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CORPORATE INVESTMENT FOR 1979:
A FORECAST

by

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ABSTRACT

An attempt is made in this paper to forecast the behaviour of private corporate investment in 1979. Corporate investment is taken to include gross capital expenditures of all companies including joint sector companies. Government companies alone are excluded. This study also provides a picture of investment behaviour in 1978. The methodology applied 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. These may be regarded as a kind of anticipatory data for forecasting.

This study shows that investment in the Private Corporate sector in 1978 rose by six per cent over the level attained in 1977. However, the present indications are that corporate investment in 1979 may not exceed the level achieved in 1978. Capital expenditures in 1978 on all the projects sanctioned by these institutions in the current and previous years will amount to Rs.1014 crores as compared with Rs.955 crores in the previous year. This implies a growth of six per cent. As of now, based on the projects sanctioned until the end of 1978, the capital expenditures in 1979 will be Rs.745 crores. Even if the expenditures likely to be incurred on projects to be sanctioned in 1979 are added, the total capital expenditures in the corporate sector in 1979 are not likely to rise above the level reached in 1978.

CORPORATE INVESTMENT IN 1979: A FORECAST
C. Rangarajan

An attempt is made in this paper to forecast the behaviour of private corporate investment in 1979. Corporate investment is taken to include gross capital expenditures of all companies including joint sector companies. Government companies alone are excluded. This study also provides a picture of investment behaviour in 1978.

FORECASTING TECHNIQUE

The methodology applied 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. These may be regarded as a kind of anticipatory data for forecasting. The details of the technique followed have been explained by the present author in his earlier writings.¹

It has been observed that most projects in the corporate sector approach one or the other of all-India term lending institutions for obtaining the necessary 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, obviously 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 rather than the absolute figures.

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 on projects but also the normal capital expenditures which are shown in the cash flow statements. In the last few years we have taken extra care to collect data on both types of capital expenditures. But we have faced some difficulties in this regard. There are some companies which

have not provided data on normal capital expenditures. In the case of certain types of loans such as those for balancing equipment, detailed data are not usually provided.

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 has dropped to 28 per cent in 1978. 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 cannot be forecast by our model. While the pending applications with the term lending institutions can give some clue, they do not provide a 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 also made in the phasing of capital expenditures in the light of the new information. Obviously companies which finance the over-run out of their 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 made an analysis of 44 projects comparing the original and the actual phasing of capital expenditures. It is difficult to draw any generalisations from this study. The one factor 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 some 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 by the nature of the industries. Actual expenditures will perhaps be close to the planned ones in the case of loans granted under such schemes like soft loan schemes and technical development funds. 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 judgment will have to be exercised in relation to planned expenditures to be incurred in the year of sanction.

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. An analysis of these estimates indicates that they differ from one another not only in absolute amount but also in terms of relative changes for several years. 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 paid up capital of all companies industrywise.² For 1972-73, 1973-74 and 1974-75 the Economic Times estimates of gross fixed assets formation of the corporate sector show a rise of 42.4 per cent, 6.5 per cent and 32.8 per cent respectively. The corresponding rates of growth according to the CSO estimates which include cooperatives also are 31.4 per cent, 7.3 per cent and 16.4 per cent respectively. Our final estimates showed a rise of 45.3 per cent, 14.7 per cent and 28.5 per cent respectively. The substantial increases in gross fixed investment at least in nominal terms witnessed in 1972-73 and 1974-75 were captured by our forecast. For 1975-76 our forecast showed a fall whereas all other estimates showed a rise. Data since 1976-77 from RBI and CSO are yet to come.

PICTURE FOR 1978

Table 1 provides the data on the phasing of capital expenditures of projects sanctioned by the three major term lending institutions — IDBI, ICICI and IFCI.³ Read horizontally, each row shows the expenditures to be incurred in the various years by companies whose projects were approved in a particular year. These include normal as well as project capital expenditures in the case of old companies and project expenditures in the case of new companies. Read vertically,

each element indicates expenditures to be incurred in a year out of projects sanctioned in a previous year. The total of each vertical column indicates the expenditures to be incurred in a particular year out of projects sanctioned in all the years.

From Table 1 it can be noticed that the capital expenditures in 1978 will be Rs.1,014 crores as against Rs.955 crores estimated at this point for 1977. This would imply a growth rate of six per cent. It may, however, be noted that the estimates for 1977 as of now is Rs.1,011 crores. This includes Rs.56 crores spent in 1977 on projects sanctioned in 1978. The estimates for 1978 would also go up by a more or less similar amount when the projects sanctioned in 1979 are also known. Therefore one can conclude corporate investment in 1978 rose by six per cent over the level reached in 1977. This also confirms the forecast made last year of a rise between five per cent and eight per cent.

