

THE PARADOX OF FISCAL AUSTERITY

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ABSTRACT

The debt-to-GDP ratio is one of the indicators of the financial wellbeing of an economy. It is the amount of national debt of a country as a percentage of its Gross Domestic Product (GDP). If the fiscal deficit of a country is high relative to its GDP, it will adversely affect savings and investment and thereby dampen growth. The ability of an economy to service its debt is improved when an economy produces a large number of goods and services and earns revenue sufficient to pay its debts. The adverse implication of unsustainable debt to GDP ratio forces governments to adopt austerity measures. However the outcome of these measures is paradoxical. This paradox can be explained when reduction in government expenditure can impact economic activity to such an extent so as to actually deteriorate fiscal performance indicators. It is thus imperative to manage the fiscal spending such that the impact on growth is more significant than the impact on debt. This paper seeks to examine the composition of India's expenditure and show that managing the revenue expenditure is a better way to control the debt GDP ratio than managing the capital expenditure. The underlying idea is that capital expenditures have a multiplier effect and thus have a greater capacity to increase GDP than revenue expenditures. Based on annual data for the period 1990 to 2011 using regression, it is found that revenue expenditure has a much larger impact on debt than capital expenditure. The results thus justify that while aiming at reduction of expenditure, revenue expenditure should be targeted. Fiscal austerity is inevitable but greater precedence should be given to the revenue expenditure of the budget than capital expenditure. Capital expenditure has a longer term impact on the country's GDP and a reduction of the same would only stifle the nebulous growth post recovery.

Key Words: Austerity, capital expenditure, debt, debt to GDP, fiscal deficit, India, revenue expenditure.

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INTRODUCTION

The debt-to-GDP ratio is one of the indicators of the financial wellbeing of an economy. It is the amount of national debt of a country as a percentage of its Gross Domestic Product (GDP). By juxtaposing what an economy owes with what it produces, the ratio indicates the country's ability to pay its debt; the higher the ratio, the higher the risk of default. The ability of an economy to service its debt is improved when an economy produces a large number of goods and services and earns revenue sufficient to pay its debts. Governments aim for low debt-to-GDP ratios and can stand up to the risks involved by increasing debt as their economies have a higher GDP and profit margin. According to the World Bank and the IMF, 'a country can be said to achieve external debt sustainability if it can meet its current and future external debt service obligations in full, without recourse to debt rescheduling or the accumulation of arrears and without compromising growth.

If the fiscal deficit of a country is high relative to its GDP, it will adversely affect savings and investment and thereby dampen growth. At the same time, the importance of fiscal policy as a countercyclical tool cannot be ignored. The presence of a structural deficit in the budget restrains the ability of the Government to use this policy tool successfully. It is thus imperative to manage the fiscal spending such that the impact on growth is more significant than the impact on debt. This paper seeks to examine the composition of India's expenditure and show that managing the revenue expenditure is a better way to control the debt GDP ratio than managing the capital expenditure. The underlying idea is that capital expenditures have a multiplier effect and thus have a greater capacity to increase GDP than revenue expenditures.

Global prevalence of high debt to equity:

Most economies, developed and developing, currently are challenged by the growing government debt burden. The major cause of this problem has been the efforts by respective governments to bridge the fiscal budget deficit experienced by many economies due to financial crises in the developed world post 2008. The costs of bail-outs and fiscal stimulus, and the effects of slow economic growth on tax revenues, have sent the ratio of government debt to GDP spiralling.

Amongst the EU countries, post the 2008 crisis, Germany and France have a better debt to GDP ratio as compared to other nations in the EU at 75 per cent and 84 per cent respectively. Greece is over burdened with 130 per cent debt to GDP as compared to the EU average ratio of around 100 per cent. The debt to GDP ratio being at such a high level indicates the fiscal

vulnerability of the EU as a region. The following chart shows the relative debt to GDP ratio amongst the BRIC economies.

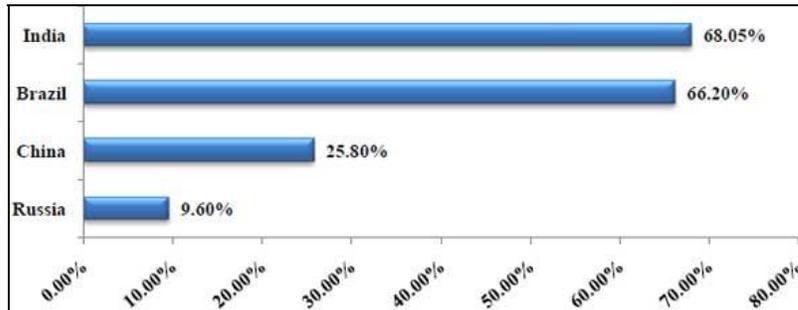


Fig 1: Debt to GDP ratio on BRIC Economies.

