

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: The National Economic Accounts of the United States: Review, Appraisal, and Recommendations

Volume Author/Editor: National Accounts Review Committee

Volume Publisher: UMI

Volume ISBN: 0-87014-063-9

Volume URL: <http://www.nber.org/books/nati58-1>

Publication Date: 1958

Chapter Title: Chapter VI. Constant-dollar estimates

Chapter Author: National Accounts Review Committee

Chapter URL: <http://www.nber.org/chapters/c6361>

Chapter pages in book: (p. 60 - 70)

TABLE E.—*Summary of receipts and outlays for the economy*

Sector	Receipts				Outlays					Excess of receipts (+) or outlays (-)
	Goods and services	Taxes	Transfers	Total	Goods and services		Taxes	Transfers	Total	
					Current	Producer durables				
1. Consumer households										
2. Nonprofit institutions										
3. Enterprises										
(a) Nonfinancial private corporations										
(b) Financial private corporations										
(c) Nonfarm unincorporated enterprises										
(d) Farm enterprises										
(e) Government enterprises										
4. Government										
(a) Federal										
(b) State										
(c) Local										
5. Foreign countries										
6. Subtotal										
7. Adjustments for intermediate purchases, transfers and statistical discrepancy										
8. Gross national product										

6. SUMMARY OF RECOMMENDATIONS

Integration of the various forms of national accounts into a single system is feasible at an aggregative level. The national income and product accounts provide a framework that can be utilized for this purpose. In recommending that such integration should take place, however, the committee does not mean to suggest that it be carried out at any but a highly aggregative level. Different Government agencies interested in such fields of national economic accounting as input-output tables, flow-of-funds statements, and balance of payments will find it necessary to make considerably more detailed studies for their own special purposes. Nevertheless, the committee believes that there is considerable merit in using the data arising from these more detailed studies, supplemented in some cases by additional data, to produce ultimately a single integrated national economic accounting system of the type described in this chapter.

CHAPTER VI. CONSTANT DOLLAR ESTIMATES ³¹

1. THE PROBLEM

In the committee's judgment, one of the areas of most needed development is the estimation of national product and its components in

³¹ This chapter is virtually limited to a discussion of constant-dollar estimates of national product and income. This limitation was indicated by the predominant importance of the income and product account for the problems of deflation and the similarity, though not identity, of the deflation problems encountered in the other segments of the national accounts. It was, moreover, enforced by the limitation of time at the committee's disposal. Some remarks on the special problems of constant-dollar national balance sheets will, however, be found in chs. V and XIV.

terms of constant dollars, i. e., in terms free from the influence of year-to-year variations in prices. The potential uses of such constant-dollar estimates for the economic analyst are as great as those of the current-dollar estimates. Without such figures it is not possible to say whether an increase or a decline in the current-dollar estimate of gross national product from one year or one quarter to the next reflects a decrease in the physical volume of production, or is due primarily to a change in prices. The answer to this question, however, is clearly of critical importance to the Government in reaching a decision as to what policies to adopt, and will probably be of significance to business firms in formulating their sales and production programs.

Again, constant-dollar estimates of gross national product are necessary to assess changes in the Nation's level of living. We wish to know whether the average volume of commodities and services per member of the population is higher in 1957 than a year or a decade ago, and, if so, whether this higher level is due to a greater supply, say, of food and clothing, or automobiles, or defense goods. But for this type of comparison use of the current-dollar estimates of gross national expenditure is insufficient, since the more recent expenditures were made at a price level which averaged noticeably higher than that of a decade ago; hence, it is necessary to turn to a constant-dollar estimate.

We are interested also in tracing changes in the Nation's productivity, as reflected, for example, in the average output per man-hour of work. Has productivity increase in this country been greater in recent years than abroad? In what parts of the economy has it been most rapid—in agriculture, manufacturing, trade? Where has it lagged behind? Again, answers to these questions require estimation of national product and its components in terms free from the influence of price changes.

