

Official Papers

A Long Delayed Publication

Abhijit Datta

The National Sample Survey: No 11. Report on the Sample Survey of Manufacturing Industries, 1940 and 1950. Issued by the Cabinet Secretariat, Government of India. 1958. Pp vi+36. Price Re 0.75 nP.

THE long awaited report on the sample survey of manufacturing industries comes to the public seven years after the completion of the survey. We are told, however, that 'estimates' prepared from the survey were made available to the National Income Committee by the end of 1951 and the draft report was submitted to the Government of India in 1956, i.e., two years before it was thought fit to release it for public consumption. One of the main points in favour of sample surveys is expediency and on that count, India's first experiment in sample survey in the industrial field has not proved its worth over the regular census where the usual gap is about four years between the reference period and the ultimate publication of the report. It is surprising, therefore, that field work could be completed by the middle of June, 1951 when most of the establishments presumably had not even closed their accounts. Even theoretically, capital structure figures could be related to 30th June, 1951 for a number of sample establishments,

Coverage Inadequate

Apart from quickness in obtaining estimates, sample survey was advocated because of the larger coverage it would make possible, compared to the census, both in respect of industries as well as in respect of geographical area. The Census of Manufacturing Industries (CMI) covered only 29 out of 63 groups of industries classified on the basis of International Standard Industrial Classification (ISIC). Moreover, at the time CMI was started, it was restricted to Industries located in Part A States, some of the important Part B States and a few Part C States.

The SSMI was designed to cover all the 63 industries in all the States. Eventually, however, railway and defence establishments (CMI-58 and CMI-59) were left out, and so was petroleum refining (CMI-39) as no return was received from it. As in the case of CMI, SSMI was limited to factories which came under Sec-

tion 2 (j) of the Factories Act, 1934 (except CMI-58 and CMI-59) i.e., establishments employing 20 or more workers and using power, since no list was 'easily available' of the smaller establishments. One wonders why information about small industries could not be collected. For the Chief Inspectors of Factories in the States are supposed to keep not only a live register of 'factories' under the Factories Act, 1948 but also to extend their coverage to Sections 2m(i) and 2m(ii) factories, i.e., establishments having 10 or more workers using power and 20 or more workers but not using power.

Sampling Frames

The frame for sampling consisted of a classified list of factories registered under the Factories Act, 1948 employing 20 or more persons and using power. Establishments were stratified by size, as measured by employment and by industry groups. Stratification by States was also employed for a number of industries which showed concentration in particular areas. The samples were distributed among different strata for which different sampling fractions were used. Usually, the fraction of the number of smaller establishments included in the samples decreased as the size of the establishments in the strata declined. This resulted in almost complete enumeration of all the very big factories. Enumeration was complete also in respect of industries with very few establishments.

The overall sampling fraction of all the different strata, however, was approximately 1 in 9. The samples were selected at random and all had equal probability of being selected. After the samples were drawn, the total number was divided into roughly equal parts and the establishments were distributed as widely as possible. This was done in order to remove investigator-bias. Unfortunately, the scatter was not always over common strata or even

industries. Hence, the two subsamples were not in fact, strictly comparable. Table (4.2.) on page 9 shows that the agreement between the two groups is not good in 3 out of 5 items.

A comparison between SSMI and CMI results is inevitable. As the SSMI had a wider coverage than the CMI, it was expected that the CMI figures would be lower. But an overall difference of about 27% in 1949 and 20% in 1950 is perhaps too large to explain. Discrepancy is particularly large in respect of 'fixed capital item': 39% in 1949 and 34% in 1950. Since both the survey and the census followed identical definitions, the difference could not be explained away easily. The report candidly admits the gap and suggests, perhaps too obviously, that a factory-to-factory comparison of schedules could provide an answer to the enigma.

Unfortunately, detailed statistics for individual industries have not been punched along with the SSMI report. We hope that the National Income Committee took pains to evaluate these detailed statistics and that the only instance of doubt was the one noted by the National Income Committee, viz., the SSMI figures for raw cotton in the cotton textile industry.

It is difficult to discern any recognizable trend of manufacturing activity over the country as a whole considering only aggregative figures for two consecutive years. The value of output per worker appears to be higher in 1950 than in 1949, but how much of the increase is real, the report admits, it is difficult to indicate. The report gives a few broad findings such as that lighter industries predominate in our manufacturing field (p 12), that the iron & steel and textile industries by themselves claim about a third of our industrial capital (p 15) etc. The ten major industries or the country have been subjected to detailed analysis in respect of certain important items and some interesting points are made:

(1) The total value added by manufacture in the ten major industries showed a decline of 1.3 % in 1950 over 1949 in comparison with that for all-industries.

(2) Compared to all-industries' output as percentage of invested capital, the percentage of ten major industries-group is lower, while the value added as percentage of invested capital seems to be higher.

(3) Average daily earnings per employed person is lower in the ten major industries-group compared to the average of all-industries.

(4) Capital and output per employed person is lower in the ten major industries-group than that for all-industries.

Perhaps the greatest shortcoming of the SSMI is that it has taken too much for granted. The report uses such terms as capital formation, capital-output ratio etc with an ease and complacency which is disconcerting considering that the whole problem of estimating depreciation is solved by adopting a flat 7% rate, straight line as prescribed by the Income Tax Manual, Part II, 1954, in accordance with Section 10(2)(vi) of the Income Tax Act 1922. Estimates of depreciation were not calculated for individual industries. The National Income Committee, it will be recalled, had to fall back on the CMI estimates for 29 industries, while it had to estimate the depreciation for the remaining half by adopting the ratio of depreciation to gross value added, as observed in the 29 industry-groups. No attempt was made in the survey to estimate the replacement value of fixed assets. The whole analysis of the report is based on purely financial terms and the enquiry relies too heavily on the accounting conventions of individual respondents. This is not only true for 'capital structure' items, it also vitiates the 'input and 'output' figures in so far as the problem of inventory valuation is not solved on an economic basis. It is to be hoped that methodological problems such as estimation of depreciation and inventory valuation will be attacked in future surveys.

It is difficult, however, to pronounce a judgment on the comparative merits of the SSMI and the CMI. The sample method appears to be more suitable in the unorganized small industries sector which

is still unexplored and it is also useful for supplementing the CMI data in certain special fields which are not covered by the census. Sample surveys cannot replace the regular census operations which are exhaustive and do not have to be rush jobs

to suit immediate needs. They should therefore remain the basic source of information.

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