Source: indiaindian.com

The average government debt levels of the top 10 emerging market economies, including China, Russia and Indonesia, has halved to 25 per cent, from 50 per cent of GDP since 2000. Brazil and India are the two countries with the highest government debt ratios at almost 70 per cent of GDP.

The Indian Scenario:

In India, the debt-to-GDP ratio stood at 29 per cent of GDP in 1950-51, 55.36 per cent of GDP in 2001-02 and at a high of nearly 70 per cent of GDP currently.

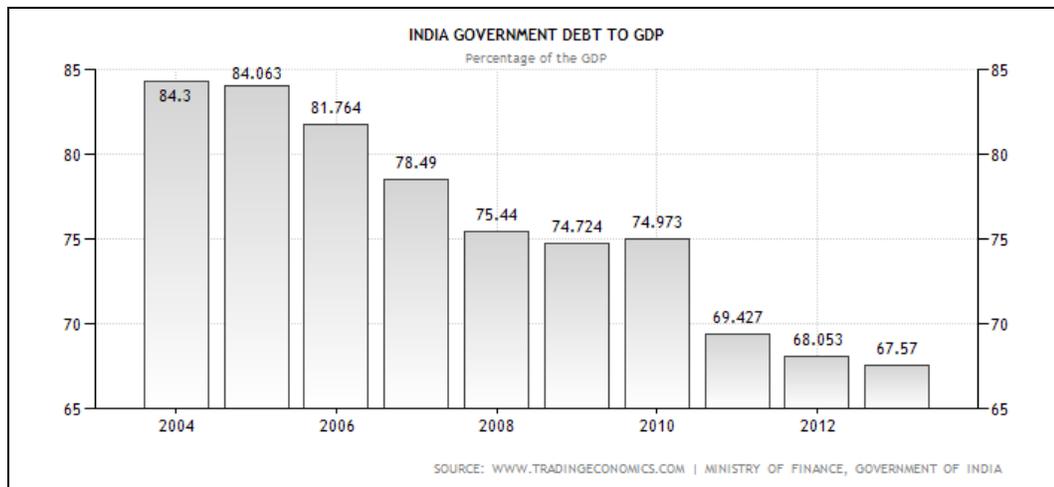


Fig 2: India Government’s Debt to GDP ratio

Source: Tradingeconomics

The Indian economy is already suffering due to effects of weak economic growth rate, slow production activity figures and persistent, high inflation rate and over and above these maladies India is also weighed down by its increasing government debt. India's fiscal capacities have been shrinking since 2008, along with other Asian emerging markets due to

infusion of high fiscal stimulus to ward off the contagion of the 2008 financial crisis. Currently India's gross public debt to GDP ratio is among the highest in the Asian region as it increased from 66.2 per cent to 70 per cent between 2007 and first half of 2012. This can be attributed to huge fiscal and monetary stimulus to bolster the Indian economy post the 2008 recession. The economic growth rate in India did stabilize and rise to over 9 per cent but has nosedived post 2010.

The following table reflects that the growth rate in the GDP has been falling reducing the scope of reducing the debt GDP ratio.



Fig 3: India's GDP trend

Source: Tradingeconomics

The Indian currency and its inflation remained the worst performers among the Asian peers during 2011 and the first half of 2012. A high debt to GDP ratio tends to dampen the credit worthiness of the Indian economy giving reasons to credit rating agencies to review ratings on sovereign debt. The debt to GDP ratio is an important indicator to determine the credit worthiness of a country used by credit rating agencies, such as Fitch, S&P and Moody's. It gives existing and potential creditors of an economy's debt to buy with the assertion they will be paid back on time. It gains more importance in times of recession, when growth is under pressure as deficits are on the rise. In a thriving economy, an elevated debt-to-GDP ratio isn't much of a concern since future earnings indicate a country will be able to pay off its debts quickly. It pressurizes policy makers to take cognizance of the measure and take steps to stabilize the ratio at acceptable levels. Not having a feasible plan in place to address a high debt-to-GDP ratio increases the risk of default, which leads to credit downgrades, reduced debt sales and a flawed reputation.

