

# FISCAL SUSTAINABILITY IN INDIA AT STATE LEVEL

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## ABSTRACT

*The consolidated measures of budget deficits and public debt levels for India's central and state governments are well above the average of other emerging economies. In contrast to previous studies of India's budgetary position, which focus on the central government's budget, this paper examines fiscal sustainability at the level of India's states, which differ widely in terms of their level of economic development. After comparing fiscal performance in the states, key formulae for examining public debt sustainability at the sub-national level in India are derived. These formulae are then applied, firstly to identify states where public debt has stabilized as a percent of Gross State Domestic Product, and secondly to gauge the size of the primary budget balances needed to achieve a 25% public debt to GSDP ratio within three, five and ten year horizons.*

## 1. INTRODUCTION

The size of fiscal deficits and sustainability of public debt levels remains a key macroeconomic policy issue in many industrial, developing and emerging economies following the global financial crisis of 2008-09. Amongst emerging economies, India has experienced one of the largest, most persistent, fiscal deficits at the national government level in the Asia-Pacific region, averaging over 6% of GDP over the period since the crisis. On a consolidated basis, India's general government budget deficit, including off-budget liabilities and the budget deficits of India's state governments, has been significantly greater than the national government's budget deficit, having recently reached around 10% of GDP (Asian Development Bank 2010).

India's stock of general government debt a measure combining both national and sub-national debt, presently stands at around 80% of its GDP, more than double the average public debt ratio of emerging economies worldwide (Lipsky 2011). Public debt levels of this order which have been generated by persistently large budget deficits over a lengthy period become unsustainable when the path of debt becomes unstable, triggered whenever the effective interest rate payable on the outstanding stock of public debt exceeds the rate of growth of an economy's output, as explained in greater depth subsequently. Policymakers need to avoid the public debt traps that eventuate under these

conditions in order to prevent a collapse of investor confidence and ensuing financial crisis that escalating public debt can trigger.

Although the literature on India's fiscal performance has mostly focused on budget deficits and public debt sustainability at the national level, this paper will concentrate on these phenomena at sub-national level. India is an excellent case study as it is a very large federation comprising 28 states and 7 union territories. The states are quite diverse in terms of natural resources, history, culture, language, cuisine and levels of economic development. In this paper we examine the budgetary positions of the seventeen largest states accounting for over 90% of India's population.

Using Rostow's stages theory of economic growth, Arora (2009) has shown that some Indian states have not even developed the pre-conditions for take-off (stage 2), while others have reached advanced stages of take-off and drive into maturity, and are more similar to developed countries (Kochhar *et al.* 2006). Fiscal performance also varies widely across the states, leading to significant variation in their budget deficits and public debt levels (Rajaraman, Bhide, & Pattnaik, 2005). Consistent with increased decentralisation of public sector activities in developed and developing countries around the world, sub-national governments in India have assumed increased responsibility for government spending and revenue raising to meet growing infrastructure needs. Moreover, on the demographic front, while some states in India have fast growing young populations, others have ageing populations which affects social expenditure on education, health and pensions differently across state borders.

The sustainability of India's budget imbalances and public debt has been examined quite extensively at the national level (see for instance Parker & Kastner, 1993; Cashin, Olekalns & Sahay, 2001; Reynolds, 2001; Jha & Sharma, 2001; Lahiri & Kannan, 2002; Goyal *et al.* 2004; Rangarajan & Srivastava 2005; Ram Mohan, Dholakia & Karan, 2005; Buiters & Patel, 2006; Kannan & Singh, 2007; RBI 2009a; Topalova & Nyberg 2010). Of the more recent studies that have addressed the issue of public debt sustainability, the majority have inferred that the fiscal stance of the central government is unsustainable with regard to the future path of the public debt to GDP ratio.

However, fiscal deficits and their implications for public debt sustainability at the level of the states have hitherto received much less attention, with the exception of Dholakia, Ram Mohan and Karan (2004) and Prasad, Goyal and Prakash (2004) who have proposed that reducing the primary deficits and revenue imbalances of the states is necessary for achieving debt sustainability. More recently Rangarajan and Prasad (2012) have argued that fiscal reforms are needed to rein in the growth of the states' debt, including fiscal responsi-

bility rules at the sub-national level. This paper aims to further contribute to this recent literature on India's fiscal performance at state level by evaluating how persistent fiscal deficits affect the stability and sustainability of public indebtedness.

The main aim of the paper is to show that the capacity of State governments in India to meet their debt servicing obligations into the future essentially depends on just a few key macroeconomic variables - the size of the existing public debt burden as a proportion of economic activity, the State's economic growth rate relative to the interest rate payable on public debt, and the magnitude of primary (before interest) budget balances. More specifically, it answers the following questions. Which of India's States have public debt levels that are unsustainable? And how large do State primary fiscal balances have to be for each State to bring their public debt down to more prudent levels?

