AN INQUIRY INTO THE STATISTICS ON THE NATIONAL INCOME OF THE PHILIPPINES

A report of Task Committee "A" of the Research Committee, Philippine Statistical Association

It was only recently that users of national income and product aggregates and their components have realized the great importance of these concepts and measurements in understanding the close relationships of the sectors (government, business, household and foreign) of the economy. Because of this, the users have learned to view a problem, for instance the problem of private savings against total savings and — against the whole national income structure. In advanced countries the national income accounts have been relied upon to measure the productive efficiency of the economy. This situation is true especially in those places where they have perfected national income accounting and have improved the accuracy of their estimates.

Because of the significance of national income for various purposes especially to a growing economy like ours, this study has been undertaken. It is therefore the objective of this study to look into the statistics on national income of the Philippines in order to present recommendations to improve the collection and processing methods; to develop new sources for basic information for national income estimations; and finally to define the uses of national income data.

To accomplish the objective, the area of study is divided into five main topics, namely: (1) conceptual components of national income and the current approach, (2) problems of compiling national income data, (3) plans for improvement, (4) uses of national income estimates in the Philippines, and (5) conclusions and recommendations.

Definitions of Concepts

The national income and product aggregates consist of the following concepts and measurements: gross national product

(GNP), net national product (NNP), national income, personal income and disposable income. There is universal acceptance of the common definitions of these terms. The National Income Division of the U. S. Department of Commerce in its study on the national income and product of the United States from 1929 to 1950 defines them as follows:

1. *National Income* is the aggregate earnings of labor and property which arise from the current production of goods and services by the Nation's economy. Thus, it measures the total factor costs of the goods and services produced by the economy. The Nation's economy in this context refers to the labor and property supplied by residents of the Nation. Earnings are recorded in the forms in which they accrue to residents of the Nation, inclusive of taxes on those earnings. As such, they consist of the compensation of employees, the profits of corporate and unincorporated enterprises, net interest, and the rental income flowing to persons.

2. *Gross National Product or Expenditure* is the market value of the output of goods and services produced by the Nation's economy, before deduction of depreciation charges and other allowances for business and institutional consumption of durable capital goods. Other business products used up by business in the accounting period are excluded. The Nation's economy in this context refers to the labor and property supplied by residents of the Nation. Gross national product comprises the purchases of goods and services by consumers and government, gross private domestic investment, and net foreign investment.

3. *Net National Product or Expenditure* is the market value of the net output of goods and services produced by the Nation's economy. All business products used up by business in the accounting period are excluded. The Nation's economy in this context refers to the labor and property supplied by residents of the Nation. Net national product comprises the purchases of goods and services by consumers and government, net private domestic investment, and net foreign investment.

4. *Personal Income* is the current income received by persons from all sources, inclusive of transfers from government and business but exclusive of transfers among persons. Not only individuals (including owners of unincorporated enterprises), but nonprofit institutions, private trust funds, and private pensions and welfare funds are classified as "persons." Personal income is measured as the sum of wage and salary receipts, other labor income, proprietors' and rental income, interest and dividends, and transfer payments.

5. *Disposable Income* is the income remaining to persons after deduction of personal tax and nontax payments to general government.

For our purposes, the concept of national income may be viewed from three different angles, depending on the use for which it is intended. Viewed from the income side, it is the sum total of compensation of all employees (which includes all wages, salaries and other supplements), rents, interests and profits of entrepreneurs within a given period of time. If viewed from the expenditure side, national income may be thought of as the total expenditure on the final goods and services produced within the specified period. Finally, if we want to see the contribution of each industry to the total productive output of the country, we may view national income as the total net value added by the different industries in connection with the production of commodities and services.

I. *CONCEPTUAL COMPONENTS OF NATIONAL INCOME IN THE PHILIPPINES AND THE CURRENT APPROACH*

The compilation of national income statistics, irrespective of method of approach, is a difficult task. Even in countries with a highly developed statistical service, much ingenuity is required in order to measure the various sets of transactions entering into national income and product aggregates.

"The inadequacy, in many respects, of the basic statistics in the advanced countries suggests the magnitude of the problem confronting less developed countries." Like in most coun-

tries, the compilation of national income or product by industrial origin in the Philippines, as made by the Central Bank, has been approached by estimating the value added industry by industry.

National income in this sense is defined as the net value added or income payments accruing to the factors of production in each industry, inclusive of subsidies but net of indirect taxes. The industries are classified on the basis of the International Standard Industrial Classification as follows:

1. Agriculture (including farming, livestock and poultry, fishing, and forestry)
2. Mining
3. Manufacturing
4. Construction
5. Trade
6. Transportation and communication
7. Government (public enterprises are included in appropriate industry divisions)
8. Personal services
9. All others

Indirect taxes comprise those taxes paid by enterprises which are chargeable as a business expense and taxes paid by households on the possession or use of goods and services without regard to personal circumstances. Examples of these taxes are import, export, and excise duties, sales tax, business licenses, stamp duties, real estate and land taxes.

