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Chapter 10

The Moneyflows Account Vis-a-Vis the Cash Account

I gave her one, they gave him two,
You gave us three or more;
They all returned from him to you,
Though they were mine before . . .

"That's the most important piece of evidence we've heard yet", said the King, rubbing his hands; "so now let the jury . . ."

"If any one of them can explain it", said Alice (she had grown so large in the last few minutes that she wasn't a bit afraid of interrupting him), "I'll give him sixpence. *I* don't believe there's an atom of meaning in it."

The jury all wrote down, on their slates, '*She* doesn't believe there's an atom of meaning in it', but none of them attempted to explain the paper.

"If there's no meaning in it", said the King, "that saves a world of trouble, you know, as we needn't try to find any. And yet I don't know", he went on, spreading out the verses on his knee, and looking at them with one eye; "I seem to see some meaning in them, after all." Lewis Carroll, *Alice's Adventures in Wonderland,* Chapter XII

Our consideration of the measurements of moneyflows and cash and other loanfund balances for the various transactor groups has emphasized the point that the scope and nature of the moneyflows reported reflect the form of financial statement we have adopted. In Chapter 5 we saw that the main money circuit includes various transactions which involve the use of money substitutes. And in Chapter 2 we had already noted that we are excluding a very large volume of cash transactions from the main money circuit. Broadly it may be said that in defining the statement of payments and balances and the items that go into it we define main money circuit transactions, although because financial and certain other moneyflows are reported on a net basis we shall need in a moment to qualify this statement slightly.

The subject of this chapter, technical transactions, is somewhat technical. In approaching them it will be convenient to have before us a catalogue of types of moneyflows transactions and of loanfund balances (see Exhibit C).

1 *What Financial Transactions are in the Main Money Circuit?*

Some economists have tended to feel that measurements of total cash transactions provide us if not with "the most important piece of evidence

Exhibit C

Catalogue of Moneyflows and Loanfund Balances

Main Money Circuit Transactions

1) Gross Cash Pay (expenditures by I, II, III, IV, V, VI, VII, VIII, IX, X; receipts of I)
   Payrolls before withholdings, deductions, and checkoffs (includes bonuses); commissions not regarded by recipients as part of their operating revenues; director's fees; tips (excludes pay in kind).

2) Cash Interest (expenditures by I, II, III, IV, V, VI, VII, X, XI; receipts of I, III, IV, V, VI, VII, VIII, IX, X, XI)
   All cash interest payments; interest on bank deposits (includes dividends paid by mutual savings banks).

3) Cash Dividends (expenditures by III, VII, VIII, IX, X, XI; receipts of I, III, IV, VII, VIII, IX, X, XI)
   All cash corporation dividends (excludes dividends to insurance policyholders and dividends of mutual savings banks, cooperative merchandising and other establishments).

4) Net Owner Takeouts (expenditures by II, IV, X; receipts of I)
   Total gross cash withdrawals from the proprietorship equities of unincorporated enterprises minus new money invested by proprietors (includes withdrawals by nonoperating lessors of real estate; a single net transaction is assumed to take place for each transactor group for each accounting period).

5) Instalments to Contractors (expenditures by I, II, III, IV, V, VI, VII, VIII, IX, X; receipts of III, IV)
   Payment commitments as per bills rendered by construction contractors (this type of transaction is said to take place when the instalment becomes due according to the contract).

6) Gross Rents (expenditures by I, II, III, IV, V, VI, VII, VIII, IX, X; receipts of III, IV, V, VI, VII, VIII, IX, X)
   Gross rent payments on leased real estate other than farms; gross rents on farms paid to landlords not living on farms minus farm taxes and farm operating costs paid by such landlords; royalties of all sorts.

7) Customer Moneyflows (expenditures by all groups; receipts of I, II, III, IV, V, VI, VII, IX, X, XI)
   This is the largest transaction category. Receipts from customers include all business and professional operating revenues except those of construction contractors and of lessors and developers of real estate; also revenues of government enterprises and sales of secondhand goods. In general the expenditures by the other party to each such transaction, or customer expenditures, include all charges for goods purchased and for business services rendered, i.e., both charges to capital asset accounts and charges to current expense. (This type of transaction is said to take place when the liability for payment is incurred if a credit transaction, and at the time of payment, if a cash transaction.)

8) Net Payments for Real Estate Transfers (expenditures by III, IV, V, X, XI; receipts of I, II, VIII)
   Gross realizations from sales of real estate minus gross outlays on real estate acquisitions, if greater than zero for a transactor group, appear as a net receipt. Otherwise, the excess of outlays on real estate over realizations appears as a net expenditure (excludes outlays on improvements, which are classified under 5 and 7; a single net transaction is assumed to take place for each transactor group for each accounting period). With present data the definition of this item is necessarily somewhat vague.

9) Taxes Collected (expenditures by I, II, III, IV, VII, VIII, IX, X; receipts of V, VI)
   Collections of taxes, government fees, fines, and special assessments (includes payroll taxes).

10) Tax Refunds (expenditures by V; receipts of I, III, IV)
   All tax refunds.

11) Insurance Premiums (expenditures by I, II, III, IV, VII, VIII, IX, X; receipts of V, VI, VIII, IX)

Insurance premium payments to private insurance carriers are net of dividends to policyholders (includes employers' contributions to private, self-administered pension plans other than those of private insurance companies; employees' contributions to all such plans; and FDIC and FSLIC assessments and premiums to other Federal insurance funds; excludes payroll taxes).

Premium receipts of private insurance carriers are gross of dividends to policyholders. Such dividends appear as separate items in the national insurance premiums account, i.e., as expenditures by the carriers. For life insurance companies such dividends are cash withdrawals of dividends and of interest or of dividends left on deposit. For other insurance carriers they are dividends credited to policyholders' accounts.