At the present time constant-dollar estimates are published by the National Income Division only for total gross national product and certain very broad expenditure components. Consumption expenditures, for example, are divided only into expenditures for durable goods, nondurable goods, and services, and Government purchases are split into Federal and State and local expenditures. What is equally serious, these estimates are available only for annual periods.³² The overwhelming proportion of the National Income Division's resources is devoted to preparation of the current-dollar estimates. Indeed, prior to 1950 there were no constant-dollar estimates published at all. The lag in this area is no reflection on the National Income Division. First, by the nature of the estimating process, the current-dollar figures must precede the constant-dollar ones. Secondly, the National Income Division is critically dependent in this area on the close cooperation of other statistical units in the Government that are engaged in assembling and analyzing price data, particularly the Bureau of Labor Statistics and the Agricultural Marketing Service. While such cooperation has been generously given, these other agencies, too, operate under the constraint of limited resources, and hence progress has

³² Quarterly estimates of total disposable-income and personal-consumption expenditures in constant dollars (without component detail) are published in the Economic Report of the President under current practice in January of the following calendar year. These estimates are quite crude, however, since they are obtained by adjusting the current-dollar estimates by the consumer price index.

been less than if the development of price data specifically for national accounting purposes had been an explicit assignment of these agencies. Thirdly, the National Income Division has hardly the staff required for current-value estimates alone.

However, with only a modest increase in the resources devoted to preparation of the constant-dollar estimates, a noticeable expansion in scope of the estimates could be achieved while, with the initiation of a comprehensive program, great progress could be made. For this reason and because of the fundamental nature of the uses which these estimates serve, the committee is inclined to assign to this work a very high priority among the possible additions to the national accounts. The desirability of this work is further attested to by requests from all types of users for expansion of the constant-dollar estimates.

In the committee's view, most of the uses to which constant-dollar estimates might be put would be served by annual estimates in considerable detail of the price and volume components of the current-dollar series for gross national product, subdivided both by type of expenditure and by originating industry, plus similar though more abbreviated estimates on a quarterly basis, particularly for the expenditure distribution. The following recommendations are accordingly framed with a view to the development of such data. Before presenting the detailed recommendations, however, it may be helpful to explain more fully the nature of the ultimate objective which the committee envisages.

Each element of national product, which is in the nature of the aggregate expenditure by 1 or more sectors on a given type of commodity or service, can be regarded as the product of 2 components, 1 a quantity, the other a price. The expenditure figure is always explicit. The quantity and the price component may be either explicit (i. e., they reflect observed quantities or prices) or implicit (i. e., they result from the division of expenditures—a current dollar magnitude—by either a quantity measure or a price, which in turn may be an average or an index). In many cases the two components can be measured explicitly, but their product will not yield the given expenditure figure because of differences in coverage and for other more technical reasons. Hence, in the final estimates one of the components will be determined implicitly. Wherever possible an explicit measure should also be derived for purposes of control; that is, an index of observed prices as a control of the implicit price index and an index of quantity of output as a control of the deflated expenditure figure.

If the suggestions envisaged below are accepted as a long-range goal 2 sets of 3 tables each would be published to show the relationship between current- and constant-dollar figures. The first table of the first set would show the well-known estimates of gross national product by type of expenditure in current dollars; the second would present estimates in constant dollars; and the third would show the corresponding price indexes. In every case multiplication of matching entries in the second and third tables would yield the corresponding entry in the first. To illustrate, the first part of the current value table would consist of a condensed version of the present table 30 of National Income, 1954 edition, "Personal consumption expenditures by type of product"; the corresponding part of the second table

would present constant-dollar figures for the same items as in table 40; and the corresponding part of the third, the consumer price indexes (as in table 41). Similarly, matching entries in the successive tables would be provided for various categories of domestic investment and of Government purchases, and for net foreign investment. A second set of three tables would provide the desired data on the distribution of gross national product by industry of origin. The first table, which would resemble in appearance the present table 13, "National income by industrial origin," would present the distribution in current dollars;³³ the second, the distribution in constant dollars; and the third, the price indexes.

Since the latter set of tables showing a constant-dollar distribution of national product by industry of origin would constitute a substantial innovation in the supply of constant-price data, it is perhaps helpful to recall some of the uses this set of data would serve. It would provide what are in effect indexes of output (deflated value added) for all major sectors of the economy, closing a major gap in our present body of statistical knowledge, and permitting analysis of the changing industrial structure of the economy. Thus, one might determine whether an expansion in total output was associated with a more rapid expansion of agriculture or manufacturing, of transportation or trade. On the statistical side, aggregation of the industry indexes of net output (deflated value added) would provide a largely independent estimate of total real (constant dollar) gross national product, thus providing a check on the total derived by summing constant-dollar expenditures. Equally important is the possibility of using these data together with matching data on man-hours to derive measures of output per man-hour of the economy, and to analyze the role played in these changes by different industrial sectors and by shifts of workers between low- and high-productivity industries. Such productivity analysis, which requires a distribution of constant-dollar product by industry of origin and is not possible with the distribution by type of expenditure, would be important not only in increasing our knowledge of the past and present, but also in attempting to project the future productive capacity of our economy.

