

THE FLOW OF FUNDS, 1960 - 1985

THOMAS O'CONNELL
Central Bank of Ireland

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1 INTRODUCTION

This paper reviews the development over time of the financial surpluses/deficits of the different broad economic sectors, i.e., the personal sector, companies, government and the external sector. The form in which different sectors' financial surpluses/deficits are held is then reviewed, and this affords an opportunity to consider the evolution of various types of financial assets and liabilities since 1960. Data are obtained from both published and unpublished sources. A degree of estimation is required on occasion, and a number of somewhat arbitrary assumptions are necessary. For this reason, certain data are more "ball-park" than precise estimates. However, it is believed that the broad picture sketched is a reasonably reliable one.

2 SECTORAL FINANCIAL SURPLUSES AND DEFICITS

A starting point is made by reviewing the financial surpluses/deficits of the different broad economic sectors. Previous work in this area has been undertaken by Dowling (1973) and more recently by Honohan (1982). The former paper, a pioneering one for Ireland, constructed data series for the net financial surplus/deficit of each sector for the

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years 1949 to 1972 and examined the factors giving rise to these surpluses and deficits, it did not systematically examine the disposition of the different sectors' financial assets and liabilities. This extension, in effect a flow of funds analysis, was done by Honohan (1982) for the years 1972 to 1977. The present paper updates the series of different sectors' financial surpluses/deficits through 1985, and, secondly, presents data on flows of funds for the years 1960 to 1985. It builds, therefore, on the work of Honohan, employs additional data sources for this purpose, but does not use the estimation techniques used by Honohan. It may be helpful to put some perspective on this exercise by reviewing briefly the various types of sectoral accounts that arise in national accounting and that provide the basis for deriving sectoral surpluses and deficits.

There are basically four main types of such accounts, production (or operating) accounts, income and expenditure

Table 1 *A Sector's Accounts (an illustration)*

Trading Account

Sales Revenue
less Production Expenses
Equals Gross Trading Profit

Appropriation Account

Gross Trading Profit
Plus Rent and non-trading income
Less Payments of dividends, interest, taxes
Equals Undistributed Income (Savings)

Capital Account

Undistributed Income
Plus Capital Transfers
Less Gross domestic fixed capital formation
Less Increase in value of stocks
Less Capital taxes
Equals Financial Surplus/Deficit

Financial Account

Changes in financial assets
Changes in financial liabilities
Equals net financial surplus/deficit

(or appropriation) accounts, capital accounts and financial accounts. The relation between these accounts is set out in Table 1 below. Only major items are entered in the accounts for brevity's sake. Production accounts are appropriate only to enterprises and give rise to trading profit, interest receipts and payments are regarded as transfer payments and, consequently, do not enter the computation of trading profits in the national accounts. The balance on the production account is carried to the appropriation account, and, when taken in conjunction with net current transfer income, i.e., non-trading income less dividend, interest and income tax payments, gives rise to companies' savings. There are, of course, corresponding appropriation or current income and expenditure accounts for the personal and government sectors.

The capital account for each sector shows as receipts the savings balance on the income and expenditure account and capital transfers received from other sources. This is balanced by the increase in physical investment (fixed investment and inventories), capital transfers paid and a financial surplus or deficit. This financial surplus or deficit is carried from each sector's capital account to its financial account. The sum of each sector's transactions in financial assets and liabilities must be equal to this balance. The financial (or flow of funds) account in effect shows the change in the various financial assets and liabilities for each sector. Taking all resident sectors together, the country may have a net financial surplus or deficit, this, of course, corresponds to the net financial deficit or surplus of the overseas sector *vis-a-vis* residents.