All the capital expenditures indicated are in current prices. The cost estimates of projects sanctioned in any year would be at the price level of that year. Thus, while aggregating the estimates of projects sanctioned in the previous years, there is need to reduce all the figures to a common price 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 1960-61 as 100. It is seen that the total capital expenditures

for 1975, 1976 and 1977 would be Rs.244 crores, Rs.292 crores and Rs.403 crores respectively. The total capital expenditures for 1978 in real terms will also show a rise of six per cent over the level achieved in 1977.

The estimates provided are based on projects approved by the all-India institutions. There are cases where the financing of projects even in the corporate sector is done by state-level term lending institutions. However, we have found it difficult to collect at this point detailed data on such projects. Also there are other facilities such as the bill rediscounting scheme of IDBI which also finance capital expenditures. The total amount disbursed by IDBI during 1977-78 under the scheme of rediscounting of bills came to Rs.100 crores.

PATTERN OF CAPITAL EXPENDITURES IN 1978

Table 2 provides an industrywise break-up of the capital expenditures incurred in 1978. 'Chemicals' and 'pharmaceuticals' (including fertilisers and pesticides) have topped the list with 19 per cent of the total capital expenditures. 'Paper' ranks second with 14 per cent of the total capital expenditures. 'Textiles' and 'cement' account for a slightly larger proportion of the total expenditures in 1978 than in 1977.

Table 3 indicates an industrywise analysis of the projects sanctioned in 1978. It shows where the new projects are being set up. The total number of projects approved in 1978 was 271 as compared with 302 during 1977. In the previous year there was a sharp rise in the number of relatively small loans granted. During 1978 there were 78 soft loans and about 30 TDF projects. The total cost of projects sanctioned in 1978 came to Rs.1,100 crores which is more or less equal to the total cost of projects sanctioned in 1977. In the previous year, 18 joint sector projects including a giant fertiliser project accounted for 33 per cent of the total cost of the projects. But during 1978 the joint sector projects contributed only seven per cent of the total cost. The total cost of the projects coming under the soft loan scheme was Rs.183 crores.

There is also a marked difference in the composition of industries assisted during the current year as compared with previous year. The two major industrial sectors in which new projects were being initiated in 1977 were fertilisers and pulp and paper. During 1978 electricity generation is the major sector accounting for 28 per cent of the total cost of projects initiated. Next comes metal and metal products with 22 per cent; textiles account for 19 per cent and cement 8 per cent.

There were seven projects sanctioned during 1978 with the capital cost of more than Rs.20 crores each. These seven projects include projects in electricity generation, steel expansion and cement production. These projects accounted for 55 per cent of the total cost of all the projects.

FORECAST FOR 1979

As of now based on the projects sanctioned until the end of 1978 the capital expenditures in 1979 will be Rs.747 crores. Thus there is a gap of Rs.268 crores to be filled in to come up to the level of 1978. Since normally the capital expenditures to be incurred in a year out of the projects sanctioned in that year itself does not exceed Rs.250 crores, it is unlikely that the corporate investment in 1979 will exceed the level reached in 1978. Of course, there is an exception when in 1977 there was a very substantial amount of capital expenditures incurred in that year flowing out of the projects sanctioned in that year. But this is an exception rather than the rule. Therefore, based on past general behaviour, it is hard to expect more than Rs.270 crores of capital expenditures in 1979 out of the projects to be sanctioned in that year. Therefore our conclusion is that corporate investment in 1979 will stay at the level reached in 1978.

NOTES

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2. For a discussion on this, see C. Rangarajan and Kirit Patel, "On Constructing a New Series on Corporate Fixed Investment," Paper presented at the Annual Conference of the Association for Research in National Income and Wealth, January 1979. and 1978
3. For 1977/we have not been able to collect all data from all the term lending institutions. The data on projects sanctioned exclusively by IFCI remain to be collected. Since this is usually a small figure this should not affect the conclusions drawn.

