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A study on the Impact of Public Debt on the Finances of Kerala

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ABSTRACT

The Public Debt of Kerala has been on the rise ever since her attainment of statehood in 1956, instigated by budgetary imbalances culminating into huge yearly deficits. As future projections for Public Debt shows that it is likely to touch the colossal figure of Rs250000 crores in 2020 as against Rs210789 crores in 2017-18. The deficit debt fiasco originates from the revenue expenditure mismatch as reflected by the fiscal indicators is the fountain of the deteriorating financial position of the state giving rise to propulsion in Public Debt beyond sustainable limits. Additional revenue mobilization and control of Public Expenditure have therefore become urgent necessity to address this debacle. The state cannot completely do away with additional resource mobilisation through borrowings at this juncture. Therefore it is imperative to consolidate the fiscal position by effective Debt Management, embracing financial prudence, professionalism and sanctity of legislative sanction. The present papers attempts to analyse the impact of Public Debt on the Finances of the State in sustainable Debt Management and fiscal consolidation.

1. Introduction

Increased volume of Public Expenditure brought into various developmental and welfare activities without a commensurate growth of resource to meet them, entails a situation of growing public debt. Government needs to borrow when current revenue falls short of expenditure .When a government borrows internally or externally, it incurs a liability known as public debt, which is a kind of deferred tax through which public enjoys the advantages of the public expenditure much before it is met out of the current revenue. In a welfare democracy like ours, taxation beyond a limit would be an oppressive imposition upon the public and hence not possible, as it is more likely to attract stiff resistance. This has compelled the government to opt the easiest but dangerous option of public borrowings, to mobilize resources. In Kerala Public debt first came into existence in 1916 in the erstwhile kingdom of Travancore. The 5 percent loan of Rs.14.49 Lakhs for providing funds for the construction of the railway line from Quilon to Trivandrum and repayable on 15th August 1941 was the first loan raised by public subscription. Kerala continued to carry over this legacy as even after its states hood in 1956 the State was not fiscal self reliant. Consequently the state of Kerala didn't have a balanced budget from the beginning itself. As at the end of March 2018 the total Public debt of Kerala stood at the massive figure of Rs210789 crores.

2. Literature Review

K. Venkataraman (1968) highlighted the growth of indebtedness of states during the first three plan periods and the early thinking about servicing the public debt. The study by Sreekantaradhya (1972) was one of the pioneering attempts on Public Debt which examined the historical reasons for the growth of public debt in India. A more rigorous study of the problem of public debt by Ghuge (1977) had shown that national debt in India had grown enormously since 1956, and became a major factor influencing monetary and fiscal policy in the country. K K George (1982) analysed the ever growing revenue expenditure of the state of Kerala, causing a heavy revenue deficit year after year ultimately resulting in accumulation of public debt. S.K. Ray (1987) makes an appraisal of the various finance commissions since the 8th and analyses the centre state financial relations and problem of public debt in the light of the Sarkaria Commission Report. Lizy (1989), in her study on Kerala finances in relation to other states, noted that the debt burden of the various states has been on the rise while the Central loans, forming a major part of the state, have been on the decline. Aiyer and Kurup (1992) argue in their study that non-developmental expenditure increased faster in Kerala than in any other state, attracting more Public Debt. K.K. George (1993) pointed out that the debt servicing payments takes away as much as 87 percent of the fresh central loans in the case of Kerala. Johnson (2004) brought out the phenomenon of mounting debt burden of Kerala in the context of the ever increasing revenue expenditure mismatch. In a study Panhuman Das (2016) by using panel analysis for the 17 non-special category states over 1980–2013 indicates government borrowing is more responsive to revenue expenditure than capital outlay and has more growth-augmenting effect through revenue expenditure.