12) Insurance Benefits (expenditures by V, VI, VIII, IX; receipts of I, II, III, IV, VII, X)

All insurance benefits including benefits paid from private and social insurance funds and self-administered pension plans (includes benefit expenditures of FDIC, FHA, and FSLIC).

13) Public Purpose Payments (expenditures by I, III, IV, V, VI, VII, X, XI; receipts of I, II, III, IV, V, VI, XI)

Farm benefits and other cash subsidies (excludes indirect subsidies provided by the government's buying dear and selling cheap); grants and transfers by one government to another including state payments to the U. C. Fund (excludes international payments in kind); public and private assistance; contributions to charity; endowment gifts; international personal remittances (excludes gifts and bequests by one household to another).

14) Net Money Obtained through Financing, or Net Money Advanced or Returned to Others (a source or disposition of money for every group)

Money advanced or returned represents all uses of funds for extension of credit or for retirement of indebtedness or of capital stock. Money obtained represents all sources of funds derived from the issue of capital stock, the increase of debt, or the liquidation of credit holdings. An increment in cash is regarded as an extension of credit, a decrement as a liquidation of a credit holding (a single net transaction is assumed to take place for each transactor group for each accounting period for all loanfund accounts, items 101 through 106 below, taken collectively).

NOTE: The above 14 moneyflows are intended to be comprehensive in the sense that for each transactor for any period total receipts should equal expenditures. Public purpose payments between households have been netted, and items 4, 8, and 14 are netted by transactor groups. Otherwise substantially all items are gross.

There are three small technical deviations from a truly standard scheme of classification for main money circuit transactions. In the case of (a) receipts of certain commissions by security dealers and (b) receipts from the sale of gold and silver into monetary uses, the corresponding expenditures on the part of the other party to each transaction appear as charges on account of money advanced or returned. In the case of (c) receipts of certain commissions by real estate dealers, the corresponding expenditures on the part of the other party to each transaction should appear as deductions from net realty realizations.

Technical Transactions

15) Money Changer Transactions (chiefly between the banking sector and any other group)

Any transaction effecting only a change in the composition of a nonbank transactor's cash on hand or of the currency and deposit liabilities of the banking sector, e.g., the cashing of a check, the purchase of foreign exchange, the transfer of a bank balance from one bank to another.

16) Agency Transactions (between any two transactor groups)

Transactor P makes a payment to transactor R through an agent A — there are two payments, P to A and A to R, i.e., there are outpayments by P and A and inpayments to A and R. A fiction is adopted under these conditions. One transaction is assumed to be a payment by P going directly to R; this is counted as a part of the main money circuit. The other transaction is assumed to be a payment by A to A; this is treated as a technical transaction.

17) Financial Turnover Transactions (between any two transactor groups)
Financial turnover transactions are transactions (other than money changer transactions) that affect the composition of some loanfund balance but that, because they offset one another when considered collectively for any accounting period, do not involve any change in the amount of the balance. The three most important types of financial turnover transactions are:

a) Transactions that affect the composition but not the amount of 101 and 102 considered together as a single controlling account (cash plus trade receivables minus trade payables), e.g., the collection of an account receivable or the settlement of an account payable.

b) Transactions that taken collectively affect the composition but not the amount of a transactor's portfolio of loans and securities (103 and 104); e.g., the sale of one security holding and its replacement by another of equal value.

c) Transactions that taken collectively affect the composition but not the amount of a transactor's debt (103) or paid-in capital stock (104); e.g., a loan renewal, a refunding operation, or the substitution of one creditor for another.

All moneyflow transactions involving loanfund balance accounts (103) through (106) that are not included under Item 14 above are to be regarded as financial turnover transactions.

18) Other Technical Transactions (the differences between the gross volumes of transactions a/c real estate transfers, owner takeouts and public purpose payments and the net amounts included in (4), (8), and (13) above).

LOANFUND BALANCES

101) Currency and Deposits (liability of VII; asset of all other groups)
Any claim on the banking sector by any nonbank transactor that takes the form of a currency or deposit liability of the banking sector is included, also foreign currency and deposits held by domestic nonbank transactors. For the rest of the world the cash balance equals U. S. currency plus deposits in U. S. banks minus total foreign currency and deposits held by the other ten sectors.

102) Book Credit (asset of III, IV, V; liability of all groups but negligible for VI, VII, VIII, IX, XI)
The balance of any accounts or notes receivable or payable arising from customer moneyflows or instalments due to contractors is included here. Separate accounts are maintained for a transactor's receivables and for his payables.

103) Bonds, Notes, Debentures, etc. (asset of I, III, IV, V, VI, VII, VIII, IX, X, XI; liability of I, II, III, IV, VI, X)
This type of balance includes all bonds, notes, mortgages, and debentures (with the technical exception of those included under 101 and 102 above). The debit balances of brokers' customers and the privately held interests in federal government corporations are also included. Separate accounts are maintained for a transactor's indebtedness to others and for the indebtedness of others to him. The latter is combined with his holdings of stock.

104) Corporate Stock (asset of all groups except II, VI; obligation of III, VII, X)
The corporate stock of industrial corporations, banks, and corporations included in Groups X and XI are included here. The paid-in valuation is used in the case of the issuing transactor. Holdings of stock are combined with the bonds, notes, and debentures in a transactor's portfolio.

105) Gold (asset of VII; liability of XI)
The U. S. monetary gold stock is treated as an asset of the banking sector. It is regarded as a claim on the rest of the world. Cumulative net gold imports, arbitrarily set at zero as of December 31, 1935, are treated as a liability of the rest of the world.

