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# Chapter 3

## Dividing the Economy into Sectors

From the most remote period in the history of the world organic beings have been found to resemble each other in descending degrees, so that they can be classed in groups under groups. This classification is not arbitrary like the grouping of the stars in constellations. Charles Darwin, *Origin of Species,* Ch. XIV.

The problem of classifying transactors is somewhat like the problem of classifying plants and animals. In both cases those with similar traits are grouped together. Also, transactors, like living organisms, "resemble each other in descending degrees," and for many purposes there is occasion to set up subgroups under groups. However, for this exploratory study it seems advisable to concentrate attention on very broad groups and to neglect the subgroups.

Classifying transactors has something in common, too, with grouping stars into constellations. When the celestial cartographer decides that the seven bright stars most of us know as the Big Dipper — two of them are doubles — and certain faint stars remote from them on a stellar map are to be grouped together in the official constellation Ursa Major (instead of grouping the faint stars with those in sprawling Draco) he is making an arbitrary ruling. The determination whether a given holding company is a business concern, or a purely personal affair like a personal trust, and, consequently, to be regarded as a household, is often quite as arbitrary.

Nor is this all. The biologist need worry only occasionally whether he is dealing with a single organism or a whole colony — say of protozoa; in classifying transactors one must frequently face the analogous question, Is the New York Telephone Co., for example, a separate transactor or a part of the A T & T? And if a taxonomist concerned with animals has now and then to hunt for missing links, the taxonomist concerned with transactors is plagued by a plethora of intermediate forms. There are always too many transactors with highly diversified activities and with almost equal claims to membership in two or more of his categories.

Conventions and to some extent statutes have provided a basis for handling the problems of classifying transactors. In dividing the economy into sectors, we shall follow in general the Standard Industrial Clas-

sification,[1] and, in deciding when we have one transactor and when several, we shall for the most part take our cue from federal corporate income tax returns.

1 *Households and Industrial Groups*

The Standard Industrial Classification states: "The units to be classified are establishments." With a concern like the A & P Tea Co. or General Motors it takes many establishments to make a transactor. Nonetheless, the Bureau of Internal Revenue has used the Standard Industrial Classification to classify ownership units, i.e., transactors. We have taken its tabulation of 1939 tax returns for most business corporations as defining both the single transactor and his classification.[2] Unincorporated businesses have been assumed to be single establishment enterprises and Census classifications have been used for the areas covered by the 1939 censuses of manufactures, business, and agriculture.

In this way three broad groups of transactors have been established:
1) *Industrial* (i.e., all private nonfinancial, nonfarm) *corporations.*
2) Unincorporated nonfinancial enterprises other than farms, including private nonprofit institutions. We shall call this group *business proprietors and partnerships et al.* All unincorporated enterprises covered by the censuses of manufactures and businesses — and a variety of others — are assigned here.
3) *Farms* (all private enterprises classed as farms by the Census including a few corporations).

The remainder of the economy consists of households, governments, and private financial and property owning enterprises. For purposes of measuring moneyflows it has seemed advantageous to recognize two groups of government transactors and four groups of financial and property owning enterprises.

Before considering these groups specifically, two general points must be disposed of. The first has to do with the differences between a classification of transactors appropriate to national income measurements and one appropriate to moneyflows measurements. The second relates to difficulties connected with treating households as a separate economic sector.

As noted in the preceding chapter, the components of national income and gross national product include in addition to moneyflows transac-

[1] Government Printing Office, Vol. 1, *1941*, Vol. 2, *1942*.

[2] Some concerns shifted from a separate to a consolidated return basis in 1941, and more did so in 1942. An attempt has been made (only partly successful) to unconsolidate these consolidated returns.

tions certain transactions that may be said to have been invented by accountants and economists. In this respect the measurer of moneyflows takes things more nearly as he finds them and does not deal with these invented transactions. He takes things more nearly as he finds them also when he classifies transactors. National income is defined in terms of a two way grouping of transactors: (a) households, which receive, consume, and save (invest) distributive shares; (b) producing enterprises, which sell their output and pay distributive shares out of the proceeds. This definition requires us to force the accounts of governments and of banks and other financial enterprises into the mould of the industrial or mercantile concern, or else to make a split, so that one part of a government, for example, can be treated as a quasi-producing enterprise and another part as a quasi-household. The question, How should we force or make the split? has generated a heated debate. Indeed, the chief unsettled issues regarding the definition of national income can be traced to this question of classifying transactors.

The measurer of moneyflows can dodge most of these issues, for he can take transactors largely as he finds them. For him governments are just governments, banks are just banks, insurance companies just insurance companies.

However, it is not wise for him to dodge all the classification issues that trouble the national income accountant. The second general point concerns one it seems best to face. When the head of a household is a farmer or the sole proprietor of a small business, his farm or business transactions and his household transactions may not be recorded in separate accounts; in fact, he may have little in the way of accounting records; the business or farm and the household may merge into a single transactor. In such a case one has to perform statistically a kind of accounting vivisection. The measurer of national income must perform such an operation, because the national income account is essentially a report of transactions between households and quasi-households on the one hand and producing enterprises and quasi-producing enterprises on the other. The measurer of moneyflows could get along without separating the accounts of farms from those of farm households or the accounts of doctors and lawyers from those of their households. But he could hardly afford to lump all households and all unincorporated enterprises together in one big heterogeneous sector; too much significant detail would be lost. Moreover, the principal alternative to separating household and enterprise accounts is even more difficult. It would be something of a task to set up separate accounting pictures of say

(1) farms and farm households, (2) unincorporated financial enterprises and the households of their proprietors, (3) other unincorporated enterprises and the households of their proprietors, and (4) nonentrepreneur households. Hence, despite the problems of accounting vivisection, it is expedient for the measurer of moneyflows to follow somewhat the same course with respect to households as the measurer of national income, and set them up as a group of transactors.

A good deal of separate information on household transactions can be obtained from the records maintained by the other parties to these transactions. To some extent, too, measurers of moneyflows can employ allocations made by national income estimators, e.g., allocations in connection with the business use of pleasure automobiles by farmers. But to provide the full account of household moneyflows summarized in Table 2, additional allocations were needed. For example, it was necessary to separate the cash holdings of farmers into business and household cash and consumption expenditures on household goods into those made by landlords and those made by owner occupants.