3. Importance of the Study

Right from her state hood in 1956, Kerala has been showing budgetary imbalances arising from the revenue side of the account, which left huge annual revenue deficits leading to mounting debt burden. The situation got worsened since the late 1980s which spiraled into an economic and fiscal crisis in the state. Major fiscal indicators as shown in Table 1.1 testify this argument. The phenomenon of the growth of Public Debt is the result of the ever increasing public expenditure, which is not backed up by a commensurate growth in revenue. Consequently, deficits and debts have become the order of the day. Additional revenue mobilization and control of Public Expenditure has therefore become an urgent necessity to address this fiasco. A scientific management of Public Finance addressing revenue, expenditure and debt is needed on the way to achieving fiscal robustness in the State. The state cannot keep completely away from additional resource mobilisation through borrowings in the present juncture. Therefore it is imperative to consolidate the fiscal position by effective utilisation and management of borrowed funds and the present paper seeks to move in this direction.

4. Objectives

1. To analyse the general Fiscal Position of Kerala
2. To analyse the structure and growth of Public Debt of the State
3. To analyse the factors contributing to the growth of Public Debt of Kerala

5. Methodology

The study broadly follows the methodology suggested in the literature on state finances and uses the standard tools and techniques. The basic approach is to analyse the trends in Public Debt and major fiscal indicators of Kerala for the eighteen year period from 2000-01 to 2017-18. The data for the present study have been primarily compiled from the yearly reports of the Finance Accounts of Government of Kerala, audited by the Comptroller and Auditor General of India. The other sources include RBI Bulletins, Economic Review published by the Government of Kerala and Budget Documents of Government of Kerala.

Percentages, averages, ratios, charts, diagrams, Annual Growth Rates, Average Annual Growth Rates, Compound Annual Growth Rates, Polynomial trend graphs and correlation analysis were used to analyse and interpret the data.

6. General Fiscal Scenario of Kerala

A long run trend analysis of growth of the State economy is not possible due to the changes in the method of calculation of GSDP* and revision of the base year to 2011-12.Nevethless, the major Fiscal Indicators as shown in Table 1.1 signal the deteriorating financial position of the State as most of the indicators go past the benchmark fixed by the various Finance Commissions and the All States averages. The more intensity is felt in GFD*/GSDP ratio, RD*/GSDP ratio and Debt /GSDP ratio as these ratios demonstrate the poor fiscal performance of the state in mobilizing adequate resources to meet the rising expenditure and control the consequent deficits, giving way for mounting Public Debt. The Fiscal Responsibility Act 2011 of Kerala set a sustainable Debt /GSDP ratio of 23 percent. But unfortunate to say in none of the years, the state was able to meet the benchmark fixed by the Act and dwelled at a very high ratio.Similiarly the Fourteenth Finance Commission fixed target for GFD/GSDP ratio at 3 percent and RD/GSDP at zero percent by 2013-14.As it is clear from Table 1.1 that attainment of the target too remains a distant dreamfor the time being. Although the debt ratio has been coming down over the years, it is currently at 30.71 per cent that is considerably higher than the 13 other major states of India for whom the average figure stands at 23 per cent.

Table 1.1

Major fiscal indicators

Year	GFD/GSDP		RD/GSDP		RD/TRR		TRE/GSDP		Debt/GSDP	
	Kerala	All states	Kerala	All states	Kerala	All states	Kerala	All states	Kerala	All states
2011-12	3.52	2.3	2.21	-0.10	13.8	4.2	13.8	12.8	28.37	21.10
2012-13	3.64	2.1	2.27	-0.40	7.2	3.9	13.2	12.7	26.47	20.10
2013-14	3.64	2.2	2.43	-0.40	9.1	4.0	13.3	12.9	27.88	20.00
2014-15	3.64	2.2	2.69	-0.40	9.1	4.0	13.1	12.1	26.05	20.00
2015-16	3.19	2.3	1.73	-0.30	13.99	4.2	14.1	12.2	28.21	22.50
2016-17	4.29	2.3	2.51	-0.35	20.48	4.1	14.76	12.4	30.22	23.20
2017-18	4.21	2.4	2.61	-0.40	14.82	4.0	14.76	12.1	30.71	23.70

Source: Finance Accounts, Budget in Brief Govt of Kerala,RBI Bulletins

On analyzing the Total Revenue Expenditure (TRE) to Gross Domestic Product (GSDP) ratio, it is seen that in all the Years it is more than All States average, indicating that the Public Expenditure of the State increases in leaps and bounds which hovers as a menace on sustainable fiscal management. This manifests the fact that the trouble originates from the revenue side of the account of which the revenue expenditure is the major contributor. Thus the deficit debt fiasco originates from the revenue expenditure mismatch as reflected through the fiscal indicators is the origin of the financial crunch of the state giving rise to propulsion in Public Debt beyond sustainable limits.

