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*Part One*

CONCEPTS OF NATIONAL INCOME

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*Discussion*

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# CONCEPTS OF NATIONAL INCOME

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## *I National Income and Social Income*

THE PURPOSES of this memorandum are first, to indicate the present status of concepts of national or other social income, and to outline the most useful types of income breakdown; second, to consider some of the questions that are now particularly moot with respect to concepts of national income, and to suggest possible answers.<sup>1</sup> It should be fully recognized that this procedure involves taking sides on issues that are necessarily controversial and that may well continue to be controversial for some time.

In the following discussion references will be made to social income and social wealth. For the world as a whole and for parts of it either smaller or larger than an entire nation there may be need for measures corresponding to those designated as national wealth and national income. The terms 'social wealth' and 'social income' are intended to include both these cases and cases of national wealth and national income.

While this memorandum is focused on concepts of social income, some discussion of social wealth is unavoidable. The writer believes that several moot questions respecting concepts of social income can be discussed adequately only when their relations to questions concerning social wealth are recognized. Indeed, the world's social income may perhaps best be defined briefly as the total value of goods and services entering ultimate human consumption plus the increase in social wealth.

<sup>1</sup> For other discussions of this general problem from somewhat different points of view see Clark Warburton, Part Two, and Gerhard Colm, Part Five.

For the purposes of defining social wealth and social income precisely a society should be conceived as consisting of two parts: (a) a producing organization or 'economic system'; (b) the families or individuals who contribute their labor or the services of their property to the economic system, and who receive the benefits of its operation. The concepts of wealth and income are essentially accounting concepts, or more precisely, financial statement concepts. Statements of wealth and income for an economic system correspond closely to the balance sheet and the revenue-income-and-profit statement for any single business enterprise. Indeed, existing methods of estimating social income consist in consolidating or putting together either (a) the financial statements for the businesses and other enterprises of which the economic system consists, or (b) the financial statements for families or individuals conceived as consumers, investors, savers and workers. In estimating social wealth all balance sheets are consolidated simultaneously.

In the consolidation of all balance sheets, assets that are in the nature of claims by one set of parties upon another are canceled by the corresponding liabilities of the second set of parties, so that the vast bulk of remaining assets (or social wealth) at least for the entire world, consists of tangible assets. It is convenient to group these assets under two heads: (1) durable goods for which depreciation or depletion accounts may be assumed to be maintained; (2) short-lived goods which are inventoried annually. Against these assets stand the various accounts held by individuals—bonds, stocks, mortgages, bank deposits, insurance policies, direct investments, etc. The balance sheet may be set up thus:

#### SOCIAL (OR NATIONAL) BALANCE SHEET

ASSETS	EQUITIES
(1) Durable goods	(11) Bonds and mortgages held by individuals
(2) Inventories	(12) Stocks held by individuals
(3) to (8) All other assets _____	(13) Bank deposits of individuals
(9) Total wealth	(14) Insurance policies for the benefit of individuals
	(15) Direct investments, etc.

SOCIAL (OR NATIONAL) BALANCE SHEET—*Cont.*

## EQUITIES

- |   |  |
|---|--|
| (16) to (18) All other equities                               |  |
| (19) Total individual equities in social (or national) wealth |  |

The process of consolidating income statements is more complicated and calls for fuller discussion. It is well to recognize that social income estimates may be made by attempting to consolidate either the income statements of the businesses and other enterprises of which the economic system consists, or the personal income and expenditure statements of families and individuals.<sup>2</sup>

(1) The commonest method of estimating social income in this country uses the income statements of businesses and other enterprises, putting them together by a process that is known as the net value product method.

a) For most industry groups this method consists in determining and adding up those items which may be regarded as distributive shares originating in the enterprises of which the industry group consists: [i] payroll and other labor income; [ii] interest and cash dividends paid, less interest and cash dividends received, plus additions to corporate surplus; [iii] entrepreneurial profits; [iv] other distributive shares.

b) The net value product of an industry may also be estimated as follows: [i] gross revenues other than interest and dividends received, less [ii] the cost of those goods and services (purchased from other enterprises) which have been used or sold during the year; less [iii] depletion and depreciation.

(2) A short cut for the second form of the net value product method is sometimes attempted. This consists: [i] in identifying those gross revenues derived from goods and services going to ultimate consumers, and those revenues derived from new wealth produced, whether as replacements or as additions, and [ii] in subtracting depreciation and depletion, as measures of the old durable goods used up during the period under consideration.

<sup>2</sup> Cf. Warburton, Part Two, Sec. I; Colm, Part Five, Sec. I, 3.

(3) Social income may be estimated by adding together the incomes received by families and individuals chiefly in return for the services of their labor and property to the economic system.

(4) Social income may be estimated by adding up the expenditures of individuals for consumption goods and services and the increase in their holdings of equities in social wealth.

It is assumed that in consolidating the accounts of families and individuals for methods (3) and (4) transfer payments (or secondary distribution items) such as gifts are canceled out.

In the existing state of accounts it is inevitable that these different methods of estimating should yield different results, each purporting to be total social income. An ideal system of keeping the various types of income accounts can be conceived, such that if followed, it would ensure that the measurements of social income by the several methods would yield a single unambiguous result. In applying the several methods of estimate to existing records, corrections may be attempted to offset the difficulties due to the divergence between ideal and existing accounting practices, so that the results of the different estimates may approximately agree.

The main purposes of social wealth and income estimates are to provide a summary picture of the condition of an economic system or an exhibit of the value of non-human resources available for its use, to portray the changes in this stock of wealth and to set forth the values of goods and services produced by the economic system during the period under consideration, and to indicate the various distributive shares going to families and individuals for the services of their labor and property. Estimates of wealth and income should show not only the totals for a society, but also a variety of breakdowns that will reveal, on the one hand, the shares derived by the various participants in the economic system and their industrial sources, and, on the other hand, the uses to which their respective shares are put. So far as the value of products or the values of consumption goods and services provide measures of public well-being, social income estimates with appropriate breakdowns afford such general measures of public well-being.

For the economic system of the world as a whole social income measures: (a) the value of goods and services produced or the

value of goods and services entering into human consumption plus the net increase in wealth; (b) the distributive shares or the costs of operating the system under existing methods as measured by the current hire-costs of labor (including entrepreneurial labor) and of wealth.

Because for the world as a whole total social income represents both (a) the value of products 'turned out', 'produced' or 'contributed' by all participants or factors of production taken together, and (b) the total of distributive shares, it is too often assumed that the share in the social income derived through any one industry or by any one group of laborers or property owners represents a contribution to the output of the economic system equal in value to the share received. Thus, Simon Kuznets tells us: "any payment for productive services contributes just as much to the national income total as it takes away from it". He also refers repeatedly to the total income *produced* in the various industry groups, including all legal enterprises but excluding illegal enterprises.<sup>3</sup> Thus, if monopolies, shyster lawyers and fly-by-night promoters who have been careful to keep within the law are classed together as an 'industry group' he would logically speak of the share of national income produced in it. Such statements, in their implication that our existing economic system is fair and just, are strongly reminiscent of the productivity theory. When applied to the shyster lawyer, the lobbyist regardless of what he lobbies for, and the fly-by-night promoter, this view of national income requires us to conclude that, provided these gentlemen are careful to stay within the law, they make contributions to the social income as valuable as the claims upon it that they derive from the practice of their callings. In the writer's opinion such assumptions of equality between contribution and remuneration are gratuitous and entirely unwarranted.

<sup>3</sup> For such ethical implications see *National Income, 1929-1932* (73d Cong., 2d Sess., Senate Doc. 124, 1934), especially pp. 5, 7 and 10.

## *II Distinctions among Income Concepts*

Before proceeding to a consideration of the chief types of breakdown used for social income and of various moot questions in the concepts of social income, we may consider three main types of distinction among income concepts.

### 1 INCOME 'DERIVED FROM' VS. INCOME 'RECEIVED OR RECEIVABLE IN' AN AREA

For any area short of the entire world, it is important to distinguish between income 'derived from' the wealth and labor employed in it and income 'received or receivable' in it. In the United States since the War the national income received or receivable has been larger than the national income derived from persons and resources employed. The difference, or net income derived from abroad, can be estimated from the balance of international payments statement and certain related information in a manner analogous to that used in estimating the net value product for any individual enterprise.

The distinction represented by the exclusion or inclusion of the item 'income derived from other areas' is usually referred to as 'income produced' vs. 'income received' in an area. Neither term is entirely accurate. 'Income produced' by a nation is open to the productivity theory implication just mentioned, and 'income received' in a nation may not include all income accruing to the inhabitants during the period. The item 'income derived from other areas' may, of course, be either positive or negative.

### 2 THE RECEIPT AND ACCRUAL BASES FOR REPORTING INCOME

A good many items of income may be reckoned on either of two bases, receipt or accrual. For some items, e.g., payrolls, no substantial difference is involved, at least when the social income for a year or longer period is under consideration. For a good many other items there is, or may be, a considerable difference. Thus, we may consider either actual pension payments or credits to the accounts of prospective pensioners. Again, in connection with interest payments and receipts, allowance may or may not be made

annually for the accumulation of bond discount or for a reserve for bad debts.

Dr. Kuznets' distinction between 'income produced' and 'income paid out' might be conceived as a partial application of the distinction between the receipt and accrual bases, since the income paid out excludes the addition to corporate surplus that accrues to individual equity holders without being received by them. However, 'income paid out' is partly on an accrual basis because it considers banks and certain financial enterprises (e.g., life insurance companies) as agencies receiving incomes for the account of individuals.<sup>4</sup> It is probably better, therefore, to consider 'income paid out' as an item in a breakdown of 'income produced'.

For some income items, for example, some employee pension and benefit items, it may be desirable to present income on both accrual and receipt bases. For various items, for example, interest paid, it is probably not worth while in annual estimates of income to attempt anything but a receipt basis. For incomes derived by corporate proprietorship equity holders some effort should surely be made in the direction of estimating them on an accrual basis.

In general the accrual basis, where it differs appreciably from the receipt basis, represents an increase in the accuracy of apportionment of income between different accounting periods, and the question as to which basis to use is partly one of how great a degree of refinement is warranted and partly one of how wide a deviation from common sense usage any, given refinement requires.

### 3 BASES OF VALUATION

Income estimates may be presented on any of several bases of valuation for the various constituent items. Three principal types of valuation bases may be suggested: (a) current prices; (b) stabilized prices; (c) valuations that attempt to correct existing data for various distortions they are assumed to involve.

<sup>4</sup> *National Income in the United States, 1929-1935* (Bureau of Foreign and Domestic Commerce, 1936) overlooks these accruals. It says, p. 1: "The National Income paid out may be defined as the sum of payments to or receipts by individuals as compensation for economic services rendered."

a) Current prices and values. For most items in a social income estimate the application of current prices and values raises few problems. For two types of items, however, there is ambiguity involved in the application of this basis: [i] imputed or non-money income items, and [ii] incomes accruing to the owners' proprietorship equities.

[i] Imputed items. When imputed items are included in an estimate of social income what prices should be used? Thus, in estimating the value of farm produce consumed on home farms, should realization prices at farms or retail prices in adjacent communities be used? The latter alternative has the advantage of facilitating geographical comparisons of income.

Another important imputed item involving a difficult valuation question is that of net income derived from home ownership. Should the gross rental used for such an estimate be varied from year to year with the year-to-year fluctuation in rents? In general it would seem that this item should be more stable than rents.

[ii] Proprietorship equity items. The ambiguity in the case of incomes accruing to the owners of proprietorship equities may be illustrated for owners of common stock. The owner receives in addition to cash dividends an item represented by the increase in the value of his equity during the year or other period. The three bases chiefly used in determining this income are: the book value of the equity, assuming standard accounting procedure; the value of the equity on the security markets; and an adjusted book value of the equity, assuming that both opening and closing inventories are valued at an average price for the year and that a kind of replacement accounting is used instead of depreciation accounting. If security market value is used, the question arises whether to use the price at a particular instant or the average of several quotations. Even when an average is used, variations in market values are so eccentric as to lead to bizarre results. The use of the adjusted book value basis, in the writer's opinion, should properly be considered as a partial stabilization of prices of the general type considered under (b) below.

b) Stabilized prices. Variations from period to period in social income as measured in current prices reflect in part changes in the physical volume of production of the economic system (or

else in the physical volume of the wealth and labor used in production) and in part changes in prices. For many purposes it is desirable to attempt to correct dollar volume variations in income measured at current prices in such a way that they shall reveal only variations in physical volumes. This may be accomplished by estimates of what social income would have been, had one fixed set of prices prevailed throughout the various periods to be compared.