This last statement suggests the question: When a man owns a house and rents it to a tenant, is he engaging in a business? It is proposed to answer this question in the affirmative. Certainly the ownership and operation of an apartment house is a business, and it is advantageous to treat these and most other residential landlords as belonging to the same transactor group, even though we shall have to make this group a catch-all category.

But the statement that it was necessary to make an apportionment of what the Department of Commerce calls 'personal consumption expenditures' has a broader implication. Our transactor group, households, does not coincide with the national income sector denoted by the adjective 'personal'. We have tried to count as households just what this word implies, except that it has seemed best to classify estates, personal trusts, and personal holding companies in this group. For purposes of national income accounting it is convenient to adopt a somewhat less clean-cut transactor grouping, to lump together under the heading 'personal' certain business as well as household transactions — all private consumption expenditures and all private saving except additions to corporate surplus. The national income accountant can indulge in such lumping because he is not interested in financial moneyflows — they cancel out in his accounts. But we could scarcely afford to follow him. Moneyflows social accounting calls for a clean-cut transactor grouping.

The differences between households and the personal sector of na-

tional income accounting are both extensive and technical. We need not stop to enumerate them here, for we shall be somewhat concerned with these differences in the next three chapters.

Separating business transactions (including the transactions of landlords) from household transactions is not the only type of exploratory surgery performed with statistical instruments. The splitting of business enterprises into establishments is also a species of accounting vivisection. As already indicated, our moneyflows accounts report transactions between whole enterprises, not intra-enterprise transfers such as a shipment of coal from a captive mine to a steel plant under the same ownership.[3] Current practice in national income measurements is not consistent in this respect. Labor income estimates, in conformity with the basic census and other payroll compilations, are detailed by industry on an establishment basis. Property income estimates, since they derive from financial reports, are detailed by industry on a whole enterprise basis. For purposes of national income accounting it makes relatively little difference whether one divides the economy into sectors by classifying establishments or by classifying whole transactors. But for moneyflows accounting the sectoring must be by whole transactors.

The moneyflows accounts are in a sense an extension of the national income accounts, an extension that provides more detail by sectors. Leontief has developed a somewhat different type of extension of the national income accounts, an extension that yields a wealth of sector detail.[4] Many have asked what the relation is between these two extensions. This question involves a good deal beside the differences in the way the two extensions divide the economy into sectors, but since these differences loom large in the relationship we may well digress here to consider it.

The Leontief set of measurements resembles the set of moneyflows measurements presented here in several general respects. Each reports dollar volume outflows and inflows for each of several sectors of the economy; each attempts to add to our understanding of the behavior of the gross national product by a related analysis; each reveals a total flow much larger than the gross national product.

[3] It would not be accurate to say that the measurer of moneyflows can take the whole enterprise as he finds it. Some of the basic data with which he has to start refer to establishments. In estimating moneyflows on the basis of such data it is necessary to attempt to put the whole enterprise back together again.

[4] Wassily Leontief, *The Structure of the American Economy, 1919-1929* (Harvard University Press, 1941). See also the Evans-Cornfield-Hoffenberg study, 1947 *Monthly Labor Review* 163-90 and 420-32.

But there are outstanding differences. The flows covered are different; the Leontief measurements are largely confined to goods and services. They are not concerned with such items as insurance premiums, cash balances, and loanfunds. They include imputed flows. The basis of classifying inflows and outflows is different; the Leontief measurements classify inflows by the sectors from which they come and outflows by the sectors to which they go, not by type of transaction. Also, the way the economy is divided into sectors is different, and this difference is especially important.

If one attempts to find comparable details in the two sets of measurements it is chiefly the sector differences that present obstacles. In this study only eleven sectors are distinguished; the Leontief measurements divide our economy into 40 or an even larger number of sectors.[5] Although this means much more detail by sectors for the most part, the four financial transactor groups here distinguished are lumped together with a miscellany of others in a sector called 'business and personal services'. Moreover, in the Leontief measurements it is in general establishments rather than whole enterprises that are grouped into sectors, and where feasible Leontief has moved even farther away from a transactor grouping. In order to trace good-flows he has sought an approach to a product classification of flows, not an industrial classification of organization units.

The difficulties in making comparisons between the two sets of measurements do not imply any criticism of either set. Rather the difference in sectors, and the other differences noted, reflect a basic difference in objective; the Leontief measures aim to reveal product input-output relations rather than moneyflows.

### 2 *Other Transactor Groups*

The four transactor groups here proposed for financial and property owning enterprises are:

1) *Banks and U. S. monetary funds.* (We shall refer to this group also as *the banking sector.* In Part I we called it the banking and monetary system.)
2) Stock and mutual *life insurance companies.*
3) *Other* private *insurance carriers.*
4) Miscellaneous financial and real estate enterprises. (We shall call this group *security and realty firms et al.*)

For purposes of measuring moneyflows it is clearly desirable to iden-

[5] The count refers to an unpublished appendix to the Evans-Cornfield-Hoffenberg study. The figure 40 refers to categories that are properly called sectors, excepting 'capital goods' and 'stocks'.

tify banks and U. S. monetary funds as a separate sector of the economy. We shall count as parts of this banking sector (a) all banks included in the reports of the Comptroller of the Currency as banks in the United States, (b) the twelve Federal Reserve Banks, and (c) four funds which are parts or agencies of the Federal government. It is advantageous to define the banking sector in such a way that the cash balances of all other transactors appear as currency and deposit liabilities of this sector. To accomplish this we shall include three Federal funds — the gold account, the Treasury currency account, and the Postal Savings fund; coins and part of our paper currency are liabilities of the Treasury currency account and Postal Savings deposits are liabilities of the Postal Savings fund. Balance sheet data for these three funds have for some time been combined with data for banks in time series compiled by the Federal Reserve System.[6] The case for including these three funds as parts of the banking sector is clear and urgent. The fourth Federal fund it is proposed to treat in this way is the Exchange Stabilization Fund. What is done with this fund makes relatively little difference in the resulting moneyflows measurements; but its functions are definitely of a monetary nature, and the weight of opinion seems to favor including it with the banking sector.