106) Treasury Currency (asset of VII; a part is a liability of V)
This is a technical asset of the banking sector currently carried in the Federal Reserve Board's compilation, 'Member Bank Reserves, Reserve Bank Credit and Related Items'. Treasury currency represents in part monetary silver stocks and in part the deficit in the collateral against Treasury circulation. A third part of Treasury currency is included in the (noninterest-bearing) gross direct debt of the United States, and in the debt shown on the statement for Group V.

Table 34

The Moneyflows Transactions and Cash Transactions of an Imaginary Transactor during an Imaginary Year (Recapitulated in Journal Form)

Item No.				
	I	ORDINARY TRANSACTIONS THAT ARE ALSO CASH TRANSACTIONS		
61	Dr	Various ordinary expenditure accounts . . .	$100,000	
62		Cr Cash		$100,000
		(All ordinary expenditure transactions except those customer moneyflows and instalments to contractors which involve credits to accounts payable)		
63	Dr	Cash	110,000	
64		Cr Various ordinary receipt accounts . . .		110,000
		(All ordinary receipt transactions except those customer moneyflows which involve debits to accounts receivable)[a]		
	II	MIXED OFFSET TRANSACTIONS		
01	Dr	Net payments a/c real estate transfers . . .	5,000	
02		Cr Mortgages owned		5,000
		(Real estate acquired through foreclosure)		
	III	ALL OTHER ORDINARY TRANSACTIONS		
21	Dr	Various ordinary expenditure accounts . . .	15,000	
22		Cr Various ordinary receipt accounts . . .		15,000
		(All transactions settled by offset)[b]		
23	Dr	Spent by transactor as a customer or instalments to contractors	18,000	
24		Cr Accounts payable		18,000
		(All book credit purchases, also most instalments to contractors)		
25	Dr	Accounts receivable	10,000	
26		Cr Receipts from customers[a]		10,000
		(All book credit sales)		
	IV	ALL OTHER CASH TRANSACTIONS		
31	Dr	Loans and securities or other debt	50,000	
32		Cr Cash		50,000
		(All new portfolio investments and repayments of other debt)		
33	Dr	Cash	52,000	
34		Cr Loans and securities or other debt . . .		52,000
		(All portfolio liquidations and new borrowings)		
35	Dr	Accounts payable	17,500	
36		Cr Cash		17,500
		(All settlements of book accounts)		
37	Dr	Cash	9,000	
38		Cr Accounts receivable		9,000
		(All collections of book accounts)		
39	Dr	Cash	5,000	
40		Cr Agent's principal		5,000
		(All cash receipts collected by transactor as an agent)		
41	Dr	Agent's principal	5,000	
42		Cr Cash		5,000
		(When above collections are turned over to principal)		
43	Dr	Cash	7,000	
44		Cr Cash		7,000
		(All money changer transactions)		

of all" at least with evidence about moneyflows that is of substantial consequence. But if, like Alice, we ask of debits to individual accounts "What do they mean?" it is difficult with the information now available to give a satisfactory answer; that is, it is difficult to analyze them in such a way as to show the volumes of the various types of technical transaction they include, and still more difficult to get much idea of the volumes of various types of technical transaction sub-analyzed by type of transactor.

Nonetheless we need to consider the relations between main money circuit transactions and cash transactions. In the absence of a satisfactory analysis of debits to individual accounts we can perhaps best indicate the general nature of these relations if we examine the case of an imaginary transactor. Table 34 summarizes the ordinary transactions and cash transactions for an imaginary transactor in an imaginary year in a form that will enable us to set up both a cash account for this transactor and a moneyflows account, i.e., Part One of his statement of payments and balances. Various transactions not represented in Table 34 may occur to the reader; however, it is believed that the types of transaction included are sufficient to illustrate the more important relations between the cash account and the moneyflows account.

Although Table 34 is cast in journal entry form, each pair of numbered lines represents a recapitulation of many entries, not an individual journal entry.

To take off a summary of the cash account of our imaginary transactor we need two items of information in addition to what Table 34 tells us, namely, the opening and closing cash balances. If we know these we can provide a summary of the cash account simply by posting the recapitulation entries that call for debits and credits to cash (entries 62, 63, 32, 33, 36, 37, 39, 42, 43, and 44). The result is shown in Table 35.

Most of the moneyflows account for the imaginary transactor, Table 36, can be prepared similarly. Thus we can find the total of ordinary receipts by posting the recapitulation entries that show credits to ordinary receipt accounts (entries 64, 22, and 26), and the total of ordinary

Footnotes to Table 34

[a] If the transactor were a construction contractor, most instalments coming to him would also be excluded from 63, 64 and included under 25, 26.

[b] Includes first insurance premiums offset against agents' commissions (Dr commissions and Cr premiums on the books of the carriers and vice versa on the agents' books); also all transactions in which a transactor, in lieu of receiving a cash receipt, has an obligation settled for him by one of his debtors, e.g., payroll withheld and turned over to government by his employer.

expenditures by posting the debits to ordinary expenditure accounts (entries 01, 61, 21, and 23). It remains to determine the amount of loanfunds advanced or obtained. From Table 35 we already know that the cash balance has increased $3,500. Entries 25 and 38 tell us that the accounts receivable balance (as a result of moneyflows and quite apart from any valuation adjustments) has increased $1,000 and the corresponding increase in accounts payable as shown by entries 24 and 35 is $500. Entry 02 shows that a mortgage carried at $5,000 has been given up in exchange for the mortgaged property (the property acquired through foreclosure being entered on the books at $5,000). According to entries 31 and 34, in other loanfund balances receivable (net) there has been a decrease (arising out of moneyflows transactions, not valuation

