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A STUDY OF ELASTICITY OF REVENUE AND CAPITAL EXPENDITURE OF GOVERNMENT OF MAHARASHTRA

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Abstract
It is essential to study the pattern of revenue and capital expenditure from the point of view of growth of the economy. To study the pattern we can take the help of elasticity of expenditure. If elasticity of expenditure is greater than one, then state is responsive in its expenditure programme to the growth of the economy which is considered as the Wagnerian hypothesis. The objective of the paper is to study the elasticity of revenue and capital expenditure to Net State Domestic Product and to study the elasticity of per capita revenue and capital expenditure to Per capita income of the state of Maharashtra. For the study, the secondary data is collected through RBI and State government publications. The Wagner's law of increasing state activity in revenue and capital expenditure is tested. The results are showing non presence of Wagner's law in revenue and capital expenditure. For revenue and capital expenditure, the elasticity is less than one which shows that the state is not responsive in revenue and capital expenditure programmes to the growth of the economy.

Key Words: - Revenue expenditure, Capital expenditure,Wagner's Law, Growth rate, Per capita income, Net State Domestic Product Elasticity of expenditure .

1. INTRODUCTION

Budget in India takes into consideration revenue and capital expenditure. Total expenditure in government budget is divided into revenue and capital expenditure. Proper management of financial resources will lead to development of the economy. At the same time, expenditure of the government is expected to be more than the growth of the economy. Maharashtra state is considered to be a disciplined state in financial management of the resources. Here, we have to test whether the state is responsive in revenue and capital expenditure programme to the growth of the economy or not. In the classification of public expenditure broadly we are using plan and non-plan expenditure, capital and revenue expenditure and developmental and non-developmental expenditure. Out of this in the present paper we can study the pattern of revenue and capital expenditure of the government of Maharashtra. Elasticity of revenue and capital expenditure is studied for thirty years data from 1975 to 2005. If the elasticity of expenditure to NSDP is higher than one then growth in revenue and capital expenditure is higher than growth in NSDP and PCI of the state.

2. OBJECTIVES OF STUDY

1. To study the elasticity of revenue and capital expenditure to Net State Domestic Product.
2. To study the elasticity of per capita revenue and capital expenditure to Per capita income of the state.

3. HYPOTHESIS OF THE STUDY

Hypotheses of the study are as follows;

1. Elasticity of revenue and capital expenditures to NSDP are more than one.
2. Elasticity of per capita revenue and capital expenditures to per capita income of the state are more than one.

4. SCOPE OF THE STUDY

The study is restricted to the revenue and capital expenditure of government of Maharashtra only. No consideration of expenditure of central government. At the same time, there is no consideration of private expenditures or the expenditures of public sector undertakings. The study will take into account the period from 1975 to 2005.

5. DATA COLLECTION AND METHODOLOGY OF STUDY

Data for study collected through secondary sources only which includes budget documents of the state of Maharashtra. Data also collected from Reserve Bank of India bulletin and state finances: a study of the budgets of the state governments. Economic surveys of Maharashtra were also helpful in providing data on NSDP and Per capita income of the state. Here we use regression method to arrive at the results of elasticity of expenditure to NSDP and per capita income of the state.

Log linear model: - The log linear models are being used for to see elasticity of each category of expenditure with Net State Domestic Product of the state. This gives us how much increase in particular category of expenditure occurs because of an increase in NSDP of the state. The model is as follows;

Log PE= A+ Log NSDP+ w1 ----------Equation-I

Like this log of each category of expenditure is computed using NSDP and per capita income of the state as the independent variable.

Since, we are using data for thirty years it difficult to compute results manually so we use 'R' software which is available on internet freely.

6. REVIEW OF LITERATURE

Empirical study of the state expenditure policy and its impact on the other variables, relationship with national income and other variables was studied by the German economists Adolph Wagner. This law of the Wagner is explanatory rather than prescriptive in character. According to Wiseman and Peacock, "Its aim is to establish generalizations about government expenditure, not from postulates about the logic of choice, but rather by direct inference from historical evidence." Adolph has based his law of increasing state activities on historical facts. Adolph Wagner arguing that government expenditure must increase at an even faster rate than output. According to Wagner, income elasticity of the public expenditure is greater than unity. It means that rate of increase of government expenditure is greater than the rate of increase of the economy. Arthur Mann tries to test this law but has got contradictory results. Here we test this law for revenue and capital expenditures of the government of Maharashtra.

7. ELASTICITY OF EXPENDITURE CATEGORY TO NSDP AND PCI

To test Wagnerian hypothesis for revenue and capital expenditure we can take elasticity of individual category of expenditure of Maharashtra state with that of NSDP and elasticity of individual per capita category of expenditure with that of per capita income of the state. Elasticity of revenue expenditure to NSDP of the state is 0. 985 means it is just less than elasticity. It means revenue or current expenditure of Maharashtra is responsive to the growth of the economy of Maharashtra. Elasticity of per capita revenue expenditure to that of per capita income of the state is as of revenue expenditure to NSDP i.e.0.98. Elasticity of capital expenditure to NSDP of the state is 0.77 and elasticity of per capita capital expenditure to per capita income is 0.73 only indicating less responsiveness of capital expenditure in relation to the growth of the Maharashtra economy. Government must increase responsiveness of capital expenditure to per capita income by allocating more funds than increase in per capita income.