Theoretically, similar corrections might be applied in making comparisons of social income between communities. Practically, differences in the physical items included in social income in different communities are likely to be greater than are the corresponding differences in any two nearby periods of time for the same community. Hence, such corrections for geographic comparisons offer difficulties so great that no comprehensive attempt to make them has yet been offered, to the writer's knowledge. Even corrections for time comparisons are in a very elementary stage, and one might rightly hesitate to describe as 'comprehensive' any existing attempt to make corrections for price changes in the estimates of the national income of any nation for any two years.

c) Corrected valuations. Conceivably a great variety of corrections of income estimates may be attempted through adjusting valuations in individual items. Actually it may be easier to agree upon the existence of difficulties in the individual income items than upon the corrections to apply to them. Thus, some prevalent accounting practices may be regarded as undesirable, and various efforts might be made to estimate what would have been shown by the records had better accounting practices been followed. Somewhat the same thing may be said with respect to corrections for the eccentricities of government fiscal policy. Again, existing prices may be felt to reflect monopoly conditions, the unequal distribution of wealth and income, the failure to outlaw certain socially undesirable practices, etc. Efforts might be made to make corrections upon the assumption that each of these conditions in turn is replaced by a condition deemed preferable. But such corrections are so fraught with difficulty and so likely to prove arbitrary that there is a strong presumption against making any of them.

### *III Main Breakdowns of Social Income*

Five principal types of breakdown of social income may be considered: by type of payment, industry, area, income class, and object of expenditure.

#### 1 BY TYPE OF PAYMENT OR DISTRIBUTIVE SHARE

Total social income may be conceived as consisting of three main types of income—employee labor income, property income and entrepreneurial profits. These correspond roughly to the wages, interest and profits of classical economic theory. For present purposes pensions and certain other types of compensation may be included under employee labor income along with payrolls. And in addition to interest and accruals pertaining to the holding of bonds or other forms of indebtedness the income that accrues to owners of corporate proprietorship equities may be considered property income. Entrepreneurial profit is a hybrid type of share, including both labor and property income. These three broad classes of income—employee labor income, property income and profits—constitute the chief primary distributive shares in the national dividend.

Classical economic theory would add a fourth—rent. Actually it is better to consider rents and royalties as gross income, since in most cases depreciation and various expenses paid to other enterprises (taxes, repairs, etc.) must be deducted from rent and royalty incomes. Moreover, interest and wage payments, as well as payments to other enterprises, may be made out of gross rent and royalty incomes. The residual after these deductions is more aptly described as net entrepreneurial profit from the ownership and management of properties than as a fourth main type of distributive share.

In addition to the primary distributive shares various redistributions of social income and the ownership of wealth may be made. The chief of these are considered below.

#### 2 BY INDUSTRY

Social income may be broken down according to the industries from which primary distributive shares are derived. Such a break-

down can be made in more detail and on a clearer basis for payroll income than for some of the other distributive shares. Were dependable basic data for entrepreneurial profits available, a detailed industrial breakdown for this type of income could also be made fairly satisfactorily. Difficulties arise, however, in the industrial apportionment of property incomes, owing both to the vertical integration of the large enterprises from which much of this type of income is derived, and to the fact that property income, instead of going directly to individuals, may first pass through the hands of various equity 'holding' companies (including banks and insurance companies).

It should be emphasized that the income derived from an industry does not necessarily represent the industry's contribution to the aggregate social income. Nor can any distributive share derived from any industry be assumed necessarily to represent the contribution of the factor of production remunerated thereby to aggregate social income or aggregate social production. If we question whether the contribution of monopolies to aggregate social income is accurately measured by the income derived from them, we question also whether the contributions of employees and owners of and of investors in those monopolies are measured accurately by the incomes derived from them.

### 3 BY AREA

When social income is apportioned geographically, we need to distinguish between the income derived from an area and the income received or receivable in it. Thus we may speak of the national income derived from the wealth and people of the United States or the national income received or receivable by the people of the United States. Similarly, we may speak of the income derived from farms and persons working on them, or of the income received or receivable by the farm population. The former is sometimes referred to as the income derived from agriculture and the latter as the income of the farm population.

### 4 BY INCOME CLASS

While existing data for the United States provide far from satisfactory information for the allocation of social income by income classes, the nature of this type of distribution is in some ways

simpler than that of any of the three preceding types. Classes in the total population, or in families and single persons, or in income recipients may be set up either by establishing absolute class limits in terms of dollars of income per annum or by the use of the quartiles, deciles or percentiles in the frequency distribution, and total social income received or receivable may then be apportioned among the classes so set up.

#### 5 BY OBJECT OF EXPENDITURE

The apportionment of social income by object of expenditure may, as Dr. Warburton points out,<sup>5</sup> provide very illuminating information concerning cyclical variations in the operation of the economic system, particularly if the social income to be distributed is enlarged to represent what may be called the gross value product or the net value product plus depreciation and depletion. We would have then three main types of expenditure: (a) replacements of wealth, (b) savings invested in new wealth, (c) goods and service consumed by ultimate consumers.

It scarcely need be added that various crosses of the five types of breakdown discussed above are both possible and useful.

### *IV Chief Items of Estimate*

As a guide in discussing some of the moot questions in the definition of national income it is helpful to have before us a statement of the main items of estimate, using the net value product method.

For this purpose we may use a form of income statement that can be applied somewhat generally to the various types of enterprise involved, including business corporations, farms, and conceivably even governments. For simplicity we neglect several possible debit and credit items arising in connection with the attempt to put the items here presented upon an accrual basis. We may distinguish six main credit or revenue items and ten main debit items which show either expenses or distributive shares. It is assumed, of course, that the sums of debits and of credits will balance so that by a rearrangement of these items we

<sup>5</sup> Part Two, Sec. II.

may obtain two estimates of the national income derived from the operation of the nation's economic system. The six credit items are:

(1) *Gross revenues from operations not elsewhere specified.* For enterprises other than banks and certain other financial institutions this item will consist chiefly of operating revenues. As noted above, all rents and royalties will be included here as the operating revenues of businesses devoted to the ownership and management of properties. So far as imputed or non-money income items are to be included in the national income estimates, they will presumably be included under this item unless they can be treated directly as distributive shares. For the government, taxes and other revenue receipts would be included under this item.

(2) *Interest income.* This includes all interest income. For banks and certain other financial institutions it will, of course, represent the main item of operating income.

(3) *Cash dividends received.* This item is self-explanatory.

(4) *Increase in tangible assets during the period.* Increases in tangible assets should be included as a credit item when they are due to expenditures noted below under items (10) payrolls; (11) purchases of materials and supplies; (13) taxes, including special assessments. For short-lived assets that may be treated on an inventory basis item (4) will represent a figure which, when deducted from purchases of merchandise and materials and direct labor, will give the expense figure, 'cost of goods sold'.<sup>6</sup> Accountants hesitate to treat item (4) as a revenue item, preferring to treat it as a deduction from purchases in order to give a net expense item for the period, thus: purchases plus opening inventory minus closing inventory equals cost of goods sold. From the point of view of the economic system as a whole, however, it is important to recognize item (4) as a revenue item or addition to the gross value product of the industry. This is true of additions to the long-lived tangible assets as well as of additions to inventories. This item represents force-account additions

<sup>6</sup> It may be noted that item (4) may include income from appreciation of inventories; but such an item would exist if inventories were accumulating, even if prices remained constant. With declining inventories and falling prices this item would assume a negative value.

as distinguished from additions of long-lived assets purchased complete from contractors or other separate enterprises.

(5) *Subsidy revenues derived from government.* This item is self-explanatory.

(6) *Valuation readjustment gains from balance sheet items other than inventories.* Such gains may be shown either (a) through the sale of an asset at a figure above its book value or the retirement of a liability at a figure below its book value, or (b) by virtue of a decision to make an adjustment in the book value other than that provided for by following the established arrangement for writing off an asset or a liability during its life through charges to depreciation or for the accumulation of bond discount, the amortization of a bond premium, etc.

The ten debit items are:

(10) *Payrolls and other forms of employee labor income.* In employee labor income should be included wages, salaries, bonuses, commissions, etc.; also, either the employers' contribution to employees' pensions and other benefit funds or the pensions and other benefits paid from employer-contributed funds directly during the period. Compensation for damages should be excluded [see item (16) below].

(11) *Purchases of merchandise, materials and supplies, and of the services of other enterprises.* Purchases will include payments for a great variety of things—freight, communication, advertising, insurance premiums not elsewhere specified, legal and medical services, electricity, contract repairs, etc.

(12) *Depletion and depreciation of tangible assets not treated as inventories.* It is assumed that except for the short-lived tangible assets depreciation and depletion accounting procedure is followed. Item (12) may be thought of as the decrease in a previously established valuation of any piece of tangible wealth (other than the short-lived goods) due to its use during the years or to the passage of time. Downward readjustments in an established valuation, on the basis of which depreciation or depletion is computed, are included elsewhere [see item (18)].

(13) *Taxes paid, including special assessments.* This item may be thought of as a special case of item (11), but it raises peculiar problems which merit separate discussion below. The line between those taxes paid by individual entrepreneurs which are to

be regarded as paid by enterprises and those which are to be regarded as paid directly by families and individuals will necessarily depend in part upon the national income estimator's decision as to what items of imputed income he will recognize. Thus, if gross rental value of owned homes is included above under (1), taxes on these homes may properly be included here as a business cost.

(14) *Interest paid.* This item and item (15) are self-explanatory.

(15) *Corporate cash dividends paid.*

(16) *Damages to employees and others.* Business compensation expense for damages to all persons should be included here either on an outlay basis or as public liability damage insurance premiums paid.

(17) *Gifts and charitable contributions.* Business contributions to charity and, in the case of the government, certain so-called transfer payments belong here.

(18) *Valuation readjustment losses.* This item is the converse of item (6). It may represent either actual realizations or adjustments in established book valuations. It may arise in connection with durable tangible assets, with receivables and investments, or with liabilities.

(19) *Additions to corporate surplus and (for individual business enterprises) profits.* For any enterprise this item should be equal to the balance remaining after deducting the above nine debit items from the total of the six credit items. For corporations this item plus item (18) minus item (6) corresponds to 'additions to surplus', in Dr. Kuznets' usage.

The above list of items is not intended to be exhaustive but rather to indicate the main types of income statement item that may be used to estimate the net value product derived from any enterprise or industry group. The advantages of setting up, in accounting form, the net value product method of estimate, using such a list of items, include: first, the possibility where adequate data are available of making two estimates that should check with each other; second, the possibility of using different kinds of items for estimating the net value products of different industry groups; third, the avoidance of oversights of important considerations in making estimates for any industry group even

where data are not adequate for a double estimate; fourth, the recognition of the full logical implication of making an assumption or decision respecting the handling of any one moot item. Thus, the bearing of the decision to include or exclude the rental value of owned homes upon the handling of taxes has just been noted. In the writer's opinion, it is not adequate to say that this accounting form has advantages. It is wise to recognize that failure to use such a double entry approach is almost certain to lead either to counting items twice or to important omissions, or both.

Since the net value products of all enterprises may by their very nature be added together to give us a consolidated picture for the entire economic system, we can rearrange the sixteen items discussed above in such a way as to show an outline of an estimate of national income:

(1) gross revenue from operations not elsewhere classified,  
plus (4) increase in inventories and force-account additions to durable goods,<sup>7</sup>

plus (5) subsidy revenues derived from government,  
less (11) purchases of merchandise, materials, and supplies and services from other enterprises, and  
less (13) taxes paid, equals

(20) *The gross social value product derived from the economic system before taking into account valuation adjustments.*

Dr. Warburton has called this 'the gross national product' or 'value of final product'. Except for the fact that item (20) deducts 'taxes paid' and broadens the meaning of item (11), by analogy to Census parlance we might also call item (20) 'value added by the year's operations'. It represents a concept whose usefulness has hitherto, in the writer's opinion, received inadequate attention. It will be further discussed below. If from the gross social value product, item (20), we deduct item (12) depreciation and depletion of durable goods, we have

<sup>7</sup> This formula does not involve any commitment on the question, raised by Dr. Kuznets in Part Four, as to whether inventory appreciation should count as income.