** GSDP-Gross State Domestic Product:*GFD-Gross Fiscal Deficits:*RD-Revenue Deficits*

Table 1.2

Public Debt in Comparison to Revenue Receipts and Expenditure

Year	Revenue Receipts	Revenue Expenditure	Public Debt	GSDP	Public Debt/GSDP	All States Average	PD/RR

2000-01	8731	11878	23919				274
2001-02	9056	11662	26951				298
2002-03	10634	14756	31060				292
2003-04	11815	15496	37452				317
2004-05	13500	17169	41878				310
2005-06	15295	18424	45929				300
2006-07	18187	20825	49875				274
2007-08	21107	24894	55410				263
2008-09	24512	28224	63270				258
2009-10	26109	31132	70969				272
2010-11	30990	34665	78673				254
2011-12	38010	46045	89418	315206	28.37	21.1	235
2012-13	44137	53489	103561	391293	26.47	20.1	235
2013-14	49177	60485	119009	426916	27.88	20.0	242
2014-15	57950	71746	135440	519895	26.05	20.0	234
2015-16	69033	78689	157370	557947	28.21	22.5	228
2016-17	75612	91096	186454	617035	30.22	23.2	247
2017-18	88267	101346	210789	686498	30.71	23.7	239
AAGR	14.68	13.7	13.7	14.03			
r	0.99	0.99	0.99				

Source: Finance Accounts, Budget in Brief Govt of Kerala

7. Analysis of Public Debt

Public debt is a measure of government indebtedness. Public debt of the State comprises debt raised from internal sources as well as loans and advances received from Government of India. Over the years loans raised from open market has been the main source for the State Government to meet its fiscal needs .As mentioned, from her attainment of statehood in 1956 itself, Kerala showed syndrome of indebtedness, necessitated by the ever growing public expenditure which is not backed by matching resources. Thus the growth of public debt was a real threat from earlier on upsetting the finances of the state. If we examine the actual figures of public debt for the eighteen year period from 2000-01 to 2017-18, we can see the meteoric rise of public debt to soaring heights (Table 1.2).

From Rs 23919 crores in 2000-2001, it touched the colossal figure of Rs 210789 crores in 2017-18, recording an increase of about ten times with an Average Annual Growth Rate (AGR) of 13.7 percent during the same period. Though the Revenue Receipts grow slightly higher than Revenue Expenditure, it is not enough to negotiate the revenue expenditure gap culminating in revenue and fiscal deficits which ultimately escalate the growth of Public debt. As it is evident from Table1.2, the gap between revenue and expenditure is widening year after year. The polynomial trend as represented in Figure 1.1, testifies this debacle as the Revenue Expenditure is projected to touch the massive figure of Rs 125000 crores in 2020 while the revenue, which is growing quite impressively, is expected to reach only Rs 111000 crores by 2020, further widening the gap between revenue and expenditure to trigger the growth of public debt which is again projected to touch the gigantic figure of Rs 250000 crores in 2020.Inspite of this mounting public debts, the Net Debt available after making repayment of a portion of principal and interest is only paltry. For instance ,in2015-16 the total Public Debt Receipt was Rs 17673 crores.Having repaid a portion of principal Rs4075 crores and paying interest of Rs 8358 crores,the Net Debt available was only Rs 5240 crores.