Table 35

A Summary of the Cash Account of the Same Imaginary Transactor in the Same Year

	Debits			*Credits*	
	Opening Balance	$6,000	62	Various Ordinary Expenditures	$100,000
63	Various Ordinary Receipts	110,000	32	New Portfolio Investments & Debt Repayments	50,000
33	Portfolio Liquidations & New Borrowing	52,000			
37	Account Collections	9,000	36	Account Settlements	17,500
39	Agency Transactions	5,000	42	Agency Transactions	5,000
43	Money Changer Transactions	7,000	44	Money Changer Transactions	7,000
				Closing Balance	9,500
	Total	189,000		Total	189,000
	Opening Balance in the Next Year	9,500			

Table 36

The Moneyflows Account of the Same Imaginary Transactor in the Same Year

	Debits			*Credits*	
01	Ordinary Expenditures (for Real Estate Acquired)	$5,000	64	Ordinary Receipts (Cash)	$110,000
61	Ordinary Expenditures (Cash)	100,000	26	Ordinary Receipts (Book Credit)	10,000
23	Ordinary Expenditures (Book Credit)	18,000	22	Ordinary Receipts (Other)	15,000
21	Ordinary Expenditures (Other)	15,000		Total Ordinary Receipts	135,000
	Total Ordinary Expenditures	138,000		Net Money Obtained through Financing*	3,000
	Total Dispositions of Money	138,000		Total Sources of Money	138,000

* Net borrowing and portfolio liquidation ($2,000 plus $5,000) minus increase in cash ($3,500) and minus increase in net trade receivables ($500).

adjustments) of $2,000. $3,500 + $1,000 minus ($500 + $5,000 + $2,000) gives us a net decrease in loanfund balances receivable (not due to revaluations) of $3,000.

Tables 35 and 36 illustrate four points of contrast between the cash account and the moneyflows account:

First, they look at moneyflows from opposite points of view. To the extent that the same transactions appear in both the cash and the moneyflows accounts, there are debits in Table 35 where there are credits in Table 36 and vice versa.

Second, a substantial volume of transactions appear in the cash account representing financial turnover transactions, agency transactions, and money changer transactions. As technical transactions these do not appear in the moneyflows account, although entries 32, 33, 36, and 37 may be said to play a part in determining the net amount of money obtained through financing. A small apportioned part of these entries represents main circuit (financial) transactions; the balance — and the bulk — of them represent technical transactions.

Third, offset settlement transactions, entries 01, 21, and 22, are included in the moneyflows account but do not appear in the cash account.

Fourth, there is a difference in timing as between the two tables. From the accounting point of view a book credit purchase or sale is regarded not as one transaction but as two. However, if we look behind this accounting split of a purchase or sale into two transactions, we may say that the entries in Table 35 for book credit transactions (settlements and collections) are ordinarily later than the entries in Table 36 (which for delivered commodities in general reflect the delivery date). In the case given, ordinary expenditures in connection with book credit transactions are slightly larger than account settlements, and ordinary receipts are slightly larger than account collections.[1]

On the basis of Tables 35 and 36 we can advance a general statement of the relation between cash receipts and cash disbursements on the one hand, and moneyflows in the main money circuit on the other. For this purpose we need to consider, among others, the following dollar magnitudes:

1) The dollar volume of transactions settled by offset, including transactions in which there is a three-cornered offset, that is, in which a transactor's debtor makes a payment directly to one of his creditors. This dollar volume is illustrated in Table 34, entries 01, 02, 21, and 22.

[1] They may, of course, be either larger or smaller.

2) The dollar volume of technical transactions. Up to this point we have used the term, technical transactions, somewhat loosely. When we seek to identify technical transactions in Table 34 some entries present no difficulty. Thus all agency and money changer transactions, lines 39 through 44, are clearly technical. But in the case of financial (i.e., loanfund) transactions other than money changer transactions, the problem of drawing a precise dividing line between the main money circuit and technical transactions is more complicated. We may defer it for a moment.

3) The increase in the cash balance.

Dollar volumes (1) and (3) appear in the moneyflows account and not in the cash account. Dollar volume (2) appears in the cash account and not in the moneyflows acount. Instead of dollar volume (3) the cash account shows the opening balance as a debit and the closing balance as a credit. The three dollar volume magnitudes enable us to relate main circuit moneyflows to cash receipts and cash disbursements. The relations are conveniently set forth in two equations.

i) Ordinary receipts + net money obtained through financing, if > zero, + the volume of technical transactions = cash receipts + the volume of transactions settled by offset.

ii) Ordinary expenditures + net money advanced or returned to others, if > zero, + the volume of technical transactions = cash disbursements + the volume of transactions settled by offset + the increment in the cash balance.

We have referred to these two equations as providing a general statement of the relations between the moneyflows account and the cash account. It would perhaps be better to say that they give us two ways of drawing the line between the main money circuit and technical transactions. The first two terms in (i) are ordinary receipts and other sources of money as shown in Part One of the statement of payments and balances; the first two terms of (ii) are ordinary expenditures and other dispositions of money. They are therefore equal. Again, the source of money transactions that are settled by offset and the disposition of money transactions so settled are necessarily equal. Furthermore, cash receipts equal cash disbursements plus the increment in the cash balance. Hence the two specifications for technical transactions give the same total.

We avoid referring to equations (i) and (ii) as definitions of technical transactions. They are definitions of technical transactions, assuming we know what we mean by cash receipts and cash disbursements, but we shall shortly question this assumption. They do draw an unambiguous dividing line through items 31 to 38 inclusive in Table 34, so that we can say what is in the main money circuit and what is not. The line is

drawn, not by whole items, but by apportioning only the increment in the net loanfund balance to the main money circuit.

