after adjustments

Null Hypothesis: D(LTAX) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	<i>t</i> -Statistic	<i>Prob.</i> *
Augmented Dickey-Fuller test statistic	-3.778998	0.0106
Test critical values: 1% level	-3.808546	
5% level	-3.020686	
10% level	-2.650413	

*MacKinnon (1996) one-sided p-values.

2. Revenue Expenditure

Null Hypothesis: LRE has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	<i>t</i> -Statistic	<i>Prob.</i> *
Augmented Dickey-Fuller test statistic	-0.458543	0.8812
Test critical values: 1% level	-3.788030	
5% level	-3.012363	
10% level	-2.646119	

*MacKinnon (1996) one-sided p-values.

3.2. Assessment of public debt sustainability indicators in the FRBM period (2003-2015)

The sustainability indicators of public debt, as discussed in the previous section, are based on three categories viz; (a) *Debt, Economic growth and Interest rate*(b) *Deficit Indicators and* (c) *asset liability mismatch* threatening sustainability and solvency.

The assessment of these sustainability indicators in the Indian context in the FRBM period reveals the following:

First, the Domar condition (growth rate in national income must exceed the interest rate) has improved during the FRBM period, both in nominal and real terms (See Table 2). Thus, the Domar stability condition seems to have been met.

Second, the introduction of the FRBM Act enabled the central government to reduce the key deficit indicators viz, revenue, fiscal and primary deficit (relative to the GDP) between 2003 to 2008. The fiscal stimulus measures initiated post 2008 to overcome the adverse impact of global economic and financial crisis put a pause to the FRBM. Consequently, the deficit indicators increased sharply. With the introduction of revised FRBM rules in 2012, the government has again restored the self-imposed discipline for prudent fiscal management (See Table 3).

Table 2
Debt, Economic Growth and Interest Rate (in Per cent)

<i>Fiscal Year</i>	<i>Total Debt growth Rate</i>	<i>Debt-GDP Ratio</i>	<i>Nominal Economic growth rate</i>	<i>Real Economic growth rate</i>	<i>Nominal Interest rate of debt</i>	<i>Real Interest rate of debt</i>
2003-04	11.38	65.98	12.03	7.86	7.96	+3.79
2004-05	14.84	65.53	14.10	7.92	7.31	+1.13
2005-06	13.33	63.90	13.92	9.28	6.65	+2.02
2006-07	12.32	61.40	16.28	9.26	6.65	-0.37
2007-08	11.77	60.29	16.12	9.80	6.74	+0.42
2008-09	11.34	58.86	12.89	3.89	6.77	-2.23
2009-10	11.74	58.62	15.06	8.48	6.75	+0.17
2010-11	11.58	56.27	20.17	10.26	6.63	-3.28
2011-12	14.69	52.16	15.74	6.64	6.94	+0.11
2012-13	12.25	50.76	13.09	5.10	6.93	-1.06
2013-14	11.80	49.98	13.58	6.90	7.38	+0.70
2014-15	10.74	49.62	11.54	7.40	7.26	+3.12

Source: Authors. (Data computed from the Budget documents of the Government of India and Hand Book of Statistics on Indian Economy, RBI)

Table 3
Deficit Indicators, Interest payments and Debt-Dynamic Wedge (in Percent)

<i>Fiscal Year</i>	<i>RD/GDP</i>	<i>FD/GDP</i>	<i>PD/GDP</i>	<i>PRB/GDP</i>	<i>IP/GDP</i>	<i>PRB/IP</i>	<i>Debt Dynamic wedge</i>
2003-04	3.46	4.34	-0.03	-0.91	4.37	+0.21	4.10
2004-05	2.42	3.88	-0.04	-1.50	3.92	+0.38	6.75
2005-06	2.50	3.96	0.37	-1.09	3.59	+0.30	7.63
2006-07	1.87	3.32	-0.18	-1.63	3.50	+0.47	9.45
2007-08	1.05	2.54	-0.88	-2.38	3.43	+0.69	8.50
2008-09	4.5	5.99	2.57	+1.09	3.41	-0.32	3.57
2009-10	5.23	6.46	3.17	+1.94	3.29	-0.59	11.48
2010-11	3.24	4.79	1.79	+0.23	3.01	-0.08	15.33
2011-12	4.38	5.73	2.7	+1.35	3.03	-0.44	9.23
2012-13	3.6	4.85	1.75	+0.50	3.10	-0.16	7.95
2013-14	3.26	4.62	1.27	-0.20	3.30	-0.06	7.30
2014-15	2.94	4.13	0.81	-0.35	3.25	+0.11	5.08

