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Public debt sustainability for India: A survey of recent literature

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Abstract

Continuous fiscal expansion financed through debt issuances poses important questions for fiscal sustainability and financial health of the country. It has important implication for effectiveness and efficiency of fiscal policy in restoring macroeconomic stability. The accumulated value of fiscal deficit at any point in time is public debt of a country. Public debt accumulation has important influences over the economy both in the short-run as well as the long run. There are different channels through which elevated and rising levels of public debt could impact the economy (Kaur and Mukherjee, 2014). It alters the allocation of resources between the private and the public sectors; exert pressure on long-term interest rates, reduced scope for countercyclical policies and vulnerabilities associated with debt buildup; reduced investment/capital accumulation; raises the risk of sovereign insolvency and may raises the inflation rates. In view of these expected adverse impact of high public debt, it is imperative to keep the public debt at manageable level and should not cross the required threshold level beyond which it may become unsustainable. In theoretical and empirical literature, the threshold level of debt is determined based on two strands of thought viz., debt-growth dynamics and fiscal/debt sustainability perspective in different countries over a period of time.

The persistent level of fiscal deficit in India has been a matter of concern for policy makers, researchers and public finance managers. The concerns over public debt sustainability were raised by the Twelfth Finance Commission and Reserve Bank of India. Since then many studies have analysed different aspect of rising public debt using variety of approaches. The present paper reviews the theoretical and empirical literature that has investigated the debt sustainability of public finance in India. The main objective of the paper is to know the current status of debt sustainability in India with a view to assess the scope of financial maneuvering for meeting different objectives of public policy in India.

Keywords: public debt, gross fiscal deficit, public finance sustainability, fiscal policy

1. Introduction

Though fit for all model is difficult in practice but it has been highlighted that increased debt burden is generally associated with lower economic growth specifically after a threshold (Reinhart and Rogoff 2010; Caner, Grennes and Koehler-Geib 2010; Cecchetti *et. al* 2011; Chercherita and Rother 2012; Baum, Checherita anssd Rother 2013; Panizza and Presbitero 2014; Woo and Kumar (2015) [49, 12, 41, 11, 59]. Putting the debt sustainability in perspective, Bohoslavsky and Goldmann (2016) [9] highlighted a growing concern over debt problem of sovereign countries in international arena. It has been increasingly realised that debt sustainability is a precondition for economic development and growth and this shift led to entrenchment of debt sustainability as a global public concern in international law. Bohoslavsky and Goldman (2016) [9] observed that this shift found expression in other international documents that corroborate the idea of debt sustainability as a principle in international law such as: the Monterrey Consensus of 2002; Doha Declaration on Financing for Development of 2008; United Nations General Assembly resolutions on external debt from 2010 to 2013; UNCTAD initiatives on Principles on Responsible Sovereign Lending and Borrowing of 2012, and the Roadmap and Guide on Sovereign Debt Workouts of 2015 and various IMF documents and initiatives. The objective of debt sustainability analysis is to evaluate a country's capacity to finance its policy agenda and service the ensuing debt without unduly large adjustments that may compromise its macroeconomic stability and/or that of its economic partners (IMF 2012) [26]. IMF while defining debt sustainability has observed that the debt is sustainable when a borrower is expected to be able to continue servicing its debts without an unrealistically large correction to its income and expenditure balance. Debt sustainability, thus, reflects a country's solvency, liquidity, and adjustment capacity (IMF 2012, p.178) [26]:

- A government is solvent if the present value (PV) of its current and future primary expenditure (net of interest) is no greater than the PV of its current and future stream of income receipts.
- A government is liquid if it is able to rollover its maturing debt obligations in an orderly manner.
- Debt sustainability also captures the notion that there are social and political limits to adjustments in spending and revenue that determine a country's willingness (as opposed to its economic ability) to pay.