Subsidies are the current grants made by the government to producers and are in effect negative indirect taxes, since they contribute to factor income but do not enter into market prices.

Estimating Procedure:

Agriculture. — Net income from this sector is derived by subtracting production cost[1] from gross farm value. The resulting figure equals total payments to land, labor, capital, and profits.

Mining. — The procedure used in the agricultural sector is also done for mining.

[1] Production cost includes power, fuel, oil, seed, land tax and depreciation.

Government. — Income from this sector consists of total wages and salaries paid, including income in kind and contribution to pension funds and social insurance. The data come from the aggregate government payroll which covers general government, government enterprises, and a portion of the payroll of the Bureau of Public Works not elsewhere included. The data are converted from fiscal year to calendar year by averaging two consecutive years.

Manufacturing, transportation and communication, personal service and all others. — For these sectors, the following extrapolation procedure based on the 1948 census income data from other industrial sectors, direct estimates on agriculture, mining, construction, and government and manufacturing gross sales index compiled by the Central Bank is used:

Direct estimates of income in million pesos

	1946	*1947*	*1948*	*1949*	*1950*	*1951*	*1952*
Agriculture	2,006	2,440	2,376	2,298	2,506	3,049	3,013
Mining	3	11	21	32	46	77	102
Construction	141	258	307	252	212	313	252
Government	185	252	321	377	400	408	461
Total	2,335	2,961	3,025	2,959	3,165	3,847	3,828
Value index from total in —							
A. (1946 = 100) .	100	127	130	127	136	165	164
B. Gross sales index of manufacturing (1949 = 100) .	—	—	—	100	114	143	139
C. Index in A linked to B by splicing (1949 = 100) .	75	97	100	100	114	143	139
D. Index in C shifted to 1949 = 100 .	100	127	133	133	152	191	185

On the basis of the index in D (1946 = 100), the incomes for the other industries as obtained from the 1948 census were

extrapolated backwards to 1946 and forward to 1952. Presently, the incomes for personal and other services and manufacturing are estimated directly. Reports on value and cost of production are received from about 2,000 manufacturing establishments in the Philippines on monthly basis since 1952. Net value added is obtained by subtracting cost of production from production value.

Instead of estimating the gross national expenditure independently of national income by industrial origin, the following approach is adopted:

The total expenditure on the national product is derived by taking the sum of national income by industrial origin, depreciation, and indirect taxes net of subsidies.

Depreciation provides for the wear and tear and absolescence of private and public fixed capital and for accidental damages to it. It is measured on the basis of replacement cost. The estimate for this item is based roughly on the value and life expectancy of the present stock of equipment and construction.

By this procedure, private consumption expenditure becomes a residual factor after subtracting government expenditures, gross domestic investment, and net exports and investment income from the gross national product.

A system of accounts has been constructed to show an estimate of national income by distributive shares. Instead of the conventional breakdown of income payments into wages and salaries, profits, interest, rent, etc., the following components are used:

Compensation of employees, entrepreneurial and property income of persons, other private incomes, and property income of government. National income total in this approach is not an independent estimate either. The national income by industrial origin has been broken down into the foregoing income payments in such a way that compensation of employees becomes a residual item. The estimates for entrepreneurial income and property income of persons are all roughly estimated from existing scanty data.

Regardless of approach and techniques used in the estimates "statistics on national income cannot be superior in quality to the general level of reliability of the basic statistical information available in a country."

II. *PROBLEMS OF COMPILING NATIONAL INCOME DATA*

The relatively low reliability of current national income estimates stems from a number of problems inherent to most underdeveloped countries. The problems involved are not purely statistical but conceptual as well. As in all circumstances, the national income statistician is bound to adopt methods and procedures to conform to, and conditioned by, current sources and available statistics.

The problems discussed in this study are based from the experience of the technical working committee created to lay down the groundwork necessary for the orderly transfer of national income estimation from the Central Bank to the National Economic Council.

1. *Problems of Imputation*

Production approach. — Imputing values on the portion of the product which is not sold for money involves the determination of the quantities retained on the farm and estimating their market value. Such an estimate is by no means easy since it entails a lot of difficulties in obtaining an overall magnitude of retention, while at the same time it is not feasible to estimate the direction in which the quantity retained would change with changes in economic conditions. To the extent that a decline in price depresses living conditions, it might induce the farmers to dispose a good part of their produce in order to obtain more of their basic necessities such as food and clothing. Conversely, a rise in output or prices might make them feel contented with their sales and thus increase their demand for goods.

It should be also realized that the imputation of values on the part of the product retained on the farm if the prevailing prices (net of selling cost) is followed, implies that if the total

output was placed on sale and each producer purchases his requirements from the market instead of retaining a part of his output, the same price would be realized. This assumption would require the deduction of imputed selling costs from the market quotations, since these are presumably saved by the producers in the case of the quantity of the output retained for their own consumption.