The Irish National Accounts are not fully articulated in the sense that all the entries in the sets of accounts noted above are specifically identified. However, the published National Accounts do present sufficient data to enable sectoral capital accounts to be estimated. The

sources and uses of funds in the various sectors' capital accounts, and the difference between these two aggregates - which is equal to the net acquisition of financial assets by each sector - is presented in Table 2

The sources of funds for each sector are savings (i.e., the difference between income and expenditure, including net transfer income), depreciation and capital grants, or capital taxes and net foreign capital transfers in the case of the Government. Funds could also be generated for a particular sector by the sale of real assets by that sector to another sector. However, such inter-sectoral sales, between, for example, the personal sector and the companies sector, are likely to be small from one year to the next. In any event, the absence of data on such transactions precludes their inclusion in a funds table.

Funds can be used in a number of ways by each sector, for investment in fixed capital, to finance stock-building, to pay capital taxes or, in the case of the Government, to make capital transfers to other sectors. If depreciation as a source of funds is ignored, then the fixed capital financed is, of course, net, rather than gross, capital formation. The difference between each sector's sources and uses of funds represents its net acquisition of financial assets/liabilities.

The data in Table 2 show that, in nominal terms, the personal sector has run an increasing financial surplus over the period. (The personal sector here includes not only private individuals but also the farming sector and unincorporated businesses. Annual data pre-1970 are given in Dowling (1973)). The companies' sector's financial deficit, on the other hand, has increased significantly over the period with a notable decrease, however, mainly associated with enhanced profitability, in 1985. The Government's financial deficit has also, of course, become very large, reflecting the explosion in Exchequer borrowing since 1977, net foreign capital transfers (the extreme right-hand column of Table 2) could be included with the Government sector since these are EEC transfers made mainly to Government. The counterpart to the financial deficit of the three domestic sectors taken together is net foreign disinvestment, i.e., net external lending to Ireland.

Table 2 Financial Surplus/Deficit by Sector, 1960 - 1985 (£ million)

	<u>Personal</u>			<u>Companies</u>			<u>Government</u>			<u>External</u>	
	Sources	Uses	Surplus/ Deficit	Sources	Uses	Surplus/ Deficit	Sources	Uses	Surplus/ Deficit	Net Foreign Disinvestment	Net Foreign Capital Transfers
1960	60 4	38 4	22 0	43 2	51 4	- 8 2	8 6	24 8	- 16 2	0 8	-
1965	116 5	85 9	30 6	76 7	107 7	- 31 0	15 7	58 6	- 42 9	41 8	-
1970	214 3	128 3	86 0	146 6	215 7	- 69 1	30 4	112 5	- 82 1	65 3	-
1971	225 3	144 1	81 2	183 8	243 1	- 59 3	45 2	138 0	- 92 8	71 0	-
1972	350 1	249 7	100 4	219 2	256 3	- 37 1	41 0	152 5	- 111 5	48 4	-
1973	486 4	318 1	168 3	277 0	376 2	- 99 2	31 9	183 4	- 151 5	82 3	-
1974	549 0	292 1	256 9	284 5	550 9	-266 4	-31 0	239 6	- 270 6	280 2	-
1975	919 0	223 3	695 7	341 5	587 9	-246 4	-218 6	288 5	- 507 1	55 9	1 8
1976	937 7	449 8	487 9	477 9	765 2	-287 3	-131 9	315 4	- 447 3	238 1	8 8
1977	1,103 0	531 2	571 8	600 2	976 5	-376 3	-126 9	376 9	- 503 8	299 5	9 3
1978	1,350 3	655 1	695 2	711 5	1,135 4	-423 9	-265 3	465 5	- 730 8	444 2	15 2
1979	1,476 8	901 7	575 1	925 5	1,548 3	-622 8	-407 0	604 2	-1,011 2	1,025 9	33 0
1980	1,612 5	647 7	964 8	999 1	1,736 3	-737 2	-510 0	818 6	-1,328 6	1,037 9	63 1
1981	1,820 9	968 3	852 6	1,199 2	2,034 6	-835 4	-745 0	947 0	-1,692 0	1 594 7	80 1
1982	2,365 7	910 0	1,455 7	1,203 4	2,055 5	-852 1	-1,035 7	982 6	-2,018 3	1,315 7	99 0
1983	2,638 7	933 8	1,704 9	1,337 4	2,152 4	-815 0	-990 1	916 8	-1,906 9	925 0	92 0
1984	2,725 5	915 5	1,810 0	1,472 6	2,483 3	-1,010 7	- 897 0	826 3	-1,723 3	837 0	87.0
1985	2,987 8	873 3	2,114 5	1,808 1	2,434 5	- 626 4	-1,225 4	882 7	-2,108.1	512 0	108 0

