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FINANCING OF DEBT IN INFRASTRUCTURE COMPANIES IN INDIA: A CHALLENGE FOR FINANCIAL INSTITUTIONS

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ABSTRACT

Financing of infrastructure companies in recent times is a big challenge to financial institutions as investment in infrastructure is the prerequisite for balanced economic growth and, major fund, in general, come as debt from financial institutions. In recent times, huge amount of loans has become stressed assets, which is causing concern to financial institutions. This study on infrastructure companies reveal, in majority of cases, that with rise of debt even at a period of low rate of interest and low debt equity ratio, the growth of profitability is affected to considerable extent. Mere debt-equity ratio is not all, the absolute values are also important. It is known that induction of debt gives birth to two cost factor, firstly interest and then depreciation if debt is employed in fixed assets. Therefore, earning at profit before depreciation, interest and tax (PBDIT) stage is very crucial whether debt can be absorbed to provide positive or favourable leverage effect. Study also revealed that low interest rate is no panacea for curing of or rejuvenating the health of such infrastructure companies. Rather debt should be employed in harmony with earning power or potential or in other words service cost of debt must be in commensurate with earning status. In the context of fundamental financial parameters of the companies, the financial institutions have to carefully judge the financial needs of the companies to avoid untoward NPA effect of financial institutions.

KEYWORDS

PBDIT, infrastructure, financing, debt, leverage.

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INTRODUCTION

The global socio-economic situation now has encompassed the economic activities of any nation and our country is of no exception. The type of infrastructure, which at one point of time was irrelevant to any country, may not remain so with passage of time.

The infrastructure sector is now wide-ranging and includes electricity, roads, airports, railways, water systems, public utilities, and telecommunications. Infrastructure companies thus can provide varieties of infrastructural facilities to a nation for sound, balanced and multidimensional growth.

Therefore, companies which are engaged in the development of infrastructure play vital role in shaping the economic activities of the country and in the process the financial institutions simultaneously take active role by providing the necessary financial support to these companies. Without the financial institutions the development of infrastructure facilities cannot be imagined. These financial institutions themselves, now-a-days, have emerged as also infrastructural entities.

PRESENT SCENARIO

According to a report published in Indian Express on 27/1/2016 (<http://epaper.indianexpress.com/703897/Indian-Express/27-January-2016#page/17>), reveals that a massive over Rs 2 lakh crores out of Rs 8.40 lakh crores exposure in infrastructure projects have become stressed assets. Reserve Bank of India disclosed that stressed loans of the sector increased to 24% of total advances by June 2015 from 22.9% during the same period of the previous year. RBI reported that banks wrote off Rs 2.2 lakh crore of bad loans in five years (2011-16) (Times of India dt 27/05/17, Kolkata edition).

Economic slowdown was not the only issue, overestimation of demand supply of infrastructural matters, inflated project cost and even diversion of fund were also to blame. However, according to CRISIL, India needs investment of Rs 1700 crore every day from April 2015 to March 2020. Therefore, source of money is a big issue and long term investments in various forms are necessary. It is true that infrastructure projects usually bear long gestation period with some unforeseen hurdle like land acquisition and issues concerning social and political obligation. Here plays the key role by institutional financing bodies in infrastructure financing.

OBJECTIVES OF THE STUDY

The main objectives of the study are as per following:

- (1) to focus the key financial parameters and to find out how best financial institutions can assess the performances of the infrastructure companies in recent times and
- (2) to suggest ways and means to redress the current situation so that debt can be used most efficiently and according to needs.

METHOD OF STUDY

Review of financial parameters of Infrastructure companies in recent times (years 2007-2016) with respect to 10 reputed companies of the country have been made, which cover their year wise revenue, profit, depreciation, interest paid on debt, earning power, debt equity ratio etc.

Efforts have been made to review of their performances on the backdrop of changing economic parameters like GDP, inflation, bank lending rates, credit growth of banks etc.

COLLECTION OF DATA

Data have been collected from reliable secondary sources like moneycontrol.com for the following 10 companies.

BASIS OF ANALYSIS

1. Analysis of year wise data of income with graphical representation.
2. Analysis of year wise data of profit before depreciation, interest and taxes (PBDIT) with graphical representation.
3. Analysis of year wise data of depreciation with graphical representation.
4. Analysis of year wise data of interest on debt with graphical representation.
5. Analysis of year wise data of profit with graphical representation.
6. Analysis of year wise data of earning per share per unit of face value (EPS/FV) with graphical representation. EPS/FV has been used instead of EPS (earning per share) because different companies have different face values (FV) of shares and EPS naturally not directly comparable.
7. Analysis of year wise data of debt –equity with graphical representation.
8. Preparation of analysis table, followed by interpretation and suggestions.

ANALYSIS

INCOME TABLE 1

	Total Income (Rs in Crore)	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14	Mar '15	Mar '16
1	IRB Infrastructure Developers Ltd	324.98	784.29	1,026.73	1,754.79	2,502.60	3,258.24	3,817.36	3,853.32	3,960.49	5,254.15
2	GMR Infrastructure Ltd	1,709.25	2,344.28	4,111.02	4,781.15	6,063.61	8,582.30	11,032.23	12,798.84	11,130.37	13,693.60
3	Punj Lloyd Ltd	5,198.84	7,853.74	11,926.87	10,697.63	8,159.77	10,784.04	11,742.71	11,174.33	7,875.15	4,415.34
4	Thermax Ltd	2,359.53	3,524.03	3,399.34	3,296.03	5,426.25	6,176.99	5,596.77	5,212.40	5,400.49	5,662.87
5	BGR Energy Systems Ltd	789.85	1,519.74	1,962.34	3,092.06	4,777.12	3,463.23	3,142.71	3,301.48	3,378.55	3,184.22
6	Adani Ports & special Economic Zone	587.28	884.25	1,308.23	1,685.17	2,110.14	2,733.47	3,926.37	5,507.62	6,837.62	7,940.55
7	NBCC (India) Ltd	1509.36	2013.94	2044.26	3019.59	3227.14	3541.25	3223.32	4093.93	4702.12	6298.48
8	Larsen & Toubro Ltd	21575.40	30714.6	42135.28	46258.28	53786.56	65815.98	77523.13	86971.62	94177.41	103309.84
9	Reliance Infrastructure Ltd	7700.35	9579.36	13832.96	15692.13	15912.89	25040.58	23815.78	20298.73	18881.43	18978.03
10	Jaypee Infratech Ltd		0.77	556.25	652.85	2798.63	3168.93	3292.20	3332.13	3268.04	2897.78