The remainder of this paper is organized as follows. Section 2 provides a comparative overview of India's fiscal performance at state level. Section 3 derives the key relationships for examining public debt stability and sustainability at state level. Section 4 presents the key results of our study, highlighting the diversity of fiscal performance at sub-national level across the subcontinent. Finally, Section 5 summarizes the key empirical results and draws important policy implications.

## **2. A FISCAL OVERVIEW OF INDIA'S STATES**

The Indian states as per the Constitution are responsible for the provision of basic infrastructure, education, electricity, poverty alleviation, water supply, irrigation, public health, and sanitation, as well as various other social and economic services and for the transfer of funds to local authorities. States incur more than three-quarters of total public expenditure and collect about one-third of the total government revenue for themselves with the remainder sourced from the central government.

In the pre-reform period before 1991, the strength of states' fiscal positions varied due to differences in institutions and governance (World Bank 2004). However, widespread fiscal stress emerged from the late nineties, causing higher budget deficits and public debt levels. State government expenditure rose sharply due to salary and wage increases in particular, while limited financial reform led to higher interest rates and lower central government transfers to state governments. Financial guarantees provided by state governments to enterprises engaged in infrastructure development also raised fiscal vulnerability via increased contingent liabilities.

Table 1 includes key indicators of state governments' fiscal performance. This table usefully highlights the overall growth in States' debt from a relatively low level of around 23% in 1991-92, peaks of close to 33% in the mid-2000s, and subsequent slight decline to levels under 30% since.

**Table 1. Select Fiscal Indicators at State Level (% of GDP)**

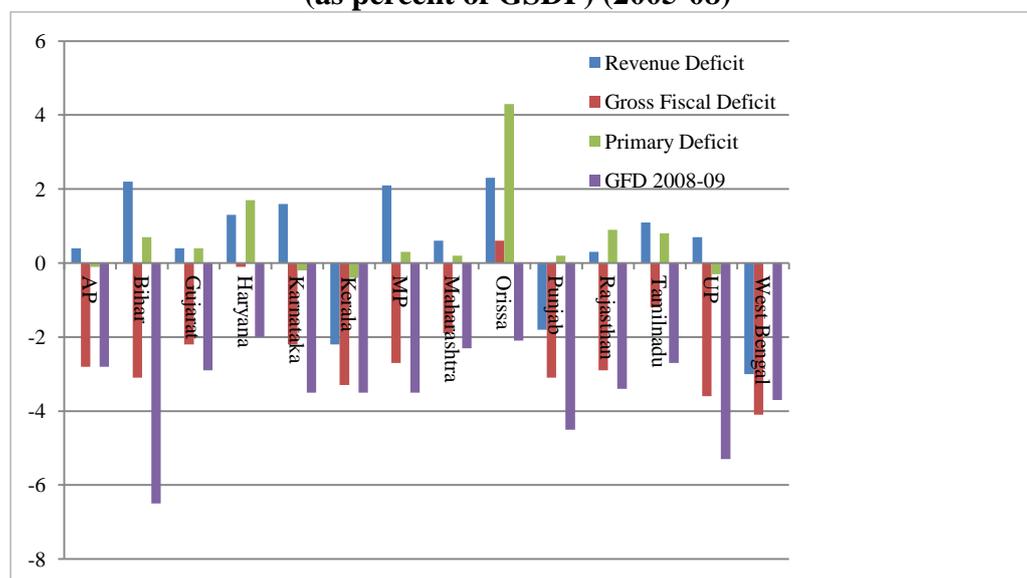
	Central Debt	States' Debt	Consolidated Debt	Gross Deficit	Primary Deficit	Revenue Deficit
1991-92	54.2	22.5	58.3	2.9	1.2	0.9
1992-93	53.4	22.4	58.0	2.8	1.0	0.7
1993-94	55.2	21.7	59.8	2.4	0.5	0.5
1994-95	53.0	21.4	58.1	2.7	0.8	0.7
1995-96	50.9	21.1	56.8	2.6	0.8	0.7
1996-97	49.0	20.9	55.4	2.7	0.8	1.2
1997-98	51.0	21.9	58.2	2.9	0.9	1.1
1998-99	50.9	23.0	59.4	4.2	2.2	2.5
1999-00	52.3	26.4	63.6	4.6	2.3	2.8
2000-01	55.6	28.3	67.5	4.2	1.8	2.6
2001-02	60.0	30.3	72.9	4.1	1.4	2.7
2002-03	63.5	32.0	77.9	4.1	1.3	2.3
2003-04	63.1	33.2	79.7	4.4	1.5	2.3
2004-05	63.3	32.7	79.4	3.3	0.7	1.2
2005-06	63.0	32.6	77.7	2.4	0.2	0.2
2006-07	61.5	30.3	74.8	1.8	-0.4	-0.6
2007-08	61.3	28.3	74.4	1.5	-0.5	-0.9
2008-09	57.6	27.3	70.8	2.6	0.7	-0.2
2009-10	59.7	-	-	3.2	1.3	0.5

