- CHAPTER-III -

- DATA ANALYSIS AND INTERPRETATIONS -

- 3:1 Introduction.
- 3:2 Deficit Financing And Price Index.
- 3:3 Deficit Financing And Money Supply (M3).
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- 3:5 Deficit Financing And Gross Domestic Products.

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3:1 INTRODUCTION :-

This chapter deals with collection of secondary data regarding the deficit financing and sel ected variables of Indian Economy. The to get exact phenomena of relationship among selected variables, with deficit financing, data has been analysed with the help of selected statistical techniques like trend values by least square method and coefficient of correlation. The coefficient of correlation between selected variables and deficit financing have enabled to interprete data meaningfully. At first basic secondary data of deficit financing and of selected variables is presented in various tables, and then trend values of each selected variables and deficit financing are shown in the following manners. These trend values have enabled to get coefficient of corelation between deficit financing and selected variables.

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3:2 DEFICIT FINANCING AND PRICE INDEX:

It has been generally assumed that there is close relationship between deficit financing and price Index. The classical economists have strongly/argued that inflationary pressures follow the increase in deficit financing. On the contrary modern economists are of the opinion that every rise in deficit financing does not create inflationary trends in prices as deficit fin ancing helps to raise productivity of various sectors by mobilising resources. The present study has found out the factual relationship between deficit financing and wholesale price Indices in the Indian Economy for the period from 1971-72 to 1985-86. The following table No.3:1 shows the changes in deficit financing and whole sale price Index in Indian Economy from the period 1971-72 to 1985-86.

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Year	Overall Deficit financing (Rs. In crores)	Wholesale price Index Base year 1970-71 = 100	
1971 -72	808	100	
19 72- 73	876	116.2	
1973-74	554	113.9	
1974-75	752	174,9	
1975 -7 6	291	173	
1976-77	81	176.6	
1977-78	1162	185.6	
1978-79	496	185.7	
197980	2620	217,6	
198 081	3474	257.3	
198 182	2412	280.6	
1982-83	2476	286.6	
1983-84	1968	316	
1984-85	5183	338.4	
198 586	3249	357.8	

TABLE NO. 3:1

SOURCE: Report on currency And Finance, Reserve Bank of India, various issues. Table No. 3:1 shows that there is an increase in deficit financing except in years 1973-76 and 1976-77. The wholesale price Indices have also increased through out the years from 1971-72 to 1985-86. Here the purpose of presenting above statistical data is to find out exact and factual relationship between these two variables. For this purpose, trend values of the figures of deficit financing and wholesale price Indices are drawn. The following table No. 3:2 presents the trend values of above two variables in Indian Economy from the period of 1971-72 to 1985-86. **4**3

TABLE NO. 3:2

TREND VALUES OF DEFICIT FINANCING AND WHOLESALE

Year	Trend values o Deficit financ:	E Trend values of whole- Ing sale price Indices
1971-72	-25	95
1972-73	230	113
1973-74	485	131
197475	740	149
1975-76	995	167
1976-77	1250	185
1977-78	1505	203
1978-79	1760	221
1979-80	2015	239
1980-81	2270	257
1981-82	2525	275
1982-83	2780	293
1983-84	3035	311
1984-85	3290	329
1985-86	3545	348

PRICE INDICES.

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RESULT OF COEFFICIENT OF CORRELATION :-

For finding out exact and factual relationship between deficit financing and wholesale price Indices, coefficient of correlation is found out. This is calculated with the help of trend values, values of deficit financing and wholesale price Indices. Equation for calculting coefficient of correlation is The coefficient of correlation between these two variables for the period 1971-72 to 1985-86 is found as a r=0.99. This result shows that there is high degree of positive correlation between deficit financing and wholesale price Indices for the period from 1971-72 to 1985-86.

3:3 DEFICIT FINANCING AND MONEY SUPPLY:-(M3)

In India deficit financing has been used to cover the gap arised due to excess of expenditure over the revenues. One generally accepted way of covering that gap is creating additional money supply. In Indian sense deficit financing has mainly supported by Э.

creating additional money. The collected data of money supply (M3) for the period from 1971-72 to 1985-86 shows that there is increasing trend of money supply. And at the same time, there has been increase in deficit financing also. The following table No. 3:3 presents the changes in deficit financing and Money supply (M3) in the Indian economy from 1971-72 to 1985-86.