Income approach. — Estimation of national income also involves problems of imputing values to income earned in the rural economy. It is a general practice to provide farm laborers with housing facilities, meals or both. The imputation of values to these payments present practical difficulties since no farm accounts are generally maintained and farm production costs are not usually separated from the consumption expenditures of the farmers' families.

In addition, the problem will also pose itself in the evaluation of domestic services. In the rural areas it is not unusual to find that the farmer's wife participates in the harvests, looks after the animals, and brings the production of fruits and vegetables or fish caught to the market, not to mention the fact that she also weaves, embroiders, bakes potteries and gathers forest products. No problem need arise if all the services which are considered of a business type and purely productive in character are included in the estimation of national income by taking the household as the unit of accounting. What is not considered as part of the national income are domestic services of housewife in cleaning, laundry, sewing, and darning of clothes — services which are generally performed free of charge. Although the line drawn between the "economic" and "non-economic" form of services is bound to be arbitrary, the distinction and inclusion (after imputation of values) of economic services is necessary if it is to secure a better and more reliable information about the income generated by each sector of our economy.

Perhaps, even more difficult than that of distinguishing economic activities are those of imputing a value on them. This is so because there is no concrete basis on which to proceed. Wages in the rural sector, where payments in kind are pre-

valent and employments are seasonal, are not easily determinable. Under such conditions, it is more preferable to prepare the estimate by valuing the product rather than approaching it by imputing an arbitrary value. This accounts for the fact that more countries in the ECAFE region present their national estimates on the product basis.

In the case of payments in kind made to field laborers, teachers, barbers, and other wage earners and professionals similar problems are also confronted. In general, valuation can be based on factor cost and income approach. A factor cost basis requires that these quantities be valued at the supposed cost to the producers which is the net price at which the producers could have sold these quantities in the market or at the net price which the recipient would have to pay to buy these quantities in the market instead of receiving them as wages. It should be noted that the difference between the two is the distributive spread between the prices obtained by the producers and those charged in retail trade to the consumer which apparently includes selling costs.

2. *Measurement of Rural and Urban Product in Real Terms*

It has been observed that the estimates of national product tend to present a lower money value for the rural sector than for the urban economy even for the same type of commodities and services. For instance, a cavan of rice consumed by the farmer is given a lower value than that consumed by a town laborer. Prices of cereals, housing and local handicraft products are generally much lower in value than those on the towns and so are incomes. To obtain a comparable measure of production or income in real terms, it is necessary to construct a special price index, designed to adjust the rural prices to urban prices and calculating national production on the basis of such adjusted prices.

3. *Treatment of Interest Payments*

Interest payments should be classified as to interest paid or incurred (a) on loans for productive purposes, such as those for the acquisition of farm implements, machineries, irrigation,

the digging of canals, and other socially desirable projects, and (b) loans for consumption purposes, such as those for the acquisition of personal durable goods and other consumption expenditures.

The interest payments under (a) should be a part of national income, while interest payments under (b) should be considered as transfer payments. Interest payments on ancestral debts incurred for purely consumption purposes are treated as transfer payments in much the same way as interest on loans for consumption expenditures.

This classification is not yet adopted in the current method and procedures of estimating national income so that it results in considering all interest payments on public debt as transfer payments, thus understating the level of national income.

4. *Measurement of Capital Formation*

Estimates of capital formation which are highly indispensable from the standpoint of economic planning are not yet obtainable in any reasonable degree of accuracy in less developed countries such as the Philippines. In fact even in the highly-industrialized countries with well organized statistical systems, it poses a very serious problem. Capital formation in the Philippines cannot be estimated directly because complete records are not maintained for income tax and other purposes and further, private capital investment in land improvements, wells, and irrigation cannot be directly estimated. At best, estimates can only be made on livestock growth, farm implements and machineries imported from abroad. Construction of dwellings and other structures on the farm, digging of canals, building dikes and a kindred of activities carried on the farm without the use of money, or performed on own account, or self-help basis escape registration or inclusion in national income accounting.

It should be realized that residential construction constitutes one of the major items of capital formation in the Philippines. While chartered cities and the large municipalities issue building permits, for which adjustments are necessary

for undercoverage, undervaluation, abandonment, non-reporting and delays in starting construction, the rural areas do not usually require any registration of building permits. Moreover, any attempt to measure building construction on the basis of cost is bound to fail since a large part of the cost are for materials locally produced and too small to be registered for census of production and labor. Even population censuses by occupational distribution may not provide the necessary information in ascertaining the wage earnings of masons, carpenters, and so forth employed in building construction. In the rural areas, building construction and/or major repairs are usually undertaken by the farmer himself during his spare time and therefore involves the problem of imputation.

Furthermore, an effort to present an estimate of net capital formation is not only confronted with inadequacy of basic statistics but also with the conceptual problem of measuring depreciation or capital consumption allowances. At present, there is no available information on the rates of depreciation used for farm implements since there is no reliable estimate of the total value to which such rates could be applied. Hence, only arbitrary percentage deductions are applied in order to obtain depreciation figures. In any event, depreciation should not bear a direct relation to the value of the product but rather to the stock of capital.