Continuous fiscal expansion financed through debt issuances has important implication for effectiveness and efficiency of fiscal policy in restoring macroeconomic stability. Public debt of a country is the accumulated value of fiscal deficit at any point in time. Public debt accumulation has important influences over the economy both in the short-run as well as the long run. There are different channels through which elevated and rising levels of public debt could impact the economy (Kaur and Mukherjee, 2012) [29]. It alters the allocation of resources between the private and the public sectors; exert pressure on long-term interest rates, reduced scope for countercyclical policies and vulnerabilities

associated with debt buildup; reduced investment/capital accumulation; raises the risk of sovereign insolvency and may raises the inflation rates. In view of these expected adverse impacts of high public debt, it is imperative to keep the public debt at manageable level and not allowing it to cross the required threshold level beyond lest it become unsustainable. D'Erasmo, Mendoza, and Zhang (2016) [15] emphasised that the question of sustainable public debt is paramount in the macroeconomic analysis of fiscal policy. It is pertinent to know whether the outstanding public debt and its projected path are consistent with those of the government's revenues and expenditures.

The persistent level of fiscal deficit in India has been a matter of concern for policy makers, researchers and public finance managers. The concerns over public debt sustainability were raised by the Twelfth Finance Commission and Reserve Bank of India. Since then many studies have analysed different aspect of rising public debt using variety of approaches. The present paper reviews the theoretical and empirical literature that has investigated the debt sustainability of public finance in India. The main objective of the paper is to know the current status of debt sustainability in India with a view to assess the scope of financial maneuvering for meeting different objectives of public policy in India.

2. Debt Sustainability Analysis: Theory and Empirical Approaches

The most elaborated and widely used framework to monitor debt sustainability is the Debt Sustainability Framework (DSF) of the World Bank and IMF, a standardized framework for conducting public and external debt sustainability analyses (DSAs). Ferrarini and Ramayandi (2015) underlined that public debt sustainability analysis (DSA)—as adopted by the IMF, the World Bank, as well as ADB and other institutions—is predicated on identifying the primary fiscal balance adjustment necessary to keep the debt ratio to GDP stable or declining. Historically, there have been some attempts to analyze fiscal and public debt sustainability. Based on Keynes´ approach to public debt, Domar (1944) [17] defined all the necessary conditions for fiscal sustainability. IMF DSAs assess the sustainability of countries' debt by looking at solvency (debt stock indicators) and liquidity ratios (debt service indicators) taking into account composition and concessionality of debts (PV calculations) and different proxies of repayment capacity (exports, revenue, GDP). The debt sustainability is usually assessed by applying three commonly used approaches viz. Domar sustainability condition, sustainability indicators analysis, and present value budget constraints approach. There are excellent literature surveys on methodologies used for assessing, ascertaining and analysing fiscal and debt sustainability of sovereign countries (for detail see: Balassone and Franco 2000; Krejdl 2006; Sarvi 2011, Fincke and Greiner 2012; IMF 2012) [4, 33, 51, 22, 26]. In view of the above, we here only present the synopsis of the methods used. Theoretical criteria for public finance sustainability can be grouped under following broad categories (Sarvi 2011) [51]

2.1 Inter-temporal budget constraint (IBC)

The most commonly used criterion is the government's inter-temporal budget constraint or inter-temporal equilibrium condition which states that the initial debt level should be equal to the present value of future surpluses. That is, the government debt must be backed by expected future cash flows. The inter-temporal budget constraint tells that the present value of the flow of primary balances must equal the present stock of net debt. That is, government's total net liability must be equal to its total assets (flow of primary balances). In this framework, assuming present discounted value (PDV) of government debt in infinite horizon = 0 (transversality condition or no-Ponzi-game condition); we have intertemporal budget gap (IBG) measuring imbalances as the difference between the debt stock and the PDV of projected primary balances. Symbolically

$$IBG = d_{t-1} - \sum_{s=0}^{\infty} \frac{pb_{t+s}}{(1+r)^{1+s}} \quad \text{----- (1)}$$