The recommendations in sections 2 and 3 which follow are framed with a view to developing a body of data of this type on a limited scale in the immediate future, but in the required detail later on.

2. RECOMMENDATIONS FOR THE IMMEDIATE FUTURE

(a) *Development of quarterly estimates*

The development of a constant-dollar estimate of gross national product and its components on a quarterly basis is of very great importance for improving current interpretation of cyclical movements in our economy and for the formation of public policy. The regular preparation of such estimates at an early date appears feasible by adapting the methods presently used in preparing the annual estimates

³³ Aside from showing less industrial detail, this table might differ from table 13 in that the entry for each industry would relate to gross product originating rather than national income originating, possible at market prices rather than factor cost. The committee has not attempted to specify whether valuation should be at market price or factor cost, or the product originating estimate should be net or gross of capital consumption allowances, since the choice at the present time must largely rest on feasibility of statistical derivation.

to the more limited price data available quarterly. Much of the necessary preliminary exploration and testing has already been done by the National Income Division. The extent of detail on expenditure components that can be published will of course be limited by the supply of quarterly price data. If, as is recommended below, the supply of data is sufficiently expanded, publication of quarterly constant-dollar estimates in detail as fine as that presented for the quarterly current-dollar estimates should be aimed for.

(b) *Expansion in component detail*

At present the published annual estimate of constant-dollar personal consumption expenditure is subdivided only among durables, nondurables, and services. In the actual preparation of this estimate, however, constant-dollar figures are developed for considerably narrower categories. While some of the estimates for more detailed categories are of necessity crude, some expansion in the published detail could be achieved if sufficient opportunity were available to test and strengthen these estimates by comparison with alternative sources. For the immediate future, it would be very useful if detail could be published as fine as that now given in the present quarterly (current-dollar) estimate, where, under durable goods, separate data are given for "automobiles and parts" and "furniture and household equipment," while among nondurable goods, estimates are provided for "clothing and shoes," "food and alcoholic beverages," and "gasoline and oil," and under services, data are given on "household operation," "housing" and "transportation."³⁴

(c) *Distribution of gross annual national product between Government product, household and institutional product, and business product*

At present no regular estimate is made of the distribution of gross national product in constant dollars by industry of origin, though as indicated above, such an estimate would be very important for analyzing the growth of productivity in the economy. However, from time to time the National Income Division has prepared an estimate in constant dollars of gross product originating in agriculture,³⁵ and this has permitted the development of a crude industrial distribution of gross national product among gross private farm product, gross private nonfarm product, and gross Government product. These data are currently brought up to date by the Council of Economic Advisers in the Economic Report of the President.³⁶

The committee favors the direct preparation and publication of these estimates by the National Income Division on a regular basis, as part of the regularly published annual constant-dollar estimates, since despite the crudity of the industrial classification, these data provide an important starting point in analyzing productivity change in the economy. Also, since the present practices used in deriving the constant-dollar estimates assume, for lack of appropriate techniques, no productivity change in the household and institutional sectors of the economy, the committee favors the separate presentation of a constant-dollar estimate for these and similarly situated sectors,

³⁴ E. g., Survey of Current Business, February 1957, p. S-9.

³⁵ E. g., Survey of Current Business, August 1954.

³⁶ Cf., e. g., table E-3, January 1957 report, p. 126.

so that the segment of the total product to which productivity analysis can be properly applied may be isolated. In addition, matching series on man-hour employment should be developed in cooperation with the Department of Agriculture and the Bureau of Labor Statistics, and presented along with the product estimates.

3. RECOMMENDATIONS FOR THE LONGER RUN

The recommendations listed above appear feasible within the limits of currently existing data or with only moderate additions thereto. Those listed below, however, would probably require greater expansion in underlying data and in some cases would presuppose further exploration on methodology.

(a) *Expansion in detail of constant-dollar expenditure estimates*

We have already noted that some extension in the detail of constant-dollar consumption expenditure seems feasible at the present time. Over the longer run, additional expansion seems desirable, particularly in the area of consumers' durables. Of even greater urgency is the development of detail on expenditures on producers' durable equipment, for which no subdivision is now presented, and on Government purchases of goods and services in the same detail as proposed for current expenditures in chapter VII, sections 2 and 3.