5. *Measurement of Gross National Production in Real Terms*

Because of the fact that present price statistics are not comprehensive enough and rather limited in scope (consumers' prices are based on income expenditures survey of an average family in Manila and the environs), measuring gross national product in real terms becomes somewhat difficult. Ideally, such a task would involve the deflation of every component of the product estimate by an appropriate and more sophisticated price index if we are to obtain a more realistic and meaningful estimate. This requires the construction of a set of price statics that will truly reflect conditions obtaining in all sectors of the economy.

6. *Lack of Basic Statistics*

The task of national income estimation requires a lot of basic information derived from censuses and other economic

and financial statistics supplemented by information on current index numbers of production and prices as well as other statistical series in order to bring up-to-date the result of the latest census. Finally, it also requries special survey for sectors not covered by housing statistics, sample survey, etc.

It should be admitted that most of this information is not yet available and that it is almost difficult to estimate some of the components of national income and product aggregates except by indirect methods. For instance, social insurance statistics which provide the bulk of information necessary to estimate compensation of employees are not yet available. Present estimates of compensation of employees are arrived at by residual method. The same is true with personal consumption expenditures, since family budget studies, census of production, retail sales statistics, to mention only a few, cannot furnish the necessary information.

Lack of basic statistics may be due in part to the fact that sample surveys designed to bring the results of the latest census up-to-date have been conducted only recently. To rely on the census as a benchmark without reliable and adequate information for the intervening years do often result in erroneous estimates.

7. *Unreported Activities in Trade*

In the highly advanced countries, street peddling and operating small corner stores (*sari-sari* stores) may not be materially significant. But in the Philippines where a good portion of trade is carried by street peddlers and *sari-sari* store operators who depend upon these types of activity as their main source of livelihood, exclusion of income derived from this source may constitute a gross undervaluation of national income. Their inclusion, however, will pose a difficult problem — estimating the income derived from this activity where complete records do not exist.

It must be understood, however, that national income accounting was initiated in recent years in the Philippines as in order underdeveloped economies not so much in order to obtain useful data immediately but rather in order "to get the ball

rolling". Data can be useful only after their compilation has been started and improved. Moreover, pre-occupation with national income statistics will open avenues toward the organization of a more useful and meaningful system of gathering basic statistical data.

III. *PLANS FOR IMPROVEMENT*

Realizing this situation, it was felt that various projects calculated to improve and expand the coverage of basic statistics be undertaken under the direction and supervision of the Office of Statistical Coordination and Standards (OSCAS). This Office was created within the National Economic Council and started operations early January 1956. Among the plans and programs that were drawn up immediately upon the creation of this Office are the following:

1. *Philippine Statistical Survey of Households*

One of the outstanding activities under this statistical program is the quarterly Philippine Statistical Survey of Households, the first of which was conducted in May 1956. It is expected that the results of the survey will provide a large body of information on population, occupations, employment, birth rate, personal income and expenditures, housing conditions, etc. The enormous mass of data when finally processed could fill in the needs of national income estimation. It could provide information on the average income of each occupational group or profession which is a prerequisite in computing personal services. It could enable the preparation of population projections upon which estimation of future manpower and future consumption largely depend. Already statistics on unemployment have been released, thus putting to an end the becluded issue of what is the country's true state of unemployment.

2. *Survey of Manufactures*

The second project under the program is the survey of manufactures which is designed to obtain vital information on production by type of commodity; quantity and cost of produc-

tion (such as raw materials, salaries and wages); movements in business inventories; and other related information. Information such as these are important in the computation of national income by industrial origin, i.e. estimation of net value added as well as in the estimation of the components of national income by factor payments or distributive shares.

3. *Capital Formation in Agriculture*

Side by side with the survey of manufactures is the survey of capital formation which is now in full swing. The survey is designed to yield information on the value of machinery and equipment, tools, dwellings, and permanent structures acquired or produced on the farm whether it is own-account construction or production for own use. It is expected that the completion of the survey and tabulation of its results will, in a large measure, contribute to the improvement in estimating gross private domestic investment. At the same time, it will also improve the reliability of the production attributable to the agricultural sector.

4. *Improvement of Price Statistics*

Present price statistics is being compiled by three government agencies, namely: the Bureau of the Census and Statistics, the Bureau of Commerce and the Central Bank of the Philippines. To avoid the overlapping of functions and prevent unnecessary duplication of work while improving the techniques and methodology employed in the production of general price statistics, the OSCAS created a technical working committee which reported the following conclusions and recommendations:

(1) That the Central Bank should continue publishing its present set of indexes and all the work it is doing in price collection;

(2) That the Bureau of the Census and Statistics should discontinue its work on prices;

(3) That the Bureau of Commerce should continue its present price collection and publication for individual com-

modities, but should discontinue computing its unweighted average of retail prices;

(4) That the Bureau of Commerce, if it is possible, should extend its collection for 10 or 15 significant retail items in the provinces and should publish prices only for the items (and not publish an index number);

(5) That the Central Bank, in cooperation with other government agencies, should develop a set of indexes for outside Manila; and

(6) That there is an urgent need at present for a set of price statistics relating to prices received by farmers.