Source: Authors. (Data computed from the Budget documents of the Government of India and Hand Book of Statistics on Indian Economy, RBI)

Third, the reduction in fiscal deficit as proportion to GDP has had its benign effect on debt - GDP ratio as the latter witnessed a gradual reduction (See Table 2).

Fourth, the major challenge to public debt sustainability remains glaringly visible with a relatively higher revenue deficit pre-empting a larger component of borrowings by the government for current consumption. For example, during 2014-15, revenue deficits at 2.9 per cent of GDP accounted for about 70 per cent of the borrowing for current consumption. As a result, the threat of a vicious cycle of deficit - debt remains (See Table 3).

Fifth, the current operation of the government reflected by the trends in primary deficit (PD) and primary revenue balance (PRB) clearly questions the sustainability. For example, during most of the FRBM period, primary deficit relative to GDP remained in the range of 0.37 per cent and 2.7 per cent. In addition, primary revenue surplus during the FRBM period has been substantially lower than the interest outgo from the budget. For example, during 2014-15, only 11 per cent of the interest payments were financed by primary revenue surplus as against at least 100 per cent financing required (Table 3).

Sixth, due to non-zero debt dynamic wedge recorded during the FRBM Period, the debt-GDP ratio remained potentially unstable, questioning the sustainability of public debt even though the conventional Domar condition has been satisfied. The contributing factors are; (a) non-attendant zero revenue deficit, (b) absence/inadequate surplus in primary balance (c) negative/low real interest rate resulting out of high inflation, despite cost of borrowings showing some improvements in nominal terms (See Table 3).

Seventh, the asset liability position reveals that the government has been continuously recorded in the net liability position, which ranged between 25.4 per cent and 30.4 per cent during the FRBM period. Persistent revenue deficit contributed to such negative net worth of the government (See Table 4).

Eighth, the composition of liability side indicates a substantial slowing down of non-marketable debt such as small savings, provident funds etc. (See Table 4).

Ninth, the composition of capital assets of the government reveals that the capital assets in respect of the social sector (as a percentage of GDP) remained stagnant at a very low rate (less than 0.5 per cent). Further, the capital assets relating to economic services recorded a declining trend. Loans and advances as percentage of GDP declined substantially because of the government's decision to do away with plan loans to state governments as a sequel to the recommendations of the 12th Finance Commission. The capital assets created for defense services (as percentage of GDP) as part of the general services remained steady (See Table 4).

Tenth, the lower and declining trends in capital assets comprising social and economic services as a proportion of GDP indicate that the capital asset allocation

to support economic growth has not been encouraging during the FRBM Period (See Table 4).

Thus, the above analysis reveals that the potential threat to public debt sustainability remains, as structural imbalances predominate government finances. Structural imbalances take the form of high revenue deficits, resulting in the preemption of borrowing for consumption expenditure, thereby rendering capital asset creation for social and economic services difficult.

3.3. Receipts and Expenditure

Fiscal Developments of the central government: Extent and source of fiscal improvement/deterioration

The period 2004-05 to 2007-08 recorded an impressive fiscal consolidation, as reduction in both the revenue and fiscal deficits were broadly in line with the FRBM Act. However, the period commencing from fiscal 2008-09 was characterized by deterioration of fiscal health. Between 2003-04 and 2007-08, the reduction in deficit indicators was primarily on account of substantial improvement in tax revenue as a proportion to GDP (improvement of 1.88 percentage point). With reversal of this trend (reduction of 1.59 percentage points) between 2007-08 and 2014-15, the deficit indicators recorded deterioration (See Table 5).