Table no 1- Elasticity of Revenue and Capital expenditure to NSDP and Elasticity of per capita expenditure to PCI

Category of expenditure	Revenue expenditure	Capital expenditure	Per Capita Revenue Expenditure	Per Capita Capital Expenditure
Intercept	-1.82	-0.77	-1.81	-0.87
Coefficient	0.985	0.77	0.98	0.73
SE I	0.19	0.37	0.19	0.35
SE C	0.018	0.03	0.02	0.04
t-I	-9.11	-2.06	-9.48	-2.44
t-C	54.23	22.66	45.87	18.21
R^2	0.99	0.94	0.98	0.92
R^{-2}	0.99	0.94	0.98	0.91

All intercepts and coefficients are significant at 0.1% level of significance except Cap Exp which is significant at 5%., SE I- Standard error of Intercept, SE C- SE of Coefficient, t-I & t-C stands for t values of intercept and coefficient, R^2 & R^{-2} are Multiple and adjusted R2.

8. CONCLUSION

As far as revenue expenditure and per capita revenue expenditure is concerned, it is nearer to unity but is less than one so we can conclude that revenue expenditure can not satisfy the Wagnerian hypothesis. Same is result for capital and per capita capital expenditure. Capital expenditure is less elastic to the growth of the economy. For keeping the economy on higher growth trajectory in future, it is essential to have higher growth in capital expenditure than growth of the economy.

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STATISTICAL APPENDIX

Table No. 2 - Revenue, Per capita revenue, Capital, Per capita and total expenditure with NSDP and PCSI.

Year	RE	PCRE	CE	PCCE	TE(Lac)	PCE(Rs)	NSDP(Cr.)	PCSI(Rs.)
1975-76	91981	166.186	43870	79.262	135851	245.44	7676.8	1387
1976-77	102886	181.973	47029	83.179	149915	265.15	8573.6	1516.4
1977-78	112674	194.9857	53183	92.035	165857	287.02	9624.8	1665.6
1978-79	140720	238.2522	67346	114.02	208066	352.27	10658	1804.5
1979-80	159892	264.8696	69048	114.38	228940	379.25	12145.7	2012
1980-81	191704	307.8898	69574	111.74	261278	419.63	15113.3	2427.3
1981-82	223803	352.0131	84983	133.67	308786	485.68	16965.8	2668.5
1982-83	262808	404.4914	95710	147.31	358518	551.8	18277.4	2813.1
1983-84	318122	479.0119	106275	160.02	424397	639.03	21151.6	3184.9
1984-85	387984	571.9798	118325	174.44	506309	746.41	22628	3335.9
1985-86	449080	649.1783	124068	179.35	573148	828.52	26467	3826
1986-87	497878	699.5964	143307	201.37	641185	900.96	28431	3995
1987-88	550445	755.9858	142447	195.64	692892	951.62	33770	4638
1988-89	654065	877.5383	156098	209.43	810163	1086.9	40472	5430
1989-90	790255	1035.516	183452	240.39	973707	1275.	50139	6570
1990-91	875367	1120.088	201859	258.29	1077226	1378.3	58137	7439
1991-92	1004872	1258.533	200284	250.84	1205156	1509.3	65808	8242
1992-93	1154670	1418.085	246686	302.96	1401356	1721.0	82076	10080
1993-94	1310869	1583.085	387443	467.9	1698312	2050.9	101767	12290
1994-95	1481219	1756.124	521414	618.19	2002633	2374.3	116507	13813
1995-96	1716839	1998.16	420807	489.76	2137646	2487.9	140730	16379
1996-97	2084580	2344.138	415915	467.7	2500495	2811.8	158682	17844
1997-98	2289651	2523.604	477863	526.69	2767514	3050.2	195168	21511
1998-99	2566303	2773.861	465416	503.06	3031719	3276.9	214557	23191
1999-00	2953822	3129.504	870539	922.32	3824361	4051.8	247830	26257
2000-01	3740095	3889.19	480724	499.89	4220819	4389.0	252283	26234
2001-02	3828152	3909.25	419806	428.7	4247958	4337.9	274113	27992
2002-03	4047431	4073.078	674307	678.58	4721738	4751.6	300476	30238
2003-04	4268006	4232.829	1119812	1110.6	5387818	5343.4	341424	33861
2004-05	5104665	4976.979	1981767	1932.2	7086432	6909.1	387390	37770

RE- Revenue expenditure, PCRE- Per capita revenue expenditure, CE- Capital expenditure, PCCE- Per capita capital expenditure, TE- Total expenditure, PCE- per capita expenditure, NSDP- Net state domestic product, PCSI- Per capita state income