Fitch and S&P (Standard and Poor) have cut India's outlook to negative from stable. With rise in debt and decline in GDP, the credit rating agencies have downgraded India's rating. Standard & Poor's credit rating for India stands at BBB-. Moody's rating for India sovereign debt is Baa3. Fitch's credit rating for India is BBB-. In general, these are credit ratings used by sovereign wealth funds, pension funds and other investors to gauge the credit worthiness of India thus having a big impact on the country's borrowing costs. The following table shows the current credit rating given by various agencies.

Country	S&P Rating	S&P Outlook	Moody's rating	Moody's outlook	Fitch Rating	Fitch Outlook	TE Rating	TE Outlook
India	BBB-	NEGATIVE	Baa3	STABLE	BBB-	NEGATIVE	47.12	NEGATIVE

Source: Trading economics

THEORETICAL ANALYSIS AND LITERATURE REVIEW

There is considerable debate amongst economists regarding the impact of financing Government expenditure by incurring fiscal deficits. Some believe it is necessary, some consider it is detrimental and some others consider it neutral. The neoclassical view considers it detrimental whereas according to the Keynesians it is a major policy tool especially in a downturn. The neo classical school argues that if the private savings does not offset the fall in government savings, the overall savings fall leading to a fall in growth. They argue that fiscal deficits increase the tax burden on future generations. In their view, fiscal discipline encourages long term growth. The Keynesians argued that the increase in government expenditure would cause the multiplier impact on output. There is indeed the possibility of higher interest rates due to increased Government borrowing but that is offset by the increased profitability of investment. The Ricardian equivalence theory states that fiscal deficits have a neutral impact on growth. Any increase in fiscal spending is matched by an equivalent increase in future taxes and thus have no long term role. Given the controversial theories surrounding the fiscal deficit, various economists have done empirical studies on the impact of debt to GDP ratio.

Reinhart C and Rogoff K, (2010) conducted an extensive study on forty-four countries over two hundred years including over 3,700 annual observations. They found that above 90 percent debt to GDP ratio lead to fall in median growth rates by one percent with 90 per cent being the threshold for public debt for advanced and emerging economies. In emerging economies the dangers posed by external debt lower the threshold level. When external debt reaches 60 percent of GDP, annual growth declines

by about two percent and also for emerging economies inflation raises sharply as debt increases. This conclusion was challenged by Herndon Ash and Pollin (2013) on the basis of methodology, data errors and coding errors. In a separate study by Baldacci E & Kumar M, (2010) the analysis of a panel of 31 advanced and emerging market economies revealed that a high fiscal deficit and a high debt to GDP ratio lead to a significant increase in long-term interest rates putting substantial upward pressures on sovereign bond yields This relation is through private saving; (ii) public investment; (iii) total factor productivity (TFP) and (iv) sovereign long-term nominal and real interest rates. From a policy perspective, the results provide additional arguments for debt reduction to support longer-term economic growth prospect. (Checherita C & Rother P, 2010).

The endeavour to establish the relationship between public expenditure and economic growth has emanated divergent views amongst researchers with some believing that the impact of government expenditure on economic growth is negative or non-significant (Akpan, 2005) while others establishing a positive and significant relation (Korman and Brahmastre, 2007). Government expenditure on investment and productive activities tends to contribute positively to economic growth, while government consumption can be growth retarding and policymakers manage the economy through the use of public expenditure (Barro, 1990).

The studies have distinguished between revenue and capital expenditure to prove the efficacy of the fiscal policy. Aregbeyen (2007) found a positive and significant correlation between government capital and public investment and economic growth and that current and consumption expenditures were negatively related with growth. Gregorious and Ghosh (2007) made use of the heterogeneous panel data to study the impact of government expenditure on economic growth proving that economies with large government expenditure tend to experience higher growth.

Study conducted on economy of Thailand, using that Granger causality tests, showed that government expenditures and economic growth are not co-integrated but there is a unidimensional relation with causality from government expenditure to growth, and also found a significant positive effect of government spending on economic growth (Kormain and Brahmastre, 2007).