PBDIT TABLE 2

PBDIT (Rs in Crore)	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14	Mar '15	Mar '16
IRB Infra Developers	187.71	464.91	482.46	851.92	1,152.74	1,494.58	1,763.39	1,875.11	2,324.71	2,784.55
GMR Infra	569.14	663.59	1,171.34	1,624.10	996.29	1,740.82	3,555.24	4,696.61	2,577.33	4,547.77
PUNJ Lloyd	670.98	1,037.32	958.99	1,024.64	740.2	1,124.35	1,175.48	638.3	251.3	-739.72
Thermax	342.05	478.17	466.55	344.3	632.07	674.89	575.01	508.85	535.03	582.7
BGR Energy Systems	98	176.96	275.17	417.82	608.78	481.34	438.74	371.63	296.3	325.53
Adani Ports & special Economic Zone	320.99	603.98	868.96	1,155.90	1,409.43	1,782.82	2,725.72	3,603.98	4,587.95	5,335.34
NBCC	129.33	421.76	247.16	182.62	212.63	288.67	302.99	372.92	435.43	480.71
L & T	3828.72	4831.24	7438.89	10330.00	8922.34	9655.69	11370.01	12070.24	12660.14	13883.86
Reliance Infra	1347.34	1710.28	1836.35	1990.38	2488.42	3543.69	4399.87	4070.92	4563.78	5518.44
Jaypee Infra		-0.81	317.57	604.29	1833.37	1662.21	1494.57	1314.64	1349.93	594.1

DEPRECIATION TABLE 3

Depreciation (Rs in Crore)	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14	Mar '15	Mar '16
IRB Infra Developers	52.59	101.61	114.38	181.91	225.37	297.01	441.52	477.06	707.06	853.34
GMR Infra	134.56	178.51	389.83	612.24	789	935.81	1,039.78	1,454.99	1,812.53	2,266.16
PUNJ Lloyd	106.15	146.23	177.08	227.02	269.19	298.73	353.51	392.48	470.26	384.86
Thermax	19.5	23.2	35.14	44.2	54.16	66.25	77.07	92.15	134.12	129.84
BGR Energy Systems	8.88	5.54	7.5	10.28	17.3	17.39	20.27	21.21	27.04	23.52
Adani Ports & special Economic Zone	80.7	102.29	146.79	186.8	238.76	315.93	421.97	649.48	911.68	1,079.44
NBCC	2.94	3.09	3.07	3.12	3.21	1.96	1.35	1.35	2.34	2.23
L&T	299.69	406.27	537.54	639.31	1318.88	1580.29	1637.07	1445.82	2622.50	2755.99
Reliance Infra	303.21	307.42	330.38	353.85	487.09	403.33	551.10	534.08	832.83	1000.97
Jaypee Infra		8.47	13.97	16.19	8.63	1.59	14.92	21.43	30.31	51.22

INTEREST TABLE 4

Interest (Rs in Crore)	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14	Mar '15	Mar '16
IRB Infra Developers	89.8	196.52	149.37	253.3	351.54	546.37	615.3	756.17	931.2	1,063.34
GMR Infra	151.14	176.96	471.36	861.18	1,230.06	1,653.13	2,099.00	2,971.88	3,571.86	4,057.69
PUNJ Lloyd	303.17	412.51	793.52	784.47	463.48	632.5	780.76	881.95	1,002.23	1,069.78
Thermax	8.49	7.84	11.89	13.71	4.47	12.17	16.54	27.36	81.95	63.44
BGR Energy Systems	27.63	41.77	91.75	102.43	110.73	135.48	174.89	181.83	206.86	247.91
Adani Ports & special Economic Zone	67.92	136.84	214.67	217.75	167.1	281.46	541.84	976.76	1,175.06	1,099.04
NBCC	2.13	3.56	3.22	4.87	0	0	0	22.38	40.25	36.77
L & T	489.93	916.56	1586.01	1870.72	802.75	1101.89	2095.02	3141.44	2850.72	3041.22
Reliance Infra	251.9	315.21	336.05	313.89	645.49	1335.94	1687.43	1696.07	2347.32	2768.41
Jaypee Infra		0	0	0.76	10.1	63.22	611.50	894.02	895.33	944.87

NET PROFIT TABLE 5

Net Profit (Rs in Crore)	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14	Mar '15	Mar '16
IRB Infra Developers	15.18	126.57	177.17	403.35	464.09	496.01	553.58	459.63	542.35	636.27
GMR Infra	241.77	262.65	277.11	225.34	-	-	174.52	108.41	-	-
PUNJ Lloyd	195.69	359.99	-224.69	-116.25	-58.79	112.39	-29.09	-643.87	-	-
Thermax	193.72	290.72	288.94	143.9	376.94	392.14	304.06	219.75	148.13	242.59
BGR Energy Systems	40.58	88.46	115.57	201.46	322.69	224.38	161.31	85.96	24.7	24.81
Adani Ports & special Economic Zone	187.17	211.72	432.52	673.57	916.17	1,092.68	1,638.83	1,741.00	2,324.49	2,829.94
NBCC	77.8	277.78	162.19	118.75	140.34	190.17	207.5	257.45	278.28	311.11
L&T	2261.21	2257.82	2934.66	5442.32	4447.66	4682.29	5239.42	4854.59	4933.68	5537.99
Reliance Infra	835.98	1140.30	1259.14	1197.76	1229.00	1260.26	1958.7	1566.44	1313.66	1402.75
Jaypee Infra		-11.37	266.73	487.49	1435.06	1289.72	694.46	297.90	350.44	-298.42

EPS/FV TABLE 6

EPS/FV (Rs)	Mar '07	Mar '08	Mar '09	Mar '10	Mar '11	Mar '12	Mar '13	Mar '14	Mar '15	Mar '16
IRB Infra Developers	1.5	0.34	0.53	1.16	1.36	1.49	1.68	1.38	1.63	1.81
GMR Infra	2.64	0.58	0.72	0.43	-2.4	-1.55	0.23	0.03	-6.47	-3.82
PUNJ Lloyd	3.77	5.91	-3.71	-1.63	-0.9	1.39	-0.11	-8.26	-17.18	-33.81
Thermax	8.95	12.26	12.13	6.06	16.02	16.93	13.44	10.32	8.8	11.56
BGR Energy Systems	3.84	1.21	1.6	2.8	4.48	3.11	2.25	1.29	0.42	0.38
Adani Ports & special Economic Zone	0.51	0.53	1.08	1.69	2.29	2.79	3.84	4.23	5.59	6.93
NBCC	0.86	3.1	1.8	1.32	1.59	1.56	1.73	2.15	2.32	0.52
L&T	39.9	38.6	25.1	45.2	36.5	38.2	42.6	26.2	26.5	29.7
Reliance Infra	3.66	4.84	5.56	4.9	4.6	4.8	7.45	5.96	5.00	5.33
Jaypee Infra			0.28	0.40	1.03	0.93	0.50	0.21	0.25	