The significance of items (1), (4) and (11) in the formula can be more easily visualized if we consider its application to a merchandizing enterprise where force-account additions to plant and equipment are zero:  $(1) + (4) - (11) =$  gross profit. The accountant prefers to write this formula  $(1) - [(11) - (4)] =$  gross profit.

(21) *The net social value product derived from the operation of the economic system before taking into account valuation readjustments.* In the writer's opinion, this concept should be regarded as the basic national income concept. We have reached it by deducting two items from the increase in inventories and force-account additions to plant and equipment, plus the gross revenue from general operations and from subsidies—first, inter-enterprise purchases of goods and services, and second, the wealth used up by the year's operations. This may be called the credit or revenue net value product method of estimate.

We can also reach this total by the debit or distributive-share net-value-product method of estimate. In other words, item (21), net social value product derived from the operations of the economic system during the year, equals the sum of the following items:

- (10) payrolls, pensions, etc.,
- plus (14) minus (2) interest paid less interest received, or 'interest originating in' each enterprise or industry group,
- plus (15) minus (3) cash dividends paid less cash dividends received, or cash dividends originating in each enterprise or industry group,
- plus (16) damages to employees and others.
- plus (17) charitable contributions, transfer payments, etc.,
- plus (19) minus the difference [(6) minus (18)] i.e., additions to corporate surplus and individual business profits before taking account of valuation readjustment gains and losses.

For the sake of simplicity we are assuming that a *consolidated* statement for the item [(19) — { (6) — (18) }] can be accomplished by a simple summation. The questions raised by this assumption are too involved to discuss here. Their existence is particularly important for the income concept next considered, item (22).

If to item (21), the total of the items just listed, or the social income derived from the year's operations, we add the difference [item (6) minus item (18)], the net gain from valuation readjustments, we have

(22) *Total social income including net valuation readjustment gains.* National income may be either larger or smaller ac-

ording to this concept than is national income as represented by item (21) although in a sense this concept is the more inclusive one. It is suggested, however, that this total be given a place subordinate to total (21) for two reasons: first, because the net valuation readjustment gains and losses represent transactions that are not necessarily directly attributable to the year's operations; and second, because the amounts involved in these transactions are to a much greater degree matters of judgment, upon the part either of the estimator or of those responsible for the accounting records that constitute his basic data, than are the amounts involved in other items included in the income total.

Since we have elected to treat total (21) as the basic concept for social income derived from the operations of an economic system, we shall use it rather than total (22) in computing the total national income received or receivable. Thus,

(21) total national income derived from the country before taking account of valuation readjustments,  
 plus (23) *net income received from abroad*, equals  
 (24) *total national income received or receivable in the country.*

### V Some Moot Questions

On the basis of the above outline we may consider several moot questions:

#### 1 THE GROSS VALUE PRODUCT

The concept of gross value product derived from the operations of the economic system may for the world as a whole be thought of as the sum of three items: (a) the value of goods and services consumed during the year by ultimate consumers, (b) net additions to the dollar value of inventories, and (c) the value of new durable goods produced, including both replacements of and additions to the stock of durable wealth. For any single country or other area an adjustment item must be added to take account of the fact that item (a) is a constituent of income received or receivable, while items (b) and (c) are on the basis of the wealth located in or the income derived from an area. In

spite of this complication, and we need not here go fully into the nature of the necessary adjustment, the item 'total gross value product' is particularly useful in connection with a breakdown of income by objects of expenditure, since the total new durable goods produced, including not only the saved income invested in new durable goods but also the new durable goods produced to replace those used up during the year, can be presented.

Two additional features of the total gross value product may be noted. First, it can be measured independently of the determination of the amount of depreciation and depletion. Since determination of these two items involves an element of judgment, there is a sense in which gross value product is less influenced by the diverse judgments of the several estimators than is the concept net value product. Second, when we attempt to correct the total gross value product for changes in prices we shall get a result that in some respects is more nearly comparable to existing production indexes than is the deflated net value product, for existing production indexes include the production of durable goods without regard to whether they are in the nature of replacements or in the nature of additions.

## 2 ADDITIONS TO SURPLUS

Dr. Kuznets has made the item 'additions to business surplus' the basis of establishing two income concepts: (a) 'income produced', here referred to as item (21) the net value product; and (b) 'income paid out', which is substantially the net value product less his estimated additions to business surplus.<sup>8</sup> (If corporations only were involved this would be (21) minus [(19) - { (6) - (18) }].) In his tables the concept 'income paid out' is treated more nearly as basic than is the concept 'income produced'. In defense of this procedure he notes certain difficulties in estimating satisfactorily the item 'additions to business surplus'. So far as there are difficulties in estimating this item for non-corporate forms of enterprise, the argument is clearly one for including additions to surplus in the total income item, which is regarded as basic. The difficulties mentioned in connection with estimating additions to business surplus for non-corporate enterprises clearly show that the process of estimate is first, to determine individual busi-

<sup>8</sup> *National Income, 1929-1932.*

ness profits, and second, to attempt to divide this item into two parts—entrepreneurial withdrawals and additions to surplus. In the writer's opinion, such a breakdown is arbitrary and should not be attempted in basic tables either for agricultural profits or for the profits of any other group of entrepreneurs.<sup>9</sup> The estimates of such an item as entrepreneurial withdrawals are substantially as subjective as are estimates of the value of housewives' services.

For the purpose of estimating additions to corporate surplus there are definite available sources of information. Earlier objections to the use of this item were on the ground that actual accounting practices deviated extensively from what was regarded as sound and desirable. The corporate income tax has done a good deal to prevent eccentric book valuation adjustments from affecting the reported item 'additions to corporate surplus'.<sup>10</sup> Dr. Kuznets now objects to this item because he disagrees for purposes of national accounting with what accountants consider good practice for the accounts of each enterprise considered separately. The writer does not share his objection to the computation of depreciation on a straight line basis. But even if he did, the writer would feel that objections to existing practices are not grounds for singling out the item 'additions to corporate surplus' for treatment that gives it a status inferior to that of other items which are at least as controversial (for example, interest paid on government debt). If indeed a bias is present, it is sufficiently stable so that allowance may be made for it.

In view of these considerations there seems no good reason for a concept 'income paid out'. It might be useful to set up a concept 'income actually received by individuals'. To estimate this it would be necessary to allow for 'income paid out' by industrial enterprises to banks and insurance companies and not passed on to individuals in the same year. Such an estimate has not been attempted on a serious scale for the United States, so far as the writer is aware.

<sup>9</sup> Cf. O. C. Stine, Part Eight, Sec. I.

<sup>10</sup> Strictly, this item is not reported, but it can be directly computed from three reported items.

### 3 DAMAGES TO PERSONS

The item 'damages to persons', whether reckoned on a receipt or on an accrual basis, occupies a somewhat paradoxical position in income estimates. The corresponding item for tangible assets, although not separately mentioned, represents substantially the same kind of a deduction from the gross value product of industry as depreciation and depletion. The payment of damages to persons, however, has been treated as a distributive share. This implies that, other distributive shares remaining fixed, the larger the number of people who are hurt the larger will be the national income. One may question whether it would not be better to treat this item in the same way as damages to property are treated. However, since the value of the services of human beings is not capitalized as a form of wealth, there is no capital sum to depreciate. And more important, money spent for repairing such damages is ordinarily treated as a part of consumer expenditures.

If personal damages were to be regarded as a deduction from the gross value product instead of as a distributive share, it would be necessary to treat the ownership and management of a human being (considered as a sum of wealth) as a business, much as the ownership and management of an owned home may be treated. Doctors' bills for repairs of personal damages could then be treated as an expense deductible from the gross value product of this business of owning human beings. It seems simpler and more in accordance with common sense to treat damages to persons as a distributive share.

As a corollary of this position, of course, expenses for medical care are to be treated as a consumer expenditure although such treatment also involves a paradox; namely, the more medical care the population requires in a given year, the larger the net value product of the medical profession, and so, *ceteris paribus*, of social income. But one may well question whether other things could remain the same.

### 4 NET VALUE PRODUCTS OF FINANCIAL ENTERPRISES

According to the distributive share application of the net value product method of estimate for national income,

to item (10) payrolls,  
item (16) damages to persons, and  
item (17) charitable contributions, we should add the interest  
and cash dividends originating in each business, and the net  
residual item (19) minus [(6) minus (18)], additions to cor-  
porate surplus and individual profits before net valuation re-  
adjustments.

For certain financial enterprises, commercial and savings banks, holding companies, insurance companies, building and loan associations, etc., the item 'interest originating' will, according to this formula, in general be negative. Two possible objections may be lodged against adherence to the net value product formula in such cases. First, a negative net value product may result, which runs counter to common sense. Second, the several net value products may be conceived as measures of the labor and property costs of doing the nation's business through the several existing units of organization of the economic system. If so, a negative cost for an industry group is not reasonable.

What is involved in the case of such financial enterprises may be stated thus: farms and industrial enterprises have been treated as originating interest payments, only a part of which represents actual distributive shares. The rest of such interest payments is properly an expense paid to financial enterprises, and should therefore have been deducted from the gross value products of farms and industrial enterprises, instead of being treated as a distributive share derived from these enterprises. In order to split the interest payments of farms and industrial enterprises into two elements: (a) distributive shares proper; (b) expenses paid to other enterprises, something like a cost accounting technique is required. However, if our concern is only to obtain a correct total net value product of the economic system, such a split in the interest payments of farms and industrial enterprises is unnecessary. The rigid application of the net value product formula to the item 'interest originating' for both savings banks and industrials involves neither omissions nor double counting and gives a correct total for their consolidated operations.

Following the general procedure outlined by W. I. King, Dr. Kuznets has attempted to make peace with common sense by

treating various financial enterprises as 'associations of individuals'. In effect he assumes that the difference between interest income and interest payments for these 'associations of individuals' is equal to the net debit total for non-financial enterprises of those interest income and expense items which he simply neglects (chiefly short term interest and interest on non-government obligations held by industrials). Thus his net interest derived from 'associations' is somewhat larger than total interest originating in these enterprises (i.e., it is zero instead of being negative) while the interest item for industrials, farms, etc., is somewhat smaller than interest originating in these enterprises because of the omission of short term interest. The two errors are presumably assumed to cancel out. This procedure eliminates some of the double counting involved in Dr. King's earlier procedure, but the making of assumptions is still hardly an adequate substitute for a factual inquiry.

It is recommended that the net value product formula be rigidly adhered to. Unless the income estimator desires to attempt a cost-accounting reallocation of interest items, strict adherence to the net value product formula for interest originating will have the advantage of running counter to common sense<sup>11</sup> at the precise point at which common sense appears to espouse the theory that the several distributive shares are equal to the contributions made by their respective recipients to the total value product of the economic system.

What has been said about the elimination of double counting through strict adherence to the net value product formula for financial enterprises of the savings bank and holding company type needs some modification when we come to enterprises of the investment banker type. Without going fully into the complex nature of this modification the writer will attempt briefly to indicate its nature. Such financial middlemen create a divergence between the bond liability item of an industrial corporation and the cost to the original ultimate investor of acquiring this equity. This difference may, for purposes of society's accounts, be considered a deferred promotion expense to be amor-

<sup>11</sup> But the estimates need not be presented in a way obnoxious to common sense. See M. A. Copeland 'Some Problems in the Theory of National Income', *Journal of Political Economy*, Vol. XL, No. 1, February 1932.

tized over the life of the bond, or the entire amount may be deducted from the corporation's net value product in the year in which it is incurred without the attempt being made to establish this type of item on an accrual basis. The net value product formula outlined under (19) to (22) above did not provide for such a deduction and unless it is made there is some double counting in the total net value product determined by following it.

