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Technical Report

WP 1974/18

WP48

1974
(48)



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**INDIAN INSTITUTE OF MANAGEMENT
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**CAPITAL EXPENDITURES IN CORPORATE
SECTOR - A FORECAST FOR 1974**

by

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T. R. No. 48

August 1974

**Indian Institute of Management
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AN ABSTRACT

An attempt is made in this paper to forecast investment in the private corporate sector for the year 1974 by using the data available with the three leading term lending institutions. The data most relevant in this context are the time phasing of capital expenditures on projects sanctioned by these institutions in the current and in the previous years. Given the long time lag involved in obtaining and analysing data on company finances which is now the source for obtaining estimates on capital formation in the corporate sector, our method besides helping to forecast, fills an important gap by providing within a short period of the end of a year an indication of the direction and quantum of investment in corporate private sector in that year.

The major conclusion drawn is that even allowing for price changes, the total capital expenditures in 1974 by the corporate sector would be higher than that in 1973. The new commitments made in 1973 and in early 1974 indicate that investment in certain key industries may be lagging behind. As of now, the picture for 1975 is not encouraging unless there is a dramatic change in the investment climate during 1975 itself.

My thanks are due to Mr. Ripin Rajendraprasad who helped me in not only collecting the data required but also in interpreting and analysing them.

A B S T R A C T

An attempt is made in this paper to forecast investment in the private corporate sector for the year 1974 by using the data available with the three leading term lending institutions. The data most relevant in this context are the time phasing of capital expenditures on projects sanctioned by these institutions in the current and in the previous years. Given the long time lag involved in obtaining and analysing data on company finances which is now the source for obtaining estimates on capital formation in the corporate sector, our method besides helping to forecast, fills an important gap by providing within a short period of the end of a year an indication of the direction and quantum of investment in corporate private sector in that year.

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CAPITAL EXPENDITURES IN CORPORATE SECTOR -
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C. Rangarajan

All available indications are that the level of public investment in real terms will be less this year as compared with last year. There is, therefore, a considerable concern regarding what the level of private investment is likely to be this year. An attempt is made in this paper to make an estimate of the capital expenditures to be incurred in 1974 by the non-financial private corporate sector.

Method of Estimate

The present author had in some of his earlier writings outlined a method for making a forecast of capital expenditures by the corporate sector by using the data available with the long-term lending institutions.¹ In the present context most projects in the corporate sector approach one or other of the term lending institutions for obtaining finance. These companies provide the lending institutions with the most complete data on projects for which assistance is sought. The cash-flow statements appended to a project show not only the total cost of the project but also the expenditures to be incurred in each of the years during the period of construction. By aggregating over projects the information available on the phasing of capital expenditures, one can indicate the expenditures to be incurred during a year on projects for which assistance has been provided. The projects covered would include not only those sanctioned in the immediate past year but also those sanctioned in all the previous years and on which expenditures are likely to be made during the current year. Of course, the estimate arrived at refers strictly to the projects which had taken assistance from the term lending institution. However, so long as the bulk of the projects go to the financial institutions for assistance this will be a true reflection of the entire corporate sector.²

¹C. Rangarajan, "Forecasting Capital Expenditure in the Corporate Sector", Economic and Political Weekly, December 19, 1970.

_____, "Investment in Private Corporate Sector in 1972 - A Forecast", Economic and Political Weekly, February, 1972.

²A recent study on companies finance indicates that internal sources alone were sufficient to finance additions to fixed assets during 1972-73. This implies that corporate sector's reliance on long term lending institutions is declining.

See, Financial Performance of Companies: ICICI Portfolio - 1972-73.

Limitations

The limitations of this approach for estimating capital expenditures in the private corporate sector have been mentioned in the articles referred to earlier. Some of these limitations are worth recalling. 'Capital expenditures' include expenditures on land, buildings and plant and machinery. The terms 'capital expenditures' and 'investment' are not synonymous. If by investment is meant the creation of physical asset, there can be a lag between the incurring of expenditures and the creation of asset. However, these lags are not likely to be long and therefore an estimate of capital expenditures may be taken to give an estimate of investment.