DEBT/EQUITY TABLE 7

Debt-Equity	Mar-07	Mar-08	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16
IRB Infra	6.67	1.25	1.44	1.43	1.84	2.39	2.43	2.89	2.62	2.87
GMR Infra	1.86	1.3	1.86	3.13	2.76	4.34	5.01	6.04	8.64	7.89
Punj Lloyd	1.33	0.59	1.44	1.47	1.3	1.7	1.96	2.8	6.34	
Thermax	0	0	0	0.01	0.11	0.17	0.23	0.36	0.26	0.07
BGR Energy Systems	2.97	1.06	1.26	1.32	1.39	1.56	1.8	1.56	1.6	1.74
Adani Ports & Special Economic Zone	2.68	1.03	1.18	1.25	0.58	3.42	1.67	1.33	1.41	1.47
NBCC	0.57	0	0	0	0	0	0	0	0	0
L&T	0.93	1.14	1.32	1.08	1.15	1.43	1.62	2.13	2.01	2.06
Reliance Infra	0.68	0.34	0.54	0.33	0.43	0.77	0.72	0.9	0.92	0.82
Jaypee Infra		0.21	1.5	2.87	1.32	1.15	1.21	1.32	1.07	1.45

PERCENTAGE WISE MARGINS OF VARIOUS PARAMETERS OF THESE COMPANIES TABLE 8

IRB Infra FV 10/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	37.64	42.04	37.46	35.85	38.22	38.03	38.84	36.28	49.13	42.88
PBT Margin (%)	16.91	17.84	17.19	19.16	20.78	23.61	24.43	21.67	22.73	14.56
Basic EPS (Rs.)	18.09	16.32	13.81	16.75	14.92	13.61	11.6	5.29	3.43	15.02
Stock price, yearly high/low	269.3/ 177.5	275.5/ 197.2	289.4/ 68.05	137.15/ 51.9	210.15/ 100.25	233.7/ 127.1	312.8/ 186.4	279.85/ 76.65	222/65	
EPS very slowly rising, fumbles sometimes; PBIT margin fluctuating at moderately high level; stock price remained steady reflecting steady EPS										

TABLE 9

GMR Infra FV 1/	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	18.21	9.64	13.38	17.18	11.41	15.55	21.51	19.38	19.87	24.44
PBT Margin (%)	-13.28	-25.31	2.57	3.93	-10	-15.81	3.32	8.17	13.49	16.69
Basic EPS (Rs.)	-3.82	-6.47	0.03	0.23	-1.55	-2.4	0.43	1.43	1.15	5.27
Stock price, yearly high/low	16.7/ 9.84	20.7/ 9.58	38.3/ 15.35	25.3/ 10.65	34.4/ 16.75	47.6/ 17.7	70.6/ 40.5	183.5/ 58	260.9/ 45.6	
FV reduced from Rs2/- to Re1/- in 2009 EPS declined sharply after 2007; PBIT margin at low level to provide low profit or loss after deduction of interest										

TABLE 10

Punj Lloyd FV 2/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	-26.39	-3.08	2.26	7.2	8	5.96	3.17	1.71	7.25	6.67
PBT Margin (%)	-51.5	-17.22	-5.86	0.36	1.87	0.09	0.08	-0.13	5.58	5.06
Basic EPS (Rs.)	-67.61	-34.36	-16.51	-0.22	2.77	-1.79	-3.26	-7.42	11.81	7.54
Stock price, yearly high/low	31.65/ 16.9	40.75/ 20.75	60.85/ 24.9	64.1/ 20.25	65.9/ 38.4	117.4/ 37.05	226.45/ 81	298.8/ 66.65	589.1/ 127.5	
EPS reduced drastically after 2008; PBIT margin almost insignificant; stock price declined gradually										

TABLE 11

Thermax FV 2/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	8.23	8.34	8.17	9.06	9.99	10.9	12.23	12.26	12.91	13.22
PBT Margin (%)	7.07	5.91	7.63	8.76	9.79	10.82	12.17	12.15	12.87	13.15
Basic EPS (Rs.)	23.11	17.6	20.64	26.87	33.86	32.03	12.11	24.25	24.52	17.9
Stock price, yearly high/low	945/ 691	1315/ 827	1131.8/ 615	718/ 526	639.9/ 392	907/ 388	926.9/ 560.2	650/ 151	884.85/ 150.5	
EPS high but rising trend could not be kept steadily; PBIT margin low, but no impact of interest as D/E very low; stock price remained high (some up trend can be noted) as EPS was high										

TABLE 12

BGR Energy Systems FV10/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	9.47	7.99	10.61	13.44	13.44	11.38	11.67	12.07	10.19	10.11
PBT Margin (%)	1.69	1.85	5.1	7.82	9.51	10.11	9.92	9.07	8.52	7.83
Basic EPS (Rs.)	3.83	4.19	12.92	22.46	31.09	44.81	27.96	16.03	12.13	38.36
Stock price, yearly high/low	138.8/ 89.4	169.6/ 98.7	242.8/ 99.8	274.2/ 70.55	373.9/ 172.55	744.7/ 174.8	871/ 438.35	535.65/ 107	988/ 115	
EPS started declining from 2012; PBIT margin also reduced drastically; PBT margin speaks high interest component; fall of EPS & corresponding fall in stock price can be noted.										

TABLE 13

Adani ports & special economic Zone FV2/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	58.65	59.75	61.24	62.02	54.95	58.53	64.03	60.03	59.62	40.34
PBT Margin (%)	43.5	40.65	40.99	46.87	44.51	50.17	50.14	42.38	43.05	28.88
Basic EPS (Rs.)	13.85	11.18	8.45	7.68	5.58	4.58	16.87	10.79	5.25	5.09
Stock price, yearly high/low	317/ 169.65	374.7/ 239	320/ 141	175/ 118	157.8/ 105.15	169.75/ 115.25	856.95/ 112	704.9/ 294	1324/ 250	
FV reduced to Rs2/- from Rs10/- in 2011; steady growth in all fronts; steady rise stock prices										

TABLE 14

NBCC (INDIA) Ltd FVRs10/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	8.19	9.26	9.06	9.59	8.13	6.79	6.01	11.95	21.25	8.65
PBT Margin (%)	7.56	8.4	8.52	9.43	7.92	6.65	5.85	11.8	21.07	8.51
Basic EPS (Rs.)	5.19	23.19	21.45	17.29	15.85	15.59	1,319.40	1,802.00	3,086.30	864.4
Stock price, yearly high/low		1214.5/ 682.6	922.8/ 134.15	194.6/ 96	174.9/ 78.85					
Up to march 2016 FV10/-, FV reduced From Rs1000/- to Rs10/- in 2011; very low D/E all along, earning very slowly increased till 2015										

TABLE 15

Reliance Infra FV Rs10/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	24.08	21.69	26.29	12.85	17.48	20.32	11.35	11.84	17.44	14.68
PBT Margin (%)	10.62	8.04	13.68	9.6	10.04	13.76	9.18	9.28	13.52	11.55
Basic EPS (Rs.)	75.08	68.45	72.77	85.42	60.05	62.05	62.04	54.8	50	38.23
Stock price, yearly high/low	635.35/ 387.45	548.2/ 282.2	820/ 350.85	572.35/ 308	679.7/ 328.35	893.75/ 335.55	1225/ 751.25	1404.45/ 428.3	2631.7/ 354	
EPS more or less kept up trend, D/E low all along; stock price vibrated more or less harmonically with EPS										

