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– C H A P T E R – IV –

4:1   Introduction.

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4:1   Introduction:

In this chapter, we present the major findings of our study along with a summary of the preceding chapters.

4:2   METHODOLOGY:

It has been pointed out in the first chapter - that the present study is an examination the data relating to deficit financing; price - indices; money supply and non-developmental expenditure of Government of India and the Gross Domestic products. All these data have been collected from secondary sources and - certain statistical techniques are further applied with these data. Our main objective was to examine the trends in deficit financing and to explain its relationship with other monetary and fiscal variables. For this pur - pose we decided to find out the coefficient of correlation in respect of deficit fin - ancing and the other variables mentioned above.

Since the data relating to all the variables were relating to time series for fiffteen - years, we first calculated the trend values by least squares methods. The correlation values wore then decided in respect of trend values. Thus the methodology of present study consit - ed of collection of relevant secondary data and application of statistical techniques.

4:3   THE THEORETICAL THEORY OF DEFICIT FINANCING:

In the second chapter of present study and - attempt is made to present various aspects of the study theory of deficit financing. We have examined both the classical as well as modern approach to deficit financing. And then review has been taken of the implications, importance and effects of deficit financing.

4:4   MAJOR FINDINGS:

The third chapter describes and presents the results of correlation analysis with regard to deficit financing and other variables. Following are the major findings.

I)   The coefficient of correlation between deficit financing and wholesale prices

Indices for the period between 1971-72 to
1985-86 is found to be to.99, which shows a
high degree of possitive correlation between
them. This signifies that in Indian economy
financing has always resulted in inflationary
trend and it is also true that the rise in
prices level has further necessited a rise
in deficit financing.

II)   The corelation value in respect of deficit
financing and money supply for the same period
shows exactly the same value as in case of the
first pair of variables. Interestingly the
coefficient of correlation between deficit
financing and money supply (M3) also comes
to be to $+0.99$. Thus showing a significant
possitive correlation between the two.

III)   The correlation between deficit of central
financing and non-developmental expenditure
of central Government for the same period
shows a lower value of to.2.IT can be
regarded as a noraml degree of possitive
correlation.

IV)   The correlation between deficit financing

and G.D.P. at current prices also gave a

value of to₋₀98. This also shows a highly

significant possitive correlation between

the two.

Thus when all the variables are considered

together it leads us to conclusion that

deficit financing has not only consistantly

increased over the period under study, but

has also caused a consistant increase in

the price level, obiviously stemming form

a rise in the money supply, but at the same

time has also been responsible for a

corresponding rise in G..D.P. at current

prices.

Coefficient of correlation between index Number and Deficit financing from the period for 1971-72 to 1985-86.

Year	Trend value of Index Number X	Trend value of Deficit financing Y	Xd	Yd	X²	Y²	XY
1971-72	95	-25	-126	-1785	15876	3186225	224910
1972-73	113	230	-108	-1530	11664	2340900	165240
1973-74	131	485	-90	-1275	8100	1625625	114750
1974-75	149	740	-72	-1020	5184	1040400	73440
1975-76	167	995	-54	-765	2916	585225	41310
1976-77	185	1250	-36	-510	1521	260100	18360
1977-78	203	1505	-18	-255	324	65025	4590
1978-79	221	1760	0	0	0	0	0
1979-80	239	2015	18	+255	324	65025	+4590
1980-81	257	2270	36	+510	1296	260100	+18360
1981-82	275	2525	54	+765	2916	585225	+41310
1982-83	293	2780	72	+1020	5184	1040400	+73440
1983-84	311	3035	90	+1275	8100	1625625	+114750
1984-85	329	3290	108	+1530	11664	2340900	165240
1985-86	348	3545	126	+1785	15876	3186225	224910
					$EX^2 = 91170$	$EY^2 = 18207000$	$EXY=1285200$

Equation of coefficient of correlation.

