

INDUSTRIAL STATISTICAL INDICATORS FROM THE USERS AGENCY VIEWPOINT¹

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I INTRODUCTION

The importance of non-agricultural data and indicators is highlighted by the emphasis and thrust of the new Five, Ten and Long-Term Philippine Plan (up to the year 2000). It is the intention to promote the rapid industrialization of the country to ultimately replace agriculture as the so-called "engine of growth" of the economy. This strategy is deemed essential if we are to achieve our man oriented goals. This being the case there exists a strong recognition to improve the data and indicators of this sector.

The need for sound statistics regardless of sectoral consideration is universal in matters of economic planning, programming and implementation. The specific reasons, generally known, need not be elaborated. However, it should be reiterated that the primary concern is for up-to-date, appropriate and reliable data.

Sound statistics is now recognized as a common and joint goal of both producers and users of data. The manifold work requires close coordination and cooperation between several sectors and interests. This paper will pursue such prevailing goal and spirit.

II COMPONENTS OF THE STATISTICAL SYSTEM IN INDUSTRY

A. Basic Components

The principal statistical activities in the country which

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are the sources of aggregate baseline data and derived indicators are those of the Census of Establishments and Annual-Quarterly Surveys of Establishments. There is also activity on Foreign Trade in Manufactured and Industrial Commodities.

1. Census and Surveys

Censuses of all establishments engaged in economic activities have been undertaken at intervals of about five years starting 1961, the latest of which was 1976. The Censuses provide integrated data on the eight major fields of economic activities falling under the non-agricultural industries' classification. Basic statistics on physical location, ownership, employment compensation, fixed assets and capital expenditures, inventories, receipts and costs are generated. More detailed information particularly on small manufacturing establishments are gathered. The results of latest censuses are used in the preparation of national income and input-output accounts.

The Annual and Quarterly Surveys of Establishments are surveys of large and small establishments on almost all economic fields similar to the Census' coverage. They are conducted every year and every quarter by the NCSO for the purpose of providing up-to-date information on the current situation and trends in the level of economic activity of the country. They fill in the needs between census years.

The mentioned sources of data and indicators are significant. The censuses provide aggregative baseline data on the structure and characteristics of the economy and its sectors for certain benchmark or time frame. Inter censal indicators on a more regular and frequent manner are generated through the annual and quarterly censuses.

The Censuses and Surveys are critically linked. The former serves as the basis for testing the confidence of the latter's results. Also, sampling frames of the surveys are drawn from censuses.

For the foregoing, certain observations are present-

ed concerning the adequacy and reliability of the survey data.

First, there are still statistical gaps in the value-added reporting of the industrial sector in view of continued difficulties in the updating of the firm level sources of the sampling frame (which is at present based on the 1975 census). Efforts to make effective the "birth and death provision" in this regard should be bolstered.

Second, the stratification used for manufacturing, electricity, gas and water and construction, is based on employment size. For labor-intensive industries, small establishment may be classified among large establishments. Thus the assumption on homogeneity of sampling units is not met. There are many "small establishments" (according to employment) with relatively large outputs and, especially now, many "large establishments" (according to employment) but with relatively smaller outputs.

To remedy the deficiencies in the structure of the survey efforts, both producers (NCSO, CB) and users (DI, BOI) of data are trying to make the source as current and comprehensive as possible. Some of the users are now assisting NCSO in the listing of establishments using their agency records and files.

The basis for stratification of the surveys should be revised in such a way that each stratum is made homogeneous. The use of total assets in lieu of employment, is suggested because this is the most "fixed" based for stratification.

2. Integrated Quarterly Survey of Establishments on Manufacturing

The integration of surveys of the NCSO, CB, DOL and DI is in consonance with the on going move to eliminate the duplication in the collection of similar data by different agencies. The common items are integrated in a "core questionnaire" and the process of distributing, retrieving and processing the reports is shared by the participating agencies. The IQSEM is now operational. Initial problems, as expected, are being re-

medied to improve the level of response. Among the measures used for the purpose are:

- (1) holding of dialogues with the respondents;
- (2) training respondents in accomplishing the reports;
- (3) establishing network of contact persons;
- (4) simplifying the questionnaires (items and frequency); and
- (5) elimination of duplication in the collection of questionnaires.