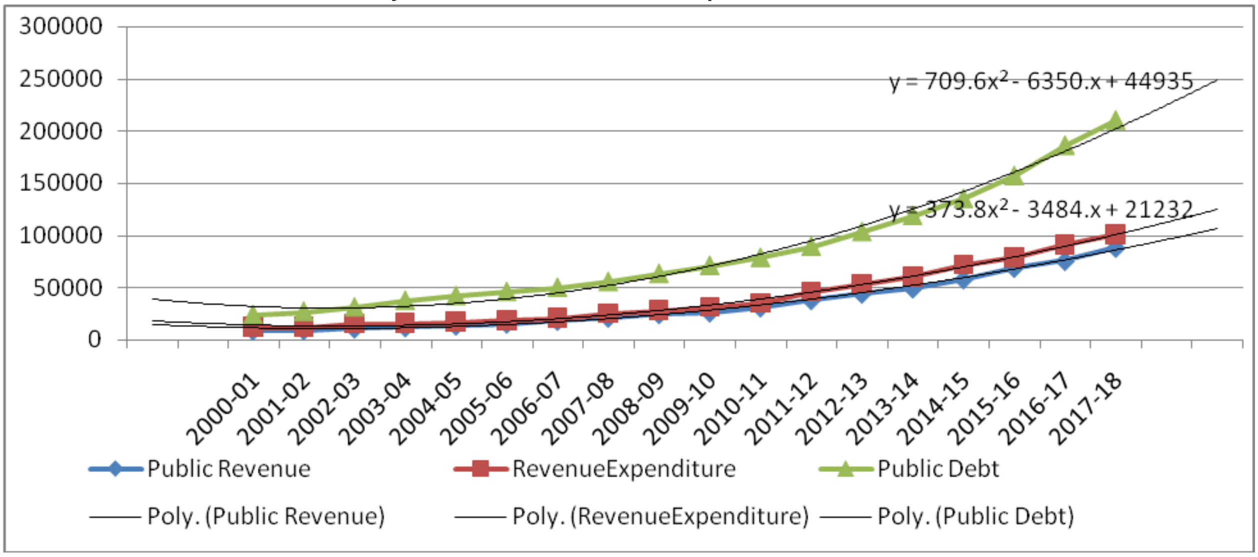
This is a grave situation which must be addressed with caution as the rising deficits and debts leave little for productive capital expenditure; the revenue is mostly used for meeting non-plan commitments like salary, interest and pension and other non-development expenditures. More over this debt-deficit nexus might propel the economic and fiscal crisis encircling the state in the form of cash flow problems inducting treasury bans and so forth which have become the order of the day.

From (Table 1.2) it follows that there is a high degree of positive correlation(r=.99) exists between Revenue Expenditure and Public Debt, indicating a bidirectional causality between the two which can be interpreted as a rise in expenditure results in a similar rise in debt and a rise in debt results in rise in expenditure in the form of Interest Payments.Similiarly there exists a high degree of positive correlation between Revenue Receipts and Public Debt .Ironically ,increase in public revenue attracts more expenditure demands which according to the current fiscal scenario entails more public debt. After all Revenue, Expenditure and Debt are the three major components of Public finance.

The public debt represented as a ratio of Gross State Domestic Product (GSDP) shows that it is much above All States average in almost all the years of study. In most of the years, particularly towards the end of the period, the debt liability as a percentage of GSDP was higher than the target of 29.8 per cent fixed in the Kerala Fiscal Responsibility Act as well (Table 1.2). Future projections for Outstanding Debt were also provided in order to attain a target aggregate debt-to-GSDP ratio of 25 percent. It is greater than the sustainable debt level of 23%, which is estimated as per the Fiscal Responsibility Act of Kerala, 2011.This questions the sustainability of Public Debt, which implies the ability of government to service debt including repayment of principal amount, for Kerala.

Moreover, Public Debt as a ratio of Revenue Receipts (Table 1.2) comes about 266 percent on an average. In 2013-14, the ratio of debt to RR and SOR are 242 percent and 314percent respectively and these ratios are very high among other states in India. This relatively higher ratio puts great pressure to raise more revenue to finance the mounting debt burden. If the tax policy of the state permits, Govt can go for more taxes to enhance the revenue base. On the other hand the Govt has to cut down on expenditure to address this financial squeeze so as to manage the rising Public Debt.