#### 5 INCOME FROM ABROAD

It has been customary to estimate income from abroad as the net receipts of cash dividends and long term interest payments into the United States. There is no logical basis for the omission of short term interest payments in computing this item. The omission is presumably due to the difficulties discussed above in reconciling the item 'interest originating' in the financial institutions with the expectations of common sense.

Both a debit and a credit estimate of income from abroad are possible and consideration of the two methods calls attention to three other types of items that have commonly been omitted from estimates of net income derived from abroad.<sup>12</sup>

a) Income may flow into or out of the country through migration of the owners of wealth. The capital of immigrants entering the United States during the year brings about an increase in the wealth owned in the United States. This increase in wealth is an income item. The 'dowry drain' represents an item operating in the opposite direction.

b) Various types of secondary distribution items or transfer payments may affect the net income received from abroad; for example, immigrants' remittances and expenditures abroad by the American Red Cross.

c) Additions to corporate surplus may accumulate to the account of American investors in foreign corporations. Conversely, downward valuation readjustments may become necessary in the wealth item 'foreign bonds held in the United States'.

Although the balance of international payments provides most of the data needed both for the debit and for the credit methods

<sup>12</sup> *Ibid.*

Payroll income may also flow from one area to another. This possibility becomes more important as we deal with smaller areas.

of estimating net income received from abroad, some items that need to be taken into account in estimating net income from abroad do not enter into the balance of international payments; e.g., (c) above. Other illustrations may be afforded by payments of reparations in kind, by tied loans, etc.

#### 6 THE GOVERNMENT NET VALUE PRODUCT

Important questions arise in determining the net value product of government, in connection with both payroll items and items of property income. Some have questioned the inclusion of Army pay during the World War on the ground that the expenditure is destructive rather than productive. More recently WPA payrolls have been questioned on the ground that they represent transfer payments or redistributions of income rather than primary distributive shares. War pensions have been questioned on the same ground, as has the interest on that part of government debts which represents deficit financing.

The revenues that governments derive from taxes have not in general been used directly in estimates of the government net value product and so have not come in directly for much questioning. However, the corresponding expense items have been questioned extensively. The chief problem is the apportionment of the total between (a) expenses paid by other enterprises, and (b) consumer expenditures (i.e., between (a) deductions from the gross value product of other enterprises, and (b) consumer expenditures). In part this apportionment depends, especially in estimating the income derived from agriculture, upon the judgment of the income estimator. But this apportionment depends also upon the judgment of legislatures in levying taxes. The total of these two types of expenditure has been questioned on the ground that levies do not necessarily fall in the period in which the corresponding benefits are received.

In the writer's opinion full answers to the questions concerning government property income and tax revenue call for an attempt to set up a business-like system of accounts for various branches of government, and in the case of taxes, for some statistical experimentation with the benefit theory of taxation through the application of cost accounting technique in apportioning government costs as between enterprise costs and consumer expendi-

tures. It is doubtful whether such inquiries or any other device can fully eliminate the subjective element in distinguishing between those government payrolls which are properly distributive shares and those which are mere transfer payments.

Many writers have urged that the item 'property income from government' should be so defined as to be independent of government fiscal and financial policy. However, neither the National Bureau of Economic Research nor the Department of Commerce has accepted this view. Moreover, Gerhard Colm's proposal<sup>13</sup> to count only state and local government interest payments in national income does not succeed in achieving independence of government fiscal policy in a period in which Federal debt has in some measure come to take the place of state and local debt. In the writer's opinion property income derived from government should, for purposes of estimating the social net value product, be put on an imputed basis (e.g., a constant rate of return should be applied to the estimated value of the tangible wealth owned by the government). Although this proposal necessarily represents a rough procedure in the present stage of our information, none the less it is less arbitrary than either existing American practice or Dr. Colm's proposal. It is admitted that data for estimating the value of government tangible assets are poor and that difficult valuation problems are involved. But the possibility of making accurate estimates of a theoretically untenable item is not an argument for substituting it for a tenable item that can be estimated only roughly. The imputed interest item here proposed is largely independent of the eccentricities of government fiscal and financial policy and of any particular division of functions between national and local governments. Moreover, it probably more closely approximates what a full balance sheet and income statement type of government accounting would show than does either the item used in the National Bureau and Commerce Department estimates or the item proposed by Dr. Colm.<sup>14</sup>

Several questions respecting government income, such as those pertaining to WPA payrolls and soldiers' bonuses, may perhaps

<sup>13</sup> Part Five, Sec. V.

<sup>14</sup> Actual government interest payments might still be used in estimating income received by individuals, if such an estimate were attempted.

best be considered in the discussion of transfer payments below.<sup>15</sup>

#### 7 SECONDARY DISTRIBUTION AND TRANSFER ITEMS<sup>16</sup>

Four main types of items involving questions related to the secondary distribution of income may be distinguished:

- a) those which effect a transfer of net value product from one enterprise to another;
- b) those which effect a transfer of income from one individual or family to another individual or family;
- c) payments by an enterprise to an individual or family not on the basis of a *quid pro quo*;
- d) payments by an individual or family to an enterprise not on the basis of a *quid pro quo*.

Strictly speaking, only items of types (a) and (b) should be called secondary distribution items since these have no effect upon the social net value product. The absence of a *quid pro quo* for items of types (c) and (d) does not, in itself, justify any special treatment of the items involved. Thus, items of type (c) should be treated as a distributive share in the same manner as item (10), payrolls and other forms of employee labor income, and items (14) minus (2), interest originating in an enterprise (see Section IV above).

The four types of items may be illustrated simply. If the government pays a subsidy to a particular industry this may be regarded as a transfer payment of type (a), decreasing the net value product of the government by the amount of the transfer payment and increasing the net value product of the industry subsidized.<sup>17</sup> When a father pays an allowance to a son at college we have an instance of type (b). An item of type (c) occurs when a business

<sup>15</sup> In the earlier form of this paper a paragraph in this section considered Dr. Colm's treatment of relief payments financed by borrowing. This paragraph has been omitted here as not fully recognizing the significance of Dr. Colm's distinction between 'disposable income' and "national income . . . as the computable part of the social product". His distinction appears to be substantially that here drawn between 'social net value product' and 'income received by individuals' (Part Five, Sec. I, 4; III, 2; and IV).

<sup>16</sup> This section has been rewritten partly in order to conform to Dr. Warburton's suggestions.

<sup>17</sup> Attention is once more called to the fact that 'net value product' is not a dependable measure of an industry's contribution to social output.

enterprise makes a gift to charity. Conversely, when the government levies a direct tax that is entirely dissociated from any benefit that the tax-paying individual receives from the government, we have an instance of a payment of type (d).

These simple cases involve no great difficulty for the income estimator. However, combinations of these four types of item are possible. Thus if the government pays relief and supports this payment by direct and indirect taxes upon individuals, we have a type of item which formally is a combination of types (c) and (d), but which may have substantially the same effect as an item of type (b). If we treat this type of item as equivalent to a type (b) item, the amount of the social net value product will be smaller by the amount of the item than it would be if we were to treat the item as a combined (c) and (d) type item. The situation may be made even more complicated if the relief payment is supported immediately by borrowing, so that it is difficult to tell what means of ultimate financing will be resorted to.

Unfortunately, between direct relief payments on the one hand, and payrolls to policemen, firemen and school teachers on the other, there are a variety of intermediate cases, including WPA and PWA project payrolls. Since in this continuum it appears impossible to draw a sharp line that is not arbitrary, it seems desirable to continue the Department of Commerce practice; namely to present estimates of national income in such a way that users may make more than one possible interpretation for themselves, where the more doubtful items are concerned. However, the writer ventures the suggestion that benefits under Titles VIII and IX of the Social Security Act, being largely on a pay-your-own-keep basis, should be treated as distributive shares in good standing.<sup>18</sup>

## 8 DEFLATION

Various suggestions have been made for methods of deflating national income.<sup>19</sup> In the writer's opinion any attempt to deflate national income should be closely tied to a definite physical volume concept that it is desired to approximate by the deflation.

<sup>18</sup> This assumes that the employee contribution is deducted from the distributive share 'wages', so that the two items may be added without double counting.

<sup>19</sup> See Solomon Fabricant, Part Three, Sec. V; Simon Kuznets, Part Four, Sec. IV.

If income received, conceived of as a physical volume of consumption plus a physical volume of savings, is to be deflated, indexes of the cost of consumption goods and services should be applied to the volume of consumed income, and wealth indexes to the opening and closing inventories of wealth, and the difference in the deflated valuations of wealth should be used to measure deflated savings. Such a procedure leads to a conclusion diametrically opposed to that which W. L. Crum draws with respect to the relative magnitudes of additions to corporate surplus during the 'twenties and withdrawals from corporate surplus since 1929.<sup>20</sup> Dr. Crum has in mind the general type of deflation employed by Dr. King.

Income derived from an area may be deflated to show changes in the physical volume of services of labor and wealth employed by the economic system from time to time. If we may neglect net income from abroad as relatively small, the deflated distributive shares may be compared with the deflated consumed and saved income to show changes in the efficiency of operation of the economic system.

A part of the argument usually given against including valuation readjustment gains in total national income in current dollars is that such items add nothing to the physical volume of national output. The writer has criticized elsewhere the unqualified proposition "that appreciation of a fixed amount of 'land' due to increasing scarcity is not a real item of income". After distinguishing scarcity appreciation from appreciation due to discovery or technological change, this criticism runs:

"Even scarcity appreciation clearly is a real factor in the *distribution* of wealth and income. The objection to including it as an item in *total* income appears to be valid or untenable according to the type of total income under consideration. It appears valid if we are considering total accrued income in *deflated* dollars; mere scarcity appreciation (as distinguished from technological appreciation) is not properly an item of total real or deflated income. For income in current dollars, however, scarcity appreciation must be included, both because it is

<sup>20</sup> "The National Income and Its Distribution", *Journal of the American Statistical Association*, March 1935, p. 41.

needed to obtain accurate distribution estimates even for deflated income; and because it is an essential item if we are to follow good accounting practice and define income so as to make possible a check with initial and terminal balance sheets, i.e., if saved income is to equal increase in national wealth.”<sup>21</sup>

Indeed, if a policy of refusal to incorporate such valuation re-adjustment gains in income<sup>22</sup> were pursued from the beginning of time, current site valuations of real estate would necessarily all be zero.

### *VI Summary*

1. National income is a special case of social income.
2. Social income = the value of goods and services consumed by ultimate consumers plus savings (or plus the increase in social wealth).
3. Social wealth and social income are estimated by consolidating balance sheets and income statements of separate enterprises and/or of individuals. Social wealth and income are accounting concepts, the validity of which may be checked by accounting techniques.
4. The income derived from an enterprise or calling should not be interpreted as a measure of the contribution made by the enterprise or calling to social income (i.e., to the value of goods and services consumed plus the increase in social wealth). Such a view would consider legal high finance as socially productive.
5. Social income derived from a community (inaccurately called ‘income produced’ in it) plus the *net* social income derived from elsewhere by its population equals social income received or receivable in the community.
6. Social income may be valued either in current dollars or in dollars reckoned at a constant set of prices. Special valuation problems arise in connection with various items of income, particularly additions to corporate surplus, individual profits, and imputed incomes.
7. There are five major types of breakdown of social income:

<sup>21</sup> *Journal of Political Economy*, Vol. 40, p. 13.

<sup>22</sup> Unless the refusal marks merely a proposal to substitute some other term for the word income as here used.

by (a) type of payment or distributive share (payrolls, interest, etc.); (b) industries; (c) areas; (d) income classes; (e) objects of expenditure.

8. There are two 'net value product' methods of estimating social income: (a) revenue from sales, etc., less payments to other enterprises and less depreciation, etc; (b) the sum of the net distributive shares.

9. The 'gross value product' of a community ('net value product' plus depreciation and depletion), if deflated, would give a broad production index number.

10. Estimates of additions to corporate surplus are no less dependable than some of the other items in the social net value product, though this view seems implied in treating as basic the questionable concept 'income paid out'. 'Income actually received by individuals' might be a useful concept—hitherto it has not been seriously attempted for this country.

11. Estimates of 'entrepreneurial withdrawals' and 'individual business savings' are as subjective as are estimates of the value of housewives' services.