The last term in equation (ii) is intended in an algebraic sense (plus the increment or minus the decrement). This means that we have adopted as a convention one of several possible procedures for specifying technical transactions. In effect we have elected to define them in terms of cash receipts rather than in terms of cash disbursements. This convention eliminates an ambiguity previously glossed over in the concept of technical transactions. It does not affect our definition of the main money circuit.[2]

However, the dividing line we have drawn between the main money circuit and technical transactions affects our definition of the main money circuit in another respect. Because we have apportioned to that circuit only the increment in the net loanfund balance receivable (or payable) for each of the eleven sectors, we have omitted the financial flows among the subgroups of each transactor group, flows that would have been included had we classified transactors in sufficient detail. It follows that the main circuit flow of money through financial channels would be increased and the volume of technical transactions decreased by a subdivision of the sectors. The use of a quarterly instead of an annual fiscal period would also slightly increase the main circuit moneyflow through financial channels and decrease the volume of technical transactions. So would a more detailed classification of loanfund balances, if we were to count the increments in the several balances separately and not their algebraic sum.

Now we suggested above that the definition of the statement of payments and balances and the items in it constitute a definition of the main money circuit.[3] To the extent that moneyflows are reported on a net basis this statement calls for qualification. Most ordinary transactions appear in the statements of payments and balances on a gross basis, and as far as they are concerned, the definition of the main money circuit is unique in the sense that it is independent of the scheme of transactor grouping, the amount of detail by type of transaction, and the length of the fiscal period to which the statements refer. The chief instance of

[2] Had we used cash receipts or cash disbursements whichever is larger to define technical transactions it would have complicated our definition of the main circuit slightly.

[3] It is not intended to imply that the preceding chapters alone give a definition of the items in the main money circuit. We presume the main money circuit items should be defined in terms of the methods of measuring them. If to the preceding chapters we add the specifications in the Appendices, these may be said to constitute a definition of the main money circuit.

reporting on a net basis is that of money obtained through financing or money advanced or returned to others. We have adopted the net basis, because we believe that the most significant facts are net financial flows between transactor groups or subgroups and changes in the composition of a sector's net loanfund balance, and that financial turnover transactions are significant chiefly as they are reflected in the changed composition of the net loanfund balance. Since we count only a single net financial flow for each sector, this amount is independent of the categories of loanfund balances we separately identify. But the amount of this net financial flow shown is dependent both on the scheme of transactor grouping and on the length of fiscal period.[4]

We might have drawn the line between main circuit and technical transactions so as to define all financial transactions as technical. This would have given us a concept of the main circuit that is unique, or to be precise one that we could hope to make unique by improving our basic information sufficiently so that we could avoid any netting in the real estate transfer account.

Had we adopted this definition we would have arrived at a total quantitatively not very different from that here shown. But we would still have had to take account of the net intersector financial flows to balance the sector accounts. Moreover, in drawing a line between main circuit transactions and technical transactions we have meant to draw a line between those transactions most of which are significant for overall economic analysis and those most of which we can afford to neglect. We have drawn the line as we have, because in general net intersector financial flows seemed so important that they must be included in the main circuit. We have thus elected to sacrifice the objective of theoretical uniqueness for the objective of a more meaningful total. We think the gain a large one, the loss quite small.

First as to the gain. Net financial flows are counted as main circuit transactions. But this is not all. One could hardly hope to draw a line so that all transactions on one side of it would be equally significant, all on the other quite negligible. Far from it. Inevitably some of our main circuit transactions are of little consequence and some technical transactions highly significant. The procedure we have adopted picks out some technical transactions as significant. The loanfund balance part of the statement of payments and balances makes possible an analysis of the net financial flow into plus and minus components. We make such

[4] This statement applies also to item 8 in the Catalogue of Moneyflows. But there is no reason to think it applies significantly to item 4, although this too is a net item.

an analysis in Chapter 12. Moreover, the procedure we have adopted suggests three ways to pick out from the huge universe of technical transactions a few others that are particularly likely to be of real consequence: (1) One is to improve and increase the detail on loanfund balances. (2) Another is to shorten the fiscal period. (3) The third is to subdivide sectors.

(2) and (3) mean reclassifying some transactions here counted as technical to include them in the main circuit. The question whether the loss due to the theoretical ambiguity of our definition of the main circuit is great thus translates into the question, Is the volume so reclassified in fact likely to be large? Let us make what now seems a somewhat extreme assumption. Let us suppose we had for the seven years here covered statements of payments and balances for 44 sectors instead of eleven, and on quarterly instead of an annual basis. We doubt that the increase in main circuit moneyflows entailed would be more than 3 or 4 percent. If so, in a practical sense we have not introduced much indefiniteness by including in the main money circuit net intersector financial flows as well as ordinary transactions. In fact the procedure adopted provides a concept of total main money circuit transactions that is somewhat sharper and more objective than the concept of total national income (or gross national product), and very much sharper than that of total cash transactions. And our procedure has two great advantages: (1) It counts a small class of financial transactions that are likely to be of prime consequence as part of the main money circuit; and (2) it provides ways of selecting from the great volume of technical transactions the few others that are most likely to prove significant.

2 *What Is Outside the Main Money Circuit?*

Much has been written about the total of cash transactions as if this total were something quite definite. Actually, however, it is far from definite. The answer to the question whether interbank settlements are to be regarded as a part of this total makes a very big difference. They are certainly cash transactions, but they have commonly been excluded from the equation of exchange concept of MV. One may find a logical ground for this exclusion in the treatment of the banking sector as a single transactor. But when we are dealing with financial turnover transactions this ground requires us to go further. If interbank transactions are to be excluded, we can hardly exclude them only when no third party intervenes.