In Chapter 2 it was urged that the financial statements designed to measure moneyflows should be combined statements. This means that though transactors A and B are members of the same transactor group, we should nonetheless show the transactions between them. But it seems wise not to apply the combined statement rule to the banking sector. Instead it is proposed to present a consolidated statement for this transactor group, i.e., to treat it as if it were a single transactor. The relations of the banking sector to the rest of the economy can be more clearly brought out in this way, since the intragroup relationships involved in interbank transactions are suppressed. The decision in favor of a consoli-

[6] The balance sheets for the gold account and Treasury currency account are consolidated with Reserve Bank balance sheets to give the statement "Member Bank Reserves, Reserve Bank Credit and Related Items". This exhibit is in effect a consolidated balance sheet for central banking funds. Postal Savings deposits have customarily been grouped with other time deposits. More recently balance sheet data for these two Treasury funds, the Postal Savings fund, and also the Exchange Stabilization Fund and the balance sheets for Reserve Banks and for 'all banks' have been consolidated to provide a comprehensive condition statement for the banking sector; see 34 *Federal Reserve Bulletin* 24-32. In the banking system statement presented below only balance sheet data for the gold account and the Treasury currency account and only balance sheet data and interest receipts and payments for the Postal Savings fund are included. Other operating data for these three funds are included in the Federal government statement.

dated statement for the banking sector affects chiefly the balance sheet information it is proposed to show.[7] Most of the other interbank relationships are excluded from the main money circuit as we have defined it in any case, because most interbank transactions are technical transactions.

The other three groups of financial transactors — life insurance companies, other insurance carriers, and security and realty firms et al — may be briefly considered. Other insurance carriers include, in addition to institutions covered by the *Spectator* compilations, bonding and title guarantee companies, and the self-administered pension funds of private business. It seems wise to include these self-administered funds with insurance, since they perform functions that are also performed by insurance carriers. All insurance might have been combined in one sector, but for some purposes it is advantageous to have a separate statement for life insurance companies, and the basic information made its preparation easy.

The catchall group, security and realty firms et al, comprises all financial enterprises except banks and insurance carriers plus nonpersonal holding companies,[8] insurance agents, real estate dealers, and transactors primarily engaged in owning and leasing real estate, space in buildings, or mineral or stumpage rights. However, this group does not include transient hotels, lodging houses, and clubs.[9]

In all, then, it is proposed to divide our economy into ten sectors or groups of transactors: households, three types of commercial and industrial enterprises, two areas of government, and four types of financial enterprises (see the Cast of Transactors). In addition, we must take account of the rest of the world.

Objection may be lodged against the catchall group, security and realty firms et al, and also against the two groups, industrial corporations and business proprietors and partnerships et al, on the ground that each is too inclusive and too heterogeneous. The objection is admitted. In defense of this grouping the following points may be made. First, the existing state of the basic data favors it; if the large area of our economy covered by these three sectors is to be split only three ways, this particular split is distinctly the most workable one.

[7] In fact the principal effect of consolidating the balance sheets is to cancel currency and deposit liabilities to other banks against vault cash and due from other banks.

[8] Corporations that do not file a personal holding company return.

[9] In accordance with the Standard Industrial Classification, these transactors are treated as services rather than as financial enterprises. Incorporated hotels are grouped with industrial corporations, and lodging houses, clubs, and unincorporated hotels with unincorporated nonfinancial enterprises.

## Exhibit A

### *The Cast of Transactors*

I HOUSEHOLDS: Households (families and single persons), estates, personal holding companies, and personal trusts. This group excludes the ownership of tenant-occupied dwelling units and dwelling units for rent.

II FARMS: All private commercial farming enterprises (groups 01 through 03, 05). Transactions of farm households are regarded as being entered into by households rather than by farms.

III INDUSTRIAL CORPORATIONS: Private corporations engaged mainly in mining (groups 10 through 14); manufacturing (groups 20 through 39, 42, 43); public utilities (groups 72 through 83); construction (groups 16 and 17); trade (groups 40, 41, 44 through 61, 88); service (groups 84, 85, 87, 89 through 91); and miscellaneous activities (groups 07, 08, 09).

IV BUSINESS PROPRIETORS AND PARTNERSHIPS ET AL: Unincorporated private enterprises in the same lines as the industrial corporations. The professions (groups 92 through 95) and private nonprofit enterprises (group 96) are also included.

V THE FEDERAL GOVERNMENT: All Federal funds except those of the District of Columbia and of territorial governments and the four Federal funds included in the banking sector. The Federal government is treated as a single transactor and a consolidated statement is presented covering its transactions with the other 10 transactor groups.

VI STATE AND LOCAL GOVERNMENTS: The District of Columbia and territorial governments, the 48 states, and the local governmental units within each state and territory (data on territories are incomplete).

VII BANKS AND U. S. MONETARY FUNDS (or the Banking Sector): The Federal gold and treasury currency accounts, the Exchange Stabilization Fund, the Postal Savings fund, the 12 Federal Reserve Banks, all private institutions engaged in deposit banking, and all savings banks (groups 621, 622, 623, 6241, 6242, 625). The banking sector is regarded as a single transactor and a consolidated statement is presented covering its transactions with the other 10 transactor groups.

VIII LIFE INSURANCE COMPANIES: Private stock and mutual life insurance companies (groups 6811, 6812, 6813, 6815, 6816, 6819).

IX OTHER INSURANCE CARRIERS: Life and other insurance funds of fraternal orders, private fire, marine, accident, and casualty insurance companies, title guarantee and bonding companies, self-administered pension funds of private enterprises in Transactor Groups III, IV, and X (groups 6814, 682 through 685, 689).

X SECURITY AND REALTY FIRMS ET AL: Security dealers, nonpersonal holding companies, investment trusts, building and loan associations, finance companies, and other financial enterprises (groups 63 through 67); insurance agents (group 69); real estate dealers and lessors of real property (groups 701 through 703, 706, 707).