Table 4
Assets - Liabilities of Central Government (in Per cent)

<i>Fiscal year</i>	<i>LBT/ GDP</i>	<i>AST/ GDP</i>	<i>NLBT/ GDP</i>	<i>MLBT/ GDP</i>	<i>NLBT/ GDP</i>	<i>ECOS/ GDP</i>	<i>SOS/ GDP</i>	<i>GS/ GDP</i>	<i>Def/ GDP</i>	<i>LOT/ GDP</i>
2003-04	61.11	31.80	29.31	40.18	19.32	8.94	0.31	6.01	5.49	16.53
2004-05	61.51	33.42	28.09	39.35	20.28	8.41	0.30	6.32	5.80	16.41
2005-06	61.19	32.34	28.85	37.63	21.01	7.92	0.29	6.49	5.97	16.85
2006-07	59.10	31.18	27.92	35.97	20.74	7.34	0.27	6.43	5.92	15.67
2007-08	56.89	31.51	25.37	36.26	18.39	7.85	0.27	6.37	5.85	13.60
2008-09	56.11	27.87	28.24	35.88	18.05	7.46	0.30	6.46	5.91	12.08
2009-10	54.49	24.82	29.67	35.94	16.48	7.08	0.32	6.51	5.92	10.87
2010-11	50.60	23.05	27.54	34.26	14.31	6.69	0.32	6.33	5.73	9.71
2011-12	51.14	21.82	29.32	36.58	12.64	6.56	0.33	6.44	6.82	8.48
2012-13	50.76	20.83	29.93	36.69	11.30	6.44	0.34	6.49	5.85	7.56
2013-14	49.98	19.86	30.11	37.38	10.97	6.32	0.34	6.49	5.85	6.72
2014-15	49.62	19.22	30.40	37.74	10.34	6.05	0.34	6.53	5.89	6.29

Note: LBT=Outstanding Liabilities, AST= Outstanding assets, NLBT= Net Liabilities(LBT minus AST),MLBT=Marketable liabilities, NLBT= Non-marketable liabilities, ECOS= Economic services Assets, SOS= Social services Assets, GS= General services Assets, def= Defense services assets, LOT=Outstanding Loans and Advances

Source: Authors. (Data computed from the Budget documents of the Government of India and Hand Book of Statistics on Indian Economy, RBI)

The disquieting fiscal developments during both the periods were: (a) declining non-tax revenue, and (b) declining capital expenditure. There have been attempts to reduce non-developmental expenditure in both the periods primarily due to reduction in interest burden (See Table 6).

Table 5
Fiscal Development of the Central Government: Extent and Source of Fiscal improvement/ deterioration (as percentage of GDP)

<i>Items</i>	2003-04	2007-08	2008-09	2009-10	2012-13	2014-15	<i>Change in 2007-08 over 2003-04</i>	<i>Change in 2014-15 over 2007-08</i>
Revenue Deficit	3.46	1.05	4.50	5.23	3.60	2.94	-2.41	1.89
Fiscal Deficit	4.34	2.54	5.99	6.46	4.85	4.13	-1.80	1.59
Primary Revenue Balance	-0.91	-2.38	1.09	1.94	0.50	-0.35	-3.29	2.43
Primary Deficit	-0.03	-0.88	2.57	3.17	1.75	0.81	-0.91	1.69
Tax Revenue (net to Centre)	6.93	8.81	7.87	7.05	7.43	7.18	-1.88	1.63
Non-tax revenue	2.50	2.05	1.72	1.79	1.38	1.72	-0.45	-0.33
Revenue Expenditure	11.85	11.92	14.10	14.08	12.45	11.77	0.07	-0.15
Capital Expenditure	3.51	2.37	1.60	1.74	1.67	1.52	-1.14	-0.85
Total Expenditure	15.36	14.29	15.70	15.82	14.12	13.29	-1.07	-1.00
Developmental Expenditure	6.88	6.53	8.15	8.56	7.11	7.24	-0.35	0.71
Non-Developmental Expenditure	8.56	8.04	7.60	7.94	7.16	7.16	-0.52	-0.88
Net Debt	29.31	25.37	28.24	29.67	29.93	30.40	-3.94	4.53