TABLE 16

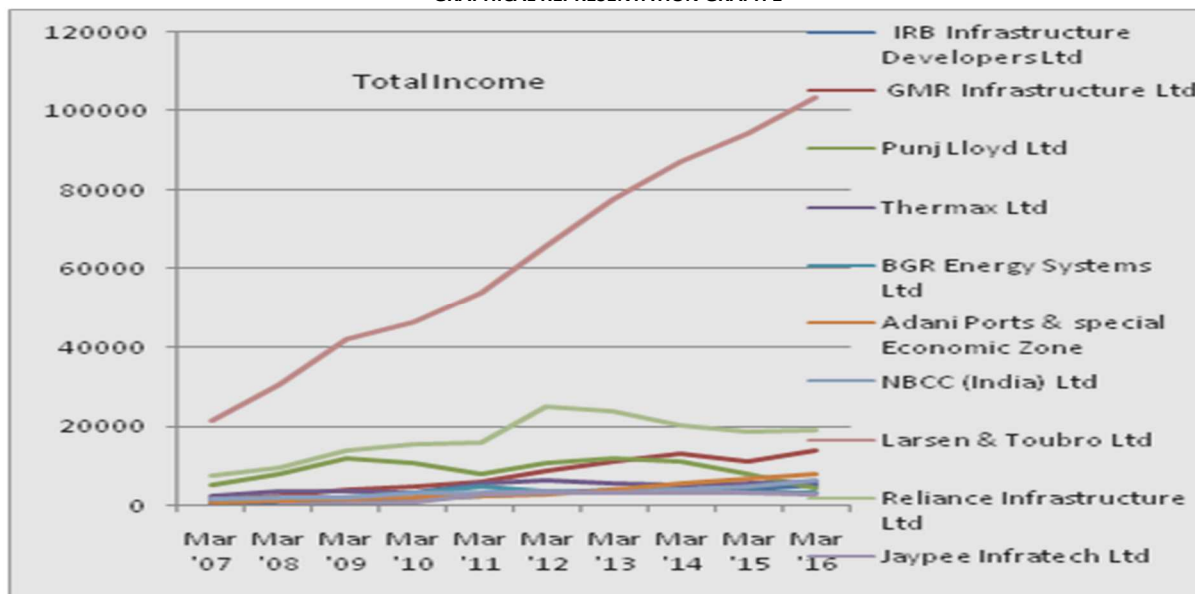
Jaypee Infra FVRs10/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	18.79	40.54	38.96	45.18	52.61	65.66	91.79	54.74	0	
PBT Margin (%)	-13.91	13.03	12.02	26.51	50.61	65.3	91.67	54.74	0	
Basic EPS	-2.15	2.52	2.14	5	9.29	10.48	3.98	2.76	-0.12	
Stock price, yearly high/low	13.4/ 5.34	23/ 11.35	42/ 17.55	58.6/ 14.45	61.5/ 37.15	80.8/ 33	100/ 59.8			
2007 data not available; gradually D/E increased, PBIT margin not enough to absorb interest in 2016, loss developed; stock price deteriorated in conformity with EPS										

TABLE 17

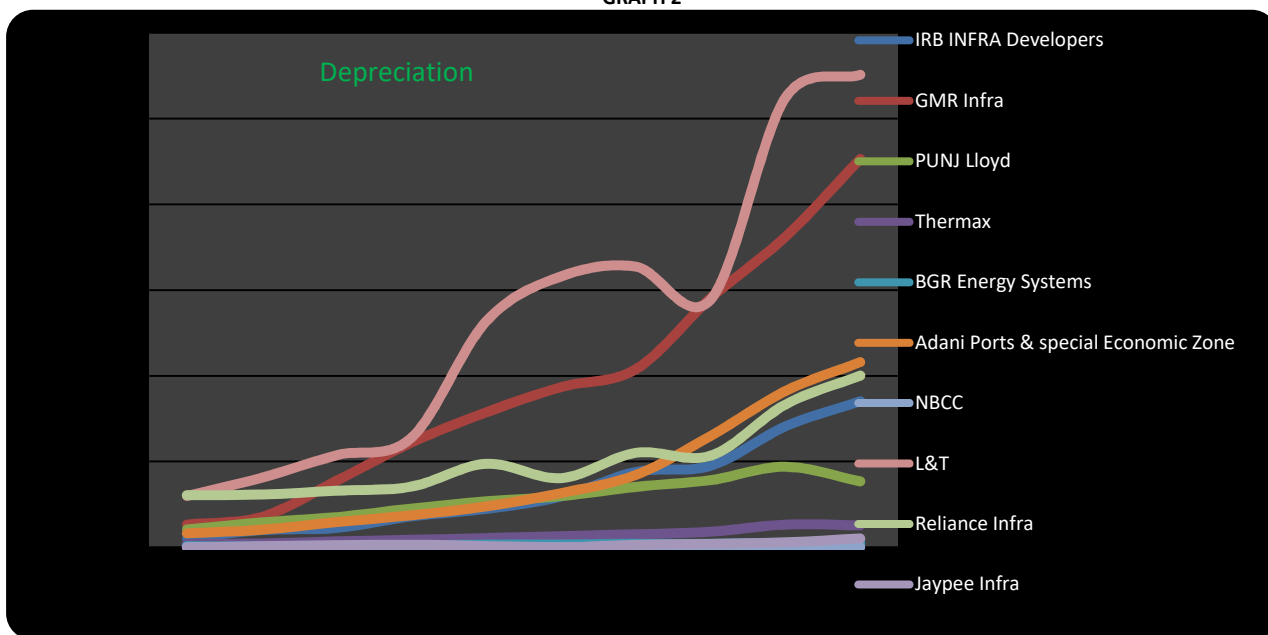
L&T FV 2/-	Mar-16	Mar-15	Mar-14	Mar-13	Mar-12	Mar-11	Mar-10	Mar-09	Mar-08	Mar-07
PBIT Margin (%)	10.49	10.56	12.08	12.5	12.46	14.07	19.91	13.5	13.51	16.03
PBT Margin (%)	7.87	7.84	8.79	10.14	10.84	12.93	16.8	10.78	11.58	14.57
Basic EPS (Rs.)	54.69	51.33	52.97	84.79	76.81	73.56	90.5	64.69	79.51	78.77
Stock price, yearly high/low	1615/ 1016.6	1892.95/ 1265.5	1774.7/ 951.6	1661/ 678.1	1719.5/ 991	1998.1/ 971	2212/ 1371	1800/ 557		

D/E increased gradually which affected EPS; however, company was maintaining high EPS. Stock price remained high but lowering EPS from 2014 has impacted price.