XI THE REST OF THE WORLD: Natural persons not residing in the United States, foreign governments, foreign private enterprises (except their branches in the United States) and foreign branches of U. S. private enterprises. The Rest of the World is regarded as a single transactor and a consolidated statement is presented covering its transactions with the other 10 transactor groups.

The arabic numerals used in specifying detailed groups refer to the Standard Industrial Classification (1940 edition). All government enterprises are included in groups V and VI regardless of their industrial classification.

Further, the group, industrial corporations, is useful, and it is clearly advantageous so to divide the remainder of the III + IV + X area as to separate financial transactors from others. Again, a more detailed grouping would be considerably more difficult and the resulting estimates appreciably more shaky. And the advantages of the additional detail that would be yielded by increasing the number of transactor groups had to be balanced both against the advantages of the additional detail that would be yielded by increasing the number of types of transaction and against the advantages of having estimates for other fiscal periods (e.g., 1929, 1933, quarterly in 1937). In this connection it should be borne in mind that the complexity of the scheme of moneyflows measurements for any fiscal period increases roughly in proportion to the product of the number of transactor groups by the number of types of transaction. In this exploratory study it did not seem feasible to attempt to work with a larger number of transactor groups. Experience with the degree of detail here provided should be helpful in determining what additional detail is most urgent.

It remains to comment briefly on transactor groups V, VI, and XI. The case for separating out the Federal government is obvious; what is meant by the Federal government, however, needs explanation. The four funds regarded as parts of the banking sector are excluded from group V. The funds of the District of Columbia and of territorial governments also are excluded; they belong with group VI. All other Federal funds, agencies, and corporations are regarded as constituting a single transactor; and a consolidated statement — excluding interagency transactions — is presented for group V.

Similarly, each state, each city, and each other branch of government is regarded as a single transactor. The financial statement for group VI is a combined statement for these transactors. Thus it aims to portray transactions between New York City and New York State, but not transactions between two agencies of New York City.

The financial statement for the rest of the world is a modification of the statement of the balance of international payments. As such it is a consolidated statement, revealing transactions between U. S. transactors and non-U. S. transactors and suppressing transactions among non-U. S. transactors.

As the Cast of Transactors indicates, the United States means the customs area. But much of the basic information used in preparing the moneyflows measurements refers to the 48 states and the District of Columbia and not to the customs area. For the most part adjustments to

a customs area basis have not been attempted. Consequently, many of the moneyflows series do not conform strictly to this specification in the Cast of Transactors. Actually the understatement involved is in most instances extremely small. Moreover, the statistical measurements fail in numerous other respects to correspond precisely to specifications. In particular our efforts to treat personal holding companies as part of Group I have not been very successful. The Cast of Transactors, as well as the other specifications set forth below, should be taken as ideals which the statistical estimates only approximate.

### 3 *A Further Preview*

In Chapter 2 we gave a condensed moneyflows account for households and indicated that we would provide a fuller account on this general pattern for each sector. It is proposed to show each sector's inflows and outflows for fourteen types of transaction. But we will also analyze and regroup these transactions under a smaller number of headings. We will show the moneyflows arising from transactions that directly help to organize production (production or product moneyflows), the moneyflows through financial channels, and the moneyflows that are mere transfers from one party to another. Further, we will distinguish between those production moneyflows that are final and those that are not, so that we can identify in the money circuit the final or GNP expenditures of each sector and the final sources of money for each sector, i.e., the primary distribution of the economy's value product among the various transactor groups.

It was noted that there are technical problems to solve before we can so identify the GNP account in the money circuit figures. For the moment let us assume them solved, and consider in broad terms what the resulting picture of the circuit looks like.

There are four types of flow to consider: final product moneyflows, nonfinal product moneyflows, transfer moneyflows and moneyflows through financial channels. These are shown in Chart 1. The chart pictures total dispositions of money by all sectors. But, except for technical discrepancies and errors in our estimates, it would look exactly the same, if it recorded total sources of money. For the whole economy each of the four types of moneyflow account should balance.

The second largest area represents final product purchases or total GNP expenditures by all transactors. The corresponding final product sources of money constitute the 'primary' distribution of this total. A major share, gross cash pay, interest, dividends, etc., goes to households.

Governments receive indirect business and corporate profits taxes. The shares various business sectors get are in a sense residual claims on the nation's value product.

We shall sometimes speak of cyclical fluctuations in moneyflows; it would probably be more precise to speak of cyclical fluctuations in product moneyflows. Final product purchases increased from 1936 to 1937, declined in 1938, then rose in each succeeding year. The rise during the defense and war effort in 1941 and 1942 was marked.

Nonfinal product expenditures account for a still larger part of total main circuit moneyflows. Businesses sell more to each other — merchandise for resale, and materials, supplies, and services used in subsequent stages of production — than they sell to final purchasers. As we should expect these nonfinal sales and final sales follow similar cyclical patterns, a peak in 1937, a dip in 1938, and a sharp increase in 1941-42.

Our estimates provide a more comprehensive view of the net intersector movement of funds through financial channels than has hitherto been available. It is therefore a somewhat tentative one. And annual figures are often inadequate to reveal cyclical fluctuations. Certainly the nature of the cyclical pattern in financial moneyflows is not very clear from the area at the bottom of the chart. But there is no reason to expect that borrowers and the holders of maturing loans will necessarily obtain more money by more borrowing and by insisting on debt repayment during a period when production is expanding, and obtain less money in these ways when production declines. At all events the money some of the sectors advanced or returned to the rest through financial channels seems to have declined somewhat from 1936 to 1937, and to have increased slightly between 1937 and 1938. In this period financial moneyflows and product moneyflows were negatively correlated. But in 1940-42 the correlation becomes positive.

If the cyclical pattern in financial moneyflows can change its sign — and the annual figures seem to show that it can — little in the way of a cyclical pattern is evident in transfer payments during the seven year period. But we are dealing with a rather heterogeneous aggregate. Household contributions to charity presumably vary with the distributive shares received — the part of the primary distribution that goes to households. Insurance benefits that are paid when the insured dies or reaches retirement age cannot be very greatly influenced by the business cycle. Secular growth overshadowed any cyclical pattern in several Federal government transfer payment programs during 1936-42.