(b) *Development of matching constant-dollar and man-hour estimates*

The committee suggests a cooperative attempt (among the National Income Division, Bureau of Labor Statistics, Agricultural Marketing Service, Federal Reserve Board, and other interested agencies) to develop constant-dollar estimates of output and man-hours for the major nonagricultural sectors of the economy in as much detail as seems warranted.³⁷

As indicated above, a constant-dollar division of gross national product by industry of origin and a corresponding distribution of man-hour employment appears feasible at present only for a very crude industrial distribution—agriculture, household and institutional, government, and "all other." The major gap is detail for the real product of the nonagricultural sector of the economy other than government and household and nonprofit institutions. Considerable preliminary work toward developing the desired estimates has already been done by certain nongovernmental organizations, and the Bureau of Labor Statistics has developed constant-dollar estimates of the net output of manufacturing that could be adapted for purposes of real product measurement. Further exploration is still necessary, and will be furthered by the recent formation by the Office of Statistical Standards of an Interagency Committee on Production and Productivity Estimates set up specifically for this purpose. The 1958 meeting of the Conference on Research in Income and Wealth, which will be devoted to conceptual and statistical problems in the estimation of real output, input, and productivity, should further contribute to this end. These studies together with prior work should provide the

³⁷ A recent examination of this problem and other issues in the measurement of deflated national product is given in John W. Kendrick, *Measurement of Real Product*, Studies in Income and Wealth, vol. 22 (in press, to be published by Princeton University Press for the National Bureau).

foundation for development of the desired current real output estimates in considerable industrial detail by means of the cooperative program recommended above.

Needless to say, a ratio such as net output per man-hour does not provide a measure of the contribution of labor to output. Eventually, it would be desirable also to develop measures of the capital input in each industry, but work in this area has not reached as advanced a stage as that on the measurement of real product and labor input. For this reason the committee has emphasized the latter as the primary areas for the development of official estimates at the present. Elsewhere, however, the committee is recommending work on the development of estimates of real capital stocks, and with substantial progress on the stock estimates, the development of estimates of current capital input might become feasible.

(c) Development of additional price indexes

A series of conferences should be initiated among interested users and producers to review the present constant-dollar estimates, to survey the needs for development of additional price data and indexes for use in strengthening and extending constant-dollar estimates of both national product and input-output data, and to recommend an integrated program for meeting these needs.

Though listed last among the major recommendations for the longer run in the preceding paragraphs this is in a sense the most urgent. A review of the type suggested is clearly necessary to the extensions of the constant-dollar estimates recommended above. Moreover, it is basic to improving the quality of the present estimates—estimates that have not yet been subjected to a thoroughgoing review and revision, as well as to strengthening those extensions of the estimates which are believed practicable in the near future.

The present annual constant-dollar estimates suffer from some important shortcomings. While some of these are more or less inevitable, a number are due simply to the fact that the price data and indexes presently used have been assembled for purposes other than the development of constant-dollar estimates of national accounts data. If the latter were recognized as an explicit objective, substantial improvements might be effected.

The price data presently used in deriving constant-dollar estimates do not provide comprehensive coverage of the various commodities and services included in national product. This is particularly true with respect to producers' and consumers' durables, Government procurement, and certain types of consumer and business services. This lack of data forces resort to a number of compromise solutions. In some cases the price movement for selected items is imputed to an entire group, as in the case of the special industry machinery category of producers' durable equipment; or the price movement of a good in a certain geographic area may be imputed to other areas. While such devices will always be necessary, it would be desirable to narrow their range as much as possible. Again, indexes of production costs (total or partial) are sometimes used instead of price indexes, as in the area of new construction; or indicators of man-hour employment have been used to extrapolate the base year expenditure for a particular group of items, as, for example, in the case of Government expenditures for employee services. These techniques, as the National

Income Division stresses, fail to allow for productivity change and in some cases for changes in profit margins.

If more price data of the proper type were assembled it would be possible to construct constant-dollar estimates for narrower categories of expenditure than at present, thus reducing the range of imputations necessary, and some cost or input indexes might be replaced by price indexes proper. In addition to assembling new data on final expenditures, it would be desirable to increase the collection of price data on materials and other intermediate products purchased by producers, and also to extend the body of data collected on a quarterly basis. This would facilitate implementation of some of the extensions in the constant-dollar estimates recommended above. Attention should also be given to the advantages and limitations of hypothetical price indexes for products which change materially in their makeup over a period of time. (Such indexes could be constructed by assuming a set of specifications for a finished product and by taking periodic hypothetical bids for its production from a representative group of producers.)