B. Derived Indicators

1. Population and labor in Manufacturing and Industry

Statistics on population and labor are basic among the different components of the statistical system. Demographic factors, e.g., the size of the population, its growth rate, the age profile and various characteristics of population are the prime ingredients in the process of formulating and implementing development plans for the economy and its sectors.

Population data is the starting point in determining the magnitude and character of demand for industrial outputs. The macro economic targets of the New Five, Ten & Long-Term Plans were based on a projected population ranges of 70 to 85 million from 1978 to the year 2000.

Labor statistics is important in the light of the national objectives of maximizing the potential of the non-agricultural sector in generating employment opportunities. The traditional source of livelihood, agriculture has natural limitations to accommodate the unemployed and underemployed. The industrial sector is now expected to absorb idle people into productivity. The small and medium industries which are labor-intensive are more appropriate for promotion for developing economies which usually possess enough manpower vis-a-vis capital.

In the task of industrial development planning and implementation more specific indicators are needed to prepare the other aspects of the plans. The major ones are:

- age composition and sex structure to have basis for the right mix of industrial output;
- density to have idea of population centers were demand for oriented industries should locate;
- migration patterns indicate new population centers and new site for industries;
- geographic location for regional development;
- manpower aspects like skill profile are useful in satisfying manpower requirements of the plan.

Major Needs — The inter-censal data on population, referring to population estimates and projections on yearly basis from 1970 to the year 2000, should be recomputed based on the new 1975 census data. The inter-censal projections are very valuable for use of the government and planning agencies as they give a futuristic dimension. The inter-censal projections are highly regarded as they were produced using a dynamic model considering variables such as patterns of fertility, mortality, migration, etc.

The pattern of migration must be mentioned regularly and currently. Marked mobility of the people brought by their attitude and the vast improvements in transportation systems demands situation reports on the changes in the direction and intensity of migration in order to alert both existing and new projects on the possible restructuring of markets and sources of manpower.

For labor statistics, indicators and series are being prepared and released by several agencies (NCSO, CB & DOL) based on censuses, surveys and projections. The regional breakdown specially for Metro Manila appears the most immediate concern. The up-to-date information on the number and characteristics of the economically active population which is collected regularly in the quarterly sample survey of households of the NCSO should be re-examined as cases of big gaps have been observed in some sectors like the textile industry.

2. Input-Output Table

The Input-Output Table, since its introduction in the Philippines in 1961, has been a significant development in our statistical system and because of its varied uses

in economic analysis and policy formulation, there have been continuous efforts to improve it.

The major uses of the I-O table are:

- to study the structural properties of the economy;
- to show the flow of goods and services from sector to sector;
- to determine the importance of one industry in relation to other industries;
- to study foreign trade by relating import to various components of final demand;
- as a tool in planning, that is, target setting;
- allocation of investments and project identification;
- study of price adjustment repercussions

In 1961, there existed two input-output tables prepared by two agencies, the results of which did not tally with each other. But in 1969, the preparation of this table was integrated to prevent differing results. Besides the 1969 Input-Output Table is more detailed than the previous one having 201 sectors. The 1974 I-O table which is currently being prepared is more detailed in the breakdown of the sectors (237 x 237) to meet the requirements.

However, the preparation of this table is not without its limitations. Foremost is the timeliness of the release of the table for use by economic analysts and planners who resort to data which are somehow not quite relevant to the current situation anymore.