Source: Authors. (Data computed from the Budget documents of the Government of India and Hand Book of Statistics on Indian Economy, RBI)

Table 6
Interest burden (in Percent)

<i>Fiscal year</i>	<i>IP/GDP</i>	<i>IP/RR</i>	<i>IP/Tax</i>	<i>IP/RE</i>
2003-04	4.37	47.01	66.36	34.27
2004-05	3.92	41.48	56.47	33.03
2005-06	3.59	38.21	49.07	30.19
2006-07	3.50	34.59	42.79	29.20
2007-08	3.43	31.56	38.91	28.77
2008-09	3.41	35.58	43.36	24.24
2009-10	3.29	37.20	46.68	23.37
2010-11	3.01	29.68	41.07	22.49
2011-12	3.03	36.35	43.37	23.84
2012-13	3.10	35.62	42.21	25.18
2013-14	3.30	36.88	45.87	27.28
2014-15	3.25	36.52	45.28	27.67

Source: Authors. (Data computed from the Budget documents of the Government of India and Hand Book of Statistics on Indian Economy, RBI)

The aggregate developmental expenditure showed some improvement between 2007-08 and 2014-15 on account of higher provision of revenue developmental expenditure in economic services.

4. DURABLE FISCAL SPACE

The conventional approach to fiscal space measures it as the scope for further increase in public debt without undermining debt sustainability (IMF, 2010). Furthermore, the higher the level of debt and higher the credit risk, the lower the fiscal space. In reality, fiscal space depends on a broader range of economic fundamentals including the level and trajectory of public debt, growth, and cost of borrowing as well as the ability to raise new revenue and cut low-priority spending (IMF, 2016). Broadly, following this, the paper attempts to link public debt sustainability and fiscal space. Contextually, therefore, the quality of fiscal adjustment through fiscal empowerment and expenditure benchmarking,

4.1. Fiscal Empowerment and Expenditure benchmarking

The moot question is how to achieve qualitative fiscal sustainability i.e., attending fiscal consolidation target under FRBM without making cutbacks in non-defence capital outlay and developmental expenditure, particularly economic and social services.

In order to ensure this, a two-pronged strategy is important:

- (a) *Fiscal empowerment (maximize revenue to budget to create fiscal space) and*
- (b) *Expenditure benchmarking in respect of non-defence capital outlay and social sector expenditure.*

The sustainability of public debt is still a matter of concern. In an operational sense, the answer to this problem is elimination of revenue deficit. A zero revenue deficit will provide (a) fiscal space for primary revenue balance to meet the interest obligations of the government and (b) borrowings of the government in terms of fiscal deficit will be fully utilized for investment through capital expenditure.

The fiscal road map for the period 2015-2020 recommended by FC XIV has kept the Revenue deficit/ GDP ratio for the Union government at a deficit of 0.93 percent in the terminal year 2019-2020. With states accounting for a revenue surplus of 1.88 per cent, the consolidated surplus (of both the centre and states) works out to 0.95 percent during the terminal year (GoI, 2014, p. 192-93). Thus, a zero revenue deficit in the terminal year will require an even higher revenue mobilization than that estimated by FC XIV.

Our suggestion is that in the terminal year of FC XIV 2019-20 for the RD to be zero, the gross tax revenue to GDP should be 11.89 per cent (i.e. the same ratio as in 2007-08). Accounting for the tax devolution to States at 4.46 per cent of GDP, net

revenue to centre will be 7.43 per cent as against FC XIV projection of 7.12 percent. Secondly, non-tax revenue to GDP ratio should increase to about 2 per cent of GDP (i.e. the same ratio as 2007-08), as against the FCXIV recommendation of 1.53 percent. Thus, these two corrections together will provide around 0.88 per cent of GDP and will by and large help in eliminating revenue deficit.

