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# Public Debt in West Bengal –An Empirical Analysis for the Period 1990-91 to 2009-10

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#### Abstract:

In the Indian federal finance public debt is a burning issue not only for most of the states in India but also for the central government. The expenditure responsibility of the states is much higher as compared to the revenue base and revenue collection of the states. As a result the states are running with fiscal deficit and the debt and the load of debt is increasing as the debt accumulation process continues for a long period of time.

West Bengal is facing serious financial problem since last two decades. West Bengal is ranked among the states as 3rdin India on the basis of total outstanding debt. The outstanding debt to gross state domestic product ratio of West Bengal is much higher as compared to the outstanding debt of gross state domestic product to total outstanding liabilities of all the states of India taken together excluding West Bengal. The per capita debt of West Bengal is also higher as compared to the per capita debt of all states taken together excluding West Bengal. The interest payment ratio of West Bengal is also remaining unfavorable as compared to all state average interest payment in India.

In this article an attempt has been made to assess the rate of growth of outstanding liabilities during 1990-91 to 2009-10. In Section I the objectives, data collection & methodology, hypothesis and introduction of the study are discussed. In Section II the findings of the study have been analyzed.

Keywords: Public Debt, West Bengal, Per Capita Debt, Total Outstanding Debt

#### 1. Introduction

The basic financial problem of West Bengal is creation of an over-burdened state exchequer over the years. The expenditure of the state has increased over the years but the revenue has not increased to keep pace with it. The rise in expenditure of the government has gone far away from its receipts from decades back. The inevitable fall-out of this mismatch has surfaced as growing dependence on debt taken from central government and the non-bank public. The unpaid loans or debt is known as outstanding liability.

The state has excessive expenditure liabilities as compared to its assigned resources. This debt accumulating process is continuing over the last few years. Now it has become unbearable to the state. Interest cost to the state is consuming a large portion of state revenue. As a result the state is compelling to reduce its expenditure which halted the socio economic growth of the state.

#### 1.1. Objectives of the Study

To assess the indebtedness of the government of West Bengal for the study period. In addition to that in this paper I have made an attempt to know the exact debt position of the state for the same period.

#### 1.2. Data Collection and Methodology

Secondary data have been collected from the official websites of the finance department of The Government of West Bengal and official website of the RBI.

The study has conducted by comparing the growth of outstanding liabilities, interest payment and interest bill of West Bengal and the all states of India during the study period. In addition to the gross state domestic product to outstanding ratio of West Bengal and all states of India taken together excluding West Bengal has been conducted.

#### 2. Review of Literature

Different studies have been undertaken to assess the debt problem of the state in federal countries.

N J Kurian (2005) suggests in his paper ("Debt Relief for States") that the burden of fiscal correction needed by different states vary considerably.

Kripa Shankar (2000) has found in his article ("Deeper into the Debt Trap") that per capita income of Uttar Pradesh is low as the state has not made efforts to raise more resources. He concludes in the same article that the development fund of the state is staff-oriented rather than oriented towards productive investment. Revenue expenditure in general which includes expenditure on administration, interest payments, etc, is the fastest rising item of expenditure.

Rajendra. R. Vaidya (2005) has suggested that a prudent debt management strategy will help the states financially. He has used interest payment to revenue receipts ratio in his study and has found that between 1991 and 2004, West Bengal and Himachal Pradesh seem to be in real trouble with interest payment accounting for more than 45 per cent of disposable revenue.

#### 2.1. Hypothesis

The growth rate of public debt of West Bengal is higher as compared to the growth rate of public debt of all states taken together excluding West Bengal

#### 3. Data Analysis

Table 1 shows the outstanding liabilities of the Government of West Bengal and the outstanding liabilities of all states of India taken together during the study period. The second column of this table shows the total outstanding liabilities of the Government of West Bengal and the third column of this table shows the total outstanding liabilities of all states of India taken together. The fourth column of this table shows the ratios of outstanding liabilities of the Government of West Bengal to the outstanding liabilities of all states of India taken together.