Note: Negative sign indicates surplus in deficit indicator

Source: Handbook of Statistics on Indian Economy, RBI; State Finances 2009-10, Reserve Bank of India

The Gross Fiscal Deficit is defined as aggregate disbursements (net of debt repayments) less revenue receipts, non-debt capital receipts and recovery of loans and advances, the Primary Deficit is the gross fiscal deficit less of interest payments and the Revenue Deficit is the difference between revenue expenditure and revenue receipts. The different budget deficit indicators for the states for the period 2005-08 are shown in Figure 1, here measured as a percentage of gross production at the state level, referred to as GSDP. Notably, the states with the largest primary surpluses are Orissa and Haryana.

**Figure 1. Budget Deficit Measures for India's States  
(as percent of GSDP) (2005-08)**



Source: State Finances 2009-10, Reserve Bank of India

To fund their budget deficits, the states acquire funds through various channels, including the central government and via open market borrowings, the banks and financial institutions, state provident funds, and reserve funds. The proportion of market borrowings in total state debt has increased sharply in recent years and comprises almost one-third of the total outstanding debt. On the other hand, the share of loans from the central government has declined over the years (Rangarajan & Prasad 2012; RBI 2012).

#### *Differences between National and State Public Debt*

The sub-national public debt differs from national level debt in the following ways:

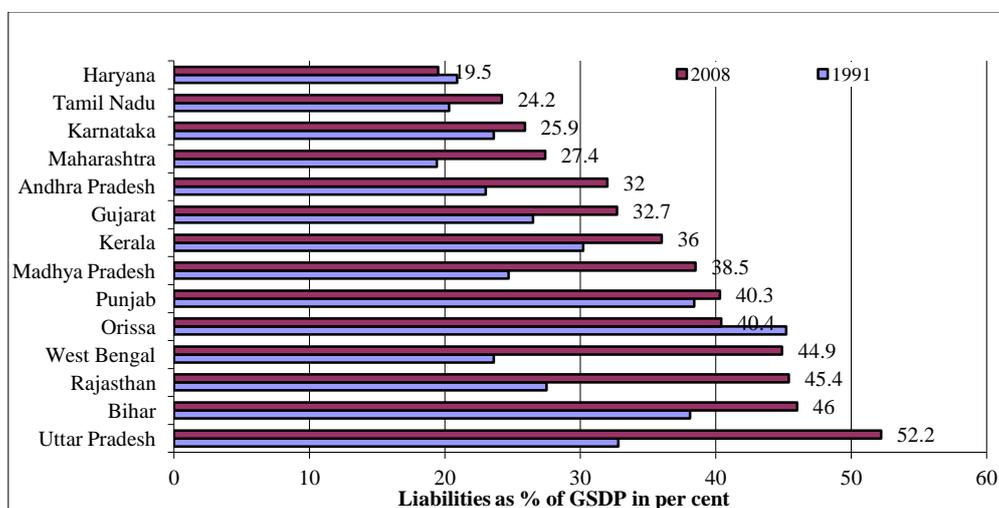
- (i) Raising debt is the only way to cover budget deficits, since unlike at national level money financing of state government deficits is not an option.
- (ii) Monetary policy conducted by the central bank results in uniform interest rates economy-wide, although interest rate spreads can vary according to sub-national government' creditworthiness (Ianchovichina *et al.* 2006). In recent years, interest rate spreads have varied slightly among the states reflecting relative creditworthiness factors. However, the variation has been limited most likely due to fiscal responsibility rules implemented at state level (Bose, Jain & Lakshmanan 2011; Rangarajan & Prasad 2012).
- (iii) The external borrowing by sub-national governments is subject to central government approval. Earlier, foreign exchange risk was generally inapplicable. However, with the recent policy changes the entire loan proceeds

are passed on to the states by the centre and the states are responsible for the foreign exchange risk of their portfolios. Even at the consolidated level, external public debt constitutes only a small proportion of India's total public debt.

- (iv) What states are permitted to tax is prescribed by the constitution, thereby limiting revenue-raising options for sub-national governments.
- (v) Income transfers from the central government are an important source of revenue for sub-national governments financing expenditure. The expected bailouts by the central government also impacts on the sub-national debt dynamics.
- (vi) Under Article 293 (3) of the Constitution the central government has an overall control on the borrowings by states. According to this Article, a state would need the centre's permission to borrow if indebted to the centre.

