

W.P. : 351

Working Paper

WP351
WP
1981/351



**INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD**

CORPORATE INVESTMENT IN 1981—
A FORECAST

By

C. Rangarajan

W P No. 351

February 1981

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CORPORATE INVESTMENT IN 1981 - A FORECAST

C. Rangarajan

This paper attempts to make a forecast of the growth in ~~private~~ corporate investment in 1981. Corporate investment is taken to cover gross capital expenditures of all companies in ~~private~~ and joint sectors. The study also provides a picture of the level and composition of corporate investment in 1980.

FORECASTING TECHNIQUE

In developed countries it is a standard procedure to forecast corporate investment through the use of anticipatory data. Such anticipatory data are collected primarily through surveys of investment intentions. Both Governmental and non-governmental agencies undertake such surveys.

The methodology used in this paper to forecast corporate investment relies on the data available with the term lending institutions on the phasing of capital expenditures of projects sanctioned by them. The details of the technique followed have been explained by the author in his earlier writings.¹

It has been observed that most projects in the corporate sector approach one or other of the all-India term lending institutions for obtaining financial assistance. The companies provide the lending institutions with data not only on the total cost of the project but also the capital expenditures (project as well as normal) to be incurred in the various years. These information form part of the

cash flow statements attached to the proposals. By aggregating the information on the phasing of capital expenditures of proposals sanctioned in all the previous years, it should be possible to forecast capital expenditures for any year. The scope of the study is strictly restricted to the enterprises which have taken assistance from the term lending institutions. Thus, the estimates arrived at do not cover the entire corporate sector. Nevertheless, since most of the companies come to the financial institutions for assistance, this estimate can be regarded as a reliable reflection of the behaviour of the entire corporate sector. What is relevant from the point of the corporate sector as a whole is the trend revealed in the rate of change.

The estimates that are derived approximate more closely to the gross fixed asset formation than to net fixed asset formation. In the case of new companies there is no difference between gross and net fixed assets. But with respect to old companies, the cash flow statements provided to the financing institutions relate to the entire company. Therefore, as mentioned previously, we take down not only the capital expenditures to be incurred on projects but also the normal capital expenditures which are shown in the cash flow statements.

LIMITATIONS OF THE APPROACH

A limitation of this method of forecasting is that part of the expenditures to be incurred in any year comes out of projects sanctioned in that very year itself and we have no information on this. The proportion of such expenditures has varied from year to year. In 1973, 1974 and 1976 the ratio was around 30 per cent. There was a sharp jump in the ratio to 45 per cent in 1977 which may perhaps be accounted for by the introduction of new schemes such as soft loan schemes and technical development fund schemes. Expenditures on projects coming under such schemes may not have much lag. This ratio dropped to 28 per cent in 1978. It rose again to 35 per cent in 1979 and 1980. Thus a part of the capital expenditures to be incurred in a year will largely depend upon the factors that operate within that year and these can not be forecast by our model. While the pending applications with the term lending institutions can give some clue, they do not provide a fully satisfactory indicator. However, this method at least indicates the minimum investment that will be made. Also it indicates the expenditures that will have to be forthcoming out of the investment decisions of the forecast year in order to show a rise.

The other limitations of this model of forecasting have been pointed out by the author in his earlier writings. The validity of the estimates depends upon how closely companies adhere to the

expenditure pattern outlined in the initial project proposal. Cost over-run of projects by itself is not a limitation. So long as companies seek assistance from the term lending institutions for financing the cost over-run, they would get incorporated in our estimates. In the case of such projects necessary adjustments are made in the phasing of capital expenditures in the light of the new information. Obviously over-runs which are financed by companies out of their own resources will not be captured in our estimates. However, the crux of the problem is how closely even under normal circumstances companies stick to their original phasing of capital expenditures. We had reported earlier the results obtained from an analysis of 44 projects done by us comparing the original and the actual phasing of capital expenditures. It is difficult to draw any generalizations from this study. However, one fact that emerges is that in the case of expenditures to be incurred in the year of sanction, planned expenditures are always higher than the actuals. It appears that normally projects provide for about 20 per cent of the cost of the projects to be incurred in the year of sanction. But the actuals are much closer to 10 per cent. There is evidence to believe that the original and the actual phasing of capital expenditures are much closer for existing companies than for new companies. To some extent differences are also accounted for by the nature of the industries.

The composition of the projects in terms of old and new companies, types of industries and types of loans vary from year to year. There is no general formula by which one can modify the original phasing of capital expenditures. We have to be content with making changes in the original phasing of capital expenditures as and when new information are made available to the financing institutions. However, some judgement will have to be exercised taking this disparity in to account while making forecasts.. While making the forecast for 1980 we had pointed out that according to the cash flow statements out of a total cost of Rs.1182 crores on all the projects sanctioned in 1979, 46 per cent was to be spent in 1980. This, we felt, was unlikely to happen and therefore revised downwards the expected expenditure for 1980. In fact, we went back and analysed the progress of 18 large projects sanctioned in 1979 and we found that except for four projects all the rest were considerably delayed. Some of them had not even started off.