12. To treat banks and other holders of 'earning assets' as 'associations of individuals' and to neglect short term interest items is to substitute an arbitrary guess for the measurement of important income items. For estimating 'total social income received or receivable' the net value product formula should be rigidly adhered to, even though some enterprises show negative net value products.

13. 'Social net income from abroad' includes other items in addition to net in-payments of interest and dividends; e.g., (a) immigrants' entrance capital, (b) immigrant remittances (a negative item), (c) additions to foreign corporate surpluses owned here.

14. Under present conditions government interest, in estimating the social net value product, should be conceived as imputed net income from government-owned tangible wealth.

15. No sharp line can be drawn between government payrolls, which are distributive shares to be added to other shares to give the social net value product, and those relief payments which are mere transfer payments and are not to be added in.

16. Consumed income should be 'deflated' by an index of the

costs of consumer goods and services. Saved income in current dollars cannot be directly deflated. Instead the wealth on January 1 and the wealth on December 31 should be deflated by an appropriate index of the prices of items of wealth.

17. Scarcity appreciation should be included in income measured in current dollars, because of its bearing on income distribution and because it allows us to equate 'saved income' with the increase in wealth in current dollars. Mere scarcity appreciation does not affect the total of deflated social income.

## Discussion

### I SIMON KUZNETS

#### 1 THE PRODUCTIVITY BASIS OF NATIONAL INCOME ESTIMATES (see point 4 of Dr. Copeland's Summary)

Whether national income be defined as the net value of commodities and services produced during the year; or the value of commodities and services consumed during the year plus savings; or the sum of income shares received by ultimate income recipients plus net savings of business and other enterprises, the criterion of productivity is applied in deciding what elements should be included in the totals just described. When national income is defined as the net value of commodities and services produced, this criterion is used to decide what commodities and services are to be included. If one deals with the consumption of commodities and services, the same question arises, i.e., we ask whether the services rendered to individuals by shyster lawyers, experts in high finance, or gamblers are to be included among services consumed. Similarly, when savings are estimated—and they have to be measured by a comparison of wealth at the beginning and end of the year—what should be included in wealth? Finally, when one deals with income receipts by individuals there is the ever present question whether a given receipt constitutes a genuine income share, or a mere transfer from shares of other individuals. There is no way of escaping this productivity basis of national income computations, and it seems to me preferable to have this inescapable basis definitely recognized than to deny it. For by recognizing it, we substitute conscious for unconscious assumptions and are in a better position to state these assumptions, thus allowing the user of the estimates to consider them in his interpretation of national income measures.

The usual national income estimates are grounded upon two

fundamental sets of assumptions: (a) They accept the current notions of social productivity as the guide to their estimates. This assumption is chosen from a whole set of possible alternatives; and the justification of this choice is that national income estimates, being destined for use by society at large, should be based upon what appear to be society's general notions of social productivity. (b) They accept market valuation as the available measure of social productivity. Here again the investigator follows, often unconsciously and sometimes consciously, the yardstick by which our economic society at large tends to be guided.

With these assumptions defining productivity as the capacity of fetching a price on the legally recognized markets of society, income derived from an enterprise or calling is *ipso facto* a measure of the contribution that this enterprise or calling is conceived to be making to the nation's total income. If this were not so, i.e., if the enterprise or calling in question were not making a contribution at all, or were making a smaller or larger contribution, it would not be assigned any income in the calculation, or a smaller or larger one, with corresponding changes in total national income. This is true with one possible exception. When a given enterprise or calling derives its income from business enterprises, there may be reason for including its income even when we do not consider it productive, i.e., if we have subtracted its income as a cost from other, productive, business enterprises. In that case, unless we include this income, total national income is undervalued. But in such cases it is the gross income of the enterprise or calling in question that is to be reincluded—and there is the proper alternative of not showing the income of the enterprise or calling at all. In all other cases, the inclusion of the income of a given enterprise or calling in the national income totals is itself evidence that this income measures what is conceived to be its contribution to the national total.

The recognition of the productivity implications of national income estimates is important, both to prevent misuses of current figures and as an incentive to a reinterpretation and modification that would be in conformity with sets of assumptions different from those currently employed. This writer, for one, would like to see work begun on national income estimates that would not be based upon the acceptance, prevailing heretofore, of the mar-

ket place as the basis of social productivity judgments. It would be of great value to have national income estimates that would remove from the total the elements which, from the standpoint of a more enlightened social philosophy than that of an acquisitive society, represent dis-service rather than service. Such estimates would subtract from the present national income totals all expenses on armament, most of the outlays on advertising, a great many of the expenses involved in financial and speculative activities, and what is perhaps most important, the outlays that have been made necessary in order to overcome difficulties that are, properly speaking, costs implicit in our economic civilization. All the gigantic outlays on our urban civilization, subways, expensive housing, etc., which in our usual estimates we include at the value of the net product they yield on the market, do not really represent net services to the individuals comprising the nation but are, from their viewpoint, an evil necessary in order to be able to make a living (i.e., they are largely business expenses rather than living expenses). Obviously the removal of such items from national income estimates, difficult as it would be, would make national income totals much better gauges of the volume of services produced, for comparison among years and among nations.

But to repeat, this would substitute a different productivity concept for the one used in present estimates. And this suggestion only affirms the point made above, viz., that the income assigned in a national income estimate to a certain enterprise or calling measures its contribution to national income. This contribution is a measure of the productivity of the enterprise or calling, as productivity is understood in the assumptions underlying the national income estimate.

## 2 INCOME PAID OUT, INCOME PRODUCED AND BUSINESS SAVINGS (see points 10, 11 and 12 of Dr. Copeland's Summary)

In the issue arising from the distinction between income produced and income paid out, we must clearly distinguish the substantive and the terminological aspects. The first question, summarizing the substantive aspect of the issue, concerns the significance of the distinction between the total we attempt to measure under income produced and the total we attempt to

measure under income paid out. The second question, referring to the terminological issue, is whether the titles attached to those two totals convey the correct impression or whether they tend to mislead rather than to inform.

To begin with, the presumptive lack of reliability in measuring business savings played and plays an insignificant role in our distinction between the concepts of income produced and income paid out. It is true that the estimates of additions to corporate surplus or, as I would call them, net business savings, as now measured are subject to more distortion by the peculiarities of business accounting than any income item of which I can at present think. In this writer's report on the revaluation of business inventories<sup>1</sup> as well as in Mr. Fabricant's paper,<sup>2</sup> it was shown what striking changes are produced in this item when a correction is made to bring its measure in line with a logical definition of national income. Of course Dr. Copeland disagrees with the necessity for this correction<sup>3</sup>; and to the extent that such disagreement exists, the statement concerning the lack of reliability of our current measures of business savings is contingent upon the viewpoint presented in my paper.

However, this susceptibility of the item of business savings to the vagaries of accounting procedures is of no significance from the analytical standpoint, and is no basis for declaring income produced a concept inferior in analytical status to that of income paid out. Certainly no such intention was pursued in the discussion and presentation of the national income estimates either in the Senate report or in the publications of the National Bureau of Economic Research. The worst sin that could perhaps be charged is that the two concepts of national income were treated as equal in analytical significance. But even this does not express accurately my position on this question.

This position may be described briefly as follows: National income produced, being the most inclusive national income total and measuring, as it does, the net product of the economic system, is from the standpoint of economic analysis, the basic concept. On this point I agree fully with Dr. Copeland, for his report

<sup>1</sup> Part Four, Sec. V.

<sup>2</sup> Part Three, Sec. V, 1.

<sup>3</sup> See his comments on my paper, Part Four, Discussion I.

likewise makes social income (another term for what we call national income produced) the basic concept. But national income paid out, or the total that we attempt to measure under that name, is an important subdivision of national income produced. In estimating national income paid out we have attempted to obtain an approximation to income shares received by the individuals who comprise the nation. The objection Dr. Copeland raises to the treatment of the circuitous flow of income through banks and life insurance companies is fully granted. It was a practical compromise forced by lack of data. Were data available so that we could, for banks and life insurance companies, establish the *income* share paid to individuals, we would have treated banks and life insurance companies in the same way that we treated manufacturing or mining establishments. Perhaps, in the future, data will become available that will allow a distinction between interest payments by banks to individuals and to business depositors; or which, for life insurance companies, will make it possible to estimate in each year what share of the payments on insurance policies represents a net income payment to the individual investor and what share represents a return of payments made in the past. For lack of such data we had to have recourse to the practical compromise that Dr. Copeland justly condemns as a departure from the true line of measurement. It is this writer's opinion, however, that Dr. Copeland exaggerates the effect of this departure in making our measure of income paid out differ from the combined total of income shares received by individuals.

If we agree on the importance of the national income produced concept, and if we conceive national income paid out as the aggregate of income payments to individuals during any given year, the importance of measuring those two totals separately will be denied by few students of economic problems. This statement does not imply that the component of the national income produced total designated income paid out is necessarily the only important one, or even the most important. In agreement with most students of the problem, I would say that the further segregation of the total amount consumed by the nation's ultimate consumers is a highly important step; and to those who are interested in that segregation, income paid out represents only a first step

towards that ultimate objective. But recognizing the importance of measuring income consumed does not justify denying the importance and usefulness of national income paid out as a measure of the total income stream flowing to individuals and representing that part of the nation's net product whose value is placed in the hands of the nation's ultimate consumers.

We can now turn to the terminological question. Calling the two totals national income produced and national income paid out is said to be misleading. Some objections have been raised to the adjective 'produced' as indicating that the national income total thus designated is really a measure of the social productivity of the economic system. This point was discussed above. Other objections were to the fact that since the two income totals are treated conjointly, undue emphasis is laid upon the discrepancy item, namely business savings, and an impression is created that business savings, when negative, represent actual payments by the business system undertaken to sustain the flow of incomes to consumers.

Most of these criticisms, valid though they may be, do not appear especially weighty. However, the designation of both totals as national income is confusing, especially as it leaves the impression that one national income total is as inclusive as the other. In order to avoid this difficulty it may perhaps be advisable, from the practical standpoint, to reserve the term national income for what we have heretofore designated national income produced. This is in line with the usage common in the economic literature of other countries, and would properly emphasize the primary importance of the concept of national income produced. What we have heretofore designated national income paid out may perhaps in the future be designated the aggregate income payments to individuals. The item business savings will of course still appear in the functional distribution of national income, being the element which, added to aggregate income payments to individuals, yields national income. And of course if we do, as we now can, correct this item for revaluation of inventories, the difference between the cost and reproduction bases for depreciation and depletion deductions, and for gains and losses on sale of capital assets, this item will represent an actual net draft upon the capital of the business system in order to sustain income pay-

ments, or an actual net addition to business capital from current income. It is greatly to be doubted that misinterpretations of this item, no matter how correctly measured, can be avoided. But the danger exists for almost all national income and wealth measurements.

### 3 ENTREPRENEURIAL WITHDRAWALS AND SAVINGS

*(see point 11 of Dr. Copeland's Summary)*

Provided we agree about the importance of the distinction, which Dr. Copeland emphasizes, between "a producing organization or 'economic system'" and "the families or individuals who contribute their labor or the services of their property to the economic system, and who receive the benefits of its operation" (Section I) it is obvious that the difference between what we may now call national income and aggregate income payments to individuals is important. If it is important, then the national income investigator should make an effort to distinguish between entrepreneurial withdrawals and entrepreneurial savings, namely, between the part of entrepreneurial net profit that has been made available as means of purchasing ultimate consumers' goods and the part that has either been added to business capital or withdrawn from it. The fact that in the case of the individual entrepreneur, as distinct from the corporation, there is an identity of the ultimate consumer and of the person in charge of the business unit, while important, does not justify the removal of the distinction between withdrawals and savings. In measuring aggregate income payments to individuals we aim to gauge the flow that can appear on the market of ultimate consumers' goods or on the market of investments by individual investors. If we include the entire entrepreneurial net income in this total, we obviously exaggerate the volume of funds which, as a result of the functioning of the business system, is being made currently available for this purpose.

