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1 INTRODUCTION

The Objectives of National Economic Accounting

National economic accounting has as its prime objective the creation of an information framework suitable for analyzing the operation of the economic system. A modern economic system operates on the basis of a network of transactions. Individuals receive compensation for their labor or for their ownership of assets, and they use this compensation for purchasing consumption needs or for acquiring assets. Business firms buy goods and services from other business firms, and pay for labor or other factor services that they use. In turn they sell their output on the market. Governments collect taxes from individuals and business, and provide a wide range of public services and transfer payments. Assets are bought and sold, and liabilities are incurred and paid off. In fact, a bewildering mass of transactions takes place simultaneously. In analyzing the operation of the economy or in evaluating its performance the economist must consider information on this flow of transactions as a major part of his basic data.

Although market transactions provide the basis of national economic accounting, all market transactions need not be recorded in the accounts. In some cases it is only necessary to use the net change resulting from a group of transactions: thus, in observing the stock of goods held, interest may focus on the net change from period to period, rather than on the total flowing into the stock and the total flowing out. Many other transactions are trivial, and add little to an explanation of the operation of the economy. Relatively unimportant agency functions may be consolidated out: for example, an individual's action in changing the denomination of his currency so that he can carry out smaller transactions can be ignored. Most transactions have economic meaning, however, and the national economic accounting framework should provide a systematic and comprehensive treatment of these transactions so that the operation of the system is portrayed accurately.

To provide a complete picture of economic activity, it is often necessary to impute transactions in situations where important economic activity is taking place but no market transaction occurs. Internal bookkeeping represents one major class of such imputed transactions. Such factors as depreciation of capital and changes in equity should be reflected in the accounts even though these bookkeeping entries involve no actual market transactions. Another type of imputed transaction records nonmarket economic activity taking place within economic units. In many countries the amount of such nonmarket economic activity is considerable: farmers produce food for their own use; and individuals owning their own homes receive a flow of services from home ownership. Finally, imputed transactions are required where payment or trade between economic units takes place in kind. Employees, for example, may receive food and shelter as part of their compensation, or a depositor may receive banking services in exchange for the use of his deposits. Also, in some countries barter of goods and services may occur on a significant scale.

The transactions data must be organized and presented so that the behavior and interaction of the major parts of the system will be revealed and the structural changes taking place in the system can be understood. Because the economic system is in general equilibrium, different macroeconomic problems will be directly related to one another, and the national economic accounting framework can serve as an integrating device. To be useful in economic models that are intended to analyze the interactions among different parts of the economic system, the national accounts must provide suitable methods of disaggregation and deconsolidation so that these interrelationships can be observed and measured.

Although a system of classification or arrangement may imply an economic model, it does not follow that a specific economic model should underlie the design of a national economic accounting system. A number of different models may have similar information requirements. The adequacy of a given national economic accounting framework should be judged by (1) whether it can provide the basic information required for the major classes of economic models, and (2) whether it can avoid presenting information not required for any reasonable economic model.

Such a system must be able to meet the information requirements of a wide variety of uses. It has long been recognized that national accounts information is required for studies of income determination, and it is becoming increasingly clear that studies of production functions, balance of payments, monetary policy, capital formation, income distribution, and similar problems must all be carried out in terms of their setting in the economic system as a whole. For these uses, accounts must provide both the general framework within which the interaction takes place and the detailed economic information needed for specific analysis of the different problems.

The Elements of National Economic Accounts

For evaluating its design, an economic accounting system can be considered to possess certain characteristics. These are (1) the structure of the national income accounts in terms of the types of economic activities and the sectoring of transactors in the economy, (2) the economic constructs on which these accounts are based, and (3) the method of integration of the national income accounts with other national economic accounts and related data.

The Structure

The concept of an account is basic to the development of a national income accounting system. Accounts provide the framework for recording actual or imputed sets of transactions. An account may be drawn up for any specific type of economic activity that the economist finds useful. Thus, the economist desiring to record current economic activity may focus on production, consumption, capital formation, redistribution of income, or any other block of transactions he wishes to use. The literature of national accounting abounds with different kinds of accounts drawn up for a variety of purposes. For a national income accounting system, the accounts chosen must provide systematic coverage of all economic activity, and unnecessary detail and redundancy must be avoided.

The structure of the system, however, also depends on the sectors of the economy. Customarily, sectors refer to particular groups of transactors. Thus, for example, accounts may be set up for sectors composed of particular industries, business firms, households, governments, nonprofit institutions, etc. It is by the use of sectors that the economist can delineate the transactions network among various groups in the economic system. In the last analysis, it is sometimes hard to distinguish between a type of economic activity and sectoring of the economy. For example, considerable difficulty arises in the case of international transactions: many national income accounting systems consider the set of external transactions to be a particular type of economic activity, whereas other systems arrive at similar results by setting up a foreign or rest of the world sector. In spite of these difficulties, however, it is useful to consider the structure of a national income accounting system in terms of a two-fold classification consisting of (a) the type of economic activity for which transactions are classified and (b) the division of the economy into sectors of transactors.