where '*d*' denotes debt-GDP ratio; the rate *r* is defined as $r = (i - y)/(1+y)$, where the numerator is the difference between the nominal interest rate *i* and the growth rate of nominal GDP *y*, which is often referred to as the interest rate-growth differential (or growth-adjusted interest rate). '*pb*' denotes the primary balance-to-GDP ratio in year and by definition '*pb'* is difference between revenue-to-GDP and primary expenditure-to-GDP ratios. The transversality condition relating to the long-term solvency of public debt, when expressed in terms of GDP ratio states that the GDP growth rate has to be lower than the interest rate so that the discounted terminal period debt ratio converges to zero. This implies that in case of a positive initial public debt, the sum of the cumulated discounted future public surpluses should exceed the sum of the cumulated discounted future public deficits. However, if the rate of growth of GDP is higher than the interest rate, there would be reverse stabilising effect on the ratio of debt to GDP even if a sub-national government is accumulating primary deficit. Use of IBC in sustainability analyses has been criticised O'Connel and Zeldes (1988) [39], Roubini (2001) [50], Bagnai (2004) [2], Bohn (1998, 2005) [7], Wigger (2009) [58] both on theoretical grounds and its usefulness for practical policy prescriptions.

2.2 Bohn's Model-Based Sustainability

The methodological approach developed by Bohn (1998, 2004) [7] to analyse debt sustainability using historical information is important line of investigation. In essence, Bohn's approach is to equate fiscal sustainability with the stationarity of the debt-to-GDP time series. That is, a statistically significant positive response of primary surpluses to an increase in the lagged stock of debt (both as a ratio of income or as a ratio of output) in a 'fiscal reaction function' constitutes a sufficient condition of stability. Most of the literature uses unit root or cointegration tests often in combination with the intertemporal budget constraint. Khalid *et al*. (2007) [31], Turrini (2008) [57], Afonso and Hauptmeier (2009), Egert (2010), Nguyen (2013) [38] and Plödt and Reicher (2015) [43] modify Bohn's Model-Based Sustainability method by controlling more factors.

2.3 Convergence of the debt to output ratio

A common criterion for fiscal sustainability is the convergence of the debt-to-GDP ratio to a finite value (the boundedness criterion). This condition was first proposed as a sufficient condition for sustainability in Domar (1944) [17].

The Domar stability condition has been defined as:

$$y - r > 0 \quad \ldots\ldots(2)$$
$$r = (IP)_t/(OD)_{t-1} \quad \ldots\ldots(3)$$

where y = Growth of GDP at Current Market Prices; r = Average Interest Rate ; IP = Interest Payment; OD = Outstanding Debt ; t = Time Period. Equation (2) and (3) imply that the debt/GDP ratio is stable if the nominal GDP growth (y) exceeds the nominal interest rate (r) on government debt. According to the Domar stability condition, larger the gap between the interest rate and growth rate the higher will be the debt/GDP ratio. Thus, to stabilise debt/GDP ratio rate of interest should be lower than the output growth (r<y). A stricter form of this criterion is provided two conditions for sustainability by Blanchard *et al*. (1991).: a) the ratio of debt to GNP should eventually converge back to its initial level, and b) the present discounted value of the ratio of primary deficits to GNP should be equal to the negative of the current level of debt to GNP.

2.4 Summary Indicators of Public Finance Sustainability

After discussing the theoretical criteria for sustainability it is now possible to turn to the different approaches employed in sustainability assessments. Summary indicators are perhaps the most common approach to analyse sustainability in practice. These indicators are derived from the government budget constraints. Based on literature survey (Rajaraman, Bhide, and Pattnaik 2005; Maurya, 2014; Kaur *et. al* 2014) [46, 34, 29] various debt and debt service indicators which are monitored to assess relationship of existing debt to different types of expenditures or as ratios to various fiscal balances so as to gauge sustainability of both debt and fiscal situation are presented in table-1.