TABLE NO: 3:3

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CHANGES I	N DEFICI	T FINANCING	AND MONEY	SUPPLY()	M3)	\$
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Year	Overall deficit	Money supply (M3)	
	financing (Rs. in crores)	(Rs. in crores)	
1971-72	808	12314	in the second
19 7273	976	1,5033	
1973-74	554	17571	
19 74-75	752	19457	
19 75-7 6	291	22286	
1976-77	81	272 7 9	
1977-78	1162	32906	
1978 79	496	39861	
1979-80	2620	46792	
1980-81	2412	46901	
1981-82	2412	55358	
1983-84	1968	85899	
1984-85	5183	101957	
1985-86	3249	118338	

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(SOURCE: Currency And finance Report, R.B.I. various issues) Above table No. 3:3 shows that except in 1975-76, 1976-77 and in 1978-79, there is consistant increase in the deficit financing. But the supply of money (M3) has consistantly increased over the years. When there are decreased trends of deficit financing in the years 1975-76 and in 1976-77, the supply money (M3) has consistantly increased in these years. Here the study is undertaken to examine whether deficit financing and supply of money (M3) changed in the same direction.

The original figures of deficit financing and supply of money (M3) are converted into the trend value a by applying the statistical technique of calculating trend values by least square method, the following table No. 3:4 presents the trend values of the deficit financing and supply of money (M3) in Indian economy from the period for 1971-72 to 1985-86.

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TREND VALUES OF DEFICIT FINANCING AND SUPPLY OF

MONEY	<u>(МЗ</u>)

Year	Trend values of Money supply (M3)	Trend values of D efi- cit financing
19 71-72	1526	-25
1972-73	5468	230
19 73-74	12462	485
19 74-75	19456	740
19 75-7 6	26450	995
1976 -77	33444	1220
19 77-7 8	40438	1505 -
1978-79	47432	1760
19 7 9 -80	54426	2015
1980 , 81	47432	2270
1981 - 82	68414	2 52 5
1982-83	75408	2780
198 3- 84	82402	3035
1984-85	89236	3290
1985-86	9639 0	3545

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RESULTS OF COEFFICIENT OF CORRELATION:-

With the help of trend values of deficit financing and supply of money (M3) the coefficient of correlation between these two variables is found out by using following equation of coe fficient of correlation.

The coefficient of correlation between these two variables has found as a $r \pm 40.99$. Thus this result of coefficient of correlation r=0.99 explain that there has been a high degree possitive relationship between deficit financing and money supply (M3) in the Indian Economy from the period for 1971-72 to -1985-86.

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DEFICIT FINANCING AND NON-DEVELOPMENTAL EXPENDITURE OF CENTRAL GOVERNMENT OF INDIA:

Theoretical view regarding the deficit financing and non-developmental expenditure is that to fulfill the need of increasing non developmental expenditure, the tool of deficit financing is selected and utilised easily. The non developmental expenditure of the central gov ernment of India comprises the following items of expenditure.

- i) The expenditure on collection of taxes and duties.
- ii) Audit expenditure.
- iii) Interest payment and servicing of debt.
 - i*) Administrative services, police and external affairs.
 - v) Grants to the states and union territory of non developmental purposes.
- vi) Compensation and Assignments to local bodies.
- vii) Expenditure on technical and economic co operation with other nations.



viii) Defence Expenditure.

ix) Other Expenditures.

x) Accounting transfer and write backs.
Non developmental expenditure of the central government of India has increased every year
from 1971-72 to 1985-86 Similarly at the same time deficit financing has also increased.
Here the account of deficit financing and that of non developmental expenditure of central
Government is taken. The following table No.
3:5 presents year wise changes in non develop - mental expenditure of central Government and deficit financing of Government of India from 1971-72 to 1985-86.

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TABLE NO: 315

"CHANGES IN NON-DEVELOPMENTAL EXPENDITURE AND

DEFICIT FINANCING"

Years	Non Developmental Expenditure (Rs. In Crores)	Deficit financing (Rs. In crores)
		· · · · · · · · · · · · · · · · · · ·
1971-72	3584	808
1972-73	3900	.876
1973-74	3159	554
1974-75	4035	752
197576	5032	291
1976-77	5279	81
1977-7 8	5716	1162
1978-79	6435	496
1979-80	6989	2620
1980-81	8929	3474
1981-82	9343	2412
1982-83	11424	2476
1983-84	13445	1968
1984-85	15971	5183
1985-86	19911	3249

SOURCE: Currency And Finance Report, Reserve Bank of India, various issues.

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Table No. 3:5 presents the overall changes in the amount of deficit financing and non developmental expanditure. These two variables are studied further to get exact relationship between them. For this purpose the trend values of deficit financing and non developmental expenditure of central Government of India are found out, The following table No. 3:6 have presented the trend values of these two variables:

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"TABLE NO. 3:6"

TREND VALUES OF DEFICIT FINANCING AND NON-

DEVELOPMENTAL EXPENDITURE.