The cumulative average rate of growth (CARG) of outstanding liabilities of the Government of West Bengal was 15.87% during the study period, whereas the cumulative average rate of growth (CARG) of outstanding liabilities of all states of India taken together was 13.58% during the study period. Therefore, the cumulative average rate of growth (CARG) of outstanding liabilities of the Government of West Bengal was higher as compared to the cumulative average rate of growth (CARG) of outstanding liabilities of all states of India taken together during the study period. This implies higher indebtedness of the Government of West Bengal compared to that of all states of India taken together.

From Table 1 it is clear that the ratio of outstanding liabilities of the Government of West Bengal to that of all states of India taken together has increased over the study period. It means that outstanding liabilities of West Bengal have increased at a greater rate than that of all states taken together.

#### 3.1. Per Capita Outstanding Liability

Instead of considering total outstanding liabilities, we can now consider per capita outstanding liabilities of West Bengal and that of all states of India taken together. Per capita outstanding liability is outstanding liability per person of the state. It is calculated by dividing the total outstanding liability by the total population of the state. If per capita outstanding liability of the state increases over the years it indicates that the debt position of the state is worsening over the years.

The cumulative average rate of growth (CARG) of per capita outstanding liabilities of the Government of West Bengal was 14.38% during the study period, whereas the cumulative average rate of growth (CARG) of per capita outstanding liabilities of all states of India taken together was 11.76% during the study period. Therefore, the cumulative average rate of growth (CARG) of per capita outstanding liabilities of the Government of West Bengal was higher as compared to the cumulative average rate of growth (CARG) of per capita outstanding liabilities of all states of India taken together during the study period.

So from the above analysis indicating per capita outstanding liabilities of the Government of West Bengal and per capita outstanding liabilities of all states of India taken together it is seen that the debt position of the Government of West Bengal has been worsening as compared to the debt position of all states of India taken together during the study period.

#### 3.2. Interest Payment

Due to insufficient amount of revenue collection and excessive expenditure, debt financing is an unavoidable source of financing of state government. This unavoidable source of financing i.e., debt financing leads to proportionate unavoidable commitment of unproductive expenditure of the state, technically known as interest payment for outstanding loans. Out of total expenditure of the Government of West Bengal, interest payment consumes a good amount of state revenue.

Table 3 shows the own tax revenue (OTR), revenue expenditures (RE), and interest payment (IP), interest payment to own tax revenue ratio and interest payment to revenue expenditure ratio of the Government of West Bengal during the study period.

#### 3.3. Interest payment to Own Tax Revenue (IPOTR)

Interest payment (IP) to Own Tax Revenue (IPOTR) is the ratio of interest payment of the state during a year to total own tax revenue receipt of the state during the same year.

Interest payment to Own Tax Revenue (IPOTR) = Interest Payment (IP)/Total Own Tax Revenue (TOTR)

Interest payment to Own Tax Revenue (IPOTR) indicates that out of one rupee of own tax revenue receipts of the state during a year, the relative paisa utilized to meet the interest bill of the state during the same year. A high IPOTR ratio implies a high debt burden of the state and more fixed obligation of the state.

From Table-3 it is clear that the IPOTR ratios of the Government of West Bengal were very high during the study period. Although, the report of Twelfth Finance Commission (2005) recommended the states to maintain the IPTR ratio within 18 percent, it was not maintained in the state.

#### 3.4. Interest Payment to Total Revenue Expenditure (IPTRE)

Interest payment to total revenue expenditure (IPTRE) is the ratio of interest payment of the state in a year to total revenue expenditures of the state in that year.

