

TOWARDS AN INTEGRATED SYSTEM OF ECONOMIC ACCOUNTS

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Introduction

National account estimation in the Philippines was attempted for the first time in 1947 when the Joint Philippine-American Finance Commission prepared estimates for the years 1938 and 1946. The purpose of the exercise was to analyze the economic situation and assess the rehabilitation long being requested by the Philippine Government from the U.S.A. at the time.

In 1950 the Department of Economic Research (DER) of the Central Bank took up national income work and subsequently presented a series for the period 1948-1950. Like the previous attempt, however, the estimation procedure was based solely on the final value of goods and services produced.

It was in 1952 when DER released a new and comprehensive national income series for the period 1946-1951 which marked the introduction of the double-entry method, the system adopted and carried out since then. The series, which replaced the earlier estimates made, was prepared under the supervision of William T. Abraham, National Income Adviser, who came under the United Nations Technical Assistance Program at the request of the Central Bank. DER went on to compute the estimates and continued the series up to the year 1956.

In 1957 the Office of Statistical Coordination and Standards (OSCAS) of the National Economic Council took over the responsibility for national income estimation, primarily for two reasons: (1) the accounts would be a very effective tool for the development and coordination of a sound statistical system as

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the preparation of the accounts would point out data gaps and weaknesses of existing statistical series, and (2) estimation and analysis of the national income would greatly help the National Economic Council in the formulation of economic policies and the preparation and assessment of socio-economic development plans.

At present, preparation of the accounts is undertaken by the National Accounts Staff of the Statistical Coordination Office, National Economic and Development Authority.

From its humble beginning almost thirty years ago the system has expanded in size and scope. In addition to the basic national income and product accounts, there are now the input-output (interindustry) accounts, which were introduced some ten years ago, and the just developed flow-of-funds accounts. Moreover, semestral and quarterly estimates as well as annual regional breakdown of essential income and product components are available on a regular basis.

Major Improvements on National Income Estimation

The national income and product accounts, together with the supporting and analytical tables, have provided analysts and economic planners with the basic information needed for economic analysis and policy formulation. As such, the accounts have always been subjected to scrutiny and question. Doubts have been expressed freely and repeatedly regarding the adequacy of the estimates as well as the methodology employed in estimation.

It may be of interest to point out here some of the more recent and significant improvements and innovations made over the years if only to show that there exists a continuing program of study and research designed to increase the validity of the national income accounts.

1. Direct Estimate of Private Consumption Expenditures (PCE).

Prior to 1968, PCE had been estimated as a residual by netting from the gross national product (GNP) the sum of government current expenditures (GCE), gross domestic capital formation (GDCF) and exports less imports. This had been criticized since as early as 1960 by economists and national income experts, one of whom pointed it out as "probably

the most serious single deficiency in the accounts." All had been one to suggest utilizing the results of the BCS surveys on family income and expenditures, initiated in 1957 and taken about every four years since then.

It took OSCAS several years to study the matter and it was only in 1968 that an attempt was made to estimate PCE directly. The display of reluctance obviously was because of the fact that PCE is made up of consumption expenditures not only of households but also of private non-profit institutions. While the BCS household survey provided estimates for the household component, no data were available for the latter. Actually, an attempt was made sometime in the middle-1960's to survey these private non-profit institutions but the problems proved to be insurmountable. Right at the start, identifying and locating these institutions, except for the large and long established charitable, social and civic organizations, was found to be extremely difficult. At present, the problem of penetrating these institutions and collecting necessary information on their activities could not as yet be given high priority.

The 1968 PCE estimate, for all its limitations vis-a-vis the non-household component, and which probably was no more than a "guesstimate", started the direct estimation process of consumption expenditures. Treadgold, commenting on the revised series of 1970, considered it to be the "most outstanding methodology change". The process resulted in having two independent estimates of the GNP—one from the side of value added or income originating from industries, and the other from summing the various items of final expenditures. A balancing item, labeled "statistical discrepancy", has since been placed on the expenditure side of the accounts to reconcile the two estimates. Placing this item in the expenditure account also indicates that the estimate of expenditure is assumed to be of relatively less precision than that of income, obviously a reflection of the errors in the PCE estimate.