TABLE 1

PHASING OF CAPITAL EXPENDITURES ON PROJECTS SANCTIONED BY TERM LENDING INSTITUTIONS

(Rupees in lakhs)

Year of sanction	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
1960	72	39	44													
1961	212	76	41	21												
1962	269	238	134	52	26											
1963	1738	165	112	89	63	53	40	30								
1964	3498	1447	354	295	153	79	47	28	12	2						
1965	10147	7227	1897	754	449	203	184	135	21							
1966	5994	7393	6202	5930	2397	1127	623	397	359	151						
1967	201	4651	12160	9407	4377	2041	424	308	190	138	23	3	12			
1968		232	4276	9170	6655	4219	2768	1711	178	110	53	5				
1969			74	8914	14168	7859	6213	2172	445	164	54	12				
1970			279	74	4545	7817	6704	2193	647	403	176	332	315			
1971				63	766	7800	10990	9062	4487	854	396	260	260	238		
1972						762	15288	17531	11778	4036	977	357	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	4876
1976										4248	19462	23084	13015	1652	701	
1977											6364	43703	45549	23537	8040	
1978											326	5638	27944	43002	32150	16957
TOTAL	22131	21468	25574	33759	34048	31844	46294	53095	68148	52995	70531	101168	101480	74694	41727	21033

TABLE 2

INDUSTRYWISE CAPITAL EXPENDITURE FOR 1977 AND 1978 AND EXPECTED CAPITAL EXPENDITURE FOR 1979

(Rupees in lakhs)

S. No	Industry	1977	1978	1979
1.	Chemicals & Pharmaceuticals	19774 (20.38)	18959 (18.77)	13382 (19.62)
2.	Electrical	4381 (4.52)	9364 (9.27)	12630 (18.52)
3.	Engineering	6648 (6.85)	3325 (3.29)	1676 (2.46)
4.	Jute	287 (0.30)	1396 (1.38)	1424 (2.09)
5.	Minerals & Metals	16704 (17.22)	12214 (12.09)	9567 (14.03)
6.	Paper	9741 (10.04)	14489 (14.34)	4861 (7.13)
7.	Textiles	11682 (12.04)	13358 (13.22)	12110 (17.76)
8.	Transport	9552 (9.85)	6780 (6.71)	1818 (2.67)
9.	Cement	4330 (4.46)	8073 (7.99)	5156 (7.56)
10.	Miscellaneous	13910 (14.34)	13067 (12.93)	5567 (8.16)
TOTAL		97009	101025	68191

Note: Figures in brackets are percentages of total

INDUSTRYWISE TOTAL CAPITAL COST AND PHASING OF CAPITAL EXPENDITURE ON PROJECTS
SANCTIONED BY IDBI AND ICICI DURING 1978

(Rupees in crores)

S. No.	Industry	Total project cost	Years				1981 and onwards	Number of projects	Completion expected in			
			1977	1978	1979	1980			The same year	The next year	The year after	Four or more
1.	Automobile & Cycles	12.45 (1.3)	-	1.83	5.70	4.47	0.45	6	2	2	1	1
2.	Cement	88.04 (8.00)	2.90	11.68	16.63	29.78	27.05	6	1	2	2	1
3.	Chemicals & Petrochemicals (Except Fertilizers & Pesticides)	70.25 (6.38)	5.68	17.45	37.11	10.01	-	27	11	12	4	-
4.	Electrical equipment	25.17 (2.29)	0.56	7.77	10.30	6.52	0.02	20	3	12	4	1
5.	Electricity, Gas & Steam	303.40 (27.56)	-	28.63	75.70	118.61	80.46	3	-	-	1	2
6.	Fertilizers & Pesticides	17.74 (1.61)	1.26	2.00	4.98	2.00	7.50	6	-	4	1	1
7.	Food Products (other than sugar)	3.06 (0.28)	-	1.59	-	0.47	1.00	3	2	-	-	1
8.	Glass, Pottery, etc.	25.21 (2.29)	3.10	5.78	12.00	4.33	-	5	-	2	3	-
9.	Machinery manufacture (other than electrical)	24.14 (2.19)	2.13	10.58	8.51	1.73	1.19	27	4	19	2	2
10.	Metals & Metal Products	242.54 (22.03)	2.08	51.14	71.67	56.50	61.15	43	12	22	4	5
11.	Printing & Publishing	2.20 (0.20)	-	2.10	9.10	-	-	3	2	1	-	-
12.	Pulp, Paper & Paper Products	31.50 (2.86)	1.53	11.25	16.01	1.77	0.05	10	2	7	3	1
13.	Rubber Products	13.42 (1.22)	-	1.19	10.62	1.61	-	5	1	3	1	-
14.	Shipping	-	-	-	-	-	-	-	-	-	-	-
15.	Sugar	25.82 (2.35)	10.22	5.60	9.48	0.41	0.05	10	1	7	2	-
16.	Textiles	206.59 (18.77)	0.33	60.37	97.92	37.71	2.26	81	14	38	26	3
17.	Wood, Cork & Hardboard	-	-	-	-	-	-	-	-	-	-	-
18.	Miscellaneous	9.31	0.88	5.28	2.30	0.70	0.15	13	3	7	2	1
	TOTAL	1100.84	38.67	224.31	379.93	276.62	181.31	271	58	138	56	19