Interest Payment to Total Revenue Expenditure (IPTRE) =

Interest Payment (IP)/Total Revenue Expenditure (TRE)

Interest payment to total revenue expenditures (IPTRE) ratio is the relation of interest cost of a particular year to total revenue expenditure of that year of the government. The IPTRE ratio indicates the proportion of interest cost to the total revenue expenditure of the state government. It implies when the debt or loan capital of the government increases or the government procures fund from high cost bearing debt instruments, the IPTRE ratio increases. If the IPTRE ratio increases over the years then it certainly indicates that the state used more and more debt for funding its commitment.

## 3.5. Percentage of Total Outstanding Debt to Gross State Domestic Product (TODGSDP)

The TODGSDP is the ratio of total outstanding debt of the state at the end of a year to the total gross state domestic product of that state for the year. It indicates the relative proportion of outstanding debt at the end of a year with the state gross domestic product produced during the year. From economic analysis it is known that the state fiscal situation worsens when the TODGSDP increases over the year. This only happens when the amount of outstanding debt increases at a higher rate than the growth rate of gross state domestic product.

Table 4 shows the ratio of total outstanding liability to gross state domestic product (TOL/GSDP) of the Government of West Bengal and total outstanding liabilities of all states of India taken together to the gross state domestic product ratio of all states of India taken together during 1990 to 2010. The fourth column of this table shows the differences of calculated TOL/GSDP ratio of the Government of West Bengal and calculated ratio of TOL/GSDP ratio of all the states of India taken together during the study period.

From Table 4 it is clear that the TOL/GSDP ratios of the Government of West Bengal were consistently higher as compared to TOL/GSDP ratios of all states of India taken together. This indicates that the burden of public debt of West Bengal was higher than the debt burden of all states of India taken together.

# 3.6. Percentage of Total Outstanding Debt to Total Revenue Receipts (TOD/TR) of West Bengal and that of all states of India

The TOD/TR ratio is the relation between the total outstanding debts at the end of a year to the total revenue receipt of the same year. Higher TOD/TR ratio indicates poor financial position. Table 5 shows TOD/TR ratios of West Bengal and all states of India taken together for the study period.

From Table 5 it is cleared that the TOD/TR ratios of West Bengal were higher as compared to the TOD/TR ratios of all states of India taken together during the study period.

From the IPTR, IPTE and TODGSDP ratios of the Government of West Bengal and all states of India taken together it is clear that the financial condition of the Government of West Bengal is debt -based and as a result the interest cost of the state is proportionately higher as compared to revenue collection and total expenditures of the state. The state debt position was very much adverse up to 2004-2005 and the financial position of the state has started to improve somewhat from the year 2005-2006.

## 4. Conclusion

From the foregoing discussion, it is clear that the debt position of West Bengal is serious. The movement of per capita debt and proportion of interest payment in total expenditures and total revenue indicate the real financial problems of the government. The interest payment and per capita debt are increasing rapidly over the years. The TODGSDP ratio also indicates the same financial condition of the state. The TODGSDP ratio increases badly which indicates that the Government of West Bengal is running through a debt accumulating process and the state is in a debt trap.

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# **Annxure: Tables and Charts**

Year (at the end of March)	Outstanding liabilities of West Bengal (Rs. crore)	Outstanding liabilities of all states of India taken together (Rs. in crore)	Ratio of outstanding liabilities of West Bengal to the outstanding liabilities of all states of India
1991	8857	128155	7%
1992	10135	147030	7%
1993	11281	138365	8%
1994	12926	187875	7%
1995	15128	216473	7%
1996	17716	249535	7%
1997	21114	285898	7%
1998	25173	330816	8%
1999	32192	399576	8%
2000	44042	509529	9%
2001	54929	594148	9%
2002	66396	690747	10%
2003	78325	786427	10%
2004	89472	903174	10%
2005	97342	1014067	10%
2006	114419	1147717	10%
2007	124153	1241576	10%
2008	138422	1328302	10%
2009	148702	1462755	10%
2010	168684	1636403	10%
CARG	0.1587	0.1358	