A project for the development of such an index covering the five major crops or products of each to be undertaken by the Division of Agricultural Economics of the Department of Agriculture and Natural Resources was proposed. The maintenance of the index is proposed to be carried in the regular activities of the DAE.

Towards the latter part of August, the Central Bank proposed a project designed to expand the coverage of price statistics in the urban areas on a nationwide basis. The project is now well underway and its completion would undoubtedly provide greater improvement in our present set of price statistics. It would strengthen basic statistics and thus enable the construction of consumer's price index that will truly represent price conditions obtaining throughout the country. It will also facilitate the study of the behavior of wholesale price index for the entire Philippines. In general, it will answer many of the questions faced by national income statisticians in compiling national income statistics, as well as in reducing the national income and production aggregates in real terms — measures much more realistic and meaningful from the standpoint of economic analysis and national economic planning.

5. *Classification of Bank Loans*

Realizing the need to establish a standard system calculated to classify bank loans (or credit accommodations) in the Philippines, a Technical Committee composed of representatives

from financial institutions and the OSCAS was created toward the middle of 1956. The Committee relied heavily on the United Nations technical paper entitled, "International Standard Industrial Classification of all Economic Activities," and the standard classification of the Philippines in an attempt to facilitate international comparability.

While the Committee aims to standardize bank loans to meet the statistical requirements of the individual lending institution, it has also the objective of filling in the statistical needs of the government with respect to formulation of economic development plans, as well as in the analysis of periodic movement and long-run development in lending operations of the country. It should be pointed out that for purposes of sound bank management, statistics must provide the needed data to appraise and evaluate current operations in the light of ordinary norms of banking prudence and profitability by showing the structure to the institution's portfolio and changes in such structure. Statistics must also provide information as to whether the bank's resources are being used in financing high-priority projects, or whether these resources are being wasted in the non-essential activities.

To the extent that this classification is made possible, it will enable the national income statistician to draw a clear line between interest payments for loans, the proceeds of which were utilized for productive purposes, and interest payments for loans, the proceed of which were made for non-productive purposes. Such a classification would improve our interest component of national income in which, for lack of adequate information, interest payments are in general considered as transfer payments.

6. *Income and Expenditure Survey (February 1957)**

The second survey under the PSSH (Philippine Statistical Survey of Households) is to be conducted in February, 1957. Schedules are now being prepared and adjustments introduced in the light of experience gained from the results of the May, 1956 survey. For instance, efforts are being exerted to design schedules in a way that will amply provide the necessary

* This survey has been completed as scheduled.

information for some components of the national income and product aggregates in addition to meeting the needs of other statistical series. It is also expected that this survey will yield information on personal services which are not presently obtainable.

7. *Other Projects Under the Statistical Program*

There are still many aspects of national income estimation in which difficult problems are constantly posing themselves. The inadequacy of information on existing stocks of inventories at the end of each period and on the methods of valuation can only indicate the low reliability of this component of gross domestic investment. Another is the computation of depreciation allowances in which information about methods and basis of depreciation of fixed durable assests is scanty. To obtain this information, it is necessary to enlist the cooperation of the Bureau of Internal Revenue.

Corollary to obtaining adequate information for depreciation is the urgent need to expand the coverage of the survey on capital formation so as to include not only agriculture but also the non-agricultural sector of the country. Such a coverage should provide information on the overall magnitude of the country's stock of capital with which to apply the proper rates of depreciation by type of fixed assets and to obtain reliable information on the aggregate amount of depreciation charged to arrive at a more realistic estimation of net investment.

IV. *THE USES OF NATIONAL INCOME ESTIMATES IN THE PHILIPPINES*

National income statistics can be a very useful tool to both the (1) government and the (2) business sectors when it comes to formulating policies and decision-making in the top echelon.

1. *The Uses of National Income from the Government Standpoint*

The National Government, as one giant corporation, which has complete control over its activities can influence the behavior of business and the consumers to a desired pattern. A

better or scientific way of formulating public policy is by taking into account the national income considerations. National income data provide the materials useful in reaching decisions about government policies that affect the composition and level of economic activity.

As an Indicator of International Comparability

National income estimates can be used in making comparisons between the general level of economic welfare among countries. Although national income cannot be a sufficient condition for social and economic welfare, it is, to a certain degree, a compendium of information that generally indicates the extent of economic well-being among the people. Its use as a single measure of welfare should be subject, however, to some caution for the reason that, aside from differences in general levels of prices, increasing growth of national income in a rapidly developing country may not mean immediately increasing welfare enjoyed by the people. Concentrated current investment expenditures on capital goods may eventually catapult income to higher levels and yet, the pleasure and benefit derived from such increase in production cannot be felt and satisfied at the present time. On the other hand, declining rates in production cannot similarly and conclusively indicate decreasing welfare for the nation may simply be consuming their current stocks.