This discussion does not mention the difficulty of carrying through the distinction because of lack of data. As a matter of fact, this difficulty is present with reference to not only the distinction between entrepreneurial withdrawals and entrepreneurial savings, but also the whole item of entrepreneurial net income itself. In several branches of industry there is a large group

of entrepreneurs who not only do not report on their net incomes but are themselves vague as to what their net incomes during any given year actually are. Nevertheless the national income estimator, and, for that matter, the primary data collecting agencies, such as the Census, make an effort to evaluate this magnitude of which the individual entrepreneur himself is not well aware. There is, therefore, no objection to the national income investigator going farther in trying to establish a dividing line between entrepreneurial withdrawals and savings, provided he has some logical and reasonable basis for doing so, and provided he states explicitly the shaky basis on which these estimates have to be made.

It is only to the extent that such data are not available that one could agree with Dr. Copeland in designating the estimates of entrepreneurial withdrawals and business savings by entrepreneurs as subjective. They are subjective in the sense that data are not available to make a reliable estimate, and hence another investigator with greater ingenuity or with a more powerful censor on his imagination might well produce substantially different estimates. The measures are not subjective, however, in the sense in which estimates of the value of housewives' services are. Concerning the latter, the main question is whether they represent economic activity proper or part of life in general. For entrepreneurial withdrawals and savings, both parts are necessarily income in the strictest sense of the word, and the distinction between the two is of quite obvious bearing upon the measure of the flow of means of purchase to ultimate consumers and individual investors.

#### 4 IMMIGRANTS' ENTRANCE CAPITAL AND REMITTANCES

*(see point 13 of Dr. Copeland's Summary)*

Dr. Copeland suggests that social net income from abroad should include not only the net in-payments of interest and dividends but also (a) immigrants' entrance capital; (b) immigrants' remittances (a negative item); (c) additions to foreign corporate surpluses owned here. While one can agree to the inclusion of (c), the suggestion to include (a) and (b) appears to obliterate the important distinction between social income and changes in capital. It is the purpose of social income measurements to

evaluate the net product of the nation's economic activity and not any and all additions to the stock of capital goods at the disposal of the nation. Any changes in this capital stock, before qualifying for inclusion in national income totals, should be subjected to the test that would show that they are a result of the net commodity and service flow resulting from the nation's economic activity. Neither immigrants' remittances nor immigrants' entrance capital qualify.

If we are to include items such as immigrants' remittances abroad or immigrants' entrance capital, there is no reason why we should not include in social income from abroad many other items; for example, the amounts brought by tourists into the United States (positive addition) or the amounts expended by American tourists abroad (negative item). Just as the capital brought in by an immigrant represents an addition to the capital stock of the nation, or, rather, to the command over capital stock belonging to other nations, so does money brought by a foreign tourist into this country increase the command of America's economic system over the capital stock of other nations. It might be replied that the immigrant who brings in capital spends it here and his consumption enters the total stream of domestic consumption. The same is of course true of the foreign tourist. A similar argument can be made with reference to expenditures by American tourists abroad and any other economic transaction in which one of the locus points is outside American territorial limits. Obviously, so far as the social income of this country is a measurement of the net product of its productive resources, it would be inappropriate to include in it the net product of economic resources of another country, or to exclude from it any parts of the net product of this country that happen to be spent abroad.

##### 5 INTEREST ON GOVERNMENT DEBT

*(see point 14 of Dr. Copeland's Summary)*

Dr. Copeland suggests that in estimating the social net value product, interest on government debt should be conceived as imputed net income from government-owned tangible wealth. This solution raises two difficulties, one of which is partly practical and therefore could perhaps be overcome in the future. This

practical difficulty is that we have no reliable measures of the tangible wealth owned by the government. The absence of such data, however, does not necessarily arise from deficient statistics. We lack data also because it is almost impossible to evaluate a number of tangible items owned by the government. What value should be put on public highways, streets, etc? We deal here with a market, if it may be so designated, in which valuation could not be left to the free play of the forces of demand and supply. Do we solve the difficulty by putting what is necessarily an arbitrary value on tangible items owned by the government, and then computing interest on it?

The second difficulty is still more formidable. A number of government expenditures that may be covered by borrowing are of a type that result not in an increase of the government's tangible wealth, but rather in the preservation or increase of the tangible wealth of business enterprises. Consider, for example, the government's expenditures in connection with the War. As far as can be ascertained, no increase in the government's tangible wealth has resulted from them, but it might be said that they served to preserve the tangible wealth of the nation's economic system—in other words, very largely the wealth of the business system. The government is still paying interest on the debt contracted during the War. Can we logically substitute for these interest payments the imputed interest payments on government-owned tangible wealth?

#### 6 ADJUSTMENT FOR PRICE CHANGES

*(see point 16 of Dr. Copeland's Summary)*

The suggestions that Dr. Copeland makes in connection with adjusting income for price changes seem to me correct, except for the statement that saved income cannot be directly deflated. This statement is consistent with Dr. Copeland's viewpoint, which allows total social income to include items resulting from changing valuation of wealth. If such items are included, saved income cannot be deflated directly. But if we hold to the viewpoint expressed in Mr. Fabricant's and my papers, namely, that income can include accretions and depletions of wealth only to the extent that they result from actual income flows and not from revaluation of assets, then, of course, saved income can be de-

flated directly. If we have an index showing changes in prices of investment goods, and are able to segregate income consumed from income saved, saved income can be deflated by this price index of investment goods.

Even if it is impossible to segregate income consumed from income saved, this writer would still suggest that total social income, provided it properly excludes any effects of revaluation of assets, can be deflated by a combined index of the cost of consumers' goods and services and the cost of investment goods. Such deflation, rough as it may be and neglecting as it does the possible shifts in weights between the two component elements of the general price index, would seem to me to be better than leaving the income totals in current dollars.

## II CLARK WARBURTON

### 1 USE OF TERMS 'INCOME PAID OUT' AND 'INCOME PRODUCED'

Dr. Copeland is especially to be commended for his emphasis upon the fact that the term 'income paid out', as used in the Department of Commerce reports, is a subtotal of items included in 'income produced' and should be presented as such.

Dr. Copeland is to be commended also for his suggestion that the term 'income derived from' an industry or area should be substituted for the term 'income produced by' an industry or area. His objection to the phrase 'income produced' is stated in terms of the ethical implications as to social productivity that may be connoted. The term is objectionable, however, not only on this ground but also because it carries inaccurate implications as to the process of market valuation.

The phrase 'income produced by' an industry carries the implication that not only the product, but also the value of the product, was brought into existence by that industry. This is not true. The value is the result of the market situation—the fact that someone is willing to purchase or use the product. We can speak accurately about the value of the product of an industry, but not about the value produced by that industry. The income derived by participants in one industry from the production and sale of

that industry's product is equal to the value of the product merely because one of the items in the computation of the income derived from the industry is a residual between the remaining items and the value of the product.

## 2 TERMINOLOGY FOR METHODS OF MEASUREMENT

The phrase 'net value product method' as a description of the most common method of estimating social income seems quite inappropriate. Any of the methods Dr. Copeland describes can be used, with suitable treatment of depreciation and depletion and certain other items, to obtain either the 'net social value product' or the 'gross social value product', as these terms are defined by him in Section IV, (20) and (21). The ineptness of the phrase 'net value product method' is illustrated by the fact that Dr. Copeland himself modifies it in (21).

One of the modifying phrases that Dr. Copeland uses, 'distributive-share', provides a clue to a suitable terminology for designating the various methods. Following this clue, it is suggested that designations of the various methods be descriptive of the items that are summed, as follows: <sup>1</sup>

- Summation of distributive shares;
- 'Value added' summation;
- Summation of value of final products;
- Summation of income received;
- Summation of consumer purchases and savings.

The summation of the value of final products, which Dr. Copeland considers a short cut for the summation of distributive shares or of 'value added', should be considered a primary rather than a substitute method of measuring 'national income'. In fact, this is the method that most closely corresponds to most definitions of 'national income', and measurements of national income by this method would be more useful, as an aid in the formulation of national economic policies, than the measurements hitherto available. In making such measurements, as Dr. Copeland has indicated, the 'gross social value product' should be given as much emphasis as the 'net social value product'.

<sup>1</sup> See my paper, Part Two, Sec. I.

### 3 RELIEF PAYMENTS

Further consideration may profitably be given to the character of taxation in connection with the question whether relief payments should be treated as type (b) or type (c) secondary distribution items (Section V, 7).<sup>2</sup> If it is assumed that relief payments are financed from taxes levied directly upon individuals, then it is most appropriate to consider such payments as type (b). If, however, it is assumed that relief payments are financed from taxes levied upon business enterprises, then it is appropriate to consider such payments to be of type (c) and to include the taxes paid to meet these payments among the distributive shares. The fact that the recipients of relief, or the recipients of direct contributions by business enterprises to charity or to community chests, have made no contribution, of either labor or property, to the enterprise is not a valid reason for failure to recognize such taxes or contributions as distributive shares. If such a criterion were used, some portion of dividend payments and wages should also be excluded from consideration as distributive shares.

The financing of relief payments by borrowing introduces further complications that need exploration. Certainly when national income is measured by either of the methods based on the consolidation of individual income and expenditure statements it appears necessary to consider relief payments financed by borrowings to be of type (c), since there is no offsetting tax payment by individuals. But if the accounts of individuals are combined with the accounts of governments the net borrowings of governments for relief financing, or for any other purpose, may be treated as negative savings.<sup>3</sup>

This line of reasoning leads to the suggestion that in national income estimates government deficits should be treated like corporate deficits (negative business savings). How would this affect national income estimates for 1919-35? Also, if relief payments in cash are treated as an item in the measurement of national income, should relief in kind be treated differently? Further, why not evaluate (perhaps at cost) education and other

<sup>2</sup> A question may be raised concerning the propriety of including type (c) as a secondary rather than a primary distribution item.

<sup>3</sup> Cf. Colm, Part Five, Sec. IV.

services furnished by governments and treat such services as income drawn from governments in kind, like the rental value of a home occupied by its owner?

### III M. A. COPELAND

Dr. Kuznets' comments on my paper have, I believe, served to clarify a number of the issues between us. I hope that what follows will add further clarification. In one important respect I offer a modification of my position as set forth above; viz., in the handling of market appreciation and depreciation of inventories. For convenience I shall, with two exceptions, use section titles identical with those used by Dr. Kuznets.

#### I THE PRODUCTIVITY BASIS OF NATIONAL INCOME ESTIMATES

Dr. Kuznets finds that what he calls the "criterion of productivity" is involved where the national income is conceived:

- a) As a summation of distributive shares, and
- b) As a summation of the values of ultimate products (both his "net value of commodities and services produced" and his "the value of commodities and services consumed during the year, plus savings" appear to employ this same concept).

As applied to the latter or ultimate products concept, his "criterion of productivity" appears to be marketability, at least so far as the issue under consideration is concerned. Thus, he includes in the products and services turned out during a given period marketable illth and marketable disservices to individuals. With this inclusion I entirely concur. The productivity issue between us does not involve any difference in what is included in national income.

To say that shoddy goods and shoddy services are included in the list of ultimate products whose market values are summed to give one estimate of national income does not seem to me the same as saying that the distributive shares accruing to various income claimants are ipso facto *measures* either (a) of the contributions to the total income of the community made by various income claimants, or (b) of the contributions made to total income by the enterprises employing them or their capital.

Again, one may admit (and I have elsewhere both admitted and insisted) that for the world as a whole we may properly say that the entire economic system operating during a given year has *produced (contributed)* the world's social income for that year. But it does not follow that any single claimant to a distributive share in that income *produced (contributed)* a portion of that income *equal* to his distributive share.

Dr. Kuznets' "criterion of productivity" appears to have a connotation when applied to income conceived as a summation of distributive shares that is different from its connotation when applied to income conceived as a summation of ultimate products; viz., it implies in the former but not in the latter connotation that a claimant's share in social income is equal to his contribution to it.

The question here at issue between Dr. Kuznets and me is solely one of the interpretation to be put upon the distributive shares, which, when added together, make up the total social income, and not at all one of the amount either of the total or of any distributive share.