The estimation process meanwhile has been undergoing changes to increase validity. A few years ago, regression estimates using income elasticities derived from results of the BCS household surveys on family income and expenditures were employed. At present, however, the commodity flow approach is used and this method seems to be relatively more adequate since tracing the distribution of the total available supply automatically accounts for both household and non-household consumptions.

2. Estimation of Value Added.

Estimates of value added, for some years back, had been obtained in general, except for a few sectors, by applying fixed percentages (value added ratios) to estimates of gross output. The use of constant ratios, which had been the target of criticisms in the past, implies that there has been no change in the production process over the years, the validity of which decreases as the period extends farther away from the base year.

(a) **Up-dating of Value Added Ratios.** Needless to say, up-dating of the ratios is one of the major preoccupations of national income estimators. The need is felt especially in the agriculture, mining, construction, services and trade sectors. For this, a number of continuing surveys, notably the annual and quarterly surveys of establishments (ASE and QSE) by NCSO, and researches and studies on cost of production conducted by such agencies as BAEcon, U.P. Los Baños, Bureau of Plant Industry and Bureau of Mines have provided very useful results, contributing largely towards doing away with the use of outdated fixed ratios. The input-output tables likewise have become a potential source of data for deriving up-to-date ratios, as well as a tool for identifying areas and extent of undercoverage of gross output.

(b) **Improvement of Gross Output Estimates.** The estimation of sectoral gross output has drawn as much attention and effort as the value added ratio, since its accuracy likewise affects the validity of the value added estimate. The NCSO ASE and QSE and the BAEcon Integrated Agricultural Surveys provide the bulk of information needed during intercensal periods. In this connection, it should be noted that a continuing program of improving the design and quality of said surveys has enhanced the precision of estimates, even as the two agencies are at present in the process of integrating their household surveys into one joint effort to effect economy and better efficiency.

But one of the most interesting developments with respect to the measurement of gross output is that of private construction. While the previous estimate was based entirely on permit reports of a limited number of cities and provincial capitals and their percentage share to the total, estimation is now made separately for "permit" and "non-permit" areas. Permit areas covered by NCSO have increased tremendously such that pre-

sent coverage includes all cities and urban areas of almost all municipalities. Non-permit areas therefore are confined mostly to just the rural areas. Estimates for permit areas are derived from permit reports adjusted for undervaluation based on a 1974 Survey of Private Construction conducted jointly by NEDA-NAS and NCSO. For non-permit areas, the method involves regression of the number of dwelling units from census benchmark and determining newly constructed units using life of building as the parameter. Value of construction is then obtained by utilizing current information on housing costs from the results of studies of the Philippines Homesite and Housing Corporation.

(c) Direct Monitoring of Information from Establishments.

Considered a big breakthrough in national income estimation is the monitoring of information from establishments, either directly or through administrative intermediaries. Thus, data representing individual contributions to the economy's value added are now obtained directly from such firms as MERALCO, Metropolitan Waterworks and Sewerage System, Manila Gas Corporation, National Power Corporation, National Electrification Administration, Philippine National Railways, and PLDT. On the other hand, data on banks and non-banks are now furnished by the Central Bank, insurance companies by the Office of the Insurance Commissioner, mining companies by the Bureau of Mines, and local water establishments by the Local Water Utilities Administration.

At present, efforts are being made to expand the coverage of the data monitoring network. Prospects are directed particularly to groups or sub-sectors composed of establishments which are relatively small in number and easy to identify.

(d) Estimation of Real Value Added. The use of the double deflation method in determining value added at constant prices or real value added has replaced wherever possible the old and often criticized method of either extrapolating by an employment index the base year value added or deflating the current value added by a single price index. The double inflation method involves the deflation separately of the value of gross output and the value of intermediate inputs. This is employed in the manufacturing, construction, electricity-gas-water, and transportation sectors where estimates of gross output and intermediate costs are available.

3. Measurement of Gross Capital Formation.

The method of estimating the different components of gross domestic capital formation has seen a lot of improvement and has removed many of the objectionable features that existed in the past.

Private non-farm construction, as already mentioned above, is now derived from separate estimates of permit-area and non-permit area constructions. Estimation of farm construction, on the other hand, makes full use of the results of the BAEcon Survey of Capital Formation in Agriculture.