Moreover, the use of derived producer prices (purchaser's price minus reported costs of the amount of inputs attributed to trade, transport services and indirect taxes) accounts for some discrepancies which is reducible if actual producer prices are used instead. The national income figures (whether by way of income or value-added/by expenditures or final sales approach) and a GNP obtained from the input-output account should not also have a big difference. Both accounting systems should yield comparable measures of a country's economic activity during a given period of time.

3. Index of Manufacturing & Industrial Production

The CB compiles three statistical indicators that provide the trends in the manufacturing and industrial sector.

First, a quarterly index of physical volume of production of durable and non-durable goods manufactured in the country. The index measures changes over time in the volume of production of domestic manufactures, uses 1972 as the new base year, covers a sample of 416 manufacturing corporations and partnerships classified in accordance with the revised Philippine Standard Industrial Classification (PSIC) and is an arithmetic average of quantity relatives weighted by value-added figures of the NEDA's Input-Output Estimate of the GNP in 1969.

Second, a quarterly index of physical volume of production in the mining and quarrying industry. The index measures changes over time in the volume of production of metallic and non-metallic minerals and related commodities, uses 1972 as the new base year, classifies basic data from the Bureau of Mines in accordance with the revised PSIC and is an arithmetic average of quantity relatives weighted by value-added estimates of the NEDA for 1969.

Third, a permit valuation of building construction in Manila is compiled monthly from basic data obtained from the Manila City Engineer's Office. The number and value of permits of all buildings to be constructed in Manila provide a measure of the activities of the private construction industry.

Coordinating government agencies of the Integrated Survey of Establishments (ISE), under the auspices of the NEDA, agreed to expand the countrywide sample of manufacturing establishments to 3,682 — 1,867 of which are in Metro-Manila and will be the responsibility of the CB while the NCSO will attend to the 1,815 in region outside Metro-Manila. A sample of 560 is allotted for mining and quarrying establishments comprising of 177 in Metro-Manila and 383 in regions outside Metro-Manila. Likewise, a sample of 297 is selected for private and construction establishments consisting of 190 in Metro-Manila and 107 in regions outside Metro-Manila.

The present government industrial programs seek to achieve a restructuring of industry that would correct the structure of the industrial sector for sound and balanced growth. In implementing this objective, the DI opts for industry sector development programs which will offer the best opportunities to industry self-reliance, generate employment, expand the volume of manufactured exports, develop small and medium scale industries and promote the regional dispersal of industries. The success of these program requires the continuing help of timely, reliable and sufficient if not accurate manufacturing and industrial indicators more than the existing statistical series presently offer. Expansion of the sample size can undoubtedly increase the efficiency of the indicators. However, there is the need for a complementary up-dating of the annual population listing of establishments. This can be effected through a close monitoring by appropriate government agencies of the status of industrial establishments. Also, the series would be more useful if compiled on a monthly frequency and detailed into small, medium and large scale industry sub-groups. Realizing however that monthly reporting is a rather heavy work for our respondent establishments studies are being made of gathering them on the basis of larger time interval, say, semestrally. This is acceptable provided the level of response would be higher and the resulting data be more adequate and reliable. This will be complemented by having efficient sub-samples which could be used in producing the monthly trends of sub-groups which could then be adjusted to quarterly trends of the whole sample.

SMI sectors in particular has developed very rapidly in the last three years. From 1975-1977, records of financial institutions and development agencies indicate that more than 5,000 small & medium scale manufacturing enterprises were established. Thus index stratification has to undergo structural updating.

4. Price Statistics

The CB is responsible for the compilation of four major types of price indices in Metro-Manila.

First, the consumer price index (CPI) which measures average changes in the retail prices of a fixed basket

of goods and services purchased by an average household in Metro-Manila, uses 1972 as the new base year and is an arithmetic average of price relatives weighted by percentages of the distribution of average expenditures per household derived from a sub-sample of the sample used in the Survey of Household Expenditures in 1971 by the NCSO.

Second, the wholesale price index (WPI) which measures the monthly changes in wholesale prices of domestic and imported commodities in Metro-Manila, covers commodities for the home market and for export, classifies commodities in accordance with the revised CB Commodity Classification and is an arithmetic average of price relatives weighted by percentage weights based on the values of production and retained importation in 1965.