To use national income for comparing standards of living would generally require a measure of income per head of the population. But this single figure can be used misleadingly if differences in the extent of unemployment of the labor population is not taken into consideration. In other words, national income per capita can be high but if the distribution of income is concentrated among a few, such measure can only lead to wrong judgment. Comparing national income estimates for measuring welfare among countries should be viewed against the background of other information, such as differences in working hours per week or month, differences in the portion of income which have to be spent in providing the bare necessities and amenities of living; differences in that part of income which have to be spent to fight the destructive forces of nature like

flood, drought, and others. If the real income is to be used in making comparisons between two countries, allowance for different levels of prices existing in these countries should also be considered. This is necessary since official exchange rates among countries may not yield easily welfare comparisons by simple conversion factors.

As an Instrument for Public Policy

National income estimate can furnish information about the contribution of government to the productive performance of the economy, and whether that contribution is increasing or decreasing. It can give an indication of the relative portion of a nation's capital formation provided through the government sector. It can indicate, by comparisons among fiscal periods, whether government is contributing to inflationary pressures because of its activities or not.

In short, as a guide for policy makers, the national income accounts can furnish information to two aspects of policy:

(1) Achievement of policy in terms of available resources. (The quantity of additional resources needed to carry out an economic policy cannot be computed without regard to inter-industry relationships.)

(2) Effect of the policy on the operation of the economy in terms of prices, output and employment. (Badly designed economic policies can result in serious inflations so that it is necessary to give careful consideration to the relation of any proposed policy to the actual functioning of the different sectors of the economy.)

Short-Term Policies. — At present, estimates of national income of most countries in underdeveloped areas are still in the preliminary stages of development and are not sufficiently complete and accurate to provide an accurate view of economic changes from year to year nor to present the exact contribution of each industry to the overall economic progress of the country. Nevertheless, the estimates at least convey an idea of the order of magnitude of such changes over a period of years. As more and more basic statistics become available,

national income estimates will be used more as a guide in promoting welfare.

As an instrument for public policy, national income estimates are often indispensable. It can be used effectively in the formulation of short-term public policies such as economic budgeting. It can also draw a comprehensive picture and measure of the probable effects among the income receivers for a projected change in the tax policy. The government can likewise use national income and its different components in assessing the extent to which certain fiscal measures to attain desired ends have been implemented. On the whole, national income accounts can help provide for a source of clear understanding of the workings of the entire economic system, and thus create possibilities of choosing intelligently between different courses of future government action.

In Japan and in Burma, national income accounts are presently used as background materials for the Economic Budget. The Philippines, likewise, uses national income figures in framing the five-year economic development program. Its main use in planning development programs stems from the systematic picture of the major economic flows within the frame-work of the comprehensive accounting system and of the relation between each part to the whole flow. Forecast in changes in the net value added by each sector can best serve the economic planners.

Long-Term Policies. — In long-term planning for purposes of economic development, a choice has to be made between two alternatives: a quick improvement in the ways of living by concentrating in the development of consumer goods industries and social overheads or a slower but firmer economic progress by giving priority to the development of raw materials and capital-goods industries. Once the choice has been determined and the rate and character of investment decided, the groundwork for a balanced economic development program is now broken to pave the way for a definite, long-run economic growth of the country.

The Uses of National Income from the Standpoint of Congress

Congress as the policy-making body is the biggest user of national income estimates. The economic and social legislations demand special studies if they are to produce effective results. From the legislative viewpoint, the uses of national income in the formulation of economic and other public policy are as follows:

(1) *Budget policy.* — Through the budget, fiscal policies of the National Government are coordinated and implemented. Yearly budget goals and targets are recommended to Congress by the Executive for appropriations and authorizations. So that funds are not wasted away, budget estimates must correspond with the economic objectives for the budget year. If for instance, the 1957 Fiscal Plan which guided the current budget embodies the economic objectives of high employment, steady price levels and maximum productivity. With these objectives as the target, budget estimates corresponding to a portion of the government's share in total spending for the year must be related to the desirable levels of total spending and employment.

Budget balancing by increased taxation can be viewed by looking at disposable income after taxation or the magnitude of private savings. Budgetary deficits may be justified by low private and business incomes as reflected in the national income accounts.

Specific instances, wherein the necessity of national income estimates is apparent are in the formulation of expenditure, tax, and borrowing or credit policies by Congress in connection with the authorization of the budget and the fiscal program. These fiscal policies are embodied in the budget policy.

(2) *Expenditure policy.* — National income data can help determine the correct level of government spending during the fiscal year in order to achieve certain economic goals. With these data on hand, the financial committees of Congress can estimate whether the various amounts requested to be appropriated would come up to a total above or below what is required of the government to spend after considering the levels of expenditure of the other sectors of the economy. Once it is known

that business is expected to invest less or household is expected to consume less than before, then Congress can justify increased appropriations. It is possible that an increase of ₱5 million in expenditures by the National Government for goods and services, with tax revenue constant, may produce very different changes in national income, depending on the composition and consequences of the ₱5 million outlay. Some part of this expenditure may lead to additional outlay in the business sector, but some part of the ₱5 million might lead to an offsetting restriction of business expenditures. Both kinds of effects are possible. In this instance, the usefulness of the estimates come in the formulation of the expenditure policy.