Estimates of investments on durable equipment now fully utilize the NCSO-ASE results for the domestic component and up-dated mark-ups for imported durable equipment. Provisions are also made to remove the possibility of double counting by removing from imports CKD's (completely-knocked-down parts) and other parts that go to local assembly or manufacturing plants. Similarly, efforts are made to see to it that durable equipment reported in inventory by traders, items that were overlooked in the past, are excluded from the estimate.

Change in inventory, previously obtained as a fixed percentage of gross output or value added and at times as a residual, are now estimated directly utilizing ASE inventory figures and those from BAEcon and NGA surveys for agriculture.

4. Foreign Trade Statistics.

Figures on foreign trade transactions have also undergone improvement. Estimates of exports at constant prices are now obtained by deflating directly each of the first 20 (instead of the former 10) principal exports, comprising some 80 per cent of total exports, and deflating the rest by an appropriate composite price index. Import values, on the other hand, are deflated by 2-digit commodity groups instead of the previous method of using only one global deflator. Moreover, net factor income from abroad now includes salaries and wages of nationals abroad.

One added feature of the foreign transactions account is its more detailed presentation showing such new items as compensation of employees and property and entrepreneurial income to and from abroad, as well as capital transactions with the rest of the world.

5. Pending Problems.

The continuing program for the improvement of national income estimation includes in its priority list for immediate attention or implementation the following activities:

(a) Direct estimation of compensation of employees: Attempts are now being made to estimate this item from ASE data for the private sector with appropriate adjustments to account for the unorganized sector. However, problems on ASE coverage of some service sub-sectors are yet to be resolved. The use of SSS and GSIS data, long considered and at one time tried, may be worth giving another try. But a very good prospect is the use of data from the recently set up state insurance fund administered by both SSS and GSIS which applies to, and covers all types of employees (private and public), including casuals and temporary workers.

(b) Improvement of agricultural statistics: Data from animal breeding stations, plant nurseries, agricultural pest control entities, etc. are at present weak or not available. Plans are underway to include these in the coverage of the NCSO establishment surveys, annual and quarterly. Also data on the agricultural activities of integrated agri-business firms are most likely omitted in their reports to NCSO. The plan to monitor and utilize reports of these firms to the Board of Investments is expected to yield better results.

(c) Further improvement of estimates of durable equipment: There is an urgent need to review the present capital-consumer allocation ratios used, some of which may be seriously outdated. Plans are now being contemplated to conduct another survey of importers and dealers of durable equipment for the purpose of collecting up-to-date information on mark-ups and tracing the final destination or use of the merchandise. Moreover, the list of durable equipment now employed is also undergoing a close reexamination to have it "purified" further.

(d) Monitoring of foreign transactions data: Efforts are now being made to urge the Central Bank to establish direct and regular communication with all foreign embassies in the country to monitor their expenditures. This may be extended to cover also international organizations like the ADB and WHO. It is felt that expenditures, such as wage payments to local staff and expenditures on domestically-supplied goods and services, may be understated by relying merely on foreign ex-

change records. The possibility of further deconsolidating the Balance of Payment statement to enable tabular presentation according to the new SNA format is also being studied.

DEVELOPMENT OF OTHER ECONOMIC ACCOUNTS

The ever growing demand for statistical information to enable economists and planners analyze the economic process in all its aspect led to the development and compilation of new economic accounts as extension and elaboration of the basic national income and product accounts. Economic analysis has now placed great emphasis on the use of disaggregated models in addition to the highly aggregated models which use as main variables the aggregates in the national income and product accounts.

1. Interindustry (Input-Output Accountts).

The first input-output table in the Philippines was constructed and released some ten years or so ago. This was for the year 1961. Subsequent tables have followed every four years since then—the 1965 and 1969 tables; a present work is in progress for the 1973-1974 table.

Strange as it may seem, however, and talk of the massive efforts and resources that go into the work notwithstanding, two independent sets were prepared for each of the 1961 and 1965 tables. One version was constructed by OSCAS, NEC and the other by the Bureau of the Census and Statistics (BCS) in collaboration with the U.P. School of Economics.