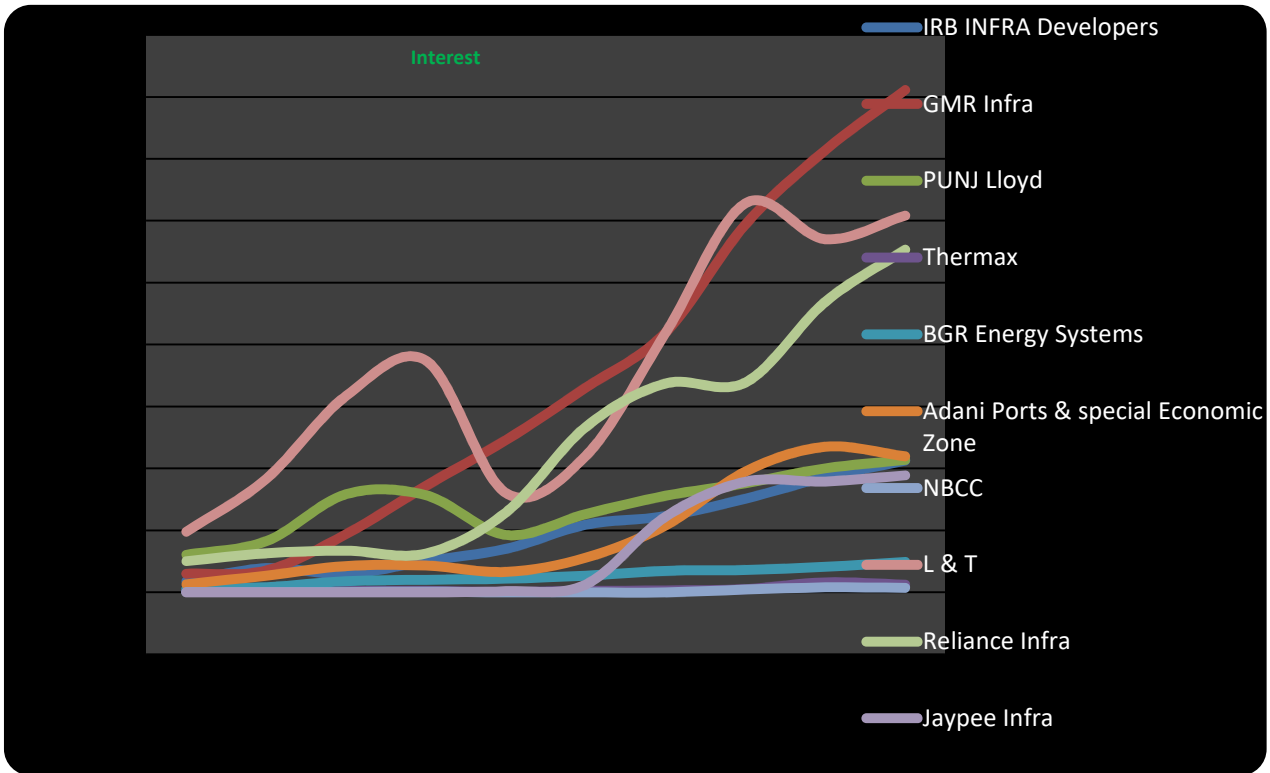
GRAPHICAL REPRESENTATION GRAPH 1



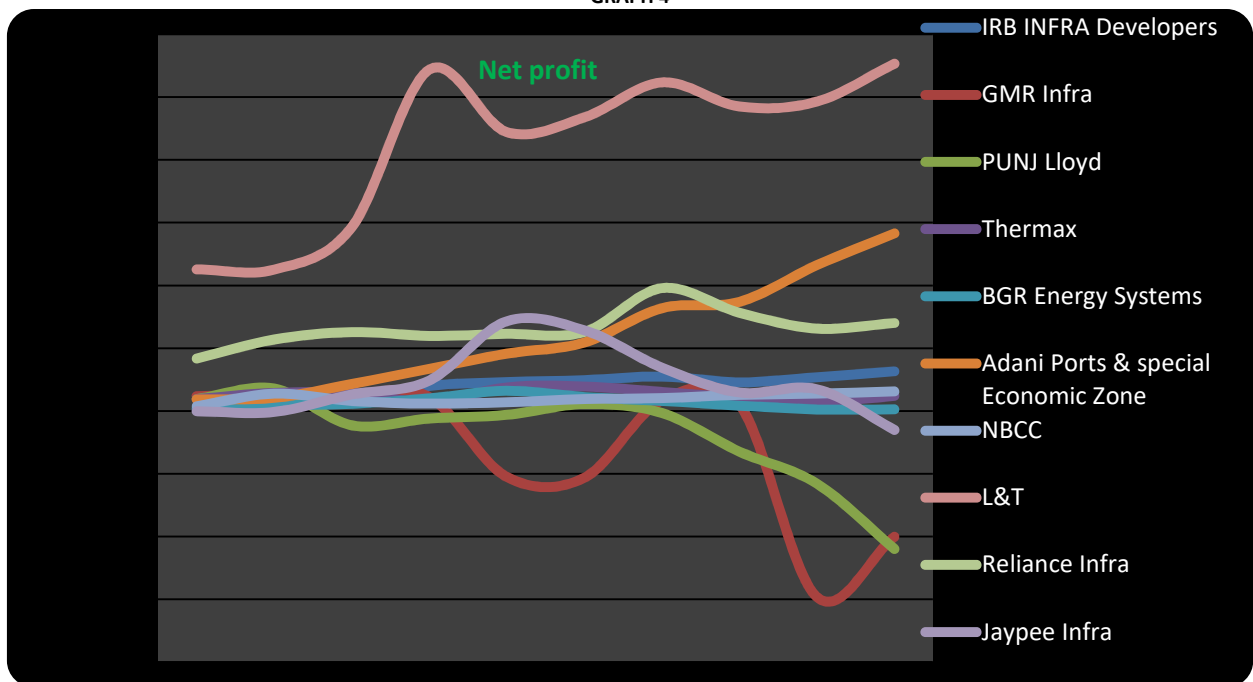
GRAPH 2



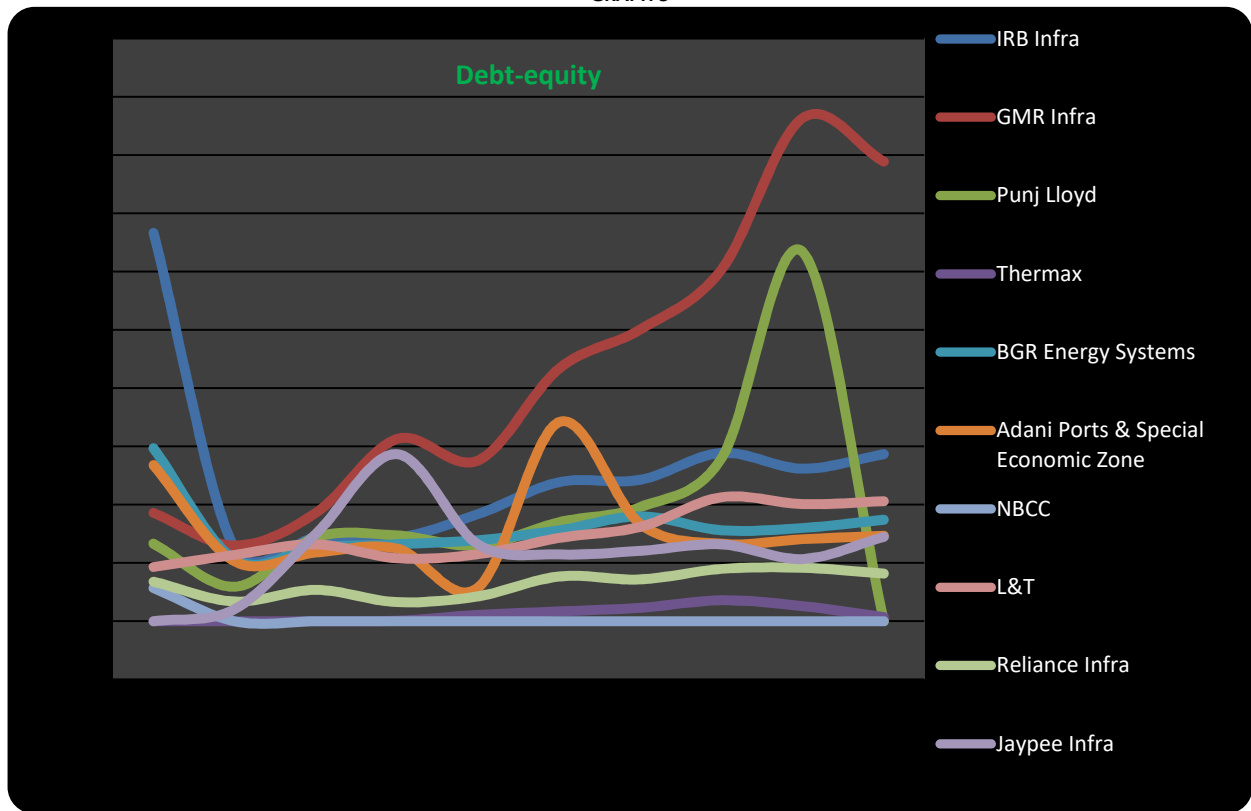
GRAPH 3



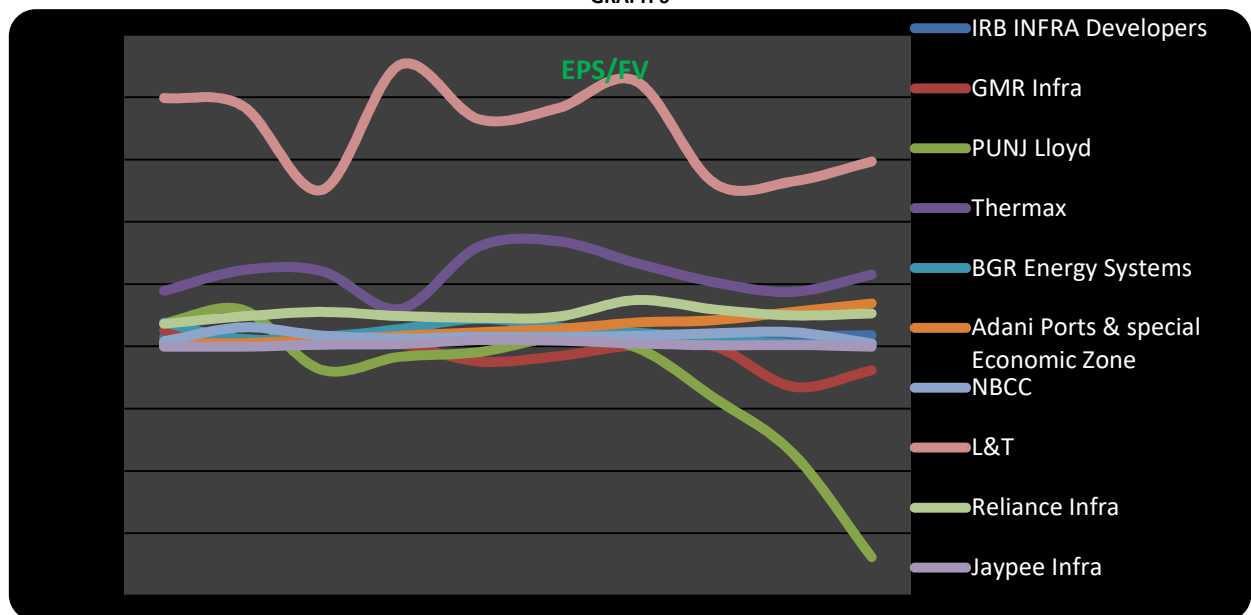
GRAPH 4



GRAPH 5



GRAPH 6



Economic Scenario: GDP scenario

After subprime effect India's GDP nosedived in 2009 reversed in 2010 to surpass the 11% mark. In2011- 2012 it again nosedived and from latter part of 2012 it again made some turnaround and maintaining more or less steady state and gradual rise above 7 till end of 2016.

GRAPH 7



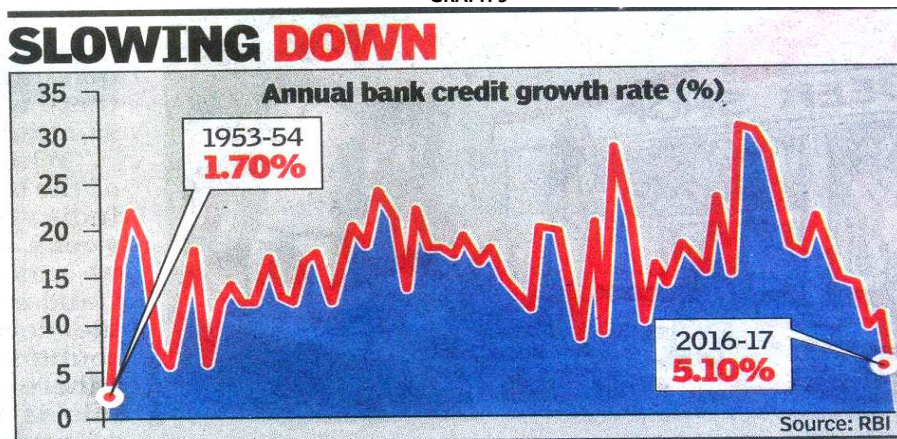
Prime Lending Rates (subsequently it was Base Rate and now it is Marginal Cost of Funds based lending rates [MCLR]) of financial institution - Trend line of prime lending rate was downwards since 2010

GRAPH 8



ANNUAL CREDIT GROWTH RATE OF BANKS

GRAPH 9



PUBLICATION IN NEWSPAPER

NET NPAs: HOW THEY STACK UP

Sixteen banks have net non-performing asset (NPA) ratios that breach the thresholds which place them on RBI's watch list under the prompt corrective action (PCA) plan. If they do not improve their net NPA ratios in the March 2017 results, the central bank will place restrictions on activities. One bank has breached the thresholds set for return on assets. However, on tier-1 capital, most banks are within the regulatory requirement...