Table 1: Sustainability Indicator: Measures, Notions and Interpretations

S. No.	Indicators	Symbolical Representation	Interpretation
1	Rate of Growth of GDP (Y) should be more than Rate of Growth of Debt(D)	Y-D>0	Assess the sustainability in aggregate terms and test the essential condition that growth of income must exceed growth of debt. Real output growth (y) should be higher than rate of interest.
2a	Real Output Growth (y) should be higher than Real Interest Rate (r) Growth.	y-r>0	
2b	Rate of growth of debt (D) should be lower than effective interest rate (i)	D - i < 0	
3a	Primary Deficit(PD) should not be rising faster than GDP	PD/GDP<0	Tests the sustainability from the point of view of revenue account. Additional condition that primary deficit must be declining and sufficient surplus must be generated to repay current debt stock.
3b	Primary Revenue Balance(PRB) should be in surplus and adequate enough to meet interest Payments(IP)	[PRB-IP>0]	
4	Proportion of Repayments (REP) to Gross Borrowing (TGB) should be falling over time.	[REP/TGB ↓↓]	Measures debt trap situation. If the interest payment and repayment exceed total gross borrowings, economy said to be in debt trap.
5	Interest Payments (IP) and Repayments (REP) adjusted for Primary Revenue Balance (PRB) should not exceed Total Gross Borrowings(TGB)	[(IP+REP-PRB)/TGB)<1]	
6a	Interest Burden Defined by Interest Payments (IP) to GDP ratio should decline over time	[IP/GDP ↓↓]	Interest payment as proportion to GSDP, revenue receipts, as well as revenue expenditure should be falling over time.
6b	Interest Payments (IP) as a per cent of Revenue Expenditure (RE) should decline over time.	[IP/RE ↓↓]	
6c	Interest Payments (IP) as a per cent of Revenue Receipts (RR) should decline over time.	[IP/RR ↓↓]	
7a	Debt to revenue receipts ratio should decline over time	D / RR ↓↓	Debt as proportion to revenue receipts, as well as Tax and non tax revenue should be falling over time
7b	Debt to tax revenue ratio should decline over time	D / TR ↓↓	
7c	Debt to own tax revenue ratio should decline over time	D/OTR ↓↓	

Note: (i) Net Primary Revenue Balance (NPRB) = RD – (IP-IR) (ii) Primary Revenue Balance (PRB) = RD – IP (iii) REP - Repayments of Government Debt (iii) TGB = Total Gross Borrowing

3. Debt Sustainability studies in Indian Context

Buiter and Patel (1992) [10] tested the sustainability of public sector debt in India with data for 1971–1989 by studying trends in debt, primary budget surplus, and seigniorage. Calling the buildup of public debt in India, 'this remarkable fiscal high wire act', they contend overall public sector debt was unsustainable irrespective of the alternative interest rate. Rangarajan, Basu, and Jhadav (1994), the inter-temporal budget constraint was used to study the dynamic inter-linkages between government deficits and alternative modes of financing these. In particular, given the set of revenue and expenditure parameters, relevant for the late eighties, it was shown that the bond-financing scenario led to an explosive growth in the debt-GDP ratio, and the monetary-financing scenario led to an unacceptably high inflation rate within a short span of time. Olekalns and Cashin (2000) [40] anlysing time series evidence on Central government tax revenues and expenditures using cointegration find the support for the proposition that the indefinite continuation of the current stance of Indian fiscal policy is unsustainable, and needs to be altered to prevent an adverse response from lenders. Jha and Sharma (2004) [27] have carried out empirical tests to ascertain whether government expenditures and revenues are co-integrated in India using long time series data. They found that both expenditure and revenue series is trend stationary (i.e. I(0)) with structural breaks and conclude that the public debt of the Central government is sustainable. Goyal, Khundrakpam and Ray (2004) [25] find that while fiscal stance of the central and state governments at the individual level is unsustainable, it is weakly sustainable for the combined finances of centre and states. Rangarajan and Srivastava (2005) [47] have looked at the impact of fiscal deficits on saving, investment, and growth in the light of the theoretical literature on the subject using combined accounts of the central and state governments. They found the combined fiscal structure of the Central and State governments unsustainable because of the existing debt to GDP ratio exceeding the sustainable level for long-term growth and stabilization. Mohan *et al*. (2005) [37] studied whether the union government's debt has become unsustainable using decomposition analysis which separates out the effects of GDP growth and the governments' past behavior on fiscal