The validity of the estimates depends upon how closely companies adhere to the expenditure pattern outlined in the project proposals. Cost over-runs are a common phenomena. As early as 1968, a survey done by the Reserve Bank of India³ pointed out that out of the 73 projects surveyed by them, 62 projects involved cost over-run. According to that study the overall magnitude of over-run in project cost was 26 per cent. Therefore to the extent there are distortions both as regards the total cost of the project as well as the phasing of expenditures some modifications will be called for in the estimates obtained from using the phasing of capital expenditures as outlined in the original proposal. We have tried in the case of projects sanctioned in the previous years to modify the expenditure patterns, wherever such data were available. However, since such data are not readily available with the term lending institutions, we may not have completely succeeded in getting at the true picture.

Part of the expenditures incurred in any year would come out of the projects sanctioned in that year itself. By the very nature of the method adopted by us, these data would not be available. It is seen from Table 1 that the percentage of total capital expenditures to be incurred in a year coming out of projects sanctioned in that year varies between 12 and 22 per cent. Thus there is a segment of the total expenditure that has to be guessed and for which internal data available with the term lending institutions will not be of help. It is this segment which depends upon investment climate prevalent in a year which in turn becomes difficult to forecast. To some extent we can forecast the projects to be sanctioned by looking at the pending applications as at the beginning of a year. Our method, however, gives a clear indication of the level below which expenditures will not fall.

³"Time-lags in the Implementation of Industrial Projects and in Returns on Investment", Reserve Bank of India Bulletin, March 1968, p. 323.

So long as the term lending institutions do not operate under a supply constraint, these estimates may provide a good indicator of what the private corporate sector wants to do. But the moment the supply of funds becomes a constraint the number of companies that seek the entire finance from elsewhere may increase. In such circumstances these estimates may prove to be an underestimate of what the corporate sector as a whole invests.

Collection of Data

Our previous study had incorporated the data on the phasing of capital expenditures of projects sanctioned by the three term lending institutions - The Industrial Credit and Investment Corporation of India, The Industrial Finance Corporation and The Industrial Development Bank of India - upto 1971. We updated the information by collecting data on projects sanctioned for 1972, 1973 and upto May 1974. Since a number of companies approach more than one institution, care has been taken to see that no project is counted more than once. Companies included covered those in the private and in the joint sector. The total number of projects taken into account in 1972 and 1973 was 146 and 156 respectively. Wherever possible revisions to the original project proposals were taken into account.

Evaluation of the Forecast for 1972

Before attempting to present a picture of corporate investment in 1974 that emerges from our study we might say a word about the prediction that had been made about 1972. Our earlier prediction made at the beginning of 1972 was, that the year would be better than 1971 and that the total capital expenditures in 1972 would be of the order of Rs.305 crores. The forecast that 1972 would be better than 1971 was borne out by subsequent events. But, however, the estimate for 1972 understated the order of capital expenditures by almost Rs.150 crores. This is because that while we had put down the capital expenditures coming out of the sanctions of 1972 would be around Rs.50 crores, it actually turned out that during 1972 capital expenditures out of projects sanctioned in that year itself came to approximately Rs.160 crores.

We have checked our forecast of 1972 with the data generated by our own scheme. But the appropriate method would be to see how far our forecast agrees with an independent estimate of capital formation in corporate sector. The Reserve Bank of India no longer publishes data on investment in the entire corporate sector. Even their sample study

published as recently as January 1974 relates to the finances of medium and large public limited companies for the year 1971-72. However, from the study of 350 large public limited companies⁴ done by the Reserve Bank, it is seen that their gross fixed assets in 1972-73 were Rs.363 crores as compared with Rs.280 crores during 1971-72. This can be taken to indicate that fixed gross asset formation in corporate sector in 1972-73 was higher than that in 1971-72 which is also the conclusion that emerged from our study. Given the long time lag involved in obtaining and analysing the data on company finances, it can legitimately be claimed that our method fills an important gap in relation to data on corporate investment by providing within a short period of the end of a year, an indication of the direction and quantum of investment in corporate sector in that year. Since our estimates relate to the last five or six years, we will have to wait for some time to find out how closely our estimates agree with those obtained through company finances.