Donald and Shuanglin (1993), using a sample of 58 economies, found that government expenditure on education and defence has positive impact on economic growth and that of welfare was insignificant and negative. In Nigeria, capital expenditure does not have a

significant impact on economic growth hence private sector investment is encouraged (Modebe et al, 2012). Devarajan *et al.* (1996) using a sample of 140 ECD countries showed that expenditure on health, transport and communication have positive effects on economic growth while education and defense spending does not have a positive impact on economic growth. Infrastructure is crucial to economic growth as it enhances productivity and reduces cost of production, which will in turn increase competitiveness and effective participation in the international market so government expenditure needs to be productive to add to economic growth (Barro and Sala-i-Matin, 1992). Buitter (1985, 1988) have argued that sustainable deficit levels can be financed without increasing the level of debt relative to GDP as long as growth rate is feasible and real interest and inflation stable. If the debt ratio increases faster than the real interest rate, the public sector becomes insolvent.

WAYS IN WHICH DEBT TO GDP RATIO CAN BE REDUCED

The adverse implication of unsustainable debt to GDP ratio forces governments to adopt austerity measures wherein either tax are raised, wages of public employees are reduced, and government expenditure is slashed. Austerity measures are reductions in government spending, increases in tax revenues or both. These are ruthless measures taken to lower deficits and avoid a debt crisis. Governments use austerity measures when they are forced to by the bond market or other lenders as in the case of the ailing EU economies. Governments generally target to pare unemployment benefits, government employees' wages, benefits and hours and programs for the poor. The policymakers could also simultaneously increase taxes by way of hike in value added taxes, income taxes, especially on the super rich, targeting tax fraud and tax evasion and disinvestment. Most of the European Union economies have adopted austerity measures to avoid sovereign debt crisis. However the outcome of these measures is paradoxical. In 2012, the IMF released a report that stated the Eurozone austerity measures may have slowed economic growth and worsened the debt crisis. This paradox can be explained when reduction in government expenditure can impact economic activity to such an extent so as to actually deteriorate fiscal performance indicators? This question stems from the argument that a cut in expenditure or an increase in taxes can be self-defeating as it may cause demand reduction to such extent that tax revenues fall to end up actually to increase the deficit. This argument also implies that an increase in expenditure hence can actually lower deficits as higher growth leads to increase tax revenues that outweigh the increase in expenditure.

It can therefore be said that austerity measures that reduce a deficit but result in loss of output large that enough to worsen the debt to GDP ratio can create more problems for the economy. The financial markets use the debt to GDP as an indicator of economy's sustainability and as such austerity measures works to exacerbate the situation in terms. This situation has been seen in the member states of the Economic and Monetary Union wherein the debt to DGP ratios are rising even after austerity measures have been implemented. With the GDP growth performance still being in a dismal shape, concerns over whether these countries will be able to pay back their outstanding debts, are mounting.

In India, high levels of fiscal deficit relative to GDP tend not only to cause sharp increases in the debt-GDP ratio, but also adversely affect savings and investment, and consequently growth. With a rise in fiscal deficit to GDP and a reduction in India annual GDP growth rate, India's debt to GDP ratio is worsening which has an adverse impact on our sovereign debt rating. Hence there is a dilemma in whether the fiscal deficit should be reduced although it might make the growth forecasts weaker or whether a better management of fiscal expenditure can serve in reducing both the debt as well as debt to GDP ratio.

OBJECTIVE OF PAPER

Bringing this dilemma closer home, the objective of this paper is to understand whether the rising debt to GDP ratio in India also can be reduced through implementation of austerity measures or can we learn a lesson from the EU economies. Instead of reducing expenditure, we should increase expenditure to push the growth rate which will automatically give buoyancy to tax collections to reduce debt and hence debt to GDP ratio. The aim is find out whether India can reduce the debt to GDP ratio without controlling expenditure but by promoting growth which is by not controlling capital expenditure. Capital expenditure will have a very small impact on the debt to GDP ratio as it would increase GDP. However, Revenue expenditure will have a much larger impact on debt to GDP ratio and hence any austerity measure should involve a reduction in revenue expenditure as compared to capital expenditure.

India's Fiscal Expenditure:

Government Expenditure is classified under Plan and Non Plan expenditure. Both are further classified as Revenue and Capital Expenditure. Plan expenditure is expenditure included in the on-going Five-Year Plan on asset creation or capacity creating expenses under centrally funded schemes includes expenditure on projects, schemes and programmes. Non-Plan

expenditure, in contrast, consists of expenditure on interest payments, defence expenditure, subsidies, postal deficit, police, pensions, economic services, loans to public sector enterprises and loans as well as grants to State governments, Union territories and foreign governments.