deficits and debt level. Topalova and Nyberg (2010) [54] find that India's general government debt ratio was among the highest, and between 2003 and 2008 the reduction in India's public debt/gross domestic product (GDP) ratio, at 9.2%, was lower than for the sample as a whole, at 15.5%. Asher (2012) [1] reiterates the IMF style method to check for debt sustainability, according to which the Indian debt/GDP ratio will fall from 64.1% in 2010 to 61.2 % in 2016. Tronzano (2014) [56] assesses the sustainability of fiscal policy in India from 1950 to 2010 using more powerful econometric methodologies, including several types of multi-cointegration models allowing for regime-shifts. The study concluded that "….. the evidence rejects multi-cointegration between revenues and expenditures, thus pointing out that India's fiscal policy is not sustainable in a stochastic environment. The main policy implication is that, in the context of the ongoing fiscal consolidation process, the Indian government should establish a more systematic connection between fiscal policy guidelines and the evolution of public debt." Pradhan (2014) [44] based on unit root analysis of non-monetized liabilities/GDP, and cointegrating analysis of expenditure/GDP and revenue/GDP shows that public debt in India had been sustainable during the 1952 to 2011. Kaur *et. al* (2014) [29] assessed the debt sustainability of the state governments in India through indicator-based analysis as well as empirical exercises and concluded that while most of the debt sustainability indicators showed significant improvement during 2004-05 to 2012-13 compared to the earlier phase (1997-98 to 2003-04), debt repayment capacity and interest burden indicators lagged behind their respective performance levels achieved during 1981-82 to 1991-92. Bal (2014) [3] using the structural VAR model with variance decompositions and impulse response functions found that public debt has a positive impact on gross fixed capital formation as well as output thereby supporting the Keynesian view. Das (2016) [16] carried out a systematic study of debt sustainability in the states of India. The study found that a marked deterioration in the fiscal health of all states in India since the early 1990s, which reached a peak in the mid-2000s in almost every state in India.