Net NPA 6-9%*	Net NPA 9-12%**	Net NPA 12%+***
Corporation Bank	Oriental Bank	IOB
Canara Bank	IDBI Bank	*First threshold breached. Promoters to be asked to bring in more capital
UCO Bank	United Bank (I)	
Union Bank (I)	Dena Bank	
Central Bank	Bank of Maha	**2nd threshold breached. Stay on branch expansion; higher provisions
Bank of India	PNB	***3rd threshold breached. Restrictions on business, salaries, directors' compensation
Allahabad Bank		
P&SB		
Andhra Bank		

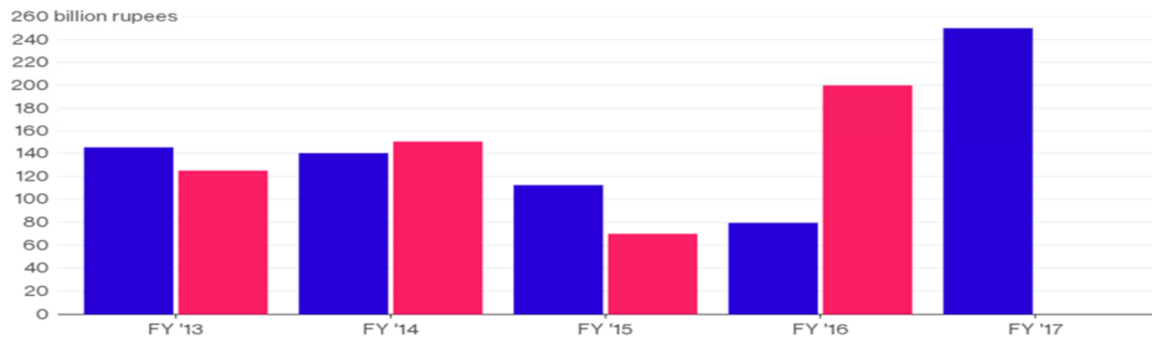
Report published by Times of India dt 15/4/2017.

GRAPH 10

Capital Infusion into India's State-Run Banks

State-owned lenders account for 70% of the banking system

■ Announced in Budget ■ Actual



Source: Government of India

Bloomberg

TABLE 18

WRITE-OFFS AND RECOVERIES

BANK	WRITE-OFFS IN LAST 10 YEARS	RECOVERY IN LAST 10 YEARS
SBI	41,641	11,566
Bank of Baroda	9,929	3,177
Allahabad Bank	7,359	204
IDBI	7,174	1,471
Corporation Bank	3,732	691
Dena Bank	3,350	1,170
Bank of Maharashtra	3,031	1,099
State Bank of Patiala	2,197	475
State Bank of Bikaner & Jaipur	2,001	403
PNB	1,539	595

Figures in Rs crore

- Bank of India provided data only for last six years when it wrote-off Rs 41,361 crore and amount recovered during this period was Rs 27,410 crore.
- Indian Overseas Bank, Canara Bank and Indian Bank refused to part with data on write-offs and NPAs under the RTI, claiming either exemption under the law or that they don't maintain year-wise data

Source: <http://indianexpress.com/article/business/banking-and-finance/bad-debt-bank-bad-loan-who-waived-loans-of-defaulters-some-govt-banks-say-its-secret-others-point-to-panels/> Written by Utkarsh Anand | New Delhi | Updated: April 12, 2016 2:05 pm

Interpretation: Lowering of Lending rates has little impact on either growth of GDP or annual credit growth or NPA status of bank.

Poor recovery and growing write-offs of bad loans and increasing capital infusion in public sector banks, have been causing concern both to banks and government.

TABLE 19: INTERPRETATION OF THE OBSERVATION AND FINDINGS IN TABLES HAVE BEEN NARRATED ALSO IN THE LIGHT GDP AND PRIME LENDING RATES IN THE YEARS UNDER CONSIDERATION

company	Performance and effect of debt	Remarks
1. IRB Infra Developers	Income grew gradually. The company gradually increased also loan burden from 2010 onwards (when prime lending rates were lowered). With rising income profit growth rate declined (not absolute value) because of interest burden. Income not sufficient to provide +ve leverage effect under the debt-equity condition (<3). Growth of EPS/FV not encouraging (<Rs2/-) when GDP was rising & stable from 2013.	Company should avoid fresh induction of debt till PBDIT gets good upward thrust. D/E should be reduced to 1.5
2. GMR Infra	Income grew gradually. Company created high debt burden which was reflective of high interest payout after 2010. Profit and EPS/FV badly affected after 2010. Company created huge debt since 2010. D/E reached above 6 by 2014. The leverage effect is missing under the current performances of the company. Huge loss from 2011 needs to be arrested. Uptrend of income was not sufficient to cover interest and depreciation burden which was growing vigorously	D/E status should be reduced to 1.5-2 by reducing the debt component; no scope for induction of debt
3. Punj Lloyd	Data speaks that company did not add much fixed assets over years but interest component grew sharply- working capital has been added through debt or debt has been acquired at a high rate for both w/c and fixed assets. Addition of debt did not provide leverage effect to company as income was not enough rather decelerated after 2013. Earning never moved in right direction as loss began from 2009. Gradual acquisition of debt between 2013 and 2016 surpassed the danger level. D/E was 6 in 2016 Loss assumed huge figure from 2014; shrinking income was responsible for downfall. Capital eroded totally in 2016.	The company could not manage its operation after 2009. Company should shred debt, induct fresh capital and explore avenues of new business to increase income
4. Thermax	As the company maintained very low D/E with slow gradual rising of income both profit and EPS/FV kept at high level though both these parameters are showing slow downtrend. Both depreciation and interest component, though rising, but kept within the manageable limit. In 2016 performance was encouraging	Stagnation of income is noticed. Company should avoid fresh debt till downtrend of profit margin is reversed. However, scope for injection of debt is there if investment is made in new areas where potential income generation is possible.
5. BGR Energy Systems	Income growth halted from 2011 and virtually remained steady. D/E kept below 2. Depreciation low but interest burden grew significantly which was affecting its profit margin, interest component very high with respect to yearly PBDIT. Net profit began to decline from 2011, net profit margin declined sharply from 2013 EPS/FV followed suit and became very low in 2016. Interest component was very high compared to PBDIT.	Company needs to revamp its business earning. Under present condition further induction of debt may cause financial problem. However, scope for some injection of debt is there if investment is made in new areas where potential income generation is possible.
6. Adani Ports & Special Economic Zone	The company has been efficiently managing operation in all fronts; D/E kept below 1.5. Profit margin is enough to consume both rising depreciation and interest components. EPS/FV rose gradually all along	Financing such companies is a easier process. Rising equity base (equity + Reserve) helps to maintain D/E ratio with rise in debt participation
7. NBCC	Debt virtually is not used. Both depreciation and interest are very low. Profit margin usually low. With rise in income profit margin remained stagnant. EPS/FV remained below 2.	Company should employ debt when income will be able to provide sufficient profit margin. However some scope of injection of debt is there, if new avenues of business is possible
8. Larsen & Toubro Ltd	Continuous sharp increase of income and profit over years. Debt increased significantly but within the manageable ratio below 2 to slightly above 2, depreciation component also rose- reflecting continuous addition of assets, the rising D/E ratio impacted the margin of growth of profit (absolute value of profit increased) and EPS/FV (above Rs25/-) as after 2010 both gradually declined. Leverage effect was declining.	Caution is there as earning margin is gradually declining. Financing such companies is a easier process. Rising equity base (equity + Reserve) helps to maintain D/E ratio around 2 with rise in debt participation.
9. Reliance Infra	Debt gradually increased but kept below 1:1, profit at EBIT level was sufficient to absorb both high depreciation and interest and to maintain sizeable profit so that EPS/FV was kept at above Rs 5/-. After 2013 profit declined to some extent	Financing such companies also is a easier process. Rising equity base (equity + Reserve) helps to maintain D/E ratio with rise in debt. Though D/E is low the absolute value of debt is quite high and interest component much higher than profit. Company should avoid addition of Debt for some time.
10. Jaypee Infra	Maintained low D/E <2, and making sizeable profit but increase of debt (though D/E kept below 1.5:1 since 2011) has gradually impacted the profit margin and put company in red in 2016. Huge interest component has eaten up the profit	Unless income is increased it is not desirable to inject fresh debt into the company. Present size of debt should be reduced