But in the main circuit total product transactions were dominant in

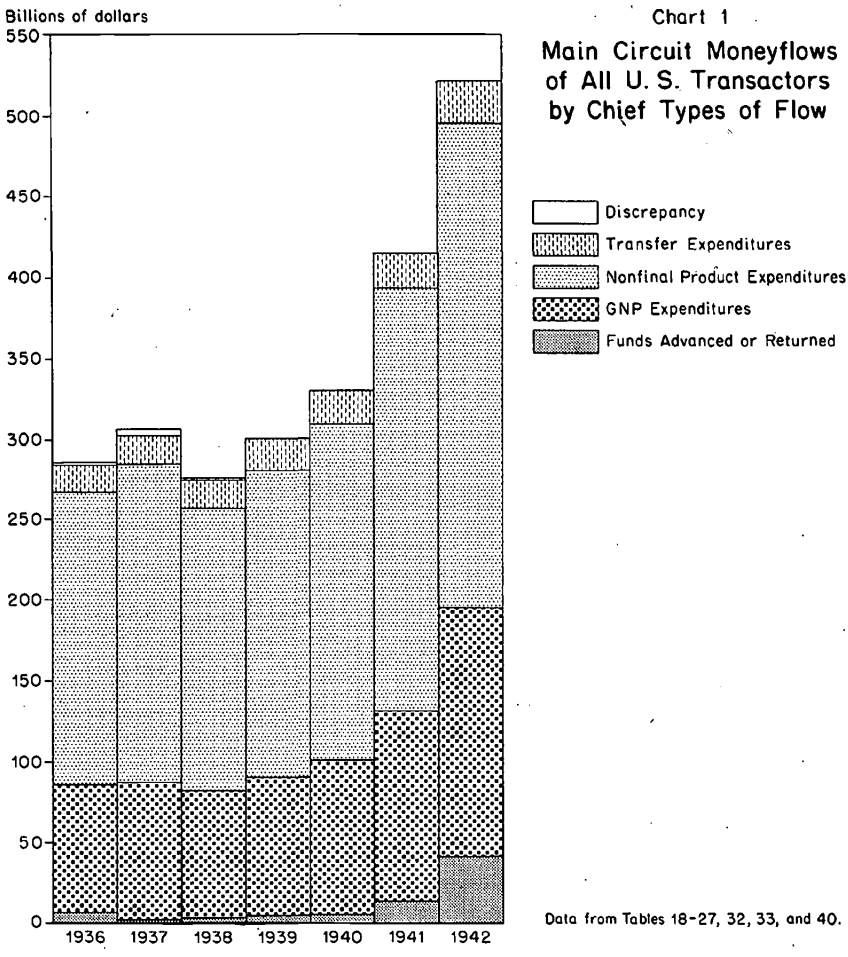



Chart 1

**Main Circuit Moneyflows of All U. S. Transactors by Chief Types of Flow**

this seven year period. These moneyflows reached a peak in 1937 and a trough in 1938; the subsequent rise was greatly accelerated in 1941 and 1942.

Chart 1 brings out significant year to year changes in moneyflows, but it tells us very little about how such changes come about. For this purpose we need to go below the highly aggregative, one-sector level of this chart. Charts 2, 3, and 4 make a start in this direction; each of them gives a four sector analysis for one of the areas of Chart 1.

For all transactors the inflows and outflows on account of each of the four categories of transaction constitute a balancing account. But when we divide the economy up we have to recognize that in the cases of three of these four a sector's inflows and outflows will ordinarily differ. Only

of nonfinal product transactions can we say that a sector's inflows and outflows must be equal.

Chart 2 analyzes final product moneyflows — the same total — in two ways. Sector outflows are shown at the left, sector inflows at the right. Conceptually, as we noted in Chapter 2 the analysis in the left hand grid is somewhat closely tied to the Department of Commerce estimates; but imputed items are omitted and the analysis uses the sectors defined in Exhibit 1. The right hand grid corresponds to the distributive shares and other 'charges' in the national income and product account as shown by the Department of Commerce.[10] But we shall find that the moneyflows view of the primary distribution in the right hand grid and the accrual and imputation view differ. A major reason for this is that various transactions may appear in the accrual national income and product account in one year, in the moneyflows account in another. We therefore use a special term for the moneyflows view of the primary distribution, net product receipts. This term reflects the method of estimate we have adopted, net product receipts equal total product receipts minus nonfinal product expenditures. Still for households net product receipts are essentially distributive shares, for the Federal government they are chiefly nonpersonal taxes, and for industrial corporations they are 'inside funds'.

We shall argue below that most transactors have substantially more discretion over their GNP expenditures than over their net product receipts. The Federal government, of course, can change tax rates;[11] but even for this sector it seems to be easier to step up military expenditures rapidly than to step up taxes in pace.