As evident from Figure 2, public debt has grown most from the early 1990s in Madhya Pradesh, West Bengal, Rajasthan, Bihar and Uttar Pradesh. The public debt/GSDP ratio varies significantly across the states from 19.5% in the agriculturally prosperous state, Haryana to 52.2% in the largest, state of the country, Uttar Pradesh, which is also relatively underdeveloped.

**Figure 2. Outstanding Liabilities of India's States**



Source: State Finances 2010-11, Reserve Bank of India.

### 3. THE ARITHMETIC OF PUBLIC DEBT SUSTAINABILITY

The primary budget surplus (PB) is the conventional fiscal balance less interest payments on the outstanding stock of public debt. The fiscal authorities directly control the PB via discretionary changes to government spending and

revenue. Since the PB determines the rate at which new debt accumulates, it is pivotal to achieving fiscal sustainability.

### *Stabilizing Public Debt*

The fiscal response required to stabilize the public debt to GSDP ratio stems from the government's budget constraint. Here, public debt ( $D$ ) in the present period equals previously accumulated debt, plus public debt interest, paid at an effective interest rate of  $i$ , plus the PB. In discrete time, this can be expressed as:

$$D_t = D_{t-1} + iD_{t-1} + PB_t \quad (1)$$

Algebraic manipulation of the budget constraint allows us to derive the standard expression:

$$pb = \mu \left[ \frac{i - g}{1 + g} \right] \quad (2)$$

where  $pb$  is the primary balance to income ratio,  $i$  is the effective nominal interest rate paid on public debt,  $g$  is the nominal rate of economic growth and  $\mu$  is the previous period debt to income ratio.

If the interest rate exceeds the growth rate, a primary surplus is required for debt stabilization, whereas if the growth rate exceeds the interest rate, a primary deficit is possible. It can be easily shown that in estimating the requisite primary surplus, it makes no difference if nominal or real values are used for the interest and growth rates, the key driver being the difference between these respective values.

This derivation has abstracted from 'seigniorage' which occurs when budget deficits are money financed by central banks. Seigniorage effectively provides an additional source of 'revenue' to national governments and, if used in a limited way, may not be inflationary provided increased real money demand associated with buoyant economic growth matches the money supply expansion due to the money financing of budget deficits. At state level, however, seigniorage is in any case irrelevant, since state governments are unable to money finance their budget deficits.

### *Targeting a Lower Public Debt Ratio*

Stabilizing the public debt to national income ratio at a given level may however be insufficient to minimise the risk of a financial crisis. In other words, it may not be enough to prevent the public debt ratio rising above the existing level. Instead, a lower target value may need to be achieved by a cer-

tain time, for example within three years, five years or ten years. If so, the PB has to improve more quickly.

Solvency requires that present debt,  $D_t$  can eventually be repaid at some time in the future,  $t + n$ , such that  $D_{t+n} = 0$ . This means that the present value of budget surpluses over the period must equal the debt stock at  $t$ . Hence:

$$D_t = \frac{PB_{t+1}}{(1+i)} + \frac{PB_{t+2}}{(1+i)^2} + \frac{PB_{t+3}}{(1+i)^3} + \dots + \frac{PB_{t+n}}{(1+i)^n} \quad (3)$$

or:

$$D_t = \frac{\sum_{j=1}^n (1+i)^{n-j} PB_{t+j}}{(1+i)^n} \quad (4)$$

Solving for the constant primary balance  $\overline{PB}$  to achieve solvency:

$$\overline{PB} = \frac{D_t(1+i)^n}{\sum_{j=1}^n (1+i)^{n-j}} \quad (5)$$

Now the stock of public debt at some time hence will depend on the pre-existing debt less the discounted sum of future primary surpluses, such that:

$$D_{t+n} = D_t(1+i)^n - \sum_{j=1}^n (1+i)^{n-j} PB_{t+j} \quad (6)$$

Dividing (6) by  $Y_{t+n}$  and noting that:

$$(1+g)^n Y_t = Y_{t+n} \quad (7)$$

yields:

$$\frac{D_{t+n}}{Y_{t+n}} = \frac{D_t(1+i)^n - \sum_{j=1}^n (1+i)^{n-j} PB_{t+j}}{(1+g)^n Y_t} \quad (8)$$

If the debt to income ratio is reduced to a proportion  $v$  of the existing ratio between  $t$  and  $t + n$ :

$$\frac{D_{t+n}}{Y_{t+n}} = v \left( \frac{D_t}{Y_t} \right) \text{ where } 0 \leq v \leq 1 \quad (9)$$

Hence, substituting in (8):

$$v\left(\frac{D_t}{Y_t}\right) = \frac{D_t(1+i)^n - \sum_{j=1}^n (1+i)^{n-j} PB_{t+j}}{(1+g)^n Y_t} \quad (10)$$