*Aforesaid performances of the companies, specially, in last five years, when GDP was favourable, inflation and prime lending rates (subsequently it was Base Rate and now it is Marginal Cost of Funds based lending rates [MCLR]) were downwards, were, in majority of cases, not encouraging.

Infrastructure companies need huge fund (required for both fixed and current assets), as evident from reports of Indian Express, to operate because of their activities. Lowering of lending rate from 2010 probably prompted the companies to inject debt in the capital structures. Debt in most of the cases has impacted the leverage in unfavourable direction. GMR Infra, Punj Lloyd, Jaypee Infra were worst affected. BGR Energy Systems, though somewhat different in financial health, also has been affected substantially with unfavourable leverage effect.

Even companies like Larsen & Toubro and Reliance Infra could not magnify the earning per unit of face value or in other words favourable leverage effect was missing. Of course, these two companies have maintained earning at higher level to offset the **debt factor** arising out of both depreciation and interest burden. NBCC (India) Ltd and Thermax Ltd are exception in the sense that they virtually are not using debt.

The only company which has successfully enjoyed the leverage effect was Adani Ports & Special Economic Zone. The debt was employed in accordance with the earning potential.

IRB Infra also utilised the debt effectively and leverage factor was favourable though D/E was above 2.4 in later years; a risky D/E situation.

DISCUSSION AND SUGGESTION

Study reveals that it is quite difficult, if not impossible, to achieve required growth in income when fresh debt is injected into the business and maintain sufficient PBDIT.

The aforesaid study exposes the fact that companies, which have gradually injected considerable debt when operating profit or earning specially at PBDIT stage are not in advantageous point to absorb interest and provide favourable leverage effect; they should have avoided fresh debt till such period when the situation is reversed or the amount which can be safely injected as debt should be chosen carefully to avoid any business debacle. In other words, debt should be used in harmony with earning potential.

Thus, it is not a prudent decision to inject fresh debt simply because it is cheaper; if the current business condition is not enough to provide favourable leverage effect the fresh debt should be avoided. Jaypee Infra maintained ideal D/E ratio but absolute value of debt was quite high and it was unable to maintain the profitability.

However, it may be argued that so long a company is in a position to pay the interest of the debt, the same can inject debt. But in such situation under dwindling profit condition, the earning power is deteriorated and market valuation of the stock declines. Stock prices of GMR infra, Jaypee infra, Punj Lloyd, BGR Energy Systems are good examples. Adani ports, Reliance Infra maintained growth in earning of EPS as well as stock price. However, Sensex sentiment affected stock prices in 2008-09 and 2012-13. Therefore, debt should be employed in harmony with earning potential so that favourable leverage effect is maintained or regained quickly.

Of course, interest rate matters to some extent for new ventures but for a established one the current business situation is most significant whether to inject fresh debt or not; a company can absorb debt even at high interest rate if its earning is at appreciably higher stage. However, debt-equity table reveals that debt-equity >2 is not at all encouraging.

An established profit making company may encounter some dark period and financial institution must lower its current interest rate to help the company to get out of the situation. However, it cannot last for more than 2/3 years otherwise misuse of the concept will be used.

It will not be out of place to mention that simply a flat rate of interest cannot be charged to all companies; depending on the state of affairs of the company differential rate of interest can be charged. A temporary loss making company may demand a low interest rate, an established profit making company may be charged slight higher rate of interest, companies which are turning around from their rainy days may be charged slightly lower rates etc. Infrastructure companies needs low rate of interest as well as low income tax rate in priority areas.

Moreover, many companies may be in need of fresh fund, especially in infrastructure sector, to diversify their activities in order to survive in the world of intense competition; however, their existing operating profits (PBDIT) may stand in the way of fresh injection of debt- in such situation financial institution should explore possibilities whether equity participation, preferably preference share with low dividend rate, may emerge as cure to the problem. With betterment of operating profit gradual shifting of equity to debt may be considered, if high dividend potential is quite remote in near future. If company regains its earning strength the preference share can be converted gradually to equity shares. This model may help both to companies and financial institutions.

It is to be remembered that fund is a scarce material in countries like India, availability of fund at low interest rate pushes the credit growth of the fund initially. However, the chart provided by the RBI speaks that over time it fizzles out for various reasons; Times of India dt 5/4/2017 reported that bank credit growth lowest (at 5.1%, financial year '17) in over 60 years. State owned banks burdened with bad loans and sluggish corporate investments. 16 banks breached the threshold and under the scanner of the RBI in respect of net non-performing assets.

This study simply can be ascribed as the fact that very few has given due respect to fund at low interest rate rather it has been turned bonhomie for unscrupulous businessmen and the after effect is being borne by the financial institutions, economy and the country itself.

Conclusion: financing infrastructure companies in recent times has become a major challenge to financial institutions as economic development relies much on these companies. At the same time survival of the financial institution is also a big issue. Infrastructure companies need large amount of fund and mainly debt fund (for fixed assets and working capital) in various forms. From this standpoint assessment of the profit at PBDIT stage is of paramount importance whether interest of debt (as well as depreciation) can be easily assimilated or not.

With lowering of interest on loan had prompted the companies, under discussion, to acquire loan gradually but in majority of cases the burden of loan, even at low interest rate and condition of rising GDP, had impacted the profitability as the companies had failed to achieve required growth in revenue. The traditional ratio Debt/EBDIT (earning before depreciation, interest and tax) provides quick assessment of capability of debt service of different companies. The ratio should be kept low (below 3).

Debt ridden companies should be advised to get rid of debt by disposing various projects to suitable buyers and infrastructure wise thorough analysis of future business potential should be made by each financial institution, periodically, to assess the hurdles encounter by the companies financed by them.

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