Expenditure benchmarking in fiscal consolidation has a positive and negative connotation. The negative connotation emphasizes reductions in non-developmental expenditure; however, the positive connotation focuses on higher provisioning for developmental expenditure. The FC XIV in their projections recommended a cut back of 2.65 percent of GDP in revenue expenditure between 2014-15 and 2019-20. This cut back is extended to general services, social services and economic services. On the other hand, the commission has recommended enhancement of capital expenditure by 1.14 per cent of GDP. The underlying assumption here is that revenue expenditure is bad and unproductive, while capital expenditure is good and productive. The paper posits that rather than benchmark expenditure as per accounting classifications, expenditure should be classified as social sector expenditure or growth inducing expenditure.

The Central government's fiscal consolidation efforts in the FRBM period remained weak, attested by the FC XIV (FC XIV REPORT GoI, 2014, p. 37).

"As regards the quality of fiscal management, the period is characterised by a less than desirable growth in revenues and a steep reduction in capital expenditures, accompanied by a high level of subsidies. Overall, therefore, there is a case for reversing the trend of dilution in the quality of fiscal management that has set in during the review period. However, such reversal may have to be projected in the award period in a realistic manner."

Again, although the state governments had stronger commitments, they were unable to create wider fiscal space. *"It is noteworthy that many States had not fully utilised the fiscal space available to them within the fiscal targets prescribed by the FC-XIII to incur capital expenditure. This indicates the scope for paying increased attention to this issue in the years ahead. However, it is seen that some of the States which did not utilise the available fiscal space and had low capital expenditures as a ratio of GSDP, are low-income States. From the perspective of accelerating growth and promoting equitable growth, increasing capital expenditures by enhancing the absorptive capacity of these States could be of importance."* (FC XIV REPORT GoI, 2014, p. 47).

The fiscal adjustment process in India suffers from non-achievement of the prescribed quantitative targets. More importantly, even after a decade of the FRBM, and after two amendments to the central government's medium fiscal targets of deficit reduction, the focus has not been on elimination of revenue deficit, which has remained in a black box.

The quality of fiscal adjustments have been poor, both in case of central and state governments. The cut backs in capital expenditure observed would have repercussions for economic growth.

The amendment to the FRBM Act in 2012 introduced the concept of Effective Revenue Deficit and mandated the central government to reduce the fiscal deficit, revenue deficit and effective revenue deficit (ERD), in order to eliminate the effective revenue deficit by 31 March 2015, and thereafter build up adequate effective revenue surplus.

ERD was introduced as the GoI realized that the elimination of RD looked difficult within a five-year span. However, introduction of ERD is a classic case of creative accounting and is against any norm of fiscal prudence. It goes against the constitutional provisions of budget making, since according to Article 112 of the Constitution, all central grants are to be treated as revenue expenditure. ERD suffers from time inconsistency. Fiscal transparency suggests that sudden shocks to the accounting arrangement should best be avoided.

ERD has implications for general government finances. Grants, whether capital in nature or otherwise, are treated as non-tax revenue receipts. Hence in the Annual Financial Statements (AFS) of state governments, they are meant to finance revenue expenditures. To the extent that the Central Government reduces its RD and if these are not treated as revenue receipts of states, the RD of states goes up by similar amount of reduction, while at the same time having no impact on the General government's RD. Since RD is not eliminated, there are macro-economic implications in terms of savings and growth and vicious cycle of deficit and debt!

Thus, in the interest of constitutional budgetary accounting coupled with adverse macro-economic implications for savings and growth, the concept of ERD may be revisited and could be dispensed with.

In fact, the FC XIV has commented on the "moral hazard issue of creative budgeting" (GOI, 2014, p.198) associated with the effective revenue deficit, and has suggested that the concept be done away with through an amendment to the FRBM Act, with effect from April 1, 2015 (FC XIV, REPORT GoI, 2014, p.198).