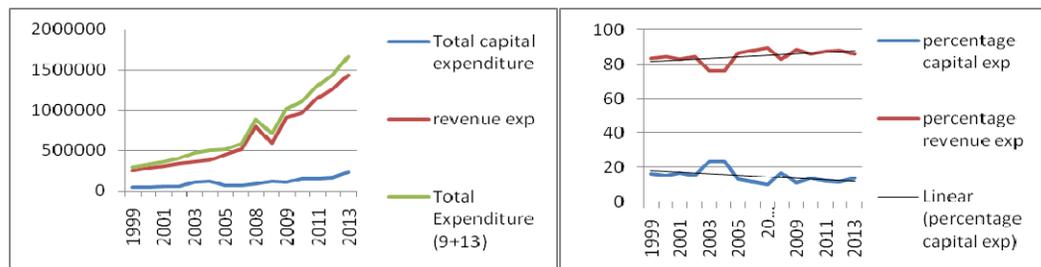
Both Plan and Non Plan expenditure are further classified into Revenue and Capital Expenditure. Revenue expenditure is expenditure incurred for purposes other than creation of assets of the central government including money spent on the normal functioning of the government departments and various other services such as interest charges on debt incurred by the government whereas expenditures relating to purchase of assets and loans and advances given are termed as Capital expenditure.

In India, the Constitution requires revenue and capital expenditures to be shown separately in the budget and this distinction necessary for policy formulation and efficient resource allocation that aids analysis of components of public expenditure of central government of India.

As early as the 1970s, the Indian government endeavoured to augment growth through employment programmes and rural development thereby sharply increasing total expenditure and also escalating the revenue expenditure. Later revenue expenditure surged due to rise in subsidies along with defence, interest payments, escalating salary bills, pension payments, welfare programs for the poor, debt relief for agricultural loans up to Rs. 10,000, introduction of an employment guarantee scheme in drought prone areas amongst many other schemes attributed to the escalation in revenue expenditure.

This upsurge in revenue expenditure was at the cost of decline in capital expenditure as is apparent from the graph. Capital expenditure, i.e. productive, asset producing expenditure has trailed much behind revenue expenditure which comprised close to 90 percent of total expenditure. A glance at capital expenditure as a percentage of total expenditure shows that of the share of capital expenditure has declined in those periods when the share of revenue expenditure has increased as is apparent in the graph below. Increase in revenue expenditure was crowding out capital expenditure. In the current fiscal, capital expenditure forms a mere 13.8 per cent of total expenditure. This year Plan expenditure comprises 33 per cent of total expenditure. The following graphs show the trends in revenue and capital expenditure from 1999 to 2013.

Fig 4&5: Trends in India's fiscal expenditure



Source: Source: Data compiled from Union fiscal budgets for the years

When expenditure is classified as Plan and Non Plan, Non Plan expenditure has also in all the years exceeded the budgeted amount on an average of close to 8 per cent and on the other hand Plan expenditure has not met the budgeted by about 3 per cent on an average in the last ten years (paper).

- Classification of Expenditure under Revenue and Capital					
	Total capital expenditure	Percentage capital exp.	Total revenue exp.	Percentage revenue exp.	Total Expenditure
1999	48975	16.43	249109	83.57	298084
2000	51987	15.49	283536	84.51	335523
2001	60842	16.79	301611	83.21	362453
2002	62365	15.44	341648	84.56	404013
2003	111368	23.48	362887	76.52	474255
2004	119722	23.67	386069	76.33	505791
2005	67832	13.19	446512	86.81	514344
2006	68778	11.79	514609	88.21	583387
2007	90158	10.20	793798	89.80	883956
2008	120787	17.03	588586	82.97	709373
2009	115192	11.28	906355	88.72	1021547
2010	150475	13.57	958274	86.43	1108749

			114578		
2011	158580	12.16	5	87.84	1304365
			126307		
2012	167753	11.72	2	88.28	1430825
			143616		
2013	229129	13.76	8	86.24	1665297
Source: Data compiled from Union fiscal budgets for the years					

It is apparent from the table that not only has the Government in India concentrated on Revenue expenditure but also underutilised the capital expenditure under plan outlay. Hence our fiscal deficit is more on account of revenue deficit. Revenue deficit accounted for 76 per cent of gross fiscal deficit in 2011-12 hence a mere 24 per cent of deficit went for the creation of additional productive capacity which will add to future growth. Moreover this 24 per cent of the resources must earn sufficient revenue to service 100 per cent of the additional debt i.e. fiscal deficit. Plan capital expenditure has not been efficiently utilized to promote growth. Currently with the fiscal deficit at 5.8 per cent of the GDP and growth slowing down to 5 per cent the government is looking to control the deficit to reduce the debt to GDP ratio and at the same time has left no elbow from the fiscal side to bolster growth. Taking cue from the repercussions of austerity measures in the EU region, controlling expenditures will worsen India's debt to GDP ratio in a similar manner by slowing down the GDP growth further.