I agree with Dr. Kuznets that in determining whether a given individual income item is (a) a distributive share or (b) a mere transfer from the distributive shares of other individuals, it will be necessary to ascertain whether the income item in question can, without duplication, be added to other distributive shares to make up a net value product total that will equal the total of ultimate products. If this were all that Dr. Kuznets means by his distributive "criterion of productivity", I should take no issue with him. But he chooses to call a given primary distributive share or a given net value product a *measure of the contribution* that a given income claimant or enterprise makes to social income. I urge that in so doing he is using misleading language and language that involves a gratuitous ethical implication.

## 2 INCOME PAID OUT, INCOME PRODUCED AND BUSINESS SAVINGS

Dr. Kuznets contends that his treatment of the flow of income through banks and insurance companies and various other financial enterprises was forced upon him by a lack of data respecting their operations.

This statement I find difficult to understand, particularly as it

applies to commercial and savings banks. It is not a lack of data necessary to estimate total interest and cash dividends received by individuals, but rather a lack of data necessary to make such an estimate according to a particular formula which calls for a break between interest paid by banks to individuals and interest paid by banks to business depositors. Contrary to the implication of his statement, such a break was not made by Dr. Kuznets for manufacturing establishments, and data are not available for such a break. I pointed out some years ago that such a break was unnecessary in the case of banks for estimating total interest and dividends received by individuals, and illustrated in detail how existing data could be used to estimate total interest and dividends received by individuals.<sup>1</sup>

Admittedly, information on insurance companies and, a fortiori, on certain other financial institutions is less satisfactory than is information on commercial and savings banks. However, it is little worse than information on some kinds of labor income. Surely an estimate of interest and dividends originating in each of these groups can be so made as to decrease the error of estimate of total social income involved in regarding these financial enterprises as 'associations of individuals'. The interest-and-dividends-originating formula should be used consistently throughout if its results are to be valid.

Dr. Kuznets refers to business savings as *the* element which, added to the aggregate of income payments to individuals, yields the national income. In addition to raising a question whether entrepreneurial savings are to be called "not paid out" and a further question whether interest accruing on an insurance policy is "paid out", I should like to repeat the suggestion made in my paper to the effect that the reckoning of government property income as consisting exclusively of interest on outstanding government indebtedness may be appropriate for computing aggregate income payments to individuals, but that some type of accrual estimate should be substituted in computing total national income. Thus it is not clear that "[corporate?] business savings" can be regarded as the one element of difference between income payments to individuals and total national income.

<sup>1</sup> *Journal of Political Economy*, Vol. XL, No. 1, February 1932.

We may summarize suggested differences in these two concepts as follows:

	Net Social Value Product (before taking into account valuation readjustments)	Aggregate Income Payments to Individuals
Individual Businesses:	Payroll, interest originating, profits	Payroll, interest originating, profits
Business Corporations: (including banks and insurance companies)	Payroll and interest and dividend payments originating Additions to surplus of business corporations Additions to insurance policy holders' reserves	Payroll and interest and dividend payments originating
Governments:	Government payroll, imputed income on government-owned wealth	Government payroll and interest paid on government debt

### 3 ENTREPRENEURIAL WITHDRAWALS AND SAVINGS

When I suggested that estimates of entrepreneurial withdrawals are substantially as subjective as estimates of the value of housewives' services I had in mind partly that users of the term "entrepreneurial withdrawals" have failed to distinguish several different concepts and partly that the problem of imputing valuations in determining entrepreneurial withdrawals (in at least some of the meanings of this term) is likely to involve as wide a range of results as it is in the case of housewives' services.

In order to facilitate further discussion of this term and the corresponding term, 'individual business savings', I wish to ask which of the four following definitions of 'entrepreneurial withdrawals' Dr. Kuznets and others prefer:

a) Imputed entrepreneurial labor income (both wage income per wage earner and salary income per salary earner have been suggested as valuations appropriate to this definition);

b) Imputed entrepreneurial labor income plus 'imputed dividends' to the entrepreneur on his proprietorship equity (dividends are sometimes assumed to be at the same rate as for corporations in the same or some similar line of business);

c) Total entrepreneurial profits less the net increase during the year in entrepreneurial proprietorship equities;

d) Gross withdrawals from proprietorship equity accounts by entrepreneurs during the year.

Several compromises between (c) and (d) might give rise to additional definitions.

Dr. Kuznets appears to hold that the concept 'individual business savings' and the concept 'corporate business savings' are strictly analogous and that therefore 'individual business savings' as well as 'corporate business savings' should be excluded from the item 'aggregate income payments to individuals', and similarly, that 'entrepreneurial withdrawals' as well as 'corporate cash dividends' should be included in the item 'aggregate income payments to individuals'.

In general, the analogy between individual business savings and additions to corporate surplus is closest if definition (b) above is adopted for the concept 'entrepreneurial withdrawals'. The valuation question is particularly acute for this concept. It does not appear to be the concept that Dr. Kuznets advocates.<sup>2</sup>

Dr. Kuznets appears to prefer definition (c) for 'entrepreneurial withdrawals'. However, if it is intended that 'entrepreneurial withdrawals' shall be that part of entrepreneurial profits which should be included in 'aggregate income payments to individuals', definition (c) for entrepreneurial withdrawals is clearly inappropriate. New investments by individuals in a new line of business in which they are starting as entrepreneurs might make this alleged 'income payment' a negative quantity.

One might seek to distinguish between those 'business savings' in an individual enterprise which involve the actual investment of new money and those savings which arise merely from the failure to withdraw the additions to the proprietorship equity that are derived from profitable operations during the year. This criterion would suggest that definition (c) for 'entrepreneurial withdrawals' be adopted for those enterprises in each of which the increase in proprietorship equity during the year is less than the year's profits and that for all other enterprises entrepreneurial withdrawals should be assumed to be zero. While this definition would not provide a close analogy between the concept 'entrepreneurial withdrawals' and the concept 'corporate cash dividends', the corresponding concept of 'individual business savings'

<sup>2</sup> However, concept (a) is employed in several industry groups in the 1929-32 study.

would, in one respect, be closely analogous to the concept 'additions to corporate surplus'—the individual would be somewhat passive in respect to the savings involved.

We may, however, define 'aggregate income payments to individuals' as consisting of those income items over which individuals acquire a fair measure of control and discretion. If this view of 'aggregate income payments to individuals' is adopted, and I think it should be, the entire item 'entrepreneurial profits' should be included in the item 'aggregate income payments to individuals'.

#### 4 IMMIGRANTS' ENTRANCE CAPITAL AND REMITTANCES

Dr. Kuznets suggests that in determining whether an item should be included in the net national income received from abroad, we should consider whether it results from the nation's economic activity. It is not clear to me that interest on foreign investments owned by nationals of the United States results from economic activity in or of the United States. I had supposed that net income received from abroad was to be distinguished from net income derived from the operation of a nation's economic system as being clearly in the class of incomes not produced by that economic system.

So far as secondary distribution items affect the difference between income derived from wealth and labor in the United States and income received by the United States population, it would seem appropriate to include secondary distribution items in the net income received from abroad.

Dr. Kuznets' argument against so including one secondary distribution item, 'immigrants' entrance capital' received during the year, emphasizes the resemblance between 'immigrants' entrance capital' and what by analogy we may call 'tourists' entrance capital'. Whether this resemblance should lead us to treat the two items in the same way in computing net income received from abroad will depend upon what population we have in mind as receiving the income. If, when we speak of the income received by a country, we mean the income received by all persons in that country, excluding residents of that country who are visiting abroad, obviously we should treat the entrance capital of foreign tourists entering the country in the same way in which we treat the entrance capital of immigrants. However, the usual concep-

tion of community used in defining the 'income received by a community' embraces its residents, including immigrants after their arrival and also including its own residents who may be visiting abroad, but excluding foreign tourists within its borders. Using this conception it is clear that 'immigrants' entrance capital' should be treated in one way and 'tourist entrance capital' in a quite different way. 'Immigrants' entrance capital' received into the country during the year represents a part of the income received from abroad, while 'tourist expenditures' represents a service export and therefore a deduction to be made from the country's gross imports of goods, services and equities in estimating the net income received from abroad by the credit or revenue-from-sales method.

Dr. Kuznets' argument involves a further point which is pertinent not only to the question of income received from abroad; he alleges that certain items are not properly called 'income' but rather 'changes in capital'. This point is reserved for subsequent consideration.

#### 5 INTEREST ON GOVERNMENT DEBT

Dr. Kuznets finds it difficult to estimate the item, government property income, when defined as 'imputed net income from government-owned tangible wealth'. I have attempted a rough estimate of the wealth of the country at various dates and I am convinced that the difficulty is not appreciably greater than in the case of a number of other items in national income. If the theory underlying the proposal to substitute this concept for 'interest on government debt' in estimating total social income<sup>3</sup> is correct, the error of a rough estimate would surely be appreciably less than the error involved in using an incorrect item, however correctly estimated.

But Dr. Kuznets' first objection is theoretical as well as practical. He tells us that only an arbitrary valuation of government-owned tangible assets is possible because their valuation "could not be left to the free play of the forces of demand and supply". So far as I can see, present difficulties in valuation of government

<sup>3</sup> Note that I do not propose to substitute 'imputed net income from government-owned tangible wealth' for 'interest on government debt' in estimating 'aggregate income payments to individuals'.

assets according to accepted accounting practices are due chiefly to the failure of governments to install business-like accounting systems. Whether a business-like system of government accounting (including balance sheet accounting) can be developed, time alone can tell. However, I had not supposed that the free play of economic forces was necessary to the development of such an accounting system for a private business.

Dr. Kuznets' second objection to the use of the item 'imputed net income from government-owned tangible wealth' is that "a number of government expenditures that may be covered by borrowing are of a type that result not in an increase of the government's tangible wealth, but rather in the preservation or increase of the tangible wealth of business enterprises". He next simply cites the war debt, on which interest is still being paid, as an instance, and then without any mention whatever of the relevance of these non-controversial considerations to the question at issue between us he asks that question rhetorically. I shall be glad to attempt an answer to this second objection to imputed interest when it is adequately stated.

Meantime, the proposal to substitute 'imputed net income from government-owned tangible wealth' for 'interest on government debt' in estimating total national income may be made more plausible if we consider two cases in which for the sake of simplicity the amounts of government wealth and government debt are assumed to remain constant for an entire year. If in Case I the wealth exceeds the debt, imputed interest on the residual equity (wealth less debt) may be thought of as an income in kind received by the nation in addition to the money value of government services purchased through taxation. If in Case II the debt exceeds the wealth a proportionate amount of the interest upon the debt, corresponding to the amount by which the debt exceeds the wealth, and an equal amount of taxes paid during the year may be thought of as complementary secondary distribution items which jointly transfer so much income from tax-payers to bond-holders.

This view of property income derived from government is in effect the one commonly taken by economists when they urge that a nation cannot borrow from the future of itself but that government borrowing may effect a change in the distribution of owner-

ship of national wealth and so in the distribution of national income at least throughout the life of the indebtedness. By implication this view of government property income is also implicit in the distinction between an internal and an external debt.

#### 6 ADJUSTMENTS FOR PRICE CHANGES WITH SPECIAL REFERENCE TO INVENTORY VALUATIONS <sup>4</sup>

In order to narrow the area of disagreement between Dr. Kuznets and myself (which I think for the whole field of wealth and income is already very small) I offer the following modification of my position as set forth above.

First, let that part of item (4) 'increase in tangible assets during the period' (Section IV), which has reference to inventories, be called item (4a) 'saved income invested in additions to the dollar-value of inventories during the year', and let item (4a) be further broken down into (i) 'the current value of the physical increments in inventories' and (ii) 'the increments in the values of inventories' which may be measured as (4a) minus (i). Second, let item (i) be included in what I have called item (21) 'the net social value product derived from the operation of the economic system before taking into account valuation readjustments', and let item (ii), which I have heretofore included in (21), be treated as a valuation readjustment and therefore be transferred to (22) 'total social income including net valuation readjustment gains' (Section IV).

The question as to what basis of valuation should logically be applied to a physical increment in inventory to give (i) 'the current value of the physical increments in inventories' probably offers no major issue between Dr. Kuznets and myself. While I do not agree that logic uniquely determines the ideal valuation basis, the actual basis is likely to be determined somewhat largely on pragmatic grounds.