Suppose Bank A needs to replenish its reserve position while Bank B has excess reserves. Suppose also that Bank A liquidates some of its

security holdings and Bank B increases its holdings of securities. Can we properly say that this adjustment is not reflected in the total of cash transactions if it is effected through the Reserve System but is so reflected if the intermediary is a security dealer? Suppose Bank A sells and Bank B acquires $1,000,000 worth of securities, the security dealer financing his temporary holding of the securities by a loan from another bank. The debits to his individual account may include $1,000,000 when he purchases the securities from Bank A and $1,000,000 when he repays the loan. Can we say that there have been $2,000,000 worth of cash transactions in this event, if we regard the banking sector as a single transactor?

The question, What interbank transactions, if any, are to be excluded from the total of cash transactions? indicates one reason for saying that the total of cash transactions is not a clearly defined concept. But there is another reason, too.

If this total is to be clearly defined, it will presumably have to be defined in terms of our method of measuring it. In considering Table 34 we assumed that the transactor's own records might be used for this purpose. To the extent that cash settlements are made through checking accounts, bank records offer a possible alternative. But it is not safe to assume that these two approaches will give the same total of cash transactions. Consider, for example, the partial renewal of a bank loan. The bank's books may record a debit to the customer's individual account for full repayment and a credit in the amount of the renewed portion of the loan. The customer's books may record the transaction as an offset settlement, or may simply record the net repayment. To define the total of cash transactions we should specify whether we propose to follow transactor records or bank records.

Moreover, what are fundamentally the same types of transactions may be reflected one way in both the cash book of one transactor and the bank's record of his bank account and another way in the case of another transactor. One refunding operation may be recorded in terms of cash settlements, another as settled by offset. Again the size of the cash settlement that may be recorded in connection with a real estate transfer cannot be determined from the sale price and the size of the mortgage alone. Further, otherwise similar firms may differ widely with respect to the number of cash accounts they maintain and the volumes of inter-account (money changer) transactions recorded in their cash accounts. And the cashing of a customer's checks may or may not add to the debits to the individual account of the transactor that accepts the checks.

Because the total of cash transactions is an ill defined concept, we spoke above of equations (i) and (ii) as specifications to which the volume of technical transactions must conform rather than as definitions of this volume. According as the total of cash transactions is more or less inclusively defined, the volume of technical transactions will be larger or smaller.

In Table 1 we took debits to individual accounts (adjusted to exclude the small item, debits to Federal government accounts in commercial banks) as a measure of a major part of the total of cash transactions and offered two crude estimates of the fluff in this series. We may pause here to explain just what we understand to be included in the fluff and to comment on the two estimates offered. For this purpose it will be convenient to distinguish five dollar volumes. There is first the volume of transactions included in both the debits series (line G) and total dispositions of money by the nine transactor groups adjusted to a settlements basis (line F). We will call this dollar volume:

1) Main money circuit transactions included in the debits series

There are next the ordinary expenditures and other dispositions of money by the nine transactor groups that are settled by some means other than a debit to the transactor's individual bank account. It will be advantageous to distinguish two such categories of transactions:

2) Offset settlements

3) Hand-to-hand cash settlements (currency settlements) and minor non-debit settlements (as by money order)

On the other hand we have to take account of two categories included in the debits series that are not parts of the nine transactor group total (line F):

4) Checks cashed and conversions of bank balances into minor means of payment (e.g., traveler's checks)

5) Other technical transactions included in line G

Thus (1) + (2) + (3) = line F and (1) + (4) + (5) = line G. Now, while we have little direct information about (3) and (4), there is reason to think that (3) is larger than (4), that most of the checks cashed and other money changer transactions included in (4) precede a part of (3) by a relatively short interval, and that the ratio of (4) to (3) is somewhat stable. It seems safe to say that little if any of (4) is to be regarded as fluff, if we mean by fluff components of line G that may show year to year variations widely different from those of the components of line F. Also it seems probable that there are some components of (5) that can be roughly matched with components of (2) or of (3)

minus (4). Conceivably all components of (2) and of (3) minus (4) could be matched with some of the components (5). If so, (4) + (5) minus (2) minus (3) = the fluff. Hence to obtain the lower estimate we deducted from the adjusted debits total the adjusted total of ordinary expenditures and other dispositions of money by all transactors except the Federal government and the banking sector, i.e., line F. We have assumed in the second alternative estimate that substantially all of (5) may be fluff and that (2) + (3) minus (4) is no greater than one-eighth of the ordinary expenditures and other dispositions of money by the nine transactor groups; so the second estimate of the fluff in debits, G minus 7/8 F, may be regarded as an upper limit.

However we decide to define the total of cash transactions there will still be a large question concerning what this total, and particularly the part that consists of technical transactions, means. We may illustrate the point with further comments on debits to individual accounts.

As has frequently been noted, various security transactions are reflected in debits to individual accounts, but it is difficult to say even very roughly to what degree they are reflected. Stock exchange sales and refunding operations are examples. Stock exchange sales undoubtedly account for a large and varying fraction of the fluff in debits; how large we shall not attempt to say.[5] We think we can afford to dodge this question, but that is not because we consider stock exchange transactions to be unimportant. On the contrary, there is good reason to believe that at times stock exchange transactions have exercised a substantial influence on the volume of ordinary transactions. But, if our reasoning is correct, this influence must have been channeled almost exclusively through the net amount of money obtained or advanced by various transactor groups, or the amount they thought they could obtain if they had to.[6]

Financial turnover transactions — technical transactions in connection with stock exchange sales, over the counter sales, refunding opera-

[5] George Garvy, on the basis of a special inquiry, guessed that debits to accounts of members of the N. Y. Stock Exchange in August 1946 constituted about one-sixth of all debits to individual demand accounts in New York City. Not quite all debits to such accounts are fluff and the volume of fluff involved in stock exchange sales presumably considerably exceeds the debits to members' accounts.

An interesting light is thrown on the meaning of debits by another finding of this inquiry. One account was recorded to which debits during the month were larger than total debits to all individual accounts in the city of Rochester, N. Y. At least 99 percent of the debits to this one account must have represented fluff.