The "race" was on once again, this time for the 1969 table and everything was heading to a situation of having as before two separate tables, but for the timely intervention of Secretary of Economic Planning and NEDA Director General Sicat who came to the scene and issued an order for reconciliation and release of just one table. Thus, the 1969 input-output table emerged as a joint undertaking between the NEDA National Accounts Staff and the National Census and Statistics Office (formerly BCS) which after all is now under NEDA.

The advent of input-output data and techniques enhances in no little way the spectrum of quantitative analysis for they provide an effective way for utilizing a large mass of data which are not usually shown in the aggregative national in-

come and product accounts. While national income figures are confined to global values of income (value added) and final expenditures, the input-output table focuses attention on the structural relationships and transactions among the various sectors of the economy.

Input-Output techniques have found useful application in setting up industrial priorities and assessing development plans and programs. The input-output approach, in particular, has been effectively put to use in reviewing the Board of Investment's investment priority plans and evaluating the impact on the economy of price changes in, for example, oil and oil products, transportation fares, and electric and water rates.

In the input-output accounts, concepts of value added and final demand are made to agree with those used in the national income accounts. Thus, final demand, made up of private consumption expenditures (PCE), government current expenditures (GCE), gross fixed capital formation (GFCF), change in inventories (ΔJ), exports (E) and imports (M), corresponds gross domestic expenditures (GDE) at market prices. Value added, on the other hand, consisting of wages and salaries (W), operating surplus or other value added (OVA), depreciation allowances (D), and indirect taxes net of subsidies (IT), is equivalent to gross domestic product (GDP) at market prices. These definitional identities, in symbols, are:

$$\text{GDE (at market prices)} = \text{PCE} + \text{GCE} + \text{GFCF} + \Delta J \\ + \text{E} - \text{M} + \text{customs duties}$$

$$\text{GDP (at market prices)} = \text{W} + \text{OVA} + \text{D} + \text{IT} \\ + \text{customs duties}$$

The customs duties item has to be added because imports, negative entries in the input-output table, are inclusive of customs duties and are therefore netted out altogether in the summation.

2. Flow-of-Funds Accounts.

In May 1975 NEDA and the Central Bank of the Philippines entered into a working arrangement to undertake jointly the compilation of flow-of-funds accounts. The joint undertaking would be carried out specifically by the NEDA National Accounts Staff (NAS), Statistical Coordination Office, and the CBP Department of Economic Research (DER).

The decision to compile the flow-of-funds accounts was in answer to the "need to organize the various types of statistics compiled by government and private agencies and present these in a form of sufficient detail to show credit and money flows resulting from financial transactions." Indeed the accounts would add a new dimension in the field of quantitative economic analysis, and together with the national income and product accounts and the input-output table, would provide a more comprehensive view of the structure and the interlocking processes of the economy.

The working arrangement delineated the responsibilities between the two agencies: DER to take charge of the financial institutions (monetary authorities, deposit-money banks, other banks, and non-bank financial institutions) and rest of the world (foreign) sector, and NAS, the non-financial institutions (households and unincorporated business, private and government-owned or controlled corporations, and general government, national and local).

A major objective of the flow-of-funds account is to show the relationship between non-financial activities as defined and measured in the national income and product accounts and the financial market processes and intermediation. The accounts would show, for example, a deconsolidation of saving and investment among domestic sectors indicating the flow from lending sectors (those that have excesses of saving), such as households, to sectors that are in need of funds, such as business and government, detailed by type of instrument.

At present the worksheet of the first flow-of-funds accounts for the year 1974 has just been completed and is under review by NEDA and CB staffs prior to official public release. As planned, this first table on financial flows will be the start of a new series in the system of economic accounts.

3. Regional Accounts.

The institution of regional development planning as an integral part of the overall national development program has made it imperative to compile meaningful statistics at the regional level, not only to serve as basis for the formulation of regional plans, but perhaps, more important, to assess the impact of these plans. It is obvious that there is an urgent need to add regional dimension to the current system of economic accounts.

In response, to this demand, the NEDA National Accounts Staff launched the Regional Income Accounts Project in 1974 with the main purpose of compiling income and product accounts for the different regions, in accordance with, and as integral parts of, the current national income series. Available data, however, including those obtained through the conduct of ad-hoc surveys, e.g., on private construction, on fishing and on land transportation, permit for the present only the product or income originating approach in the estimation of the regional accounts. The expenditure accounts pose problems on concepts and data requirements that could not as yet be given high priority in the allotment and scheduling of resources.