The Economic Constructs of National Income Accounts

The concept of national income was originally intended to measure the economic welfare of the system in terms of the income produced. With the further development of macroeconomic theory, additional economic constructs such as gross national product, consumption expenditures, capital formation, personal income, and disposable income were introduced; as national income accounting has developed, these and other economic constructs have provided much of the content of the system. To an increasing extent, however, economists working on more elaborate economic models have found a need for further disaggregation and deconsolidation of the major economic constructs into their component parts.

The economic constructs contained in the accounts must provide identifiable economic variables which are important for economic analysis. The success of economic research depends upon the development of operational concepts capable of statistical measurement. Without analytically useful constructs, the content of the national income accounts becomes meaningless. Instead of providing the analyst with a coherent body of useful information, it will merely contain a confusing mass of detail.

The Integration of National Income Accounts With Other Economic Accounts and Related Data

Although most of this discussion has been in terms of national income accounts, these are not the only forms of national economic accounts. Almost all countries now have some form of national income accounts, many have input-output tables, some have sets of financial accounts, and a small but increasing number have wealth accounts or balance sheets. The degree of integration among these accounts differs widely from country to country, as does the degree to which these economic accounts are integrated with the large body of other social and economic information. In very few, if any, countries are all of these forms of economic accounting systematically related to one another.

The integration of national income accounts with other economic accounts and with the related economic and social data is important for the future development of economic information systems. Many of our recent economic models require a wide variety of information. For example, models designed to measure the effect of government fiscal and monetary policy not only require the information contained in the national income accounts to appraise the impact of a change in the tax structure upon individuals and businesses, but they also require financial data to evaluate the repercussions in areas like housing, consumer credit, and business investment. These repercussions in turn must be examined in the context of output, productivity, and employment in such industries as construction, automobiles, and producers durables. Recent interest in the problems of poverty, similarly, has emphasized the need for investigating selective effects of changes in the level of economic activity and prices on such socioeconomic groups as the unskilled and less educated or the fixed income retired population.

In this context, a national economic accounting system should provide the general framework into which all economic and social data can be fitted. This does not mean that it is the duty of the national accountant to specify all of the social information needed for all social problems. It does mean that it is very important for the economic accounting system to provide for the integration of social and economic data so that the direct and indirect effects of the operation of the economic system on social factors can be examined. Conversely, it should be possible to evaluate the effects of both programmed and unprogrammed social changes on the economic system.

Evaluating the Design of National Economic Accounts

Almost all countries have distinctive national accounting systems, with some similarities but also wide differences in basic concepts and in the treatment of specific problems. In addition, a considerable number of ideal or standardized systems have been proposed. A systematic coverage of all of these actual and proposed systems would be a considerable task—one that would discourage even the most avid national accountant. A more manageable approach is to confine the analysis to the national economic accounting systems of the United States and the United Nations. The last major revision of the United States system occurred approximately a decade ago and the current United Nations System of National Accounts is even older. The United Nations has recently revised its system. The revisions were reviewed by the International Association for Research in Income and Wealth in 1965 and the Conference on Income and Wealth in 1966. Both of these conferences raised a number of issues that seemed to warrant further exploration.

The new UN revision represents a significant departure from the present US system. It suggests a radical change in the form and quantity of information in order to integrate a number of different forms of economic accounting into a single system, and it gives somewhat less attention to the major intersectoral relationships and the economic rationale underlying the major economic constructs. In considering the design of a new economic accounting system, therefore, it is useful to evaluate the US and UN systems in terms of the design characteristics of national economic accounting set forth above, and to suggest alternatives to them. The evaluation of the various systems and the economic rationale of possible alternatives will be discussed in Chapters 2, 3, 4, and 5, and in Chapters 6 and 7 the alternatives will be presented in the form of proposed national economic accounts.

Chapter 2 examines the structure of the US and UN systems of national income accounts in terms of the types of economic accounts and the major sectoring of transactors employed, and makes specific recommendations. Chapter 3 evaluates the major economic constructs in these accounts and considers the implications of possible alternatives for the measurement of specific economic constructs. Chapter 4 discusses the integration of the national income accounts with other economic accounts and with related data, giving special consideration to the questions of the role of a data framework and how data should be provided to the analyst. Chapter 5 examines the classification systems and their relation to the integration of economic accounts. Chapter 6 sets forth a proposal for a national income accounting system embodying many of the suggestions relating to types of accounts, sectoring, and economic constructs made in Chapters 2 and 3. The estimates presented in this chapter and in Appendix C will provide the reader with some idea of the nature and magnitude of the proposed revisions, but the estimates are not intended to serve as basic statistical information. Chapter 7 and Appendix C present a proposal for the integration of the other economic accounts and related data with the national income accounts. These sections are in outline form only. Although data are available to implement many parts of the proposed system, a full implementation is beyond the resources of this study. It is reasonable to believe, of course, that the process of implementation would suggest some modifications in the content of the system.