However, the central government still continues with the concept of effective revenue deficit, reflecting non-adherence to the constitutional requirement. As recommended by the FC XIV, the central government may consider amending the FRBM Act to introduce the elimination of revenue deficit altogether, as also withdrawing the concept of Effective Revenue Deficit, which has no constitutional validity.

The central government accounts for almost two-thirds of the consolidated revenues and debt. The expenditure responsibilities of state governments are more as per the Constitution. Though the central government's fiscal management has

implications for monetary management, as also critical for financial and external sector stability, the role of the state governments is greater in terms of social sector development.

Hence, there must be an emphasis on expenditure pattern at both levels of the government, with priority towards growth-oriented expenditure. The FC XIV has recommended higher combined capital outlay provisioning of 7.5 per cent of GDP in 2019-20(FC XIV REPORT,GoI, 2014, p.193).

While higher allocation of capital outlays is a necessary condition and is welcome, but the sufficient condition is return on capital assets. It is a myth that all capital expenditure is growth oriented.

Two Union budget announcements in terms of expenditure classification changes and FRBM modifications have critical implications for public debt sustainability.

“We need to correct this and give greater focus to Revenue and Capital classification of Government expenditure. We have, therefore, decided that the Plan, Non Plan classification will be done away with from fiscal 2017-18. The Finance Ministry will closely work with the State Finance Departments to align Central and State Budgets in this matter”.(GoI, Union Budget 2016-17, p. 21).

“The FRBM Act has been under implementation for more than a decade. Both Central and State Governments have made significant gains from the implementation of this Act. There is now a school of thought which believes that instead of fixed numbers as fiscal deficit targets, it may be better to have a fiscal deficit range as the target, which would give necessary policy space to the Government to deal with dynamic situations. There is also a suggestion that fiscal expansion or contraction should be aligned with credit contraction or expansion respectively, in the economy. While remaining committed to fiscal prudence and consolidation, a time has come to review the working of the FRBM Act, especially in the context of the uncertainty and volatility which have become the new norms of global economy. I, therefore, propose to constitute a Committee to review the implementation of the FRBM Act and give its recommendations on the way forward”.(GoI, Union Budget 2016-17, p. 21-22).

It is important to note that the Annual Financial Statements (AFS), which in essence is presented according to the requirement of the Indian constitution(Article 112), sets out only revenue and capital expenditure, further breaking those into General Services, Social services and Economic services. In fact, they contain no Plan and non-plan breakup. Prior to 1987-88, there was no plan and non- plan break up. The expenditures were decomposed as developmental and non-developmental. Plan and non- plan classification was introduced only since 1987-88.

In the context of creating durable fiscal space along with public debt sustainability, the government may consider presenting the social sector

expenditure and growth inducing expenditure (both in its revenue and capital components) as a part of FRBM exercise.

4.2. Financing pattern of Fiscal deficit: Management of Public Debt

The FRBM Act focused on the level of deficit indicators relative to GDP. Further, the focus has been more on the level of fiscal deficit; the financing pattern of fiscal deficit has been less debated. In the context of durable fiscal space, particularly in respect of financial market implications sovereign debt management assumes critical significance. The maturity profile and cost of borrowing are important in this respect. The RBI as the debt manager has been very effective in managing the public debt of the government. However, the simultaneous borrowing and repayment system is not sustainable.

The repayment obligations for market borrowing appear huge in the future, thereby putting a pressure on government finances and macroeconomic management. Recognizing this, the 12th Finance Commission strongly recommended establishment of a sinking fund as an institutional arrangement to ensure overall fiscal discipline. The rationale for constituting a sinking fund for States was to enable them to tide over the roll-over risks due to their weak cash management practices and also due to problems with under-subscribed State Development Loans.