Regional Income Accounts for the years 1967 and 1971-1974 have so far been completed. And effective last year regional income estimation work has been incorporated in the regular functions of NAS and regional income have thus become a regular series of the system.

Also, since last year, exploratory work has been conducted jointly by NAS and NCSO for the possibility of constructing regional input-output accounts. The problems however appear to be more formidable than ever and although modest gains have been achieved a lot more remains to be done. For the moment, efforts are aimed towards the collection of commodity flow statistics. Arrangements for monitoring needed information are being negotiated with the country's main carriers—Philippine National Railways, Philippine Airlines, and a network of freight truck establishments—and the response has been one of cooperation and is indeed very encouraging.

In this connection, it may be of interest to note that a number of ad hoc studies are now being undertaken by some government and private entities for the purpose of monitoring information on movement of commodities to and from the different points of the country. The Inter Agency Committee on National Transport Study, in order to determine transport needs, is conducting a survey to trace the flow of commodities through the different modes of transportation. The Maritime Industry Authority meanwhile is following port-to-port movements of goods for the purpose of obtaining inputs to the preparation of the 10-year Maritime Industry Development Program. The Trade Assistance Center of the Department of Trade, in cooperation with the Sales and Marketing Executives of the Philippines (SMEP), Chamber of Commerce of the Philippines (CCP), and Philippine Chamber of Industries (PCI), is launch-

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the statistical tools employed.

3. The third part of the document presents the results of the study, including a comparison of the different methods and a discussion of the implications of the findings.

4. The fourth part of the document discusses the limitations of the study and suggests areas for future research. It also includes a conclusion that summarizes the main findings and their significance.

5. The fifth part of the document provides a detailed list of references and sources used in the study. It includes a comprehensive bibliography of relevant literature and research papers.

6. The sixth part of the document includes a list of figures and tables that illustrate the data and results. It also contains a list of appendices that provide additional information and supporting materials.

7. The seventh part of the document is a list of acknowledgments, thanking the individuals and organizations that provided support and assistance during the course of the study.

NEDA and the Statistical Advisory Board. From these reports, current statistical series, including data available from unpublished reports of regulatory and other offices, are examined and weighed against data requirements of users. In the process, data gaps and duplication of activities leading to conflicting results are identified together with appropriate recommendations for action and implementation.

The last few months have seen some remarkable achievements in the elimination of wasteful duplication of efforts in the collection and processing of similar or identical information. Price statistics, for example, used to be collected by NCSO, Central Bank, BAEcon and Bureau of Domestic Trade all separately from one another—clearly a case of wasteful duplication, not to mention the confusion created by the conflicting figures presented to the public. Through the efforts and initiative of the inter-agency committee on price statistics, with the support and assistance of the Statistical Advisory Board, the four agencies were brought together around the conference table where the issues were discussed intelligently and objectively until an agreement was reached. Now, the collection and dissemination of price statistics are a joint undertaking of the four agencies in accordance to an agreed upon division of responsibility: BAEcon for all agricultural food items, CB for non-food items in Manila and Suburbs, Bureau of Domestic Trade for non-food items in all trade centers under their jurisdiction, and NCSO for non-food items in the rest of the country not covered by the other three agencies in addition to its responsibility for the processing and publication of the combined results.

Similar cases of duplication are now being looked into by the Statistical Advisory Board. There is that one involving the NCSO, CB, and the Wage Commission, in which each conducts a separate survey of establishments for the collection of production, employment, and other related statistics. The situation clearly calls for integration and the task has been assigned to a special committee created for the purpose. An initial meeting has already identified and defined the terms of agreement among the three agencies, and integration similar to that in price statistics is well underway. Another special committee meanwhile is now in the process of looking into the possibility of integrating three separate household surveys on food consumption now conducted by the National Grains Authority, the Division of Special studies of the Department of Agriculture, and the Food and Nutrition Research Institute. The

FNRI survey is concerned primarily with nutritional as well as clinical aspects of food consumption and employs the food weighing method to measure actual food intake. The NGA and DSS surveys, on the other hand, both employ the interview and recall method and integration is strongly recommended. The FNRI may also find a place to cooperate in some aspects of the joint undertaking, like the use of the same sample which can generate a lot more information for analysis than if the individual surveys were taken independently.