PAST FORECASTS

Forecasts of corporate investment using this model have been made in the past several years. However, one is naturally tempted to ask how far these forecasts compare with actuals. It is rather unfortunate that we do not have a series on corporate fixed investment which is reliable and acceptable to all. At present estimates are

provided by the CSO, the Economic Times and to some extent by the Reserve Bank of India. Individual researchers have also constructed such series.² An analysis of these series prepared by the various agencies and persons shows that they differ from one another not only in absolute amount but also in terms of relative changes for several years. There are years in which even the direction of change is different for the different estimates. Though all the estimating agencies use the method of blowing-up the figure obtained from a sample survey of companies, differences seem to arise because of a lack of reliable data on the total paidup capital of all companies industrywise. However, as we have noted in our earlier forecasts, the substantial increase in gross fixed investment atleast in nominal terms witnessed in 1972-73 and 1974-75 which is found by all estimating agencies, was well captured by our forecasts. The latest year for which the Reserve Bank of India Survey of Finances of Medium and Large public limited companies is available is for the year 1977-78. This survey indicates that the gross fixed assets formation of the 1720 selected medium and large public limited companies increased from Rs.630 crores in 1976-77 to Rs.753 crores in 1977-78. Thus there was a rise of 19.5 per cent. Since our forecasts are based on a calendar year basis, it is very difficult to compare directly the trend revealed in our estimates with the trend noted in the RBI sample. We therefore

took an average of our calendar^{year} estimates for 1976 and 1977 and compared this with the average of our estimates for the calendar years 1977 and 1978. Our estimates show a rise from Rs.865 crores to Rs.1046 crores. This indicates a rise of 20.9 per cent which comes very close to the trend revealed in the RBI sample study. For 1978-79, we have only the RBI sample for the large public limited companies. According to this survey, the fixed assets formation of 421 public limited companies increased from Rs.631 crores in 1977-78 to Rs.679 crores in 1978-79. This shows a rise of 7.8 per cent. According to our estimates, using the same averaging technique, we find that the rise was from Rs.1,046 crores in 1977-78 to Rs.1,138 crores in 1978-79. This shows a rise of 8.8 per cent. One could conclude from these comparisons that our estimates of rates of growth are a good approximation of the trend in investment revealed by the sample study of RBI.

CAPITAL EXPENDITURES IN 1980

From the data provided in Table 1, it can be noted that the capital expenditures in 1980 will be Rs.1650 crores as against Rs.1207 crores for 1979. However, we need to take a second look at the expenditures for 1980 as revealed by Table 1. It includes an expenditure of Rs.621 crores on projects approved in 1979 and Rs.512 crores on projects approved in 1980. As mentioned earlier, our analysis

of the 18 large projects sanctioned in 1979 revealed a considerable delay in the progress of the projects. Also, it included a fairly substantial amount of expenditure on projects sanctioned under soft loan scheme. But the expenditures under the scheme has been very slow as revealed by the gap between the disbursement and the sanctions of the term lending institutions. Therefore it may be prudent to lower the expenditure for 1980, as revealed by the aggregation of the cash flow statements by Rs.250 crores. This will bring down the expenditures to Rs.1400 crores which will still mean in nominal terms a rise of 16 per cent over the level achieved in the previous year.

All the capital expenditures indicated in Table 1 are in current prices. The cost estimates of projects in any year would be at the price level of that year. Thus while aggregating the expenditures on the projects sanctioned in the various years, there is need to reduce all the prices to a common level. We have deflated all the elements in the columns by the combined price index of electrical machinery, non-electrical machinery and transport equipment with 1970-71 as 100. It is seen that at 1970-71 prices the capital expenditures in 1979 and 1980 will be Rs.636 crores and Rs.683 crores respectively. Thus in 1970-71 prices, capital expenditure in 1980 will show a rise of 7.5 per cent.

Table 2 provides an industrywise break-up of the capital expenditures incurred in 1980. 'Chemical and Pharmaceuticals' top the list with 19 per cent of the total expenditures. Next in the order of importance

come 'Minerals and Metals' with 18 per cent, 'Textiles' with 15 per cent and 'Electrical' with 14 per cent. The share of 'Cement' seems to have remained constant at about 9 per cent of the total capital expenditures.