It is still, in my opinion, also important that wealth and saved (i), item (ii) 'the increments in the values of inventories' is at present a form of income important in considering both the geographical and the personal distributions of income.

It is still, in my opinion, also important that wealth and saved

<sup>4</sup> This section was added to my reply in July 1937.

income should be defined on a consistent basis so that any year's saved income will equal the wealth as of December 31 of that year minus the wealth as of January 1. Under the modification in my position here offered this will of course continue to be true of total saved income including net valuation readjustment gains (item (22) minus consumed income).

Dr. Kuznets proposes, as I understand him, to substitute item (i) alone for item (4a) in the national income statement. The omission of item (ii) involves a criticism of now prevalent accounting practices which is both valid and important. In elaborating his position, he has called attention to an alternative accounting technique, known as 'the last-in, first-out' method of inventory valuation.<sup>5</sup> This method of handling inventories gives values for the income item (i) that are identical with those yielded by Dr. Kuznets' own proposal when the physical increment in inventory is positive, and that are approximately the same for other periods. According to this method, each year-end inventory is conceived as the sum of all previous annual physical increments, each positive annual increment being separately valued at a price appropriate to the year in which it occurred and each negative increment being conceived as a withdrawal of previous positive increments in the order of their recency. The adoption of such an accounting technique would probably have the effect of putting gains and losses from inventory revaluations on a par with gains and losses from the revaluations of other balance sheet items in that losses would be promptly and gains tardily recognized. Item (ii), as shown on a book value basis under these conditions, would be defined as the additional net loss (or net gain) during the year from such revaluations. Failure to recognize a temporary gain would obviate the necessity for subsequently recognizing subsequent losses up to the amount of the unrecognized gain. Hence (ii) would, I believe, ordinarily be small under the

<sup>5</sup> See his reply to my comments on his paper, Part Four, Discussion IV. His algebraic notation in his original presentation, Part Four, Sec. I and II, misled me, since on the one hand this notation necessarily implies that in valuing a homogeneous physical inventory as of a given date, any two units of the stock must in every instance have the same value; while on the other hand the last-in, first-out method, with fluctuating inventories and fluctuating prices, in general requires differences in the unit-book-values as of any given date for the various increments of which a homogeneous commodity stock is assumed to consist.

conditions assumed. Under present conditions, as Dr. Kuznets himself emphasizes, (ii) is an item of considerable size.

But the theoretical desirability of reforming inventory accounting practices is not a reason for overlooking the importance of the now prevalent cost-or-market rule in determining present market values and hence income distribution in our present society. I believe, therefore, that income estimates should for the time being continue to provide a figure that will make it possible to show item (4a), or (i) plus (ii), on substantially the present book value basis.

## 7 INCOME AND CAPITAL CHANGES

Wealth is a magnitude that has an instantaneous time reference. Income is a magnitude that has a periodical time reference. Thus we refer to the wealth of the United States at the close of the calendar year 1936, but to the income of the United States during the year 1936. A change in wealth is a magnitude that has the same kind of time reference as income. Thus we may refer to the appreciation of real estate during the year 1936. Saved income, indeed, may be defined as a change in wealth.<sup>6</sup>

Accountants draw a distinction between other income items and credits to proprietorship equity % valuation adjustments of various balance sheet items on the ground that the assignment of the latter type of item to a given accounting period is on a much less secure basis than is the assignment of the former type of item.<sup>7</sup> Thus, accrued interest income is felt to be clearly assigned appropriately to the period in which it accrues, while the

<sup>6</sup> Compare also the following definition of income in *Accounting Terminology*, Preliminary Report of A Special Committee on Terminology of the American Institute of Accountants, 1934, p. 68. "Income is increase in wealth measured in terms of money, accruing or received during a given period. . . . It includes earnings, gains and profits from any source."

<sup>7</sup> I have suggested two criteria for excluding valuation readjustment items from the basic concept, total social income: (a) the arbitrariness of the assignment of such transactions to a given accounting period, (b) the subjective character of the amount of the transaction. The second criterion reinforces the first. For the sake of brevity its consideration will be largely omitted here. The first criterion also reinforces the second. Thus if one waits long enough to recognize an item of appreciation, its recognition may become unnecessary by virtue of a subsequent depreciation.

appreciation of a tangible asset (when the accountant is prevailed upon to recognize it) appears to be somewhat arbitrarily assigned to the period in which the recognition takes place. This is true whether the appreciation is purely the result of a market change or whether it represents a definite change in the physical inventory known to be the property of the enterprise involved. Thus an accountant would ordinarily designate as an adjustment item a credit to proprietorship %c the increase in value of a piece of real estate due either to a favorable legal decision or to the discovery of previously unknown subsoil mineral deposits.

As I understand Dr. Kuznets' position, appreciation due to discovery is an income item; appreciation due to a market change is a capital adjustment item. Just how he construes changes in the legal situation is not entirely clear, but apparently when an immigrant joins the population of the United States and his property rights are thus transferred to that population, the result is, according to Dr. Kuznets, a capital adjustment item and not an income item. This item should clearly not be classified as a valuation readjustment item in the accountant's sense for there is no substantial room for doubt as to the time at which the transaction takes place. Moreover, the item in balance of payments estimates 'immigrants' entrance capital' (and this represents the bulk of all such 'entrance capital') is a cash item. Accounting theory might justify treating the entrance capital of each immigrant, on arrival, as a 'deferred credit' to be apportioned over several years, but the effect of this treatment would be substantially the same as the effect of treating the item directly as income.

There is one type of case in which, as I understand it, Dr. Kuznets would treat market appreciation as an income item, namely, the case in which a realtor makes a margin on the handling of real estate. This margin or gross profit would be treated as a gross income item in the same way that the margin on the sale of a commodity would be treated. In this treatment I concur. I believe that the criterion of reasonably secure assignability to a definite accounting period offers a logical basis for treating this kind of market appreciation as contributing to total social income.

Thus in excluding asset adjustments from total social income

as a basic concept I seek to follow approximately the accounting practice.<sup>8</sup> Accordingly, I treat the 'immigrants' entrance capital' which becomes a part of our wealth during the year, and the 'margins realized by realtors on the merchandising of real estate' as gross items, the net items corresponding to which are included in the total social income received by a country before taking account of valuation readjustments.

Dr. Kuznets makes reference to "the important distinction between social income and changes in capital". Strictly speaking he should refer to those credit-changes in capital equities which are by definition saved income, and other credit-changes in capital equities. While it may be convenient to distinguish (i) credits to proprietorship equities %c asset valuation readjustments from (ii) saved income which is securely assignable to a given year, they are, in my opinion, clearly like such saved income (a) in being assignable on a periodical basis (although with less precision) and (b) in the favorable economic effect which they specify as accruing to the recipient. Indeed, were we to talk about income in centuries instead of in years, they would for the most part be as clearly a part of the income received during the century as are payrolls.

Dr. Warburton suggests that what I have characterized as type (c) secondary distribution items are properly to be treated as part of the primary rather than the secondary distribution. His contention is entirely warranted and I am happy to accept this correction.

Dr. Warburton also suggests that government deficits should be treated like corporate deficits in national income estimates. As an objective towards which to work I concur in this suggestion. But government accounts would have to be put on a thorough-going accrual basis before one could determine a government deficit in a sense analogous to a corporate deficit. This would involve inter alia:

<sup>8</sup> However, it is realized that accountants distinguish those valuation readjustments which represent realized capital gains from those which represent mere paper profits. Ordinarily accountants do not recognize the existence of the latter type. This distinction on the basis of realization may be urgent for individual business accounts; its significance for social income estimates is less fundamental.

- a) Establishment of a complete balance sheet (instead of a mere cash balance sheet);
- b) Establishment of depreciation and depletion accounting;
- c) Distinguishing between expenses for repairs, replacements, etc., and expenditures for additions to and betterments of government assets;
- d) Establishment of adjustment accounts for all important inter-period revenue and expense relationships (i.e., deferred charge, deferred credit, accrued charge and accrued credit accounts).

The corollary of recognizing government deficits is, of course, recognizing government additions to surplus.

Dr. Warburton also suggests that relief in kind should be treated similarly to cash relief. Again I concur.

Finally, Dr. Warburton repeats the suggestion that education and other services furnished by the government should be evaluated and treated as income drawn from the government in kind. In his earlier and fuller statement of this suggestion I understand his view to be that all government services rendered directly to ultimate consumers should be evaluated upon a cost basis, and that the amount by which the value of these services exceeds the charges (taxes, etc.) levied directly against individuals should be treated as an income in kind to be added to the total social income as determined by the application of the net value product formula.<sup>9</sup> There is a close similarity between this suggestion and that of Dr. Colm.<sup>10</sup> Both attempt to contrast a split of government revenues into those derived from (a) businesses, and (b) individuals, with a split in the costs of government operations as between those serving businesses and those serving individuals. Both believe that our existing tax system, as far as this split goes, deviates a long way from what would be called for by the principle of cost of service or the benefit theory. Both estimate the excess charge against businesses for a recent year at about \$7,000,000,000. Both authorities conclude from the overcharge against businesses that we should add to national income substantially the amount of this overcharge. (Dr. Colm makes a deduction from the seven billion-odd dollars for subsidies.)

<sup>9</sup> Cf. Part Two, Sec. IV.

<sup>10</sup> Part Five, Sec. II, III and V.

As I understand it, Dr. Colm looks upon the addition (i.e., the taxes upon business in excess of the cost of government service to business) as a distributive share derived from business, a share which is on a par with interest and wage payments made by business. Dr. Warburton would leave the estimate of income derived from business substantially unamended and would add to government interest and payroll an income in kind representing free services provided to individuals by the government out of the profit on the government's dealings with business enterprise. The two resulting industry distributions differ, but total social income is the same from either viewpoint.

Both Dr. Colm and Dr. Warburton recognize that the case for making this addition to the social income total determined by the net value product formula rests upon an assumption regarding the incidence of taxation.<sup>11</sup> That assumption is that the taxes levied upon businesses to support that part of the services to ultimate consumers not supported by direct taxes on individuals have the effect of decreasing the total of distributive shares rather than the effect of increasing the charges by businesses for their products. Presumably this means that a part only of the excess of the value of government services to consumers over government charges to individuals should be added to the net value product estimate of social income, if only a part of the supporting taxes and other charges represents a deduction from the total of distributive shares.

If it turns out that a detailed analysis of government accounts leads *unambiguously* to the conclusion that, for any branch of government, services to ultimate consumers are supported to a given amount by taxes which have the effect of decreasing one or more of the distributive shares by a like amount, then it seems to me to follow that the proposal of Dr. Colm and Dr. Warburton to add such an amount to the total social income determined by the net value product formula should be accepted.

To my mind such a conclusion would require not only a detailed study of existing data on government finances, but also an attempt (a) to reconstruct government accounts upon a thoroughgoing accrual basis, and (b) to apply cost accounting technique on the basis of the accounts so revised.

<sup>11</sup> Warburton, Part Two, Sec. IV, 4 and Colm, Part Five, Sec. II, 3.

In this connection I would urge again that interest on government bonds as an item of estimate in total social income be replaced by imputed property income on the value of government wealth. Employment of such an imputed item for local government might yield an increase which would serve, for purposes of Dr. Warburton's ultimate product approach, as a partial substitute for the recognition of the income in kind proposed by Dr. Colm and himself. (In some years recognition of an addition to surplus might yield a further increase; in others recognition of a deficit might yield an offsetting item.)

In January 1936 I wrote:

"May I offer some suggestions regarding possible lines of inquiry which I believe would be profitable? Several of these emphasize the need for studying wealth and income together, setting up what amounts to a consistent scheme of social capital and income accounts for each major industrial grouping in our economic system.

"(1) National resources employed by governments and the incomes derived therefrom. This should be an experimental study for sample years, which would attempt to work over available data into the form of a double entry system of accounts on a rough accrual basis appropriate for use in national wealth and income measurements. Such a study should throw light on a number of problems—the handling of government interest, relief payments, government budget deficits, etc., in national income estimates; valuation bases for non-business wealth; the part of government value-product saved and consumed, etc. It should also provide suggestions for improving the basic data."

I now wish to urge this proposal again.