Our practice is to appropriate funds more on the basis of individual merits of each case rather than looking at a unified view of total spending. Inflationary and other economic effects of a money bill are treated separately without regard to previous money bills appropriated, expected spending of local government enterprises, and other considerations like time lag and degree of productivity. If ever Congress keeps track of the total amount appropriated, it is to compare it with income to be raised.

(3) *Tax policy.* — National income data are also useful to tax legislation when it comes to reducing or increasing taxes; determining the amount of taxes that could support a certain level of expenditure; absorbing excessive demand; distributing income; and balancing the budget.

Our present practice is to enact or revise tax laws on the basis of individual merits (just like the treatment of money bills) without scientifically considering probable overall economic effects on distribution of income, investment and consumption.

(4) *Borrowing policy.* — A country like the Philippines which is embarking on an economic development program is relying heavily on borrowing or loan financing. Congress is called upon to authorize the projects to be financed by flotation of government securities. Toward this end, the national income estimates could be a useful guide in indicating the answers to

the following questions: Is borrowing from the public appropriate at this time? What should be the size of borrowing that can be absorbed in relation to national income? Should there be a limit to the public debt? How would the management of the debt affect the distribution of income? What pattern of development is desirable?

The national income estimates could shed light on these and similar questions. Congress can then formulate a debt policy wherein legislations on borrowing and bond issue could be based.

(5) *Other public policies.* — The national income estimates can be useful too in the studies and enactment of laws that have bearing on the areas of investment, trade (particularly tariff), credit, monetary price, labor and social security.

In the area of investment, national income estimates can show whether expenditure in a particular sector is adequate to absorb idle resources. A policy of investment — whether private or public — would be called for in the event that its required multiplier effects are necessary. Then again, whether it should be the government or private business that should undertake such investment can be gathered from national income estimates.

Legislations to this effect would be: if private investment is to be encouraged, create an atmosphere conducive to private investment by making funds available for loan purposes and delineate by laws the fields of investment that would be desirable; if public investment is the more positive step, by legislative action enterprises or projects to be undertaken should have to be planned out.

National income estimates can indicate which sector has to spend more to influence the other sectors. Spending power can greatly be augmented by credit policies which would increase consumer purchases.

Monetary policies can be laid down with more accuracy by studying national income estimates. Such questions as: What is the relation between investment and money supply? If the household sector is consuming too much, causing the fast turn-

over of money which in turn causes prices to rise, shall it be monetary policy or tax policy that should reduce this over-rapid spending? What monetary or tax policy would cause this spending to be turned to saving? — are within the province of Congressional action. Fiscal legislations should be in harmony with monetary legislations.

Labor and social security policies can be designed by a careful study of the national income. Estimates that show a rising investment in the private field would indicate the probability of great profits, which might be of better economic effect if in the hands of the workers who will spend them. A legislation requiring an upward revision of wages would take away a part of these profits. Or another way is by taxing part of it and for the government to spend it for social betterment.

These are some of the specific cases of how Congress may avail itself of national income statistics. The drafting of fiscal and other public policies by the Executive policy planners and decision-making by top administration officials could be guided likewise by national income studies. It is worth mentioning here that in the United States and Scandinavian countries, national income accounting provides the basic materials in the preparation of the annual National Economic Budget — which is a comprehensive forecast of national income and expenditure for the forthcoming year. As it is the only complete and comprehensive single picture of how the economic panorama is behaving, the national income estimates are a very useful background against which some legislations like the budget and other appropriation measures may be viewed, studied and analyzed and then enacted into laws.

2. *Uses of National Income from the Standpoint of Business*

National income statistics cannot be as immediately useful to a businessman as other more specific data. Clearly (depending on his line of business) such data as freight carloadings, cargo manifests, prices or money supply are of more direct application for such problems as inventory decisions and pricing. Since national income data are aggregative in char-

acter and moreover are collected after the fact, they have little to contribute to the resolution of current business problems.

However, they would seem useful insofar as economic analysis can be or should be applied to business. This does not have to be too sophisticated and fraught with intangibles: General Motors is said to have arrived at a formula (doubtless after some economic analysis) for predicting consumer demand for its automobiles. This formula surely takes into account (besides such factors as the horsepower of the cars!) also the trend in national income and the per capita income distribution.

National income and product statistics are also vitally needed in analyzing many of the problems that face the business system. For exmple, they can help in business cycle analysis and forecasting. Regarding wage-rate problems, data collected may help business and labor in assessing the impact to the economy as a whole by proposals in question. A market specialist may gain much by watching the flow of the consumers' disposable income and its regional distribution in planning the marketing end of his product.