Figure 1.1
Polynomial Growth of Revenue, Expenditure and Debt



Source: Finance Accounts, Budget in Brief Govt of Kerala

7.1 Composition of Public Debt

Public Debt is mainly composed of InternalDebt, Loans and Advances from centre and Small Savings and Provident Fund (SSPF), of which Internal Debt is the predominant component accounting for about 63percent of Public Debt on an average (Table 1.3). Internal Debt registers stupendous growth as both Compound Annual Growth Rate (CAGR) and AAGR, taking the upward trajectory with 18.85percent and 15percent respectively.

There is a sudden spurt towards the closing years of the study as it dramatically took off from 2015-16 onwards. The rising tempo of the major constituent is well reflected in total Public Debt which too grows noticeably during the period with both CAGR and AAGR going past13 percent. From 2015-16 onwards the growth of public debt was bit alarming, thoughcoming slightly down in 2017-18. It may be noted that the other components like Central Loans and SSPF bear negligible impact on the total debt both in terms of size and growth.

Table 1.3

Composition of Public Debt						Rs Crores		
	Internal Debt					Loans and advances from centre	SSPF	Public Debt
Year	Market Borrowings	Special Securities Issued to NSSF	Loans From Banks and FIS	Total Internal Debt	Share in public Debt			
2000-01	4500	1012	634	6146	27	6102	10190	22438
2005-06	11062	9698	4911	25671	56	5417	14841	45929
2006-07	12847	11875	5247	29969	60	5372	14534	49875
2007-08	16481	11982	5556	34019	61	5533	15858	55410
2008-09	21263	11880	5671	38814	61	6009	18447	63270
2009-10	25973	11740	5655	43368	61	6305	21296	70969
2010-11	30744	11781	6003	48528	62	6359	23786	78673
2011-12	38239	11290	5867	55396	62	6396	27625	89417
2012-13	48810	11323	5496	65629	63	6622	31311	103562

2013-14	60183	11281	5340	76804	65	6662	35543	119009
2014-15	71960	11806	5302	89068	66	7065	39307	135440
2015-16	84846	12537	5113	102496	65	7235	47639	157370
2016-17	99532	13509	5228	118269	63	7614	60571	186454
2017-18	117442	14559	5529	137530	65	8757	64502	210789
CAGR	19.87%	15.97%	12.79%	18.85%		2.03%	10.80%	13.25%

Source: Finance Accounts, Budget in Brief Govt of Kerala

If we look into the composition of Internal Debt, it is clear that Market Borrowings is the most dominant component representing about 80 percent of the Internal Debt of the State. It represents the loans raised by the govt from open markets by issuing bonds with varying interest and redemption packages. With an alarmingly high AAGR of 21.8 percent and an equally high CAGR of 19.87 percent, Market Borrowings surges ahead during the period with visible reflection in Internal Debt and consequently in Public Debt (Table 1.3). The other components of Internal Debt like Special Securities issued to NSSF and Loans from Banks and Financial Institutions consequently have negligible impact in the total composition. The importance of National Small Savings Fund (NSSF) as a source of borrowing, which showed steady improvement till 2006-07 lost its significance; the stock stagnated at around Rs.12000 crore for the last ten years. It follows that the growth Public Debt of the State is the outcome of the sizable Internal Debt of the state triggered by Market Borrowings. The impact Loans from Central Government is scanty while SSPF exerts moderate influence. Hence Public Debt management should set more focus on Market borrowings which propels Internal Debt and ultimately Public Debt of the State.

8. Interest payments

The propulsion of Public Debt has put additional burden on the State finances in the form of Interest Payments and Servicing of Debt. Interest Payments are non-plan expenditures which the Govt is committed to fulfill at all costs .Interest Payments are one of the major constituents of the Revenue expenditure of Kerala. Accounting for about 16 percent of Revenue Expenditure of the State on an average, it records an impressive growth rate as evidenced by an AAGR of 13 percent. From Table 1.4, it is seen that Interest Payments mainly arise on account of Interest on Internal Debt, ISSPF and IL & ACG of which Interest on Internal Debt is the predominant component to reckon with; the share of which in the total roughly works out up to 66 percent of the total interest. It is quite alarming to see that in a short period of seven years it shot up to Rs 8040 crores in 2015-16 from Rs 3630 crores in 2009-10, recording an AAGR of 15 percent, equally backed up with a CAGR of 12.03 percent. However ISSPF on the other hand shows a sluggish growth, with the proportions of which to the total dwindling year after year. The share of ISSPF on the other hand, in the total is negligible and that in size and growth its impact is not seemed much felt. But ISSPF is an easiest option, despite of a comparatively high interest rate, at the disposal of the Govt which is liquid and can strengthen the cash flow position of the Government..