Sources Dowling (1973), Honohan (1984), National Income and Expenditure (C S O), United Nations Yearbook of National Accounts Statistics, Central Bank estimates

represented by the current external deficit

It may be helpful to review briefly how the different sectors' financial surpluses and deficits have arisen. In the interests of limiting the amount of tabular material, the factors giving rise to these surpluses/deficits have not been presented here. In the case of the personal sector, the principal factors are the high levels of savings, i.e., the excess of income over current expenditure, and the level of capital formation, mainly housing, that absorbs part of this savings. In the 1981-85 quinquennium, personal savings averaged almost £2 billion, about 40 per cent of which was absorbed by investment in housing by the personal sector. For the companies sector, the most significant source of funds has been depreciation followed by companies' savings. Fixed capital formation accounted for the vast bulk of the uses of funds. During the period 1981 to 1985, companies' savings and depreciation provided an annual average of £1,277 million, compared with estimated annual average fixed capital formation of £1,924 million. The principal factors giving rise to the Government's large net financial deficit in recent years have been, as is well known, large current dissavings associated with current Budget deficits allied to sizeable capital expenditure by the Government.

While the data in Table 2 say nothing about causation, one school of thought (New Cambridge - which is now, admittedly somewhat defunct) holds that the relative stability/predictability of the private sector's, i.e., personal and companies, accumulation of financial assets/liabilities implies that external deficits have their cause in fiscal deficits, i.e., the issue of financial liabilities by the Government sector.

A diametrically opposite view regarding the relationship of different sectors' financial surpluses/deficits is the notion of Ricardian equivalence. This hands on the argument that individuals have a bequest motive, i.e., are motivated to accumulate savings for their families/succeeding generations. A Government deficit (dissaving) involves the transfer of purchasing power to the present generation from the next generation, the Government deficit in the current period is financed by an increase in

taxes for the next generation. However, this inter-generational transfer was always available as an option to the present generation which would have reduced their bequests in order to exercise it. The fact that the present generation did not do so means that to reduce bequests would have been sub-optimal in terms of maximising their own level of utility. Hence, in order to undo the inter-generational transfers arising from the Government deficit, the present generation will increase their bequests by the amount of the deficit, leaving net bequests unchanged. In summary, under Ricardian equivalence, Government deficits (dissavings) are offset by increased private sector savings, and Government deficits are neutral in their macro-economic effect. (These and related issues on budget deficits are dealt with in a recent survey article, Dotsey (1985))

It is not clear which of these or other competing theories are most valid. It would seem that, as in most economic theory controversies, this may be resolved only through empirical testing - perhaps in the Grainger/Sims causality mode.

It is of interest to consider, at least in qualitative terms, how the different sectors' financial surpluses and deficits in Table 2 are affected by inflation. This has received increasing attention in recent years (see, for example, Taylor and Threadgold (1979) and Buiter (1983)). The basic idea is that each sector's income, as computed in the National Accounts, includes interest income. However, in inflationary times, interest comprises two elements - part repayment of the *real* value of the asset, i.e., the principal, and a residual "true" interest payment which may be frequently negative. Since income is properly regarded as excluding any realisation of assets, it is logical that the former element in the interest payment should be excluded from the calculation of a sector's income. Since a sector's saving is the difference between income and expenditure, sectoral savings should be correspondingly adjusted.