Thus national income data, as a whole and divided up into component parts, can be useful as indicating trends: the growth of the economy, which sectors are growing faster or slower, and so on. Such data can be used for estimation, and can assist in the formulation of long-range decisions — such as the need for electric power (*vide* especially the growth of manufacturing) transportation, or fuel, or a whole general group of investment decisions.

Again national income data can be of help to financial institutions. Banks in our country are increasingly being drawn into long-run financing. Now, in addition to the traditional C's of credit (character, capacity, capital, collateral), there is another: conditions. Insurance companies, building and loan associations, should find need for reliance on national income data.

The national income statistics would be even more useful to businessmen (as well as to economists) if the data could

be collected on a quarterly basis, as in the United States. Such figures would only show trends or rates of national income, but even such tentative calculations would increase enormously the usefulness of national income aggregates. They would become more current, could show seasonal trends, would help the businessmen plan not for so long a period ahead as a decade or a span of years, but ultimately perhaps from quarter to quarter. The effect on the precision in business decisions and speed with which they can be made may be intangible but undeniably great.

Insofar as the insurance business is concerned, it is not very clear as to what specific uses it can make of the national income estimates. It is possible that the trend of the national income or the behavior of its various component parts, particularly income received by both individuals and corporations, might affect the level of activity in the insurance business. This is true with life and fire insurance.

Marine insurance on the other hand would be dependent on the value of imports and exports. The "rest of the world account" of the national income estimates may be of use to the insurance people. In the Philippines, marine insurance is mostly dependent on the value of imports (consumers goods, equipment and machinery) where the local importer is not a branch or a subsidiary of an American or foreign company. Inasmuch as the buyer generally designates the insurance carrier it is feared that not much of the value of exports is insured in the Philippines.

V. *CONCLUSIONS AND RECOMMENDATIONS*

The usefulness and reliability of any system of national income accounts can never exceed the usefulness and reliability of available basic statistical material. As the organization and compilation of basic statistical sources is necessarily a long-run matter, it follows that the compilation of useful and reliable national income is necessarily also a long-run proposition. The first one to point this out was the UN expert who organized the first system of national accounts in the Philippines.

It is our impression that at present the analytical usefulness of existing national income data is extremely limited. We are also convinced, however, that the present work being done — especially consumer surveys — will provide information which will be useful in improving the reliability of data.

The present estimates of gross and net investments are not sufficiently useful for ICOR purposes due to lack of adequate records as well as due to conceptual difficulties involved. The rampant undervaluation of imported capital goods and the scanty data on capital formation carried on in the farms lead to the underestimation of gross domestic investment. On the other hand, the meaning to be attached to net capital formation depends on the concept of depreciation used. Depreciation as an economic concept cannot be readily translated into a definition which could be easily quantified for measurement purposes.

The survey on capital formation in agriculture has been designed to improve the rationality of the components of domestic investment so that they will be more meaningful to users. Another survey of manufacturing production under "1956 Survey of Manufactures" is partly intended to yield better information on gross investment in the business sector.

As in the economic development context, next to net investment the rate of growth is one of the most strategic variables it might be useful to construct a more meaningful deflator than has been used hitherto, i.e., the consumer price index. It would be more useful to use special indices to deflate the various components of GNP.

To our knowledge the flows of Compensation of Employees and Entrepreneurial and Property Income of Persons are obtained by applying ratios obtained from the 1948 Census to an aggregate national income at factor cost obtained through industrial origin. In the absence of another census in the foreseeable future, the household surveys of the NEC may generate information which might permit an adjustment of those ratios. The same may hold in regard to the division into income in cash and in kind and agricultural and others. The

ratios are likely to have changed, possibly substantially, since 1948.

While the projects that have been undertaken under the Philippine statistical program have contributed greatly to the solution of some of the major problems faced in national income estimation, much remains to be desired. With some segments of the system already established, all that remains is the improvement and strengthening of the weaker segments of that system. The OSCAS is constantly conducting a study and appraisal of the various problems in this direction with a view to institute measure for their solutions. Our next program, therefore, should include the continuation of projects already started, introducing changes to bring about better results and to propose new projects (such as those mentioned in our plans for improvement) calculated to cover other areas.

The creation of an Office of Statistical Coordination and Standards is a step in the right direction. Given the proper support budget-wise and a higher degree of cooperation from the other statistical collecting agencies of the government, it is not unreasonable to expect that this office can contribute in no small way to the establishment of a well integrated and well-coordinated statistical system in this country that is more responsive to the needs of the business and government in the years to come.

We believe that any statistical program no matter how comprehensive and well conceived cannot hope to solve all the problems of national income estimation simultaneously within a relatively shorter period of time. It requires a program of orientation on the part of the general public as well as the well-informed businessmen and government executives before an efficient system of statistical collection can be finally established. Such a task requires the collective effort from all sectors of the country and from all levels of the public administration service.

We would like to make it of record that the OSCAS (NEC) and the Department of Economic Research of the CB are doing a splendid job in improving continuously the national in-

come estimates of the Philippine Government considering the various administrative and academic problems that confront them.

Respectfully submitted by Task Committee "A"

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