Picture for 1974

From Table 1, it can be seen that the total capital expenditures for 1973 come to Rs.529 crores. For 1974, based on the projects sanctioned upto May of this year, the expected capital expenditures would be of the order of Rs.554 crores. To this must be added expenditures that would be incurred out of projects to be sanctioned from May to December 1974. While we do not have information on this, based upon past experience and pending applications one could expect at least another Rs.60 crores to be incurred. Thus approximately the total capital expenditures would be around Rs.615 crores in 1974. There is need to adjust partially these figures for price changes. In fact, no adjustments for price changes would be called for, if cost over-runs due to price increases have been entirely financed by companies themselves. To the extent they have been financed either in full or in part by the term lending institutions through fresh requests for assistance, an adjustment must be made. Further cost estimates of projects sanctioned in each year would be at the price level of that year. Thus when we are aggregating expenditures of projects sanctioned in various years there is need to reduce it to a common price level. However, when we are comparing any two adjacent years, it may not be necessary to make adjustment for more than two to three years. Nevertheless, for the sake of completeness we have deflated all the elements in the columns of 1973 and 1974 by

⁴"Finances of Large Public Limited Companies, 1972-73", Reserve Bank of India Bulletin, February 1974, 272-301.

a price index.⁵ Thus, it is seen that at 1960-61 price level total capital expenditures for 1973 would be Rs.315 crores and for 1974 based on sanctions upto May 1974 would be Rs.308 crores. To this will have to be added expenditures coming out of the sanctions of the rest of the year. This could be of the order of Rs.30 crores at 1960-61 prices. Thus one could safely assert that the level of capital expenditures in 1974 will be higher than in 1973 even in real terms.

Pattern of Capital Expenditures in 1974

Table 2 provides industry-wise break-up of the capital expenditures to be incurred during 1974. Approximately 36 per cent of the expenditures is in Chemical and Pharmaceuticals while another 26 per cent is accounted for by Minerals and Metals. There is very little investment going into Cement and Jute. There is substantial fall in capital expenditures in Engineering and Textile industries. We have given in the same table corresponding figures for various industry groups for 1972. The actual investment in Textile industries may be higher than what is indicated by our figures because this industry makes the maximum use of the bills rediscounting scheme of IDBI which helps to acquire indigenous machinery. During 1972-73, IDBI granted a total assistance of approximately Rs.50 crores under this scheme, out of which 46 per cent went to Textiles.⁶

New Commitments in 1973 and 1974

We have made a detailed analysis of the projects sanctioned in 1973 and 1974 by the three term lending institutions to obtain an idea where the new investments are being undertaken (Tables 3 and 4). This will provide an indication whether there is a shift in investment towards those industries where the need is greatest. The total cost of all projects sanctioned in 1973 comes to approximately Rs.600 crores. The biggest share (40 per cent) goes to the industry group - Metals and Metal products. Then comes Fertilizers and Pesticides (16 per cent)

⁵The price index used for deflation was Index Number of Wholesale Prices - Machinery Other Than Electrical (1961-62 = 100). Source: Reserve Bank of India Bulletin. There is, however, a feeling that this index underestimates the increase in project costs.

⁶Industrial Development Bank of India: Annual Report 1972-73, p.23

followed by Chemicals and Petro-chemicals (13 per cent). The new commitments in Cement amount only to Rs.10 crores. The projects sanctioned upto May 1974 show that there are no fresh investment either in Cement or in Fertilizers. The biggest spurt is in Rubber industries accounting for 30 per cent of the cost of all the projects. There appears a slow down in investment in Metal and Metal products. The time phasing of projects in 1973 indicate that out of total of 147 projects, 110 projects are to be completed within two years. 37 projects take more than two years and the bulk of these projects fall in the categories, Chemicals and Petro-chemicals and Metal and Metal products. Out of 66 projects sanctioned upto May 1974, 60 are to be completed within two years. An analysis of the time phasing helps to see when the output in these industries are likely to increase.