The application of this principle would imply that sectors with net monetary assets (i.e., assets fixed in money terms) should have their income and savings reduced by

the inflationary erosion of their net monetary assets, sectors with net monetary liabilities should, correspondingly, have their income and savings enlarged by the inflationary erosion of their net monetary liabilities

It is not proposed here to apply these adjustments to sectoral savings in the "Sources" column of Table 2. However, it is clear that the personal sector is a holder of net monetary assets, while the companies and Government sectors have net monetary liabilities. Adjusting the various sectors' savings for gains/losses on net monetary assets/liabilities would have the effect of reducing the savings of the personal sector and reducing the dissavings of the companies and Government sectors, particularly during high inflation periods. This implies that, on an inflation-adjusted basis, the financial surplus of the personal sector would be reduced as would the corresponding financial deficits of the companies and Government sectors. In real terms, therefore, the sectoral financial imbalances that are evident from Table 2 would be attenuated.

3 FINANCIAL ACCOUNTS/FLOWS OF FUNDS

The financial surpluses/deficits of the four broad sectors - personal, companies, Government and External - provide the starting point for an examination of the different sectors' financial accounts. Since, as indicated earlier, each of these sectors' net financial surplus or deficit is the sum of the changes in its financial assets and liabilities, it is necessary to isolate the different types of financial institutions - licensed banks, building societies, savings banks, life assurance companies and pensions funds, etc - in order to ascertain the change in the net financial claims of the personal, non-financial companies, Government and external sectors on the various types of financial institutions.

It might be asked why one should be interested in such funds flows at all. If financial and capital markets were perfectly competitive, the pattern of flows between different sectors in the economy would be of little importance. It is evident, however, that such markets are far from being perfectly competitive - because of

informational deficiencies, the existence of scale economies, institutional barriers for new entrants, etc. In these circumstances, the channels through which surplus agents save can affect the extent to which particular deficit agents can borrow, and the evolution of different types of financial assets and liabilities and of the associated financial institutions is important. For example, Honohan (1982) cites the developments in building societies' deposits and loans as influencing the volume of residential construction and house prices.

More generally, financial accounts or flow of funds tables provide a framework for the analysis of past events and can be of help in detecting broad relationships which may be used, in particular, for forecasting. For example, the transactions recorded in the financial accounts help to shed light on the structure of companies' financing - debt or shareholders' funds - and on the changing shares of different financial intermediaries. The financial accounts can also be used to assist in indicating the effects of changes in the tax code on the structure of financial transactions in the economy.

From a Central Bank point of view, it is of interest to consider the evolution of money holdings as well as other near-money assets, developments in which could have implications for the stability of the money demand function, one of the basic elements in formulating monetary policy. At a more general level, central banks have an interest in the evolution of the financial sector because of their role in supervising various types of financial institutions and in managing the markets in which they intervene.

Against this background, the financial institutions we wish to focus on are the Central Bank, the licensed banks, the building societies, TSBs, the Post Office Savings Bank (POSB), the State Banks (ACC and ICC) as well as the life-assurance companies and pension funds. In the National Accounts, the credit institutions, i.e., all these financial intermediaries except for the life assurance companies and pension funds, are included with the companies sector, while the life assurance and pension funds are included in the personal sector with the payments of life assurance premiums and annuities and the receipt of accrued benefits being

treated as transfers within the personal sector. It is required, therefore, to segregate these various financial intermediaries from the companies and personal sectors in which they are embedded in the National Accounts. In the case of the credit institutions, this is done by recalling the basic relation

Net Financial Surplus/Deficit = retained (after-tax income
plus depreciation
plus capital transfers
less gross domestic fixed
capital formation
less increase in the
value of stocks
less taxes on capital

For all practical purposes, for the credit institutions considered here, the net financial surplus can be taken to be retained earnings *plus* depreciation *less* gross domestic capital formation (Capital taxes by way of the bank levy in recent years are brought into the calculus for the licensed banks). Of course, from the balance sheet identity for each set of financial institutions, this will be equal to the net change in all of the other assets and liabilities.