Third, the retail price index (RPI) which measures the changes in retail prices at which retailers in Metro-Manila dispose of their goods to the general public irrespective of any type of consumer group, uses 1972 as the new base year, classifies commodities to conform with the relative importance of commodity groups as traded in the retail market and is a geometric mean of price relatives.

Fourth, the stock price index (SPI) which measures the changes in the average prices of 81 stocks of 77 companies listed with the Manila Stock Exchange, indicates the trend and situation of trading activities in the investment market, includes the common and preferred shares of financial, commercial and industrial companies and is an arithmetic average of price relatives weighted by percentage weights based on the values of shares traded in 1965.

With regards to the compilation of CPIs for regions outside Metro-Manila and for the whole country, the NCSO is the responsible agency. Except for differences in the commodity coverage, the same methodology applies to both indices for Metro-Manila and regions outside Metro-Manila. Combining the two indices produces the CPI for the Philippines.

Domestic wholesale and retail prices of selected manufactured commodities are compiled and published by

the CB and Bureau of Domestic Trade. On the other hand, except for the price indices for exports and imports of the CB using FOB and CIF unit values, respectively, no international price series is being compiled or published.

These statistical price series serve as the tools with which the government stabilizes prices considering the need to protect the consumers and at the same time assume business viability. Again price statistics are used as deflators in making national income and expenditure estimates comparable between time series and between sectors of the economy. In addition to wholesale price index series, a producers price index would be more appropriate for the use of the industrial sector.

5. Foreign Trade Statistics

An agreement among producers and users of foreign trade data to do away with conflicting trade data was for NCSO to be the sole agency, starting 1973, to compile foreign trade statistics and supply the statistical needs of the CB, other government agencies and the general public. Foreign trade statistics are collected from import and export entries submitted to the Bureau of Customs while international shipping statistics are gathered from Foreign Manifests submitted to the Collector of Customs. The General Trade System is adopted in recording foreign trade statistics and the customs frontier, not the national boundary, is used as the statistical frontier. Thus, all goods entering any seaport or airport of entry, properly cleared through customs or remaining under customs control are considered imports, whether the goods are for direct consumption, merchandising, warehousing or further processing. Conversely, all goods leaving the country, properly cleared with customs are considered exports. There is also a distinction between domestic exports or export goods grown, mined, cultured or manufactured in the Philippines and re-exports or export of imported goods which do not undergo physical and/or chemical transformation.

Foreign trade statistics cover the commerce between the Philippines and other countries by sea or air whether for private or government use or for commercial pur-

poses, gifts, samples, animals for the zoo, breeding, etc. The commodities included are classified in accordance with the Revised CB Commodity Classification which is patterned basically after the Standard International Trade Classification of the United Nations, modified to fit local conditions. Import and export data are classified by month, divisional commodity group, by country of origin/destination, nationality of trader, vessel and aircraft and by port.

Foreign trade indices of the CB consisting of quantum, price (unit value) and value indices of exports and imports provide the index of net terms of trade which measures the changes in prices received for exports in relation to prices paid for imports and index of purchasing power of exports (or income terms of trade) which measures the volume of imports that can be derived from income earned from exports. Balance of trade, however, measures the favorable and unfavorable difference between the values of exports and imports.

It is gratifying to observe that foreign trade statistics compiled by the CB and NCSO can serve the statistical needs of the industrial sector. Export trade data still show the country's dependence largely on agricultural and extractive products. However, new manufactured commodities are encouragingly starting to appear on the export list manifesting the industrial effort to shift the trade structure to a more diversified one. These trade indicators also signify the need for expanding the foreign market outlets for products of the agricultural, extractive and manufacturing industries in order to achieve the national objective of a bigger share of the world trade.

On the other hand, increasing importation largely of machinery, raw materials and semi-finished goods reflects the consistent move towards industrialization.