Picture for 1975

From an exercise like this, it is premature to forecast the level of capital expenditures for 1975. However, since we are in middle of 1974, we may attempt to take a look at what the situation is likely to be in 1975 as of now. From Table 1, it can be seen that the total expenditures during 1975 based on projects sanctioned upto May 1974 would be approximately Rs.240 crores. To these must be added expenditures to be incurred out of projects sanctioned during the rest of 1974 and projects to be started in 1975. We had earlier said that in the normal course one could expect projects to be sanctioned during the rest of 1974 to generate capital expenditures of Rs.60 crores in 1974. This will perhaps lead to an expenditure of Rs.100 crores in 1975. Usually projects sanctioned in the second half of any year will result in higher expenditures in the following year. Thus the capital expenditures in 1975 based upon sanctions upto the end of 1974 may come to Rs.340 crores. How much more could come out of projects sanctioned/ to be sanctioned in 1975. This must be compared with Rs.170 crores coming out of projects sanctioned in 1974. While such a sudden increase cannot be completely ruled out there are no indications that the climate is going to improve so much as to bring about such a large increase in new projects. We may, therefore, hazard the guess that the level of capital expenditures in 1975 are likely to stay below the level of 1974.

In 1975? To reach the level of 1974,
approximately another Rs.250 crores
had to come out of projects

Table 1
PHASING OF CAPITAL EXPENDITURE OF PROJECTS SANCTIONED BY ICICI, IFC & IDBI
FROM 1966 TO 1974
(Rs. in lakhs)

Year of Sanction	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
1960	72	39	44											
1961	212	76	41	21										
1962	269	238	134	52	26									
1963	1738	165	112	80	63	53	40	30						
1964	3498	1447	354	295	153	79	47	28	12	2				
1965	10147	7227	1897	754	449	202	184	135	21					
1966	5994	7393	6202	4920	2397	1127	623	397	359	151				
1967	201	4651	12160	9407	4377	2041	424	308	190	138	23	5	12	
1968		232	4273	9170	6655	4219	2768	1711	178	110	53	5		
1969			74	8914	14618	7859	6213	2172	445	164	54	12		
1970			279	74	4545	7817	6704	2193	647	403	176	332	315	
1971				63	766	7600	10990	9062	4487	854	396	260	238	117
1972						876	15413	17671	11825	4051	992	357	283	229
1973							2672	15730	28127	11070	5179	4056	1013	836
1974 (Upto May)						95	290	3459	11026	7033	2172	553	560	377
Total	22131	21468	25573	33750	34048	31958	46368	52896	55417	23976	9045	5578	2421	1559

Table 2
INDUSTRY-WISE EXPECTED CAPITAL EXPENDITURE FOR THE
YEARS 1972 AND 1974 FOR PROJECTS SANCTIONED BY
ICICI, IFC & IDBI

Industry	(Rs. in lakhs)	
	1972	1974(Upto May)
Chemicals and Pharmaceuticals	12786 (27)	20409 (36)
Electrical	2301 (5)	1981 (4)
Engineering	5698 (12)	1888 (3)
Jute	450 (1)	179
Minerals and Metals	7218 (15)	15637 (28)
Paper	3333 (7)	3703 (7)
Textiles	4246 (9)	1738 (3)
Transport	2751 (6)	2438 (4)
Cement	1043 (2)	741 (1)
Miscellaneous	7146 (15)	7614 (14)
Total	46072 (100)	56328 (100)

Note: Figures in brackets refer to percentage to total.