Solving for  $D_t$  and re-dividing by  $Y_t$ , it follows that:

$$\frac{D_t}{Y_t} = \frac{-\sum_{j=1}^n (1+i)^{n-j} PB_{t+j}}{[v(1+g)^n - (1+i)^n]} Y_t \quad (11)$$

Solving (11) for the constant primary balance ( $\overline{PB}$ ) as a proportion of national income that would satisfy condition (9):

$$\frac{\overline{PB}}{Y_t} = \frac{D_t}{Y_t} \cdot \frac{[(1+i)^n - (1+g)^n v]}{\sum_{j=1}^n (1+i)^{n-j}} \quad (12)$$

or:

$$pb = \psi \cdot \frac{[(1+i)^n - (1+g)^n v]}{\sum_{j=1}^n (1+i)^{n-j}} \quad (13)$$

where  $pb$  is the primary balance to income ratio and  $\psi$  is the current period public debt to income ratio.

Relations (2) and (13) above provide the basis for the empirical estimations to follow. Specifically, the first of these will be used to estimate primary balances required to stabilize public debt levels in India's states, whereas the second will be applied to calibrating the primary balances required to achieve targeted debt to GSDP ratios for the individual states over different time horizons.

#### 4. THE SUSTAINABILITY OF STATE PUBLIC DEBT LEVELS IN INDIA

Using recent data on current state public debt levels, budget deficits, nominal gross state product and effective nominal interest rates payable on public debt, we can now empirically examine the sustainability of public debt levels at the state level in India using the formulae derived above. The methodology adopted here differs from many previous empirical approaches to this issue, which have involved a range of econometric techniques, including simulation and co-integration analysis.

In contrast, we adopt a computation approach based on the key formulae presented above. Using baseline values for interest rates and economic growth

rates based on State data, we estimate via advanced spreadsheet analysis the primary budget balances necessary (i) to stabilize State public debt to income levels, and (ii) to reduce State public debt to income ratios to a specified 25% level over different time horizons.

### *Stabilizing State Public Debt Levels*

Specifically, the fiscal effort required to stabilize state public debt levels in accordance with equation (8) can be gauged for each state by combining recent data on debt to output ratios with effective interest rates on state public debt and state economic growth rates. The effective interest rate is simply the ratio of public debt interest paid as a proportion of the total stock of public debt measured in domestic currency.

Past public debt, budget deficit and interest data for India's sub-national governments have been sourced from the annual publication of Reserve Bank of India - *State Finances* (various issues). Average interest rates are derived by dividing interest payments made by the respective state government at time  $t$  over the outstanding stock of debt at time  $t-1$ . Primary deficit are computed as the difference between measures of the gross fiscal deficit and public debt interest payments.

Combining these recent data yields values for state government primary (or non-interest) balances as a proportion of state GDP that stabilize public debt levels as shown in Table 2. The hypothetical primary fiscal balances that stabilize debt can be compared to actual primary balances. Recall that whenever actual values exceed the necessary stabilizing values, public debt ratios must be falling, whereas if actual values are less than stabilizing values, public debt ratios must be rising.

Public debt to GSDP ratios range quite widely, from a relatively low level of around 18% for Haryana, to over 50% for Uttar Pradesh. The majority of India's states experienced nominal growth rates significantly above nominal effective interest rates payable on their public debt. Nominal effective interest rates payable on outstanding public debt varies extensively, from a low of just under 7% in Uttar Pradesh to a high of over 11% in Jharkhand. Nominal economic growth rates are also disparate with most states experiencing nominal growth rates between 10 and 20% over recent years due to a combination of high inflation and buoyant expansion of real output.

Figure 3 summarizes the results of Table 3 diagrammatically. States with actual primary balances as a proportion of GSDP in excess of the primary balances needed to stabilize the public debt to GSDP ratio are in the stable public debt zone below the 45 degree line, whereas those states with actual primary

balances above the primary balances required for stability feature in the zone above the 45 degree line with the relative distances from that line indicating the proximity of each state to its unstable debt path.