In the case of the life assurance companies and pensions funds, it will be recalled that these are included with the personal sector since they are considered to be the collective property of policy holders and pension scheme members. Personal incomes include, therefore, net interest/investment income of assurance companies/pension funds, as well as employers' contributions to pension funds, while personal expenditure includes the administrative costs (wages, commissions, etc., including any profits accruing to shareholders) of these schemes. The increase in life and pension funds forms part of the personal sector's savings, and the financial account for the personal sector reflects this through the net increase in contributions to these funds, capital formation by the funds and various transactions in financial assets are dealt with in the financial account for the assurance companies/pension funds sector.

Accordingly, the financial accounts summarised here are articulated with respect to the personal, non-financial companies, Government and external sectors as well as the following financial institutions the Central Bank, the licensed banks, the building societies, TSB, the POSB, the state banks (ACC and ICC) and the life assurance companies pension funds. Specific consideration of a number of financial institutions - e.g., unit trusts, credit unions, finance companies, provident societies - has been omitted in the present exercise. What might be considered as the most significant of these, unit trusts, are covered to the extent that assurance companies/pension funds invest their resources in unit trusts which in turn invest in gilts, equities, etc. The Department of Trade, Commerce and Tourism's Blue Books show investments by Irish registered companies of the latter type only, and accordingly, do not indicate the extent of assurance companies' investments via unit trusts.

The principal assets and liabilities of the various sectors and financial institutions considered are identified in the financial accounts. In all, there are 14 such assets and liabilities considered. The remaining assets and liabilities for each sector are summarised in a "residual" row, so that the total change in a sector's assets and liabilities, including "residual" assets/liabilities, equals the net financial surplus/deficit of that sector each year. The row-sum for each asset and liability is identically zero, for example, the issue of a liability by one sector should be fully accounted for by a change in the holdings of all other sectors.

Financial accounts have been constructed in this way for each year 1960 to 1985 inclusive. Data sources and methods are given in Appendix 1. As is evident from this appendix, some parts of the table are more reliable than others. We have not gone so far as to use the statistical procedures used by Honohan (1982) to modify the data. Data sources more recently have improved, it should be noted, partly as a result of exchange controls, but also following the improved banking statistics since end-1982. However, it would be unrealistic, and probably uneconomic on cost-benefit grounds, to approach perfection in this regard. It might be noted that, even in the UK, which has quite a

sophisticated system of financial accounts, a recent conference on financial statistics was devoted, *inter alia*, to focusing on the major lacunae in the area (see, for example, Alexander (1985))

The detailed financial accounts for each year 1961 to 1985 are presented in Appendix 2. As regards the accuracy of the data, the major deficiency relates to the companies sector where the data on securities issued relate only to public companies, no data are available on securities issued by the large number of private companies operating in the country. This may explain why the balancing or residual item for the companies sector in the annual tables (see Appendix 2) can be relatively large. Most of the other data, derived as they are from published balance sheets or from data reported to the Central Bank, are considered to be reasonably reliable.

In order to get the flavour of the major developments over the period, the data are summarised for five separate five-year periods in Tables 3 to 7. In these tables, the financial flows are expressed as percentages of GNP and averaged over the relevant quinquennium. These summary tables confirm, first, what was noted earlier - the continuing large financial surplus of the personal sector reflecting the extent to which, because its savings exceed investment, it can make a net contribution to the financing of the other sectors. The large and growing financial deficits of the companies and Government sectors is also evident, as has been noted earlier.

Some noteworthy elements are also evident from the body of the tables, although not many of these are particularly surprising, perhaps. The first notable feature is the reduced relative importance of the banks as repositories of financial assets. Reference to the first column of Tables 3 to 7 shows the roughly equal share of the *increase* in personal sector deposits going to the licensed banks and the various deposit-taking non-banks over the past decade. The improved share of the latter institutions was particularly evident for the building societies, and to a lesser extent, for the state banks and TSBs, the Post Office has begun to recover lost ground in the very recent past. However, when account is taken of deposits from other sectors,