[6] The operating revenues of security dealers are theoretically another channel. But they were less than one-tenth of 1 percent of total ordinary receipts of all transactors even in 1937, still smaller in the other six years.

tions, loan renewals, etc. — may be surmised to be well over half the fluff in debits to individual accounts. Other technical transactions included in debits consist chiefly of money changer and agency transactions. Among the money changer transactions included in debits (other than checks cashed and the allied transactions mentioned above) transfers from one bank account to another held by the same transactor are believed to be especially important. The volume of this type of technical transaction presumably depends upon the number of bank accounts a transactor finds it advantageous to maintain. Little is known about the volume of interaccount transfers or the number of multi-account transactors. The FDIC reported 67 million accounts in insured commercial banks in 1941. A very generous guess at the number of transactors would be 55 million. Thus there were probably at least 12 million accounts-in-addition-to-one-per-transactor. And such indications of branch office operations as are available for 1939 suggest that these could easily represent 5 or 10 per cent of the fluff, possibly more.

3 *What Do Technical Transactions Do?*

One further question may be raised about the meaning of the total of cash transactions. As a concept, it has had vogue partly because it has been presumed to be a measure of money work. Can it properly be so construed? Such a construction implies that in a given institutional situation it takes a certain average quantity of money to do a certain amount of money work, and that if the amount of money work is increased, a larger average amount of money will be required to do it. This view permits us to suppose that as the volume of money work increases, the necessary average balance will increase less than proportionately, i.e., that money efficiency will increase. But unless we considerably stretch the words 'in a given institutional situation', it does not seem compatible with this view to suppose that entering into additional transactions that increase the quantity of cash disbursements could enable a transactor to decrease the average cash balance he needs to carry. Moreover, if in some sense it is possible to use cash disbursements as a partial substitute for a cash balance, it will hardly do to construe transaction velocity as a measure of the efficiency of a cash balance. But it is possible to decrease the cash balance one needs to maintain through transactions that increase one's cash disbursements.

An illustration may make this point clear. Let us suppose that a transactor, A, has cash receipts on each business day of $1,000 and cash disbursements of $7,000 toward the close of business each Saturday during the first half of the year and $5,000 during the second half of

the year. For the sake of simplicity, let each year begin on Monday and consist of exactly 52 weeks with 312 business days.

Case 1 Let us assume that A has no other cash transactions. If b be A's opening weekly cash balance for any week during the first half of the year and c his opening weekly balance for any week during the second half, and his opening balance on the first business day of the year (Monday) is \$26,000, at the beginning of the twenty-seventh week it will be zero, and on the first day of the next year it will again be \$26,000.

	First half of the year	*Second half of the year*
Monday	b_1	c_1
Tuesday	$b_1 + \$1{,}000$	$c_1 + \$1{,}000$
Wednesday	$b_1 + \$2{,}000$	$c_1 + \$2{,}000$
Thursday	$b_1 + \$3{,}000$	$c_1 + \$3{,}000$
Friday	$b_1 + \$4{,}000$	$c_1 + \$4{,}000$
Saturday	$b_1 + \$5{,}000$	$c_1 + \$5{,}000$
Monday of the following week	b_2 (i.e., $b_1 - \$1{,}000$)	c_2 (i.e., $c_1 + \$1{,}000$)
Tuesday of the following week	$b_2 + \$1{,}000$	$c_2 + \$1{,}000$

A's average opening daily balance (per business day) will therefore be

$$\frac{\Sigma(b) + \Sigma(c)}{52} + \left[\frac{\Sigma(1 \text{ to } 5)}{6}\right] \$1{,}000 =$$

$$\$1{,}000 \left[\frac{\Sigma(1 \text{ to } 26) + \Sigma(1 \text{ to } 25)}{52} + \frac{\Sigma(1 \text{ to } 5)}{6}\right] = \$15{,}500.$$

Obviously A could not operate, under the assumed conditions, with a smaller average balance. Indeed he would probably feel it necessary to have a somewhat larger one. But for convenience we may refer to \$15,500 as his minimum average balance.

His total cash disbursements during the year (also his total cash receipts) equal (\$7,000 × 26) + (\$5,000 × 26) or \$312,000.

Case 2 Now let us modify our assumptions. Let us suppose that A borrows from his bank so as to decrease the amplitude of seasonal variation in his cash balance. Let us, for simplicity, neglect the discount and assume that:

On Saturday of the seventh week he borrows \$13,000 on a three-month note.

On Saturday of the twentieth week he borrows \$20,000 on a three-month note, using \$13,000 to repay the first note.

On Saturday of the thirty-third week he borrows \$13,000 using this plus \$7,000 from his cash balance to repay the second note.

On Saturday of the forty-sixth week he repays his third note with cash on hand.

Under these assumptions he might start the year with a balance of $6,000. Then his opening daily cash balance will never exceed $17,000. And instead of decreasing to zero only once during the year, it will do so five times: at the beginning of the seventh, twentieth, twenty-seventh, thirty-fourth, and forty-seventh weeks. His average opening daily balance is $7,000, and for purposes of comparison with Case 1 we may fairly regard this as the minimum average balance on which he could get along.

Bank borrowing decreases A's necessary minimum cash balance from $15,500 to $7,000. It also adds $46,000 to his cash disbursements, bringing his total disbursements up to $358,000. The additional $46,000 of disbursements arises, of course, from a kind of technical (financial turnover) transaction. Our illustration raises the question whether disbursements a/c financial turnover transactions that serve to decrease the amount of cash needed in doing a given volume of business (i.e., that help do money work) can properly be counted also as part of the money work done. If so, the $7,000 balance in Case 2 does more money work than the $15,500 balance in Case 1. But the illustration has another edge. Is money work (apart from offset settlements) performed exclusively by cash balances? Or does indebtedness to the bank (plus the debt transactions) do some of the money work in Case 2 that the cash balance did in Case 1? It seems clear that the answer is that the budget borrowing of Case 2 — and the debits to individual accounts involved in these technical transactions — help to do the money work required for the conduct of the ordinary transactions of Transactor A. We shall return to this question in the next chapter.