**Table 2. Actual versus Stabilizing Primary Budget Balances**

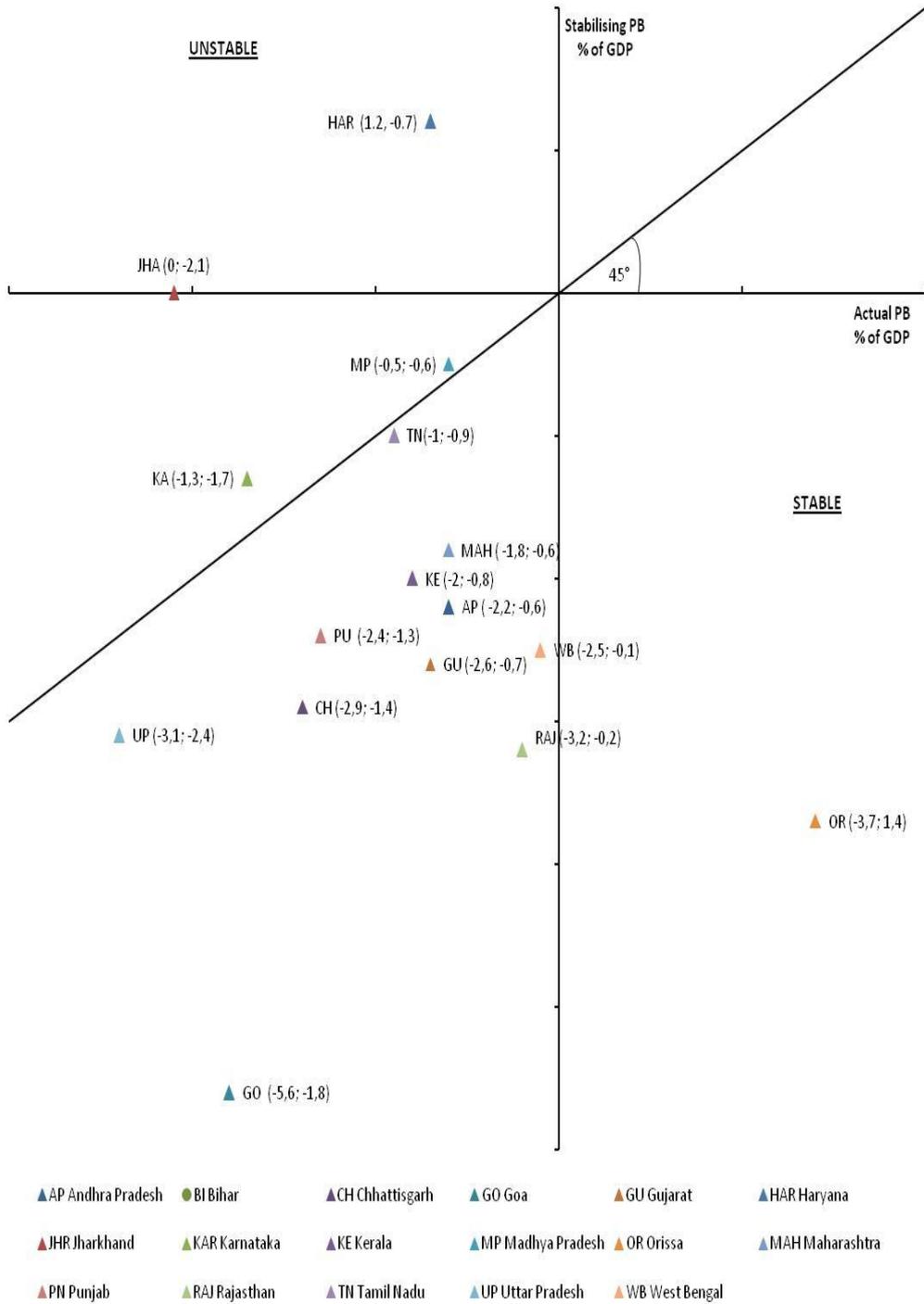
	<i>Public Debt/ GSDP</i> (2008-09)	<i>Nominal Effective Interest Rate (3 year average)</i> (2006-07 to 2008-09)	<i>Nominal Growth Rate (3 year average)</i> (2006-07 to 2008-09)	<i>Primary Balance % of GSDP</i>	<i>Actual Balance % of GSDP</i>
Andhra Pradesh	30.0	9.1	16.3	-2.2	-0.6
Bihar	49.1	7.8	21.6	-6.8	-3.2
Chhattisgarh	19.0	7.9	23.2	-2.9	-1.4
Goa	36.7	8.9	14.5	-5.6	-1.8
Gujarat	30.0	8.7	17.5	-2.6	-0.7
Haryana	17.8	8.9	2.0	1.2	-0.7
Jharkhand	30.5	11.4	11.4	0.0	-2.1
Karnataka	25.5	8.8	13.9	-1.3	-1.7
Kerala	35.6	9.1	14.8	-2.0	-0.8
Madhya Pradesh	38.8	8.7	10.1	-0.5	-0.6
Maharashtra	26.1	8.3	15.2	-1.8	-0.6
Orissa	36.5	9.5	19.5	-3.7	1.4
Punjab	40.0	9.3	15.2	-2.4	-1.3
Rajasthan	43.8	8.8	16.2	-3.2	-0.2
Tamil Nadu	24.2	9.0	13.1	-1.0	-0.9
Uttar Pradesh	50.8	6.8	12.9	-3.1	-2.4
West Bengal	43.2	9.9	15.6	-2.5	-0.1

Note: Spreadsheets used to estimate the stabilizing primary balances are available on request.  
Source: State Finances 2009-10, Reserve Bank of India.