$$r = \frac{EXY}{\sqrt{(EX^2)(Y^2)}}$$

$$r = \frac{1285200}{1298868.9}$$

$$r = +0.99$$

	Trend Values of M3	Trend value of Deficit finaecing					
	X	Y	Xd	Yd	X²	Y²	XY
1971-72	1526	-25	-45177	-1785	2040961329	3186225	80640945
1972-73	5468	230	-45235	-1530	1700325225	2340900	63089550
1973-74	12462	485	-34241	-1275	1172446881	1625625	43657275
1974-75	19456	740	-27247	-1020	742399009	1040400	27791940
1975-76	26450	995	-20253	-765	410184009	585225	15493545
1976-77	33444	1250	-13259	-510	175801081	260100	6762090
1977-78	40438	1505	-6265	-255	39250225	65025	1597575
1978-79	47432	1760	+729	0	5311441	0	0
1979-80	54426	2015	+7723	+255	596447729	65025	+1969365
1980-81	47432	2270	+729	510	531441	260100	371790
1981-82	68414	2525	+21712	+765	471367521	585225	16608915
1982-83	75408	2780	+28705	+1020	823944025	1040400	292719900
1983-84	82402	3035	+35699	+1275	1274418601	1625625	45516225
1984-85	89396	3290	+42693	+1530	1822692249	2340900	65320290
1985-86	96390	3545	+49687	+1785	2468797969	3186225	88691295

$E\ X^2 = 13203328300$ $E\ Y^2 = 18207000$ $EXY = 486789900$

Equation of Coefficient of Correlation $r = \dfrac{EXY}{\sqrt{(EX^2)\ (EY^2)}}$

$r = \dfrac{486789900}{(114905.74)\ (4266.99)}$

490298196.3

A P P E N D I X

Coefficient of correlation between Non developmental Expenditure and Deficit Financing for the period 1971-72 to 1985-86

Year	Trend value of Non-developmental expenditure (X)	Trend Value of Deficit Financing (y)	Xd	Yd	X2	Y2	xy
1971-72	979	-25	-7031	-1785	49434961	3186225	+12550335
1972-73	2012	230	-5998	-1530	35976004	23 0900	+9176940
1973-74	3045	485	-4965	-1275	24651225	1625625	+6330375
1974-75	4078	740	-3932	-1020	15461624	1040400	+4010640
1975-76	5111	995	-2899	-765	8404201	585225	+2217735
1976-77	6144	1250	-1866	-510	3481956	260100	+951660
1977-78	7177	1505	-833	-225	693889	65025	+212415
1978-79	8210	1760	+200	0	40000	0	0
1979-80	9243	2015	+1233	+255	1520289	65025	314415
1980-81	10276	2270	+2266	+510	5134756	260100	1155660
1981-82	11309	2525	+3299	+765	10883401	5865225	2523735
1982-83	12342	2780	+4332	+1020	18766224	1040400	4418640
1983-84	13375	3035	+5365	+1275	28783225	1625625	6840375
1984-85	11408	3290	+3398	+1530	1156404	2340900	5198940
1985-86	15441	3545	+7431	+1785	55219761	3186225	13264335

$$EX^2 = 221190859 \qquad EY^2 = 18207000 \qquad EXY = 69166200$$

$$r = \frac{EXY}{\sqrt{(EX^2)\,(EY^2)}}$$

Coefficient of correlation between G.D.P.& Deficit financing.

Year	Trend value of G.D.P. X	Trend value of Deficit financing Y	Xd	Yd	X^2	Y^2	Xy
1971-72	31652	-25	-67740	-1532	4588707600	2347024	103777680
1972-73	42942	230	-56450	-1277	3186602500	1630829	72086650
1973-74	54232	485	-45160	-1022	2039425600	1044484	46153520
1974-75	65522	740	-33870	-767	1147176900	588289	25978290
1975-76	76812	995	-22880	-512	509856400	262144	11560960
1976-77	88102	1250	-11290	-257	127464100	66049	2901530
1977-78	99392	1505	0	2	0	4	0
1978-79	110682	1760	11290	254	127464100	64518	2867660
1979-80	121972	2015	22580	508	509856400	258064	11470640
1980-81	132262	2270	33870	763	1147176900	582169	25842810
1981-82	144552	2525	45160	1018	2039425600	1036324	45972880
1982-83	155842	2780	56450	1273	3186602500	1620529	71860850
1983-84	167132	3085	67740	1528	4588707600	2334784	103506720

$EX^2 = 23198466200 \quad EY^2 = 11877446 \quad EXY = 523980190$

$$r = \frac{EXY}{\sqrt{(EX^2)\,(EY^2)}}$$

$$r = \frac{523980190}{(15231004) \cdot (3446.36)}$$

$$r = \frac{523980190}{5249152291}$$

$$r = +0.98$$