Together with those of manufacturing, industrial and price, foreign trade indicators provide the cues and hints to producers of what goods are in demand, in what quantities and how and for whom to produce. These relationship can afford to society, business and government the tools for allocating efficiently the always scarce re-

sources of the country.

6. Industrial Financial Data

Formerly, the statistical information on the financial conditions of manufacturing and industrial establishments covered in the Annual Surveys of Establishments (ASE) of the NCSO consisted only of the values of specified fixed assets and total value of unspecified inventories. But beginning 1976, the scope of the financial information is being enlarged to include values of specified fixed assets, merchandise inventories, financial assets, liabilities, net worth and capital accounts.

With the advent of the integration of monthly statistical surveys of manufacturing and industrial establishments, a limited inquiry on the financial and operational aspects of the manufacturing establishments is attached as a rider to a "core" questionnaire. This monthly inquiry serves as an indicator of the current financial and operating conditions of the manufacturing industry.

The inclusion of statistical items in the ASE which reflect the financial conditions of business establishments is a boon to users interested in analyzing the short-term solvency, long-term solvency and earning power of the industrial sector by industry group and by industry. On the other hand, the monthly financial indicators together with the production and employment indicators can give the industrial analyst the soonest lead time possible to identify industry problems and provide the solutions before the problems reach crisis proportions.

Another data vital for the study of government policy instruments and programs pertaining to local content usage; indigenous technology; development; and foreign exchange savings are those of the product cost structure. It is very helpful if the specific inputs costs are known on product basis instead of just the industry sector level. The cost composition of a product gives idea on the nature of the products and the production mix used on them.

The prohibitive cost of borrowing

and comprehensive statistical picture of this matter is needed. There is need to quantify the effective interest cost of borrowing.

7. Capacity Utilization Study

The measurement of capacity utilization has received increasing attention over the years in developed as well as developing economies, thus, say the Expert Group on Fuller Utilization of Industrial Capacity, Asian Industrial Development Council during its 9th Session (23-31 January 1974, Bangkok, Thailand). In the case of developed economies, information on the extent of idle capacity provides guidelines for investment policies, both private and public. For developing economies, the extent of excess capacity reflects an inability to maximize the rate of growth.

We in the Philippines are fully aware of the problem of idle capacity and economic loss due to it. Several industry rationalization programs/projects are operational and continuing study is going on. Through the Investment Coordinating Committee of NEDA overcrowded industries are determined and rationalized through the use of certain policy instruments which exert indirect effects.

The undertaking of a national survey with the end in view to have a total national picture of industrial capacity utilization is undeniably desirable. It is doubtful however, whether an ordinary survey would yield the opted information since their revelation might be "self incriminatory".

Private research and government agencies have encountered the difficulty of using "questionnaire or paper approach". Thus, the Department of Industry has complemented it with actual plant visit and inspection. The task is laborious and tedious less discouraging. For the meantime, the overcrowded Industry study appears sufficient for our needs. Moreover, the DI sectoral planning exercise will yield the same result as they are completed....

CONCLUDING STATEMENT

The effort of producers of indicators to fully know and to substantially meet the requirements of the users is highly commendable. The coordination and cooperation extended by both producers and users in generating the desired type of indicators is a healthy sign that our developmental goals would be realized. The views and findings of studies and researches on the timeliness, appropriateness and reliability of the various sources and classes of indicators are reiterated here. Producers and users of data are continuously studying them in statistical development programs and projects. The joining of forces have resulted in initial successes to remedy some of these problems and gaps.

In closing, let it be stated that both producers and users are conscious of their symbiotic relationship which is strengthened by the holding of workshops and dialogues like this one which is sponsored by the Philippine Statistical Association.

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* President Rizal Commercial Banking Corporation (RCBC), Chairman, Council for Economic Development (CED). Mr. Symp was the guest speaker at the luncheon tendered by the Association after the Conference.