These results indicate that, with the notable exceptions of Haryana, Jharkhand, Karnataka and Madhya Pradesh, recent fiscal settings in the majority of India's states have stabilized state public debt levels as a proportion of GSDP. In other words, growth in public debt is presently not at risk of automatically expanding without bound above present levels given current nominal effective interest rates and the strong rates of economic expansion experienced by most states. With the slowdown in the Indian growth rates more recently, achieving fiscal sustainability becomes more difficult and there is a risk that reducing some forms of public expenditure, particularly infrastructure development,

may be counterproductive (see Rangarajan & Prasad, 2012 for related discussion).

**Figure 3. Stable versus Unstable State Public Debt Dynamics**



### *Reducing Public Debt to a Predetermined Target Levels*

The above analysis has estimated the primary balances required to stabilize state public debt ratios at present levels. Yet, if these public debt levels are too high presently, then simply stabilizing them may be insufficient to forestall adverse reactions from financial markets. We, therefore, now calibrate the primary budget balances necessary to achieve particular target public debt to state output ratios into the future using relation (13) derived above.

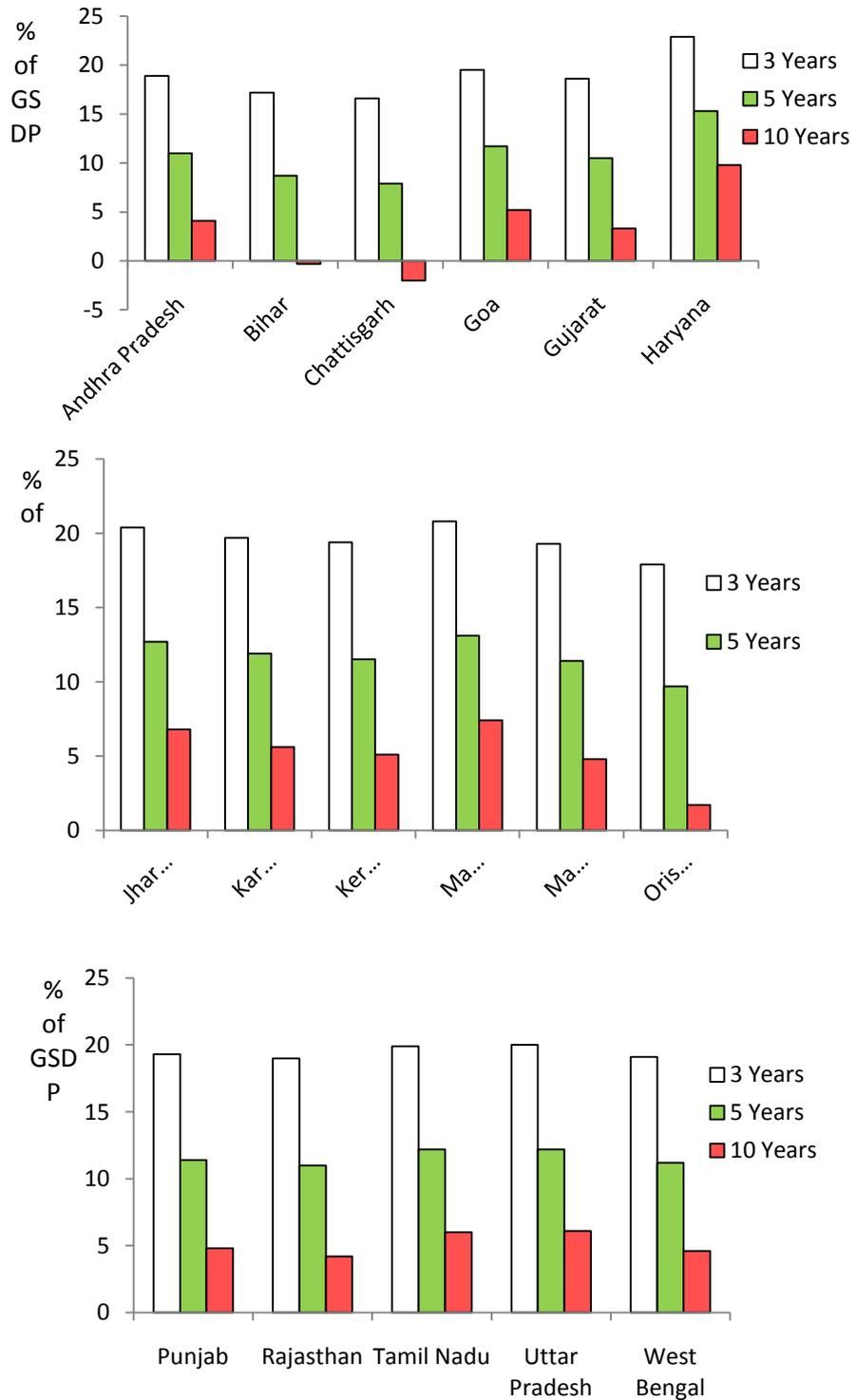
The target debt/GSDP ratio to be achieved is 25%, consistent with the recommendation of India's Thirteenth Finance Commission (Finance Commission 2009) that debt/GSDP ratios should not exceed this level. The Commission recommended a combined (centre *plus* States) debt-GDP ratio of 68% for 2014-15. As the target for central government was set at 45%, the balance (25%) was to be achieved by the states. The combined ratios of centre and states do not, however, add up to 68% due to netting out of central loans to the states (Finance Commission 2009).