IL&ACG clocks a very high growth rate supported by an AAGR of 23 percent. This high growth rate may be partially due to a sudden spurt in 2014-15 arising out of pay revision payments to State Government employees. Because of the negligible size its presence is not so seriously felt in the total make up. The galloping nature of Interest on Internal Debt is instrumental to the awesome growth of total Interest Payments which registers an AAGR of 13 Percent showing signs of upward slide towards the end of the study period. The figure 1.2 testifies this situation. Thus the entire focus of Public Debt management is attracted on to containing the growth of Internal Debt and the Interest obligation arising there from.

On examination of the breakup of Interest on Internal Debt from Table 1.5, it can be seen that Interest on Market loan is the major contributory working up to 65percent of Interest on Internal Debt. It shows a phenomenal growth well reflected in an AAGR of 25 percent and backed by a commensurate CAGR of 21 percent during a seven year period from 2009-10 to 2015-16. It represents interest on loans raised by the govt from open markets by issuing bonds with varying interest and redemption packages. The interest on market loans is comparatively cheaper when compared to interest from banks and financial institutions except interest from NABARD, which is the cheapest.The average interest rate of market loans is 8 percent while loan from NABARD carries an interest of only 5.6 percent.

Table 1.4
Break Up of Interest

Year	Interest On Internal Debt	Percentage to Total Interest Payments	ISSPF	IL&ACG	Total Interest Payments	Revenue Expenditure
2009-10	3630	65	1513	425	5568	31132
2010-11	3715	65	1530	444	5690	34665
2011-12	4124	66	1690	480	6294	46045
2012-13	4459	63	1945	641	7045	53489

2013-14	4562	63	1964	678	7205	60485
2014-15	5547	58	2239	1812	9598	71746
2015-16	8040	72	2735	336	11111	78689
AAGR	15		11	23	13	16.95

Source: Finance Accounts, Budget in Brief Govt of Kerala

Market loans are the hot items in the loan portfolio ofGovernment as it can easily avail of this opportunity without much of a problem.

The State has lost out on the premium earned by financially well managed states for Open Market Borrowings because of failure to meet benchmark targets fixed by the Finance Commission for GFD and RD. However due consideration must be given to cheap interest bearing options like loans from NABARD which may considerably reduce the interest burden.Interest on Special Securities Issued to NSSF, on the other hand, shows a declining trend in terms of both volume and rate of growth. The same is the case withInterest on Other Internal Debt which is made up of interest on loans from financial institutions like NABARD and commercial banks.

Table I.5

Composition of Interest on Internal Debt Rs Cores

Year	Interest on Market Loans	Interest on Special Securities Issued to NSSF	Interest On Other Internal Debt	Total Interest on Internal Debt
2009-10	1722	1149	582	3453
2010-11	2007	1135	497	3638
2011-12	2485	1137	497	4119
2012-13	3296	1090	483	4868
2013-14	4234	1092	457	5782
2014-15	5418	1088	457	6963
2015-16	6444	1136	460	8040
CAGR	0.21	0.00	-0.03	0.13
AAGR	25	-0.16	-3.68	15

Source: Finance Accounts, Budget in Brief Govt of Kerala

9. Domar Gap

Domar Gap signifies the difference between the growth of states total resources as represented by GSDP growth and Weighted Average Cost of Interest (WAC). It represents the pace at which the states resources grow so as to meet the debt servicing obligations, leaving a seizable balance for developmental activities as higher the gap the better the financial situation is. As depicted in Table 1.6, there is wide variations in the indicators of Domar Gap, after having encouraging signs of widening gap in2012-13 and 2014-15, it tends to drop considerably towards the end, questioning the ability of the State to meet its interest obligations promptly in the process of sustainable debt management in the upcoming years. This underpins the bleak picture of the state's finances activated by the ever increasing public debt and the consequent Interest Payment obligations.