Finally, improvement in the constant-dollar estimates would result from the construction of price indexes with weights more appropriate to national product deflation. At the present time many of the price indexes used in deriving the constant-dollar estimates are weighted with a view to some other purpose, and this necessarily reduces their usefulness in deriving the constant-dollar estimates.

Collection of more data and the construction of new indexes will not solve all problems relating to the derivation of constant-dollar estimates, however. For certain sectors of the economy it is difficult to conceive of a physical volume measure, and the very concept of "real product" seems called in question. This is particularly true with respect to the treatment of financial services, domestic servants, non-profit institutions, and services of Government employees. At present constant-dollar estimates for most of these sectors are derived by extrapolating the current-dollar figure in the base year by a series on factor input in the sector, a technique which involves the very questionable assumption that productivity change is zero.³⁸

Some efforts have already been made to go beyond a measure of factor input in treating these sectors. In some countries an attempt has been made to develop direct indicators of physical volume of output; for example, changes in the volume of hospital services have been measured by changes in the number of people receiving medical attention. The shortcomings of this approach are obvious; the matter therefore calls for further exploration. Other investigators have attempted to measure volume of real output in these sectors by adjusting the measure of man-hour input for the productivity change registered in analogous sectors of the economy, though identification of an analogous sector would clearly be difficult. Indeed, several committee members favor the adoption of this treatment at the present time in estimating the real volume of output in the Government sec-

³⁸ This is not true with regard to financial services. However, the procedures followed in deriving constant dollar estimates of these services are rather difficult to interpret. For example, in the case of life-insurance companies, in obtaining the physical volume of services, the service provided is broken down into the insurance and investment components, and the former is extrapolated by the dollar volume of insurance in force, deflated by the consumers' price index, while the latter is extrapolated by the total admitted assets of insurance companies, similarly deflated.

tor, on the ground that despite the shortcomings the error would be less than that involved in the present procedure.

It is obvious that a good deal of further work is needed before agreement can be reached on reliable measures of constant-dollar output for these sectors, and the committee recommends that these problems be subjected to intensive study both within and outside the Government. The Conference on Research in Income and Wealth might wish to consider this as a special topic of study in a forthcoming program.

4. SUPPLEMENTARY RECOMMENDATIONS RELATING TO CONSTANT-DOLLAR ESTIMATES

(a) Development of constant-dollar income estimates for different groups in the population

There remains one major type of use of constant-dollar estimates which the foregoing set of data would not serve, namely, comparison of the level of economic well-being of different groups in the population. One wishes to know, for example, how the national income is shared between persons in high- and low-income groups, between the farm and nonfarm population, and among members of the population in different parts of the country, and what changes are taking place in the shares of these groups over time. Such information, when considered in conjunction with data on the changing numbers in these groups, is important in appraising the performance of our economy and in formulating public policy. The estimates previously discussed provide a basis for determining the change in the level of economic well-being of the population as a whole, but not for these different groups within the population.

The distributions of personal income by size of income and by State, published by the National Income Division, and the estimates of income of the farm and nonfarm population, published by the Department of Agriculture, provide an important point of departure for answering these questions.³⁹ They suffer, however, from the defect of being in current-dollar terms only. It is possible, of course, to convert them to constant dollars by use of a national price index, such as the implicit price index for personal consumption expenditures, and this is sometimes done. But conceptually this is inadequate, for it fails to allow for the possibility that the price level and trend differs among various groups in the population, and therefore that the current-dollar shares of these groups (which, of course, would remain unchanged if a national price index were used as a deflator) differ from their "real income" shares.

There is at the present time some information on the price level and/or trend experienced by various groups in the population. The Consumer Price Index of the Bureau of Labor Statistics refers essentially to the prices paid by wage and salary earners in the lower and middle income groups living in urban communities, and the Department of Agriculture compiles indexes on the prices paid by farmers.

³⁹ In passing it may be noted that there would be some merit from the point of view of convenience to users in incorporating the farm-nonfarm estimates in the national income supplement with the few modifications necessary to shift to the personal-income concept. The National Income Division estimate of the distribution of national income by industry of origin is, of course, inappropriate for the present purpose, since it does not take into account income accruing to the farm population from nonagricultural sources and, conversely, for the nonfarm population.

There have also been one-time studies of price differentials between rural and urban areas and of differential price trends in the various States.⁴⁰ But much needs to be done to improve the comparability of such indexes with the income categories distinguished in the national income accounts and to fill in gaps for groups in the population not presently covered. The extent to which development of continuous indexes stretching at least from 1929 up to the present would be desirable cannot, of course, be determined in advance, but depends on the extent to which significant price differences are uncovered as a result of such studies.