In order to achieve the target of 25%, the states' aggregate fiscal deficit was to be held at 3%, although being an aggregate figure, this deficit goal was to take into account fiscal differences, between the states. Hence the nature of fiscal adjustment could vary for different groups of states. The Thirteenth Finance Commission therefore, recommended that non-special category states with revenue surplus or balance in 2007-08 should take steps to achieve the targeted fiscal deficit by 2011-12. Meanwhile to minimize cutbacks in capital expenditure the remaining states with higher revenue deficits should eliminate these gradually in order to achieve the proposed fiscal objectives by 2013-14 (Finance Commission 2009; Rangarajan & Prasad 2012).

Figure 4 illustrates state by state the values of primary budget balances as a proportion of GSDP required to meet the 25% target, given recent nominal growth rates and effective interest rates paid on public debt in each state. The first column shows the primary budget balance needed to meet the 25% debt target in three years, the second column the primary budget balance needed to meet it within five years, and the last column the primary budget balance needed to meet it within ten years.

These results show a high degree of disparity between states with respect to the fiscal effort required to meet the targeted 25% of GSDP debt level within three, five or ten years hence. The primary budget surpluses required to meet the targeted level within three years, ranging from 16.6% for Chattisgarh to 22.9 for Haryana, are too high to be politically feasible within such a short time frame.

**Figure 4. Primary Budget Balances Needed to Meet Targeted Debt Level (as percent of GSDP)**



Even the primary budget surpluses required to meet the target within five years are high by the standards of recently recorded primary budget balances. Though more likely to be achieved within a ten year time frame, the states of Goa, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Tamil Nadu and Uttar Pradesh would still have to sustain primary budget surpluses of over 5% of GSDP for a decade which would be high by historical standards.

## 5. CONCLUSION AND POLICY IMPLICATIONS

This paper has examined fiscal sustainability at the state level in India. Despite relatively high effective interest rates on public debt, it reveals that for most states the risk of public debt growing without bound above present levels is minimal, because economic growth rates at state level are high. However, the existing levels of public debt as a proportion of respective GSDPs remain well above the recommended 25% level. Reaching that level, within any period under ten years would appear infeasible for most states. Even beyond that, a major fiscal effort is required on a sustained basis, given that the primary balances required would exceed those achieved on average in the past.

If state public debt to income ratios exceed levels that financial markets will tolerate, a given fiscal stance for that state becomes untenable. Precisely what these public debt ratios in percentage terms are for individual Indian states is a matter for judgment however, and may vary considerably from state to state given India's variegated economic development and differences between provincial financial systems.

In sum, many Indian states remain exposed to considerable fiscal risk, especially if economic growth falters. This would increase the probability of debt default, and higher interest risk premia would be charged by creditors, thereby enlarging public debt interest and accelerating state budget outlays in a vicious circle. Outright debt default by states in response to such developments would make further government borrowing on reasonable terms difficult and could spark crises that would significantly limit India's progress in alleviating poverty.

This paper has stressed that the primary budget balance is the key intermediate target on which India's states need to focus in order to lower their public debt to income levels. There are numerous fiscal options available to do this. At the broadest level, primary surpluses are achievable via reduced expenditure, higher revenue, or through some expenditure-revenue combination. Consolidation measures of any kind however entail economic risks. For instance, taxes at state level in India are generally indirect, such as sales taxes, excise duties and stamp duties. However, raising indirect taxes puts upward pressure on the prices of goods and services, as well as generating deadweight losses.

On the other side of the budget, state governments have to be mindful of how consolidation measures influence the mix between public consumption and public investment. A key risk with emphasizing expenditure reduction is that for political reasons public investment cuts may be favored over public consumption cuts. This may slow productivity growth due to the special role infrastructure plays in regional economic development. For that reason greater scope may exist for private sector involvement in delivering infrastructure at state level via public-private partnerships. In the end however, since each Indian state has different fiscal characteristics, budgetary measures aimed at improving their primary balances need to be tailored individually.

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