Years	Trend values of Non Developmental expenditure	Trend values of Deficit financing
1971-72	919	-25
1972-73	2012	230
1973-74	3045	485
1974-75	4078	740
1975-76	5111	995
1976-77	6144	1250
1977-78	7177	1505
1978-79	8210	1670
1979-80	9243	2015
1980-81	10276	2270
1981-82	11309	2525
1982-83	13375	3035
1983-84	13375	3035
1985-85	11408	3290
1985-86	5 15441	3545
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RESULT OF COEFFICIENT OF CORRELATION:

Table No. 3:5 shows the trend values of deficit financing and non developmental expenditure. -Further these figures of trend values of above two variables for the period from 1971-72 to 1985-86 are calculated to get coefficient of correlation. By using the statistical equation of coefficient of correlation.

here the exact and factual relationship between above two variables is found out. The coeffici ent of correlation of these two variables is r=0.2. This value of coefficient of correlation explains that there is normal degree of possitive correlation between above two variables.

3:5 *DEFICIT FINANCING AND GROSS DOMESTIC PRODUCT

AT CURRENT PRICES

THEORETICAL APPROACH --

The classical economist have strongly opposed the deficit financing on the issues that it inspite of recurring the ills of economy; raises the problems in economy. But Keynesian and post Keynesian economists have refused the views of Ġ

classical economists According to them deficit financing acts as a net addition to the pur chasing power, which can transfer real resources from the consumption to investment sector, secondly it acts as a stimulator to increase demand for goods and services in the economy. This increased demand stimulates the production sector i.e. in increasing Gross Domestic pro duct. Here they are studied to find out the factual relationship between deficit financing and Gross Domestic product in Indian economy. The period within which these two variables are changed is taken from 1971-72 to 1983-84. In this period both these variables have changed. The following table No. 3:7 shows the trends of change between above two variables compera tively.

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TABLE NO. 3:7

CHANGES IN DEFICIT FINANCING AND GROSS DOMESTIC

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	PRODUCTS	
Year	Deficit financing (Rs.In crores)	G.D.P.at current Market prices (Rs. In crores)
1971-72	808	43367
1972-73	876	47919
197374	554	58994
1974-75	752	6 96 74
1975-76	291	74344
1976-77	23	80198
1977-78	1162	89848
1978-79	496	97748
1979-80	2620	107542
1980-81	3474	127453
1981-82	2412	135812
1982-83	2476	165136
1 983-84	1963	19406 1

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SOURCE: Currency And Finance Report, R.B.I. various 183085

The table No. 3:7 has given account of changes in the selected two variables. The Gross dome stic product at current prices, has raised through out the years which are selected for the purpose of study. And in these years the amount of deficit financing has also increased from 1971-72 to 1983-84. The main approach behind the comparative study between these two veri ables was finding out the exact relationship between these two variables. So that, trend values of these selected variables are found out. The following table No. 3:8 has present ed the trend values of deficit financing and trend values of Gross Domestic product at current market prices for the period from 1971-72 to 1983-84.

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TABLE NO. 318

TREND VALUES OF DEFICIT FINANCING AND GROSS

DOMESTIC PRODUCE.

Year	Trend values of Deficit finan- cing	Srend values of G. D. P. at current prices.
1971-72	-25	31652
1972-73	230	54232
1.973-74	485	54232
1974-75	740	65522
1975-76	995	76812
19 76-77	1250	88102
1977-78	1505	99392
197 8-79	1760	110682
19 79-80	2015	121972
1980-81	2270	133262
1981-82	2525	144552
1982-83	2780	155842
2983-84	3035	167132

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RESULTS OF COEFFICIENT OF CORRELATION:

Like other variables, here also, the comparative study between deficit financing and Gross dome stic product at current market prices of Indian economy from the year 1971-72 to 1983-84 has been undertaken. In table No. 318 trend values of deficit financing and Gross Domestic product has calculated. With the help of these trend values the coefficient of correlation is found out. The coefficient of correlation between these two selected values is r=0, 98. This value of r(coefficient of correlation) between sel ected variables for the period from 1971-72 to 1983-84 has shown that deficit financing and Gross Domestic products have high degree of possitive correlation. Deficit financing has decreased in the years 1975-76, 1976-97 and in the year 1978-79. But at that time Gross Domestic product has not

at that time Gross Domestic product has not decreased. In all the selected years the Gross Domestic product at current market prices have raised.