Historically, a sinking fund arrangement called the Consolidated Sinking Fund (CSF) scheme was launched for State Governments in 1999-2000. A revised CSF scheme was introduced since 2006-07. By February 2014, twenty-one state governments had constituted the CSF and the outstanding corpus stood at about Rs 60,000 crore. However, the Union Government had not constituted a sinking fund. Keeping in view the experience of the States in this regard, the central government may consider setting up of CSF at the earliest. The FC XIV had also recommended CSF as "*an integral part of prudent fiscal management*" (FC XIV REPORT, GoI, 2014, p. 195).

4.3. Cash management

The government uses its cash balances held with the RBI (cash deficit and cash surplus) as a means to finance fiscal deficit. Since April 2007, under the Borrowing Rule, the RBI has been prohibited from participating in the primary auctions of the government's market borrowing programme. Thus, the government has been increasingly resorting to Ways and Means Advances (WMA) from the RBI to fund cash deficits. Simultaneously, flexibility has also been introduced regarding cash surplus maintenance by the central government with the RBI. Evidence suggests that both the central and state governments either take recourse to higher WMAs or maintain huge cash surpluses.

Poor cash management practices not only waste money, but also inhibit the development of local financial markets and undermine the effectiveness of monetary policy.

The government's cash management, resulting mostly from ineffective expenditure management, has remained poor and inefficient as it may be seen from the trends of surplus/ deficit cash maintenance with the RBI. A few policy options are flagged below:

- Introduction of an ex-ante cash flow statement on a daily basis to analyze the cyclical and structural factors.
- Elimination of structural factors contributing to cash surplus and fixing a limit of surplus for the government in the same manner as ways and means advances (WMA).
- Transferring the investment in 14-day intermediate treasury bills with immediate effect to a "consolidated sinking fund" investment to address the humps in debt repayment in the immediate future.
- Advance tax collections on a monthly basis, in place of a quarterly basis.
- In order to ensure transparency, the central government and the RBI may consider disseminating data to the public on the modalities of surplus investment, which includes the volume, rate of interest and maturity.
- Fixation of WMA limits for the central government with mutual agreement has largely remained arbitrary, as also a sub-optimal choice. The suggested option for the central government could be that the limits be fixed on the basis of a formula linking it to the budgetary transactions rather than need, as it is currently the case with the state governments.
- The calendar for market borrowings and treasury take care of repayments to a large extent, but it could be re-examined taking into account the cash flow statement. In order to make this effective, all the agents have to be pro-active, not leaving the management to RBI. The approach so far has been to treat cash management of GoI and State governments separately. It is appropriate to put in place a comprehensive approach. It would be advisable to have an expert committee to review the current arrangements for WMA/ Overdraft/ surplus and prescribe the limits and other related arrangements

5. CONCLUSIONS

There has been an animated debate on the subject of public debt sustainability for more than seven decades ever since the publication of Domar's classic stability condition. This has resulted in a plethora of erudite body of literature. These discussions, however, engaged in three interrelated subjects, stability, solvency and sustainability. Country evidences suggest that the policy makers are confused

with these three terms and usually interpret stability and solvency as sustainability. This paper provides a conceptual interpretation to these three concepts and opines that while stability and solvency are necessary conditions sustainability is a sufficient condition to create durable fiscal space.

The paper with an analytical framework of augmented sustainability conditions taking into account the revenue surplus, primary revenue surplus and primary surplus concludes that the public debt in India is not sustainable to ensure durable fiscal space. Even under the given FRBM Act, the Indian authorities were unsuccessful in adhering to the golden rule of government finance, that is, the elimination of the revenue deficit. Thus, the borrowings by the government are pre-empted for meeting current consumption expenditure. The continuation of revenue deficit has adversely affected growth through dissaving of the government. Furthermore, this has led to a lower provision for capital outlay. Inflation management is difficult as the expenditure pattern of the government fueled the demand side, thereby making monetary policy ineffective. It has also constrained the scope of fiscal space. Introduction of effective revenue deficit (ERD) is a classic case of creative accounting and is against any norm of fiscal prudence.