Table 3

INDUSTRY-WISE TOTAL CAPITAL COST AND PHASING OF CAPITAL EXPENDITURE ON PROJECTS SANCTIONED BY ICGL, IDBI & IF (1973)

Industry	Phasing of total capital expenditure					Total no. of projects	To be completed in			Four or More
	Total	1972	1973	1974	1975 & after		The same Year	Next Year	Year After	
1. Automobiles & Cycles	436 (1)	29	306	84	12	5	1	1	1	-
2. Cement	1022 (2)	43	444	422	113	-	1	1	-	-
3. Chemicals and Petrochemicals	8766 (13)	633	1705	5360	2806	264	4	11	11	1
4. Electrical Equipment	1184 (2)	17	419	659	86	3	1	7	2	-
5. Electricity, Gas & Steam	3137 (5)	280	532	200	225	1900	1	-	-	1
6. Fertilizers and Pesticides	9405 (16)	-	-	8303	1100	-	-	1	1	-
7. Food Products										
8. Glass, Pottery etc.	1457 (2)	56	515	842	35	9	-	9	-	-
9. Machinery Manufacture	2070 (4)	52	584	743	519	172	3	7	2	1
10. Metal and Metal Products	23585 (40)	673	6653	7628	4290	4341	14	14	7	3

cont'd

Table 3 (cont'd)

Industry	Phasing of total capital expenditure							Total No. of Projects	To be completed in				
	Total	1972	1973	1974	1975	1976 & after	The same Year		Next Year	Year After	Four or More		
11. Printing & Publishing	-	-	-	-	-	-	-	-	-	-	-	-	-
12. Pulp, Paper and Paper Products	2159 (4)	491	1041	577	50	-	5	1	2	2	-	-	-
13. Rubber Products	1301 (2)	-	270	831	200	-	4	-	3	1	-	-	-
14. Shipping													
15. Sugar	1265 (2)	70	919	276	-	-	4	3	1	-	-	-	-
16. Textiles	2856 (5)	192	1145	973	591	5	16	3	10	3	-	-	-
17. Wood, Cork and Hard Board	36	5	14	17	-	-	1	-	1	-	-	-	-
18. Miscellaneous	1061 (2)	196	407	457	21	-	11	3	7	1	-	-	-
Total	59738	2687	14952	25352	10048	6699	147	35	75	31	6		

Figures in bracket indicate percentage to total.

Table 4

INDUSTRY-WISE TOTAL CAPITAL COST AND PHASING OF CAPITAL EXPENDITURES ON PROJECTS SANCTIONED BY ICICI, IDBI & IFC

(Rs. in lakhs)
1974

Industry	Phasing of capital expenditures				Total No. of Projects	To be completed in			
	Total 1973	1974	1975	1976		1977 & after	The same Year	Next Year	Four or More
1. Automobiles and Cycles	802 (4)	20	191	576	15	-	1	2	-
2. Cement	-	-	-	-	-	-	-	-	-
3. Chemicals & Pharmaceuticals	2247 (10)	90	750	1187	220	-	-	6	2
4. Electrical Equipment	145 (1)	16	71	58	-	-	2	2	-
5. Electricity, Gas & Steam	-	-	-	-	-	-	-	-	-
6. Fertilizers & Pesticides	-	-	-	-	-	-	-	-	-
7. Food Products	-	-	-	-	-	-	-	-	-
8. Glass, Pottery etc.	536 (2)	-	130	406	-	-	-	2	-
9. Machinery Manufactures	483 (2)	68	188	207	20	-	-	2	1
10. Metals and Metal Products	3731 (17)	641	2506	572	12	-	8	7	-

(cont'd)

(Table 4 : cont'd)

(Rs. in lakhs)

Industry	Phasing of capital expenditures					Total No. of Projects	To be completed in		
	Total	1973	1974	1975	1976		1977 & after	The same Year	Next Year
11. Printing and Publishing	-	-	-	-	-	-	-	-	-
12. Pulp, Paper and Paper products	3661 (17)	605	1983	978	100	4	1	2	1
13. Rubber Products	5735 (28)	1412	1988	1165	1170	4	1	2	1
14. Shipping	-	-	-	-	-	-	-	-	-
15. Sugar	1121 (3)	115	703	243	60	4	1	2	1
16. Textiles	2012 (9)	118	816	1006	14	12	5	7	-
17. Wood, Cork and Hard Board	63	3	60	-	-	1	1	-	-
18. Miscellaneous	1072 (5)	191	831	50	-	6	5	1	-
Total	21613	3279	10217	6448	1611	66	24	36	6

Figures in brackets indicate percentage.