Table 1.6

Domar Gap for Kerala(Percent)

Year	GSDP GR	WAC Interest	Domar Gap
2012-13	24.14	7.8	16.34
2013-14	9.10	7.61	1.49
2014-15	21.78	7.59	14.19
2015-16	7.32	7.54	-0.22
2016-17	10.59	7.52	3.07
2017-18	11.26	7.89	3.37

Source: Finance Accounts, Budget in Brief Govt o Kerala

10. Findings and Conclusions

The analysis made above shows the deteriorating fiscal scenario of Kerala triggered by the revenue expenditure mismatch and the consequent growth of Public Debt in alarming proportions hovering as a threat to sustainable development. The Debt/GSDP ratio invariably proves that the ratio is very high for Kerala in the context of the targets set by the Kerala Fiscal Responsibility Act 2011 and the All States average of

Debt/GSDP ratio. The situation is better exposed by the dwindling Domar Gap as well. The ever rising Internal Debt of the State and its interest mainly arising out of interest on Market loans is the root cause of this fiasco. The Government may go for low cost loans like Loans from NABARD to control the burden of Interest Payments which eats away 17 percent of the State Revenue. As future projections for Public Debt shows that it is likely to touch the colossal figure of 250000 crores in 2020 as against Rs210789 crores in 2017-18.

Public Debt has a deleterious impact on the finances of Kerala as most of the financial policy decisions have to be Debt oriented which negate productive capital expenditure and curtail socio-economic progress. Therefore it is imperative to consolidate the fiscal position of the State by effective Debt Management which shall embrace Deficit Reduction Packages, Debt Swapping, parsimonious use of public money and so forth based on financial prudence, professionalism and sanctity of legislative sanction.Effforts shall also be initiated to strengthen the Public Expenditure Management practices and enhance the revenue mobilization process without leakages so as to negotiate the revenue expenditure gap and bring down deficits.

References

1. K Venkataramanan(1968) , *State Finances in India,* George Allen and Unwin Ltd. London,.
2. Sreekantaradhya B. S. (1972) *Public Debt and Economic Development in India*, Sterling Publishers, Delhi.
3. Ghuge V. B. (1977) *Burden and Benefits of India's National Debt*.Himalaya Publishing House, Bombay.
4. K K George, *Fiscal Flows in the Indian Economy-Regional Pattern*, Indian Council of Social Science Research, and 1982Bhuyan P K *The Regional Fiscal Economics*
5. K Ray (1968), Indian Economy, Prentice Hall of India Pvt. Ltd., New Delhi, 1987.
6. Lizy M A (1989) ,*Centre State Financial Relations in India*, Ashish Publishing House, New Delhi,.
7. R Ramalingam Aiyer and K N Kurup (1992), *State Finance in Kerala*, in State Finance in India (ed.) by Bagchi and Bajaj J L National Institute of Public Finance and Policy, Vikas, New Delhi,.
8. George K K (1993) , *Limits to Kerala Model of Development*, Monograph Series, Centre for Development Studies, Trivaandrum,.
9. V Johnson (2004), *Management of Public Expenditure; a study with special reference to Government o Kerala,* PhD Thesis, MG University, Kottayam
10. Panchanan Das (2016), *Debt Dynamics, Fiscal Deficit, and Stability in Government Borrowing in India: A Dynamic Panel Analysis,* Asian Development Bank Institute
11. Budget Manuals of Government of Kerala from 2000-01 to 2017-18
12. Finance Accounts of Government of Kerala, various Issues from 2000-01 to 2017-18
13. Medium Term Fiscal Policy Strategy Statement, Government of Kerala, 2004.
14. Plan Documents, Government of Kerala from 1990-91 onwards.
15. The Reserve Bank of India Bulletins, various issues from 1980-81 onwards.
16. The White Paper on State Finances, Government of Kerala, 2016.