We have argued above that the total of cash transactions may be defined in various ways and that some cash transactions (i.e., some financial turnover transactions) help to do money work. What can one conclude as to the significance of debits to individual accounts as a money circuit measurement? We believe it is fair to note the following limitations:

1) The debits series, even if we disregard the omissions of offset settlements and of the excess of currency settlements over checks cashed, is far from a comprehensive measure of total cash transactions. It does not cover the banking sector's transactions at all. It covers only a small part of those of the Federal government. And we may add that it is not easy to say what part of the total cash transactions between the rest of the world and U. S. transactors may be covered. Even for the transactors covered there are types of technical transaction partly included in and partly excluded from debits. It is probably not safe to assume that the included percentage of such transactions is stable from year to year.

2) Some part of debits should be construed not as money work done but as an aid in doing the money work reflected in the rest of debits.
3) The year to year variations in the volume of financial turnover transactions may be very different from those of ordinary transactions.

Clearly these limitations alone do not lead to the conclusion that debits are of little significance as a moneyflows measurement. But we are skeptical about this significance and particularly skeptical about any measure of the volume of cash transactions excluded from the main money circuit as we define it that can be derived from debits. Our skepticism stems from the fact that this circuit is a complete circuit. By complete we mean that it is both a balancing set of sector accounts and a balancing set of type of transactions accounts. This does not mean the summary accounts tell us all we may wish to know about moneyflows; it does mean that additional information in the form of moneyflows measurements for the period covered must be in the nature of additional detail, i.e., must be measurements of components of items already included in the circuit. It is true that data on purchases and sales of loans and securities during the year provide a component analysis for the annual increment in a sector's portfolio. If we question the wisdom of such an analysis, it is because we think it might be better to seek detail on the net portfolio increment by type of portfolio items, or by subdividing the sector, or by quarters of the year. But our skepticism

Table 37

By How Much Do Cash Receipts and Cash Disbursements Exceed Ordinary Transactions? (Billions of Dollars)

	Guesses at the Amounts by Which:	*1936*	*1937*	*1938*	*1939*	*1940*	*1941*	*1942*	
	Cash Receipts Exceed Ordinary Receipts								
A	Households	55.0	56.0	54.0	54.0	57.0	62.0	71.0	A
B	Farms	3.3	3.8	3.4	3.4	3.8	4.2	5.3	B
C	Industrial Corporations	57.0	58.0	50.0	51.0	53.0	61.0	68.0	C
D	Business Proprietors & Partnerships et al	21.0	21.0	19.0	20.0	20.0	23.0	26.0	D
E	State & Local Governments	13.0	13.0	12.0	12.0	12.0	14.0	15.0	E
F	Life Insurance Companies	33.0	33.0	28.0	28.0	29.0	33.0	37.0	F
G	Other Insurance Carriers	6.9	6.9	6.0	6.1	6.4	7.3	8.1	G
H	Security & Realty Firms et al	185.0	185.0	160.0	160.0	160.0	185.0	210.0	H
J	All Above Transactors (A through H)	375.0	380.0	330:0	335.0	340.0	390.0	440.0	J
	Cash Disbursements Exceed Ordinary Expenditures								
K	Households	54.0	56.0	53.0	52.0	55.0	64.0	83.0	K
L	Farms	3.3	3.5	3.3	3.8	3.3	4.1	5.8	L
M	Industrial Corporations	57.0	58.0	49.0	52.0	53.0	63.0	75.0	M
N	Business Proprietors & Partnerships et al	21.0	21.0	20.0	19.0	20.0	22.0	29.0	N
P	State & Local Governments	13.0	13.0	12.0	12.0	12.0	14.0	16.0	P
Q	Life Insurance Companies	35.0	35.0	30.0	30.0	31.0	36.0	39.0	Q
R	Other Insurance Carriers	7.3	7.2	6.2	6.2	6.8	7.5	8.8	R
S	Security & Realty Firms et al	185.0	185.0	160.0	160.0	160.0	185.0	210.0	S
T	All Above Transactors (K through S)	375.0	380.0	335.0	335.0	340.0	395.0	465.0	T

To approximate the same number of significant places lines H, J, S. and T are rounded to the nearest $5 billion; lines B, G, L, and R to the nearest $100 million; other lines to the nearest billion dollars. Because of rounding, lines may not precisely downtotal.

is directed particularly toward global measures of the volume of cash transactions we have omitted from the main money circuit. They do not provide additional detail. Nonetheless for those who think such measurements should have real significance we offer in Table 37 for eight of our eleven sectors crude guesses at the amounts by which cash receipts exceed ordinary receipts and the amounts by which cash disbursements exceed ordinary expenditures.

We do not think the estimates in Table 37 are firm enough to yield dependable conclusions. But if better estimates of these magnitudes would be significant, it should be possible either a) to confirm the present figures in Table 37 by relating them to other known facts or to question them on the basis of such a comparison, or b) to draw significant (though possibly erroneous) interpretative inferences from the present Table 37 figures that could not equally well be drawn without them. We will not attempt to explain the derivation of Table 37 here or in Appendix A, except to say that in making the basic guess at the total of cash transactions, debits to individual accounts were used as a guide. But if anyone can offer a plausible critique of this table in relation to other information or a significant economic interpretation of it, we shall be glad to furnish him a statement of the statistical steps by which the figures were arrived at.

Part III
Some Tentative Interpretations