Table 1: Outstanding Liability

Sources: Hand book of statistics on state government finance, 2010

Year (at the end of March)	West Bengal	All states
1991	1294	1505
1992	1455	1694
1993	1592	1565
1994	1793	2087
1995	2065	2363
1996	2362	2656
1997	2773	2993
1998	3259	3407
1999	4107	4049
2000	5574	5111
2001	6851	5776
2002	8169	6607
2003	9515	7402
2004	10739	8369
2005	11550	9254
2006	13427	10320
2007	14415	11002
2008	15911	11603
2009	16929	12601
2010	19024	13906
CARG	14.38%	11.76%

Table 2: Per Capita Outstanding Liability of WB and that of all states of India (In Rs.) Sources: Hand book of statistics on state government finance, 2010

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Year	Own Tax Revenue Receipts (Rs. in crore)	Revenue Expenditure (Rs. in crore)	Interest Payments (Rs. in crore)	Interest Payment in Percent of OTR (IPOTR)	Interest Payment in percent of Revenue Expenditure (IPRE)
1990-91	2134	5128	627	29.38	12.23
1991-92	2450	5324	827	33.76	15.53
1992-93	2609	6664	966	37.03	14.5
1993-94	2913	6906	1169	40.13	16.93
1994-95	3730	7631	1327	35.58	17.39
1995-96	4133	8626	1616	39.1	18.73
1996-97	4259	10362	1940	45.55	18.72
1997-98	4517	11322	2410	53.35	21.29
1998-99	4775	14243	2950	61.78	20.71
1999-2000	5101	19498	4169	81.73	21.38
2000-01	5918	22104	5250	88.71	23.75
2001-02	6505	23395	6375	98	27.25
2002-03	7046	23161	7666	108.8	33.1
2003-04	8768	25757	9210	105	35.76
2004-05	9924	28146	9623	96.97	34.19
2005-06	10388	31117	9753	93.89	31.34
2006-07	11695	34161	10879	93.02	31.85
2007-08	13126	38314	11384	86.73	29.71
2008-09	14419	51613	12069	83.7	23.38
2009-10	16910	58499	13305	78.68	22.74

Table 3: Ratio of Interest payment to Own Tax Revenue and Revenue Expenditures of the Government of West Bengal Sources: Hand Book of Statistics on State Government Finance(2012)

Year	West Bengal	All states	Difference
1991	23.6	22.5	1.1
1992	23.3	22.5	0.8
1993	24.2	22.4	1.8
1994	24.2	21.7	2.5
1995	24.4	21.3	3.1
1996	24	20.9	3.1
1997	25.7	20.7	5
1998	25.7	21.7	4
1999	27.9	22.8	5.1
2000	32.5	26.1	6.4
2001	38.2	28.3	9.9
2002	42.3	30.3	12
2003	46.6	32	15
2004	47.3	32.8	15
2005	46.5	31.3	15
2006	49.8	31	19
2007	46.6	29	18
2008	44.9	26.8	18
2009	43.2	26.2	17
2010	42.9	26.5	16

Table 4: Percentage of total Outstanding Liabilities to GSDP of West Bengal and that of all States of India (As at end-March)

Sources: Hand book of statistics on state government finance, 2010

YEAR	West Bengal	All states
1997-98	278.84	198.29
1998-99	342.95	232.61
1999-2000	431.32	254.85
2000-01	378.24	254.71
2001-02	456.69	280.99
2002-03	539.23	291.57
2003-04	538.71	298.9
2004-05	488.71	285.34
2005-06	482.25	269.89
2006-07	480.69	234.01
2007-08	458.83	213.21
2008-09	402.94	197.96
2009-10	456.86	203.51

Table 5: Total Outstanding Debt as % of Total Revenue Receipts of WB and that of all the States of India Sources: Hand book of statistics on state government finance, 2010