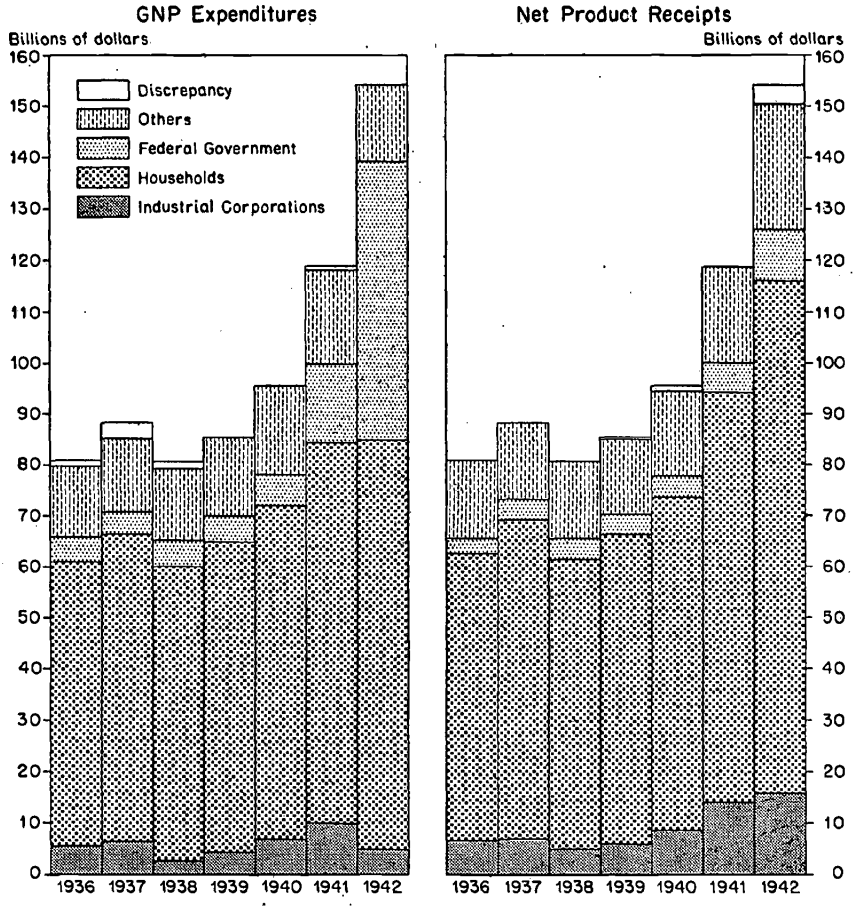
Having discretion does not necessarily mean exercising it in an active sense. Presumably some transactors can take the initiative in expanding or contracting their GNP expenditures — and can thereby help to initiate or actively to promote an expansion or contraction in total main circuit moneyflows. Presumably others are more passive, spending more when they get more money to spend and spending less when they get less to spend. We propose to argue that this is the case. Further we propose to argue that we can do a good deal to distinguish in the moneyflows accounts between those transactors that are taking the initiative and those that are merely following suit.

[10] The Department looks at the national product from the point of view of the producer and seller. We look at it here from the buyer's viewpoint. Hence debits and credits are reversed.

[11] Including rates for personal taxes. These are regarded by the Department of Commerce as a species of transfer payment by households and are so treated here.

Chart 2

GNP Expenditures and Net Product Receipts
A Four Sector Analysis




Data from Table 33.

Chart 2 seems to indicate that industrial corporations were taking some initiative in expanding their GNP expenditures in 1936-37, and rather more initiative in contracting them in 1937-38. During these years there is not much to say about the other sectors. Households expanded their GNP expenditures more rapidly than their net product receipts in 1936-37; during 1937-38 they merely followed suit; the contraction in GNP expenditures was less than that in net product receipts. The story of the rest of the period is a very simple one. Industrial corporations did something to contribute to the 1938-39 revival. Thereafter the Federal government dominated the scene. Households expanded their GNP expenditures, but expanded them less rapidly than their net product

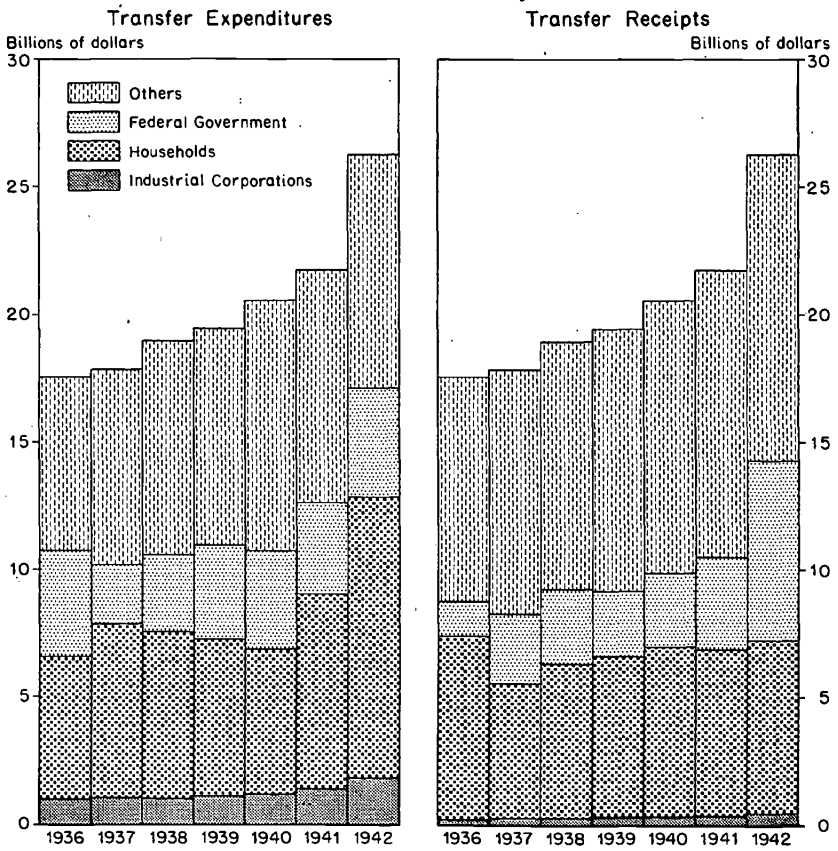
receipts grew. For a time 'other transactors' did the same; but wartime pressures resulted in contraction of GNP expenditures for 'other transactors' in 1940-41. Wartime controls compelled this sector and industrial corporations to curtail GNP expenditures and somewhat retarded the expansion of household GNP expenditures in 1941-42. Of course the chart itself tells us nothing about wartime pressures and controls. We merely venture to interpret it in the light of what is known about these matters.

But in seeking to identify transactor initiative — particularly during the first half of our period — we must not jump at conclusions on the basis of Chart 2 alone. We must take account not only of final product transactions but also of transfer payments and moneyflows through financial channels. However, before we proceed to consider the charts analyzing these two parts of the main money circuit, let us pause to note that it has not seemed worth while to provide a corresponding sector analysis for the largest area in Chart 1. Nonfinal product moneyflows differ from all three of the other types of transaction portrayed in this chart in one important respect that makes a sector analysis of sources and dispositions of money not very significant. All nonfinal product expenditures are for purchases of merchandise for resale, purchases of existing assets, or purchases of materials, supplies, and services from other productive enterprises for use in further production. By definition the amount by which the total value of the products of an enterprise exceeds the value it has added to these products is equal to these purchases. Hence we can take the nonfinal production sources of money for each transactor to equal the dispositions of money by him on account of nonfinal product purchases. Omitting these moneyflows from our consideration leaves the balance in each transactor moneyflows account undisturbed. We shall not stop here to analyze these offsetting sources and dispositions of money except to note that well over 90 percent of them are accounted for by two sectors, industrial corporations and business proprietors and partnerships et al.