The Indian Finance Minister unveiled the 2013 union budget in a backdrop of slowing growth, widening fiscal deficit, soaring public debt. Expecting austerity, the pundits were surprised with a surge in spending and levy of new taxes on the rich and large companies to fund growth. The Indian economy is gripped in a stranglehold of slow growth declining close to 4.5 per cent in the October-December quarter. Mr Chidambaram focused on revenue-raising measures rather than spending cuts increasing budget expenditure by 16 per cent in upcoming year to 16.65 trillion rupees. He also promised to rein in the fiscal deficit to 4.8 per cent of the GDP.

The budget arithmetic is based on expectations of hefty revenue growth from disinvestments and tax collection from buoyant demand. The net market borrowings this year however are above expectations at 4.84 trillion rupees.

An estimated 29 per cent increase in funding for infrastructure and development to kick start the investment cycle along with a surge of 22 per cent in agriculture ministry's budget. To bolster demand there is a 46 per cent hike in development programmes in rural areas and in

farm loans to 7 trillion rupees from 5.75 trillion rupees previous year. This surge in spending validated the added surcharge on local firms with incomes of more than 100 million rupees and a 10 percent surcharge on individuals with annual taxable incomes topping 10 million rupees. "Fiscal consolidation cannot be effective only by cutting expenditure," Chidambaram said in his speech. He said that besides economic policy he needed to uphold economic welfare and India being a developing country, the link between policy and welfare is through opportunities, education, skills, jobs and income. This aim cannot be managed through austerity measures. The aim is to achieve a gross domestic product growth for 2013-2014 close to 6 percent, up from 5 percent the earlier year.

DATA AND METHODOLOGY

Annual data has been used for analysis for the period 1990 to 2011. Data has been collected from RBI's website and Planning Commission Data book October 2011. The null hypothesis is

HO: Capital expenditure and revenue expenditure have the same impact on debt

H1: Capital expenditure has a much smaller impact on the debt to GDP ratio.

In order to examine the impact of Capital expenditure and Revenue Expenditure on Debt, a multivariate regression analysis has been done using SPSS.

The general form for a multiple regression analysis is given in the form below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \mu \dots \dots \dots (1)$$

where:

Y = dependent variable

β_0 = equation constant

β_1, β_2 = coefficients of explanatory variables

X_1, X_2 = independent or explanatory variables

μ = error term

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	totalrevexp, totalcapexp ^b	.	Enter

a. Dependent Variable: debt

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.988 ^a	.976	.974	2631.60557	2.000

a. Predictors: (Constant), totalreexp, totalcapexp

b. Dependent Variable: debt

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5918649990.966	2	2959324995.483	427.318	.000 ^b
	Residual	145432305.569	21	6925347.884		
	Total	6064082296.535	23			

a. Dependent Variable: debt

b. Predictors: (Constant), totalreexp, totalcapexp

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-989.188	1281.599		-.772	.449
	totalcapexp	.105	.032	.250	3.255	.004
	totalreexp	.039	.004	.757	9.867	.000

a. Dependent Variable: debt

Explanation of regression results:

The above results indicate that revenue expenditure has a much larger impact on debt than capital expenditure. The coefficients are statistically significant and the Durbin Watson results are robust ruling out any autocorrelation. The differential impact can be explained by

the fact that the capital expenditure increases the productivity as well as contributes to infrastructure building. The latter can be a significant factor in attracting the now dwindling foreign direct investment. The results thus justify that while aiming at reduction of expenditure, revenue expenditure should be targeted. It may be noted that the above regression analysis does not include GDP as a dependent variable as the output increasing potential of capital expenditure has already been discussed. Hence the debt to GDP ratio has a greater possibility of reducing by reducing revenue expenditure as compared to reducing capital expenditure.

CONCLUSION

The fiscal budget 2012-13 projected a fiscal deficit of 5.3% of the GDP. The target for the next financial year was set at 4.8% of the GDP. To achieve a lower target, fiscal austerity is inevitable but greater precedence should be given to the revenue expenditure of the budget than capital expenditure. Capital expenditure has a longer term impact on the country's GDP and a reduction of the same would only stifle the nebulous growth post recovery

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