The projected integration of the NCSO household survey and the BAEcon agricultural survey which is due for implementation in October this year represents a remarkable development in the statistical system. The two surveys, as they are, represent the two major household surveys in the country that have been conducted separately for the past twenty or so years. And there is no duplication for each has objectives different from those of the other. Integration, therefore, might appear on the surface to be simply a case of pooling efforts and resources to attain the same individual objectives. But tremendous advantages at once emerge, aside from the gain in cost. The many possible cross-tabulations will certainly lead to a wealth of statistics heretofore not available. Also to some extent, response resistance will diminish since the otherwise possibility of visiting a respondent twice, if the two surveys were conducted separately, will now be removed.

The NCSO-BAEcon Integrated Survey has been the result of the sustained efforts of the Inter-Agency Committee on Survey Design which drew the sample design and formulated the questionnaire. It took more than one year and two pilot runs for the committee to find its way through the maze of seemingly formidable problems, but the project, if successful, can very well pave the way for handling independent surveys of the same nature in the other fields.

NEDA has been undertaking a massive and thorough assessment of all statistical activities of the government with the help of the various inter-agency committees. Recognizing the deficiencies and inadequacies of the statistical system and its production after an initial assessment in 1974, NEDA prepared the Statistical system and its production after an initial assessment in 1974, NEDA prepared the Statistical Development Program for FY 1975-1978 and plans to extend the program up to year 2000 are now being contemplated. The program identifies specific activities of agencies in the statistical

system under the following headings:

- (1) Undertaking quinquennial and/or decennial census operation;
- (2) Improving existing statistical series;
- (3) Initiating new statistical activities;
- (4) Strengthening the statistical capability of other agencies;
- (5) Training and developing statistical manpower; and
- (6) Improving statistical coordination and standards.

In support of the program, a statistical development fund has been set up, from which financing of new statistical projects or activities outside of the regular functions and work programs of agencies may be drawn. An initial amount of five million pesos has been approved and will be made available for the calendar year 1977, to meet the budgetary requirements of the projects programmed during that year.

INTEGRATION OF THE VARIOUS ACCOUNTS

The various accounts by and large are prepared independently of each other, although efforts are made to adopt the same concepts and estimation procedures whenever possible. There is some merit in adopting this method, since one of the objectives in developing new accounts is to improve existing estimates both in concept and methodology. Compilation of an account is therefore free to turn to new sources of data and new estimation techniques. The process, for one thing, yields and makes available alternatives from which a choice can be made to solve a given estimation problem.

It is for this reason that the various accounts—the national income and product accounts, the input-output (interindustry) accounts, and the flow-of-funds accounts—are not necessarily in complete agreement. In the case of the regional income accounts, efforts are made, as already mentioned, to reconcile the figures with those of the national income and product accounts since the former by design and actual compilation are nothing more than a regional disaggregation of national income totals. But this is more of an exception than the rule.

The New SNA as a Framework for Integration: The United Nations new system of national accounts—actually this was introduced and circulated way back in 1968—could provide the

framework within which the three accounts could be related and combined into a coherent form. The new SNA, which seeks to show in detail the flows and stocks in the economy, is a complete and elaborate accounting system which contains and relates the basic components of the national income accounts, input-output tables and flow-of-funds accounts; and, for that matter, of national wealth and sector balance sheets.

In the new system, the input-output and flow-of-funds accounts are each viewed as an extension and elaboration of some portion of the current national income and product accounts. Thus the input-output table is nothing more than a disaggregation of the production account into industries and focuses on tracing the flow of products between industries. In the flow-of-funds accounts, the different financial institutions or sectors of the economy are identified and the financial flows covering the issuances of liabilities and acquisitions of assets between the sectors are traced.

The use of matrices and component submatrices is the main feature of presentation of the new system. In matrix form, where the sources are entered in the rows and the uses in the columns, the structure of the system and the position of every element are made clear. More precisely it shows how the different national income aggregates may be disaggregated into the various input-output and flow-of-funds categories. It may be viewed to start with as a simple matrix of the four types of transactions—production, consumption, accumulation, and rest of the world—and then the matrix is elaborated by splitting each cell into sub-cells thus presenting each of the types of transactions in greater detail.