The potential threat to public debt sustainability remains as the structural imbalances predominate the government finances in terms of high revenue deficit, resulting in preemption of borrowing for consumption expenditure, thereby making it difficult for capital asset creation for social and economic services. Due to non-zero debt dynamic wedge recorded during the FRBM period, the debt-GDP ratio has remained potentially unstable, questioning the sustainability of public debt even though the conventional Domar condition has been satisfied. The contributing factors are; (a) non-achievement of zero revenue deficit, (b) absence/inadequate surplus in primary balance, (c) negative/low real interest rate resulting out of high inflation, despite cost of borrowings exhibiting some improvements in nominal terms. Further, the asset liability position revealed that the government has been continuously recorded in net liability position, which ranged between 25.4 per cent and 30.4% during the FRBM period. Such negative net worth of the government was contributed by persistent revenue deficit.

The paper offers the following in terms of policy option to create durable fiscal space with a strong order of public debt sustainability.

First, fiscal consolidation efforts should be further strengthened with emphasis on fiscal empowerment and bench marking of social sector and growth inducing expenditure.

Second, a zero revenue deficit will provide fiscal space for primary revenue balance to meet the interest obligations of the government. Also, the borrowings of the government, in terms of fiscal deficit, will be fully utilized for investment through capital expenditure.

Third, in the terminal year of FC XIV , 2019-20, the RD should be zero, implying the gross tax revenue to GDP to be 11.89 per cent (same ratio as 2007-08) and net tax revenue to centre to be 7.43 per cent as against FC XIV projection of 7.12 percent.

Fourth, non-tax revenue to GDP ratio should increase to about 2 per cent of GDP (same ratio as 2007-08), as against the FCXIV recommendation of 1.53 percent. Thus, these two corrections together will provide around 0.88 per cent of GDP and will help eliminating RD.

Fifth, growth- induced expenditure should increase and maintained at around 2.90 per cent in 2019-20. The decision to do away with plan and non-plan expenditure is a welcome move. However, the revenue and capital expenditure composition should follow the system of national accounts (SNA) classification, viz. broadly the economic and functional classification and not the creative accounting type such as ERD. The FRBM committee is a welcome move. The committee should take into account the FC- XIV recommendations on doing away with ERD. The Committee should also focus on the expenditure composition on social and physical infrastructure rather than the level of deficit .While the paper makes a strong case for social sector expenditure, no specific targets have been suggested for the central government, as the major share of social sector expenditures are constitutionally still with the state government.

Sixth, Since debt management, monetary management and cash management are interwoven with the fiscal management it is important to gauge fiscal space in the context of public debt sustainability in a more compressive manner rather than on revenue augmentation and enhancement of growth induced expenditure. Therefore, cash management of the government should be further strengthened so that the financial market does not get destabilized with higher and volatile frictional liquidity. In this regard, it would be appropriate to introduce limits of WMA availed by the government from RBI should be formula based and linked to budgetary transactions. It is also important to have a surplus limit based on budgetary transactions. Introduction of a consolidated sinking fund (CSF) for repayment of market borrowings will helpful for debt servicing in an cost effective manner.

Notes

1. The other features of the Act contained measures for fiscal transparency and to enforce compliance.
2. Under the FRBM Act, the Reserve Bank has been prohibited from subscribing to the primary issues of the Central Government since April 1, 2006. However, the Reserve Bank may buy and sell Central Government securities in the secondary markets.
3. The revenue deficit was targeted to be eliminated on March 31, 2008, the fiscal deficit was targeted to be reduced to 3 per cent of GDP by March 31, 2008.

4. The effective revenue deficit, as defined in the Act, is the difference between the revenue deficit and grants for the creation of capital assets. The latter refer to the grants-in-aid given by the Union Government to State Governments, Constitutional authorities or bodies, autonomous bodies, local bodies and other agencies implementing schemes for the creation of capital assets which are owned by the said entities.
5. It may be noted that the FRBM Act and sustainability indicators only relate to Central Government (GoI) because the terms of reference (ToR) of the Expenditure Commission is mainly designed for the GoI.

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