Table 2: Important studies examining debt Sustainability in India

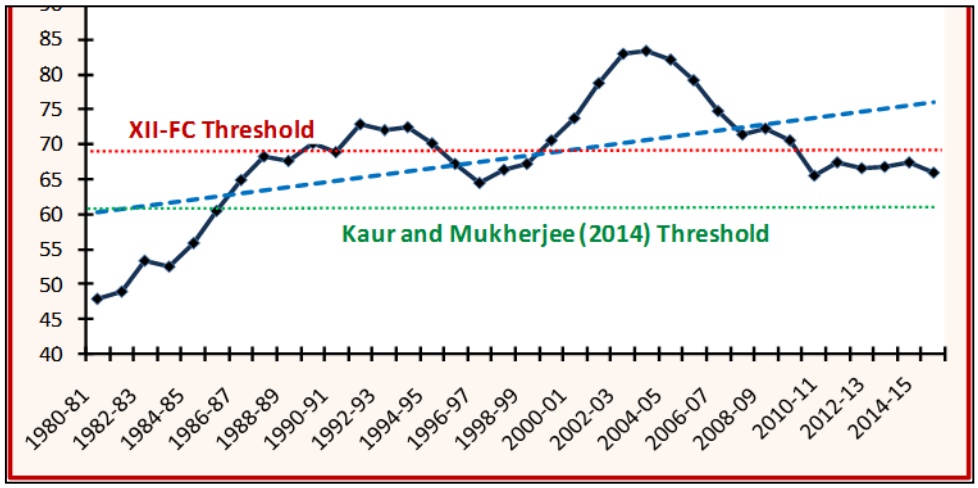
No.	Author	Methodology	Broad Conclusions
01	Buiter & Patel (1992) [10]	▪ Stationarity test. ▪ 1971–1989	▪ Historical time-series process is inconsistent with the maintenance of solvency. ▪ Public debt in India was unsustainable, irrespective of discount rate.
02	Ghatak & Ghatak (1996) [23]	▪ Multicointegration analysis and estimation of the rational expectations model. ▪ 1950–1986	▪ The use of multicointegration analysis and estimation of the rational expectations model both invalidate the RE hypothesis in India.
03	Rajaraman & Mukho-padhyay (2000) [45]	▪ Stationarity of the debt to GDP ratio ▪ Structural time series modeling ▪ 1952 -1998	▪ Public debt is not sustainable ▪ Best fitting structure of their data was the stochastic level and fixed slope with structural break in 1974
04	Pattnaik, Misra & Prakash (2003) [42]	▪ Domar condition ▪ Sustainability indicators ▪ Present value budget constraint ▪ Bohn's Model based approach ▪ 1991-2002	▪ Domar stability condition has not been fulfilled for many of the years since 1991. ▪ Fiscal indicators have shown significant deterioration for both the Centre and the States. ▪ Unit root tests indicate the weak sustainability condition. ▪ The model based approach also shows that fiscal situation remains grim
05	Jha & Sharma (2004) [27]	▪ Stationarity tests with breaks ▪ 1871-1921 & 1950-1997	▪ India's public debt is not unsustainable.
06	Goyal, Khundra, & Ray (2004) [25]	▪ Inter-temporal budget constraint (IBC) ▪ Cointegration tests between spending and revenues with breaks ▪ 1952-1998	▪ Central and the State Government at the individual level is unsustainable; ▪ Weakly sustainable for the combined finances
07	Rangarajan & Srivastava (2005) [48]	▪ Extended formulation of the theoretical framework developed in Domar (1944) [17] ▪ 1955-2000	▪ Combined fiscal structure of the Central and State governments unsustainable
08	Mohan, Dholakia, & Karan (2005) [37]	▪ Decomposition analysis which separates out the effects of GDP growth and the government's past behavior on fiscal deficits and debt level.	▪ Central debt position appears to be sustainable based on the data on debt that is publicly available. ▪ If the present government behavior continues, the union government's debt would be stabilized below 56 percent.
09	Kannan & Singh (2007) [28]	▪ Dynamic budget constraint approach	▪ Domar stability condition does not hold over the medium-term, leading to unstable debt regime over the longer horizon.
10	Kaur & Mukherjee (2012) [29]	▪ Indicator-based analysis; inter-temporal budget constraint and fiscal policy response function	▪ Inter-temporal budget constraint satisfied ▪ Primary fiscal balance in India responds in a stabilising manner to the increase in debt
11	Asher (2012) [1]	▪ Indicator-based analysis ▪ Probabilistic assessment of sustainability.	▪ India's current and projected public debt levels are broadly sustainable
12	Tiwari (2012) [53]	▪ Bohn's (1998) [17] model based approach ▪ Fincke and Greiner's model of time-varying coefficients for testing public debt sustainability ▪ 1970-2009.	▪ Did not find any clear-cut evidence on the sustainability of public debt in India.
13	Rangarajan, & Prasad (2013) [47].	▪ Stress test ▪ 1990 to 2012	▪ Although states have faced fiscal stress, systemic insolvency and defaults have not occurred

14	Tronzano (2013) [55]	▪ Intertemporal budget constraint; Time series Cointegration ▪ 1950 to 2010	▪ No evidence of cointegration, a result that implies a violation of intertemporal solvency and those current fiscal policies are unlikely to be sustainable in the long-run.
15	Tronzano (2014) [56]	▪ Several types of multicointegration models allowing for regime-shifts. ▪ 1950-2010	▪ Existence of first order cointegration between revenue and expenditure. ▪ The fiscal process in India is not sustainable in a stochastic environment.
16	Pradhan (2014) [44]	▪ Co-integration and Error Correction Mechanism ▪ 1952 to 2011	▪ Public debt in India is sustainable mainly on account of high GDP growth, lower cost of government borrowing, favorable currency composition and longer maturity profile of debt.
17	Shastri & Sahrawat 2014	▪ Bohn(1998) [17] model based approach in ARDL Framework ▪ 1981-2013	▪ Central government's revenue and expenditure (inclusive of interest) are found to be non co-integrated and causally unrelated. ▪ Evidences of un-sustainability
18	Kaur *et. al* (2014) [29]	▪ Panel data framework covering 20 Indian states ▪ 1980-81 to 2012-13	▪ Presence of co-integrating relationship indicating sustainability in long run ▪ Fiscal policy response function indicated that the primary fiscal balance in Indian states responds in a stabilising manner to the increase in debt.
19	Das (2016) [16]	▪ Co-integration ▪ Panel data framework using sub national debt ▪ 1980–2013	▪ Marked deterioration in the fiscal health of all states in India since the early 1990s.