However, it is not the intention of this paper to get involved in the intricacies of the new system, but rather to just dwell on such fundamentals as are related to the present problem of integration.

It is easy to relate the input-output table and the national income accounts. The basic features of the former have already been discussed above and obviously there is no serious problem in combining and integrating the two accounts into one expanded system. As stated earlier, the primary inputs and the final demand consumptions in the input-output table correspond to the gross domestic product and gross domestic expenditures, respectively, of the national income and product accounts. This set of definitional identifies (on gross domestic

product and gross domestic expenditure) that links the two systems sets up the frame for integration and makes the work simple. Moreover, as previously pointed out, concept and definitions, including classification schemes, adopted in the compilation of the two accounts are as far as possible in complete agreement.

As for the flow-of-funds accounts, it is important to recall that one of the major objectives of compiling them is to relate non-financial activities as presented in the income and product accounts to financial-market processes of the economy. More precisely, a major portion of the flow-of-funds accounts is essentially a deconsolidation among domestic institutional sectors of the different gross domestic capital formation components (personal savings, corporate savings, general government savings, capital consumption allowance, and net borrowing from abroad). It follows therefore that national totals of saving and investment in the two accounts should agree with each other.

But this is not quite the case. In the flow of funds accounts purchase of consumer durable goods are treated as capital expenditures rather than as consumption, as in the income and product accounts. Another basic difference is that estimate of capital consumption allowance in the former is based on the book value of fixed assets, instead of on replacement cost.

Nevertheless, discrepancies arising from such differences in concept and definition in the two accounts are easy to isolate and will certainly not pose any serious problem in integration.

It is clear from the above that the three current accounts can be consolidated into an integrated system of economic accounts with the new SNA providing the basic framework. Integration, as recommended by the United Nations, may be implemented in stages to avoid getting lost in a big mess of complications at any one time. Later on as data and resources permit, national wealth and sectoral balance sheets can be compiled and added to the system to make it completely in accord with the new SNA format.

CONCLUDING REMARKS

The standard of the present system of economic accounts, many observers (critics mostly) say, has reached a high level that can compare with the standards of most other developing countries. Through the years it has undergone many changes

to keep pace with the times, has grown wider in scope and dimension to meet increasing demands of economic analysis and policy making, and has weathered many a storm (of criticisms, that is), but always addressing itself to the task of providing unbiased information.

Whatever credibility and quality and sophistication that the system of accounts has attained reflects the state of development of the country's statistical system. For after all, the system of economic accounts, to quote the United Nations, provides an excellent means of appraising any actual or proposed scheme for the collection of economic statistics since a place for virtually all these statistics is provided systematically somewhere in these accounts."

This precisely was the underlying principle that set forth the direction and scope of the five-year Philippine Statistical Development Program of 1974, and is the basic consideration that is being used in its assessment and projected extension to the year 2000. The system of economic accounts, in more ways than one, may be taken as the ultimate end product of all statistical efforts of the government.

At present the national income series consists of annual, semestral and quarterly estimates, as well as, of late, regional disaggregation of the annual income aggregates. The input-output tables, on the other hand, are compiled every four years with a plan to constructing tables during interim years by the use of a device developed in input-output analysis. Finally, the first flow-of-funds accounts have just been completed and would henceforth come out as a regular series.

The figures and concepts in the three accounts are not as yet in complete agreement but it has been shown that the accounts could very well be consolidated into an integrated system of economic accounts under the framework of the new SNA recommended by the United Nations. Thus, the input-output table could be presented as a deconsolidation of the production account and the flow-of-funds transactions as an elaboration of all relevant financial transactions in the same system. Finally, sectoral balance sheets and possibly national wealth accounts could be added in the future to complete the accounting structure.

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The Philippine Statistical Association, Inc. regrets to announce the death of our colleagues:

- 1) Dr. MEREDITH B. GIVENS — Founding Member
- 2) Dr. JOSEPH MORTON — Life Member
- 3) Mr. AUGUSTO M. NIETES — Life Member &
National Life
Representative