On the highly aggregative, one sector basis transfer payments show no cyclical variations of interest. But Chart 3 reveals facts which call for some amendment of the tentative interpretations of year to year changes in the money circuit suggested by Chart 2. These all have to do with the discretion exercised by households and by the Federal government. No doubt there is an important sense in which government policies express the will — or at any rate require the acquiescence — of the people who have the vote; and it is the adult members of households who have the

Chart 3

Transfer Expenditures and Receipts
A Four Sector Analysis




Data from Appendix A, Section 3 xii.

vote. Nonetheless, for our present purpose it seems essential to distinguish between the discretion the Federal government has over its moneyflows and the discretion households have over theirs. The Federal government has power to change personal tax rates and so to change the volume of its transfer receipts from households. Furthermore, it has power to determine various transfer moneyflows that go in the opposite direction, among them transfer payments to veterans. Households have a say in these matters at the polls; they exert no direct influence on the volumes of these moneyflows through the way they manage household budgets.

Federal transfer expenditures and household transfer receipts declined markedly in 1936-37. These declines reflect chiefly the fact that a veterans' bonus of $2.8 billion was paid in the last quarter of 1936 and not

repeated in the years immediately following. There were also substantial step-ups in household transfer expenditures and in Federal transfer receipts during 1936-37. These were largely the result of an increase in tax rates on individual incomes and of the new employee payroll taxes that accompanied the development of the social security system.[12]

These facts help to explain the size of the 1936-37 increase in household GNP expenditures and the size of the 1937-38 decrease. First households had more money to spend; then they had less. Further, these facts strongly suggest that the changes the Federal government inaugurated in its transfer receipts and expenditures during 1936-38 for a time encouraged an expansion in moneyflows; then encouraged a contraction. When we add this to what we said of Chart 2, the Federal government appears to have been in the role of an initiator of changes in moneyflows during most of the seven year period.

Chart 3 brings out other significant year to year changes in transfer payments, but none of these leads to a further amendment of our previous tentative interpretation of the money circuit. The sharpest of these, the rises in household expenditures and Federal receipts toward the end of the period, reflect mainly the growth in the individual income tax base and — in 1942 — increased tax rates.

If we put together our interpretations of Charts 2 and 3 they come to this. Transactors have more or less discretion over their product moneyflows and transfer moneyflows, particularly over their GNP expenditures. Some transactors have a wider range of discretion than others. A transactor may be relatively active in exercising his discretion, or relatively passive. When a sector expands its GNP expenditures, this tends to increase total main circuit moneyflows both directly and indirectly. It adds directly to total GNP expenditures and equally to total net product receipts. A major part of the increased net product receipts goes to other sectors, encouraging them to spend more by giving them more to spend. Thus an increase in total GNP expenditures may lead to a further increase, and so on, so that the process of expansion becomes cumulative. Much the same is to be said of the process of contraction. Curtailment of a sector's GNP expenditures operates correspondingly to promote, both directly and indirectly a contraction in total main circuit money-

[12] Since we show these taxes in the moneyflows accounts as paid by households, it is necessary, as we shall see below, to treat them as federal transfer receipts. And since we show corporation income taxes and employer payroll taxes as paid by corporations and employers respectively — industrial corporations pay a lot of both — it is necessary to treat them as components of federal net product receipts.

flows. General increases and decreases in the circuit flow are initiated by transactors who actively exercise this discretion.

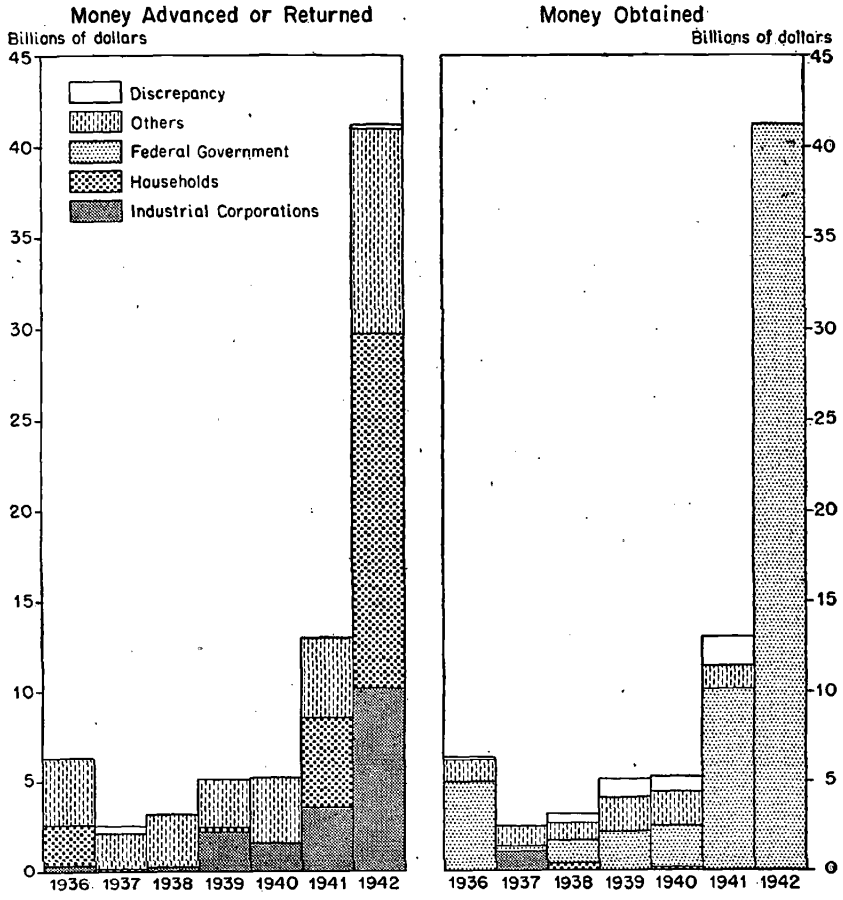
The Federal government's range of discretion is particularly wide, and during our seven year period it seems to have been particularly active in exercising it. Tentatively at least, we have characterized industrial corporations as active too during 1936-38. In the later years this sector and in all seven years households appear to have been relatively passive. We cannot say much about the other sectors, because in Charts 2 and 3 we have lumped them all together. We shall go into this matter more fully in Part III. We believe it reasonable to infer from the seven year period that other periods are also characterized by marked differences in the way different transactors exercise their discretion, but unwise to attempt to infer how frequently we may expect to find any sector either in an active or a passive role.