Source: Compiled from selected references.

4. Threshold Limits of Debt and Current Scenario

What should be the threshold limit of public debt in India - is an important question which has important policy implications. In theoretical and empirical literature, the threshold level of debt is determined based on two strands of thought viz., debt-growth dynamics and fiscal/debt sustainability perspective in different countries over a period of time (Kaur and Mukherjee, 2012) [29]. Drawing on the theoretical and cross-country empirical literature on debt level targets, as well as India-specific simulations, Topalova and Nyberg (2010) [54] concluded that the different approaches to determine the appropriate level of public debt target / ceiling do not yield conclusive results on their own, taken together, they suggest that a reasonable and feasible public debt ceiling anchor for India's medium-term fiscal framework could be on order of 60-65 percent of GDP.



***Source*:** Plotted from the data extracted from RBI 'Database on Indian Economy'

Fig 1: general govt. Debt (as % of GDP)

It may be pertinent to note that the Thirteenth Finance Commission (FC-XIII) had set a target of 68 per cent of GDP for the combined debt of centre and states to be attained by 2014-15. Mohanty (2013) [37] has placed the threshold level of debt for India at 60 per cent of GDP. Kaur and Mukherjee (2012) [29] found that the threshold level of general government debt-GDP ratio for India has turned out to be 61 per cent, i.e., the level beyond which an inverse relationship is observed between debt and growth. RBI's 'Status Paper on Government Debt' published in September 2016 highlighted that Debt Sustainable- IP/RR ratio (interest payments to revenue receipts) of Centre has decreased to 36.7% in 2015-16 from about 52% in the beginning of 2000s. Centre's Average Interest Cost has declined to 6.6% in 2015-16 from 8.1% in 2000-01. The Centre's Average Interest Cost is stable and well below nominal GDP growth rate, which indicates that India is comfortably placed in terms of sustainability parameters of public debt. General Government debt - GDP ratio, worked out to be 68.6% (end-March 2016), is significantly lower than historical high at 83.3% in 2003-04 owing to fiscal consolidation process at Centre and State level but it is still higher than the threshold limits suggested by many empirical studies as discussed in last section.

5. Conclusions

In this paper we try to provide a synthesis of previous empirical work in the debt Sustainability for India. Based on the literature survey of studies examining fiscal sustainability in India, we found that debt sustainability has been mostly unsustainable or weakly sustainable. A large volume of

literature examining the sustainability of debt in India presents no clear pattern on the empirical results but a large number of studies using time series econometric analysis found unsustainably of public debt in India in long run whereas panel data studies using state level data indicated presence of sustainability. The encouraging sign is that we are witnessing decrease in debt-GDP ratio since 2003-04 but it is still above the threshold limits suggested by empirical studies in India. This is the reason that the latest RBI's 'Status Paper on Government Debt' to maintain that India's government debt portfolio is characterized by favourable sustainability indicators and right profile and conventional indicators of debt sustainability, i.e. level and cost of debt, indicate that debt profile of government is within sustainable limits, and consistently improving. But, the empirical evidences based on literature survey clearly reveal need of substantial fiscal adjustments, fiscal consolidation and fiscal stability measures to achieve longer-term goals, such as economic growth, durable macroeconomic stability and poverty reduction, while preventing fiscal vulnerabilities.

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