An additional conceptual difficulty arises with regard to the question of whether and how the part of personal income used for the payment of taxes and the acquisition of intangible assets should be deflated. The committee, therefore, recommends that the Bureau of Labor Statistics in conjunction with the National Income Division consider this problem as well as the possibility of developing price indexes relating to the personal consumption expenditure of various income-receiving groups in the population. Some further comments along these lines appear below (secs. IX 2c, IX 3c, and X 14).

(b) Constant-dollar estimate of net as well as gross national product

This would require the development of an estimate of capital consumption allowances in constant dollars. The committee recommends in chapter VII, section 5, the preparation of supplementary replacement cost estimates for capital consumption allowances which presuppose constant-dollar estimates. Once these are available derivation of the net product estimate will be a simple matter of subtraction from the deflated gross product total. Such an estimate would be useful in providing a better approximation to the real net output of the economy by excluding from the final product total the estimated fraction of the capital stock used up in current production.

(c) Periodic reweighting of the constant-dollar estimates

It is shown that the degree of change shown by a constant-dollar measure of gross national product will be influenced by the choice of the weight-base year. For example, if relative price and physical volume movements of individual commodities are negatively correlated—as is often the case in the long run—then the rate of real output growth will be greater if the weight-base year refers to an earlier rather than later date in the period. There is no unique solution to the choice of the weight-base year, though some analysts prefer a more recent date, since it is more consonant with current experience. When first published, the constant-dollar estimates of the National Income Division were in 1939 prices, but they were subsequently shifted to a 1947 price base. The committee favors the use of fixed base weight indexes and endorses the policy of periodic reweighting in terms of more recent year prices. It also favors the occasional recomputation of a recent year estimate in prices of an early year for the purpose of analyzing the influence of the choice of the base year. If possible, development of constant-dollar estimates in 1929 prices for selected years would be helpful for this purpose, but such an estimate is of low priority compared with other needs.

⁴⁰ Cf. Nathan Koffsky, *Farm and Urban Purchasing Power, Studies in Income and Wealth*, vol. 11; and Abner Hurwitz and Clarence B. Stallings, *Interregional Differentials in Per Capita Real Income Change, Studies in Income and Wealth*, vol. 21.

(d) Extension of the constant-dollar estimates back of 1929

The committee recommends elsewhere the extension of the current-dollar estimates back of 1929. A similar extension of the constant-dollar series for gross national product and the principal expenditure components is also recommended. Not only would such data be of interest for a closer study of economic growth in this country, but it would be useful in providing a broader base for comparison than the present initial year, 1929, which from many points of view was an exceptional one.

(e) Preparation of a special supplement on constant-dollar estimates

At present very little is published on the methods and sources of data underlying the constant-dollar estimates. Preparation of a supplement to the Survey of Current Business presenting information in substantial detail is important for the proper interpretation and use of these estimates.

(f) Other proposals

A number of other proposals relating to the constant-dollar estimates were considered of lower priority, because insufficient developmental work had been done to merit their being undertaken on an official basis at the present time, or because the quantitative departure from the present or proposed estimates would be small. Among these were the development of constant-dollar estimates of factor input, obtained by adjustment of the current-dollar income estimates by indexes of factor rather than of product prices; and the development of constant-dollar expenditure estimates valued at factor costs as well as at market prices.

The committee also considered the question of developing constant-dollar estimates of certain financial flows, for example, personal saving and undistributed corporate profits. Since these flows do not relate to any identifiable product magnitude, the choice of a price index for adjustment to constant-dollar terms seems essentially arbitrary, and can be determined only with reference to the particular purpose at hand. If, for instance, the amount of saving supplied in recent years should be compared with that of the twenties, one might deflate present-dollar figures by use of a composite index reflecting the price measurement of investment goods, particularly producers' durables and construction. In this case, we measure the ability of saving to finance investments. For other purposes, other indexes may be more appropriate. For instance, if we measure private saving as a reserve for old age, or for financing children's education, or for the case of serious illness, different methods of deflation would be warranted. The committee believes that the selection of the appropriate deflators must be left to the analyst using the data. Therefore, the committee refrained from recommending any attempt to develop a general price deflator for saving.

CHAPTER VII. SPECIFIC PROBLEMS OF MAIN ACCOUNTS

1. THE PERSONAL ACCOUNT

The personal segment of the national income and product accounts covers essentially the consuming public, and therefore incorporates