NEW PROJECTS SANCTIONED IN 1980

Table 3 indicates an industry-wise analysis of the projects sanctioned in 1980. This table provides important informationⁱⁿ as much as it indicates the sectors in which fresh investment is occurring. In 1980 the total cost of all the projects sanctioned came to Rs.1670 crores compared with a total cost of Rs.1181 crores in 1979. Of the total cost of Rs.1670 crores, approximately Rs.850 crores are accounted for by 25 projects with a project cost of Rs.10 crores and more. Of the 25 projects, there are 11 with a project cost exceeding Rs.20 crores and they alone account for a total of Rs.656 crores. During the year the cost of the joint sector projects was Rs.117 crores. Soft loan schemes for 78 projects accounted for^{Rs.} 182 crores.

There is also a marked change in the composition of industries assisted during 1980 as compared with the previous year. During 1979 the biggest share went to 'Fertilizers and Pesticides'. They accounted for 23 per cent of the total cost. Next in importance came 'Textiles' which accounted for 16 per cent of the total cost. 'Cement', 'Chemicals' and 'Metal and Metals Products' accounted for 11 per cent each.

Of the projects sanctioned in 1980, the biggest share went to 'Metals and Metals Products' accounting for 25 per cent of the total project cost. 'Cement' came next with a share of 15 per cent. 'Chemicals and Petro Chemicals' had a share of 10 per cent. 'Fertilizers and Pesticides' accounted for only 3.6 per cent of the total.

It may be noted that there was a sharp rise in the total cost of the projects sanctioned in 1980. The total cost of the projects approved by the lending institutions had remained more or less at the same level during 1977, 1978 and 1979.

FORECAST FOR 1981

As of now based on the projects sanctioned until the end of 1980 the capital expenditures in 1981 will be Rs.1420 crores. To this we will have to add the capital expenditure that will be made out of projects sanctioned in 1981 itself. This can be around Rs.450 crores. If we add this to the figure of Rs.1420 crores, the corporate investment may show a rise of 15 per cent over the level in 1980. Both in relation to 1980 and 1981 we have revised suitably the figures obtained directly from the cash flow statements to take care of delays and spill-overs. On this basis, we forecast a rise in corporate investment in 1981 of the order of 15 per cent in nominal terms and 9 per cent in constant prices.

NOTES

(The author wishes to thank the authorities of the Industrial Development Bank of India, the Industrial Credit and Investment Corporation of India and the Industrial Finance Corporation of India for the cooperation extended to this study. The author also wishes to thank Mrs. Ranjana Pendharkar and Mrs. Veena Padia for the valuable assistance rendered by them in collecting and analysing the data.)

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PHASING OF CAPITAL EXPENDITURES ON PROJECTS SANCTIONED BY TERM LENDING INSTITUTIONS

Year of sanction	Expenditures In											
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
1962-1969	28737	15570	10299	4781	1205	565	130	20	12			
1970	4545	7817	6704	2193	647	403	176	332	315			
1971	766	7600	10990	9062	4487	854	396	260	260	236		
1972		762	15288	17531	11775	4036	977	397	283	229		
1973			2652	15622	26183	11053	5167	4046	1003	836		
1974		95	361	3889	19832	20413	14411	2193	1245	—		
1975				17	4016	11423	23122	21535	11854	5200	879	
1976						4248	19462	23144	13028	1725	701	
1977							6399	44666	45901	23665	8040	4076
1978							326	5942	28052	43222	32150	16957
1979									4849	35240	62127	32914
1980										10379	60986	88028
TOTAL	34048	31844	46294	53095	68148	52995	70566	102495	106802	120734	164863	141975

TABLE 2

INDUSTRYWISE CAPITAL EXPENDITURE FOR 1979 AND 1980 AND EXPECTED
CAPITAL EXPENDITURE FOR 1980.

<u>Sr.No.</u>	<u>Industry</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
1.	Chemicals and Pharmaceu- ticals	20056.20 (16.6)	30500.81 (18.64)	29089.73 (21.09)
2.	Electrical	14119.04 (11.6)	23237.83 (14.20)	12107.17 (8.78)
3.	Engineering	3780.00 (3.13)	7815.35 (4.78)	4977.02 (3.61)
4.	Jute	2050.00 (1.69)	1349.67 (0.83)	530.68 (0.38)
5.	Minerals & Metals	14876.00 (12.32)	29115.15 (17.79)	29227.13 (21.19)
6.	Paper	7704.00 (6.38)	6490.28 (3.96)	3545.5 (2.57)
7.	Textiles	23943.00 (19.8)	25251.84 (15.43)	22008.16 (15.95)
8.	Transport	5344 (4.42)	14272 (8.72)	9521.1 (6.90)
9.	Cement	11308.5 (9.36)	14622.12 (8.94)	18859.84 (13.68)
10.	Miscellaneous	17554 (14.5)	10971.13 (6.70)	8032.49 (5.82)
	TOTAL	120734.74	163626.18	137898.82

Note: Figures in bracket are percentages of total.