Chart 4 enables us to expand (rather than amend) this interpretation of the money circuit. We assert that most transactors have a good deal of discretion to increase or curtail their GNP expenditures. They may of course be somewhat passive: they may merely spend increased net receipts from nonfinancial sources (net product receipts plus transfer receipts minus transfer expenditures), or they may merely curtail GNP expenditures when but no faster than their net receipts from nonfinancial sources decline. But many transactors can, if they wish, elect to pursue a more independent course. They can spend more than their nonfinancial receipts to the extent that they can obtain money through financial channels. And when they curtail expenditures below the level of their nonfinancial sources of money, they will necessarily make funds available to others through financial channels. The question, How does this work out in detail?, we defer for the time being. We shall presently go into it at some length. At this point it may suffice to note that, if each transactor's moneyflows account balances and if the product transaction account and the transfer payment account for all transactors both balance, then the account represented in Chart 4 must balance also.

One peculiar feature of Chart 4 should be explained. Financial moneyflows are shown in the account for each of the eleven sectors on a net basis. In 1937 when industrial corporations obtained money through financial channels, they do not appear in the right hand grid. In other years they advanced or returned money and do not appear in the left hand grind. Similarly for households and the Federal government. But the top sector area refers to eight of our eleven transactor groups. Some of them advanced or returned money in each of the seven years; some of

Chart 4

Net Intersector Moneyflows through Financial Channels
A Four Sector Analysis




Data from Table 33.

them obtained money through financing in each year except the last.

When a transactor is relatively passive in exercising its discretion over moneyflows it is likely to advance or return money in good years because its receipts increase faster than it steps up expenditures, and to have to obtain money in years of poor business, because its receipts decline faster than it curtails expenditures. On the whole households conform to this pattern. The chief exception is 1940 — they seem to have obtained a little money through financing in that year, although business was expanding.

When a transactor is in a more active role its financial moneyflows typically follow a different pattern. A marked expansion of its spending,

without a corresponding increase in receipts, will presumably need to be financed. A marked contraction in its spending may enable it to accumulate funds, i.e., advance or return money to others. In 1936 the Federal government financed large expenditures (including the bonus) by borrowing. Curtailed expenditures and increased tax receipts greatly reduced, but did not quite eliminate the need for financing in 1937. With increased expenditures again in 1939-40, it had to obtain money through financial channels. To finance the wartime expenditure rate of 1942 it raised a little over $41 billion. Every other sector advanced (or returned) money in this year.

Charts 2, 3, and 4 together give us an outline of how the money circuit works. But it is only an outline, and there is much about the circuit that it does not tell us. It does not tell us, for example, about the part in the money circuit played by the banking sector and by money. It is too aggregative a view to do this. Indeed for this purpose we must expand the detail in the moneyflows accounts in two directions. We must increase the number of sectors. Charts 2, 3, and 4 lump the banking sector's moneyflows with those of other financial enterprises, farms, business proprietors and partnerships et al, state and local governments, and the rest of the world; we must show it separately. Further, we must analyze financial moneyflows into components.

Let us consider briefly where this twofold elaboration of the moneyflows account leads us. A financial moneyflow between two transactors involves a change in the receivables of one transactor and the payables of the other, e.g., one increases (or decreases) his outstanding obligations; the other extends credit (or contracts it). We analyze financial moneyflows by tracing the changes in various kinds of claims receivable and payable by the several sectors. One of these kinds of claim is the currency and deposit liabilities of the banking sector. For it these are payables. For each other transactor the part of them he holds is a receivable. For him this is money, or his cash balance. Another of these kinds of claim is bank credit, the loans and securities held by the banking sector. For other transactors, these receivables of the banking sector are obligations payable.

Changes in the cash balances held by the several sectors and changes in bank credit and its composition play a substantial role in intersector moneyflows through financial channels. So substantial is this role that the banking sector is in a position to restrain or assist and to guide financial moneyflows, and in so doing to influence significantly the total flow in the whole main circuit. If some other sector is disposed to exercise its

discretion actively, stepping up its GNP expenditures rapidly, the banking sector can help it to find the financing. Thus to finance the wartime Federal expenditure rate of 1942 U. S. securities held by other sectors were increased by $45.6 billion.[13] The banking sector's holdings of U. S. securities increased by $24.4 billion. This indicates a great deal of help in financing. But we propose to take issue with anyone who would say of this $24.4 billion increase that it was responsible for the 1942 increase in moneyflows (increased federal expenditures were mainly responsible) or that it was a creation of funds to finance Federal spending. Chart 4 makes it clear that of the $41.2 billion net raised by the Federal government in 1942 nearly three quarters was put up by households and industrial corporations. According to Table 32 below business proprietors and partnerships et al., farms, and state and local governments accounted for at least another fifteen percent, while only about half of one percent came from the banking sector.

We take these 1942 developments to illustrate in a general way the kind of part the banking sector can be expected to play in aiding an expansion of main circuit moneyflows. We shall argue below that in restraining an expansion, or even in inducing a contraction, the banking sector is, in theory at least, in a position to take somewhat more initiative. But to consider this aspect of the matter we need a fuller picture of the moneyflows accounts. And anyway we believe it advisable to consider in some detail how financial statements can be used to measure moneyflows, before we attempt further to elaborate the interpretation of the money circuit we have just outlined.

[13] This is larger than the net figure shown in Chart 4, because receivables held by the Federal government also increased.