Table 3 Financial Transactions Between Sectors, 1961-1965, per cent of GNP

	Personal	Industrial/ Commercial	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	05	03	-	-08	-	-	-	-	-	-	-
Deposits with Licensed Banks	20	11	-35	-	-	-	-	-	-	-	05
Deposits with Non-Banks	11	-	-	-	-05	-01	-	-04	-	-	-
Small Savings Schemes	06	-	-	-	-06	-	-	-	-	-	-
Lending Banks	-12	-11	24	-	-	-	-	-	-	-	-
Non Banks	-04	-03	-	-	-	-	01	-	06	-	-
House Purchase Loans	-09	-	-	-	-	-	05	04	-	-	-
Direct External Borrowing	-	-02	-	-	-	-	-	-	-	-06	09
Government Securities	17	01	12	01	-	-	03	-	-	-35	-
Companies Securities	11	-13	-	-	-	-	03	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	03	-	-	-	-03
Life Assurance/Pension Funds	16	-	-	-	-	-	-16	-	-	-	-
Official External Reserves	-	-	-	11	-	-	-	-	-	-11	-
Advances by Government	-	-	-	-	-	-	-	-	-	-	-
Advances to Government	-	-	-	-	12	-	-	-	-	-	-13
Balancing Item Residual	-21	-22	08	-02	-	-	-	-	-05	19	23
Financial Surplus/Deficit	40	-37	08	01	-	-	-02	-	-	-37	25

Table 4 Financial Transactions Between Sectors, 1966-1970, per cent of GNP

	Personal	Industrial/ Commercial	Banking Sector	Central Bank	POSB	1SB	Assurance Cos /Pension funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	0.4	0.2	0.1	-0.8	-	-	-	-	-	-	-
Deposits with Licensed Banks	3.2	1.0	-6.7	-	-	-	0.3	0.1	-	0.3	1.6
Deposits with Non-Banks	1.5	-	-	-	-0.4	-0.2	-	-0.7	-0.1	-	-
Small Savings Schemes	0.3	-	-	-	-0.3	-	-	-	-	-	-
Lending Banks	-5.1	0.4	4.9	-	-	-	-0.1	-	-	-	-
Non-Banks	-0.2	-	-	-	-	-	-	-	0.1	-	-
House Purchase Loans	-1.0	-	-	-	-	-	0.5	0.5	-	-	-
Direct External Borrowing	-	-1.0	-	-	-	-	-	-	-	-0.8	1.8
Government Securities	1.6	-	2.3	-0.2	-	-	0.2	0.1	-	-4.1	-
Companies Securities	0.5	-0.7	-0.1	-	-	-	0.4	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	0.5	-	-	-	-0.5
Life Assurance/Pension Funds	2.0	-	-	-	-	-	-2.0	-	-	-	-
Official External Reserves	-	-	-	2.2	-	-	-	-	-	-	-2.2
Advances by Government	-	-	-	-	-	-	-	-	-	-	-
Advances to Government	-	-	-	-	0.8	0.3	-	-	-	-1.0	-
Balancing Item -Residual	1.8	-4.5	0.4	-1.0	-	-	-	-	-	1.8	1.6
Financial Surplus/Deficit	5.2	-4.5	0.9	0.2	-	-	-0.4	-	-	-3.8	2.3

Table 5 **Financial Transactions Between Sectors, 1971 - 1975, per cent of GNP**

	Personal	Industrial/ Commercial	Banking Sector	Central Bank	IOSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	06	03	01	-10	-	-	-	-	-	-	-
Deposits with Licensed Banks	46	17	-93	-	-	-	02	02	01	-01	27
Deposits with Non-Banks	29	-	-	-	-04	-04	-	-15	-06	-	-
Small Savings Schemes	02	-	-	-	-02	-	-	-	-	-	-
Lending Banks	-45	-28	73	-	-	-	-	-	-	-	-
Non-Banks	-07	-03	-	-	-	-	-	-	10	-	-
House Purchase Loans	-14	-	-	-	-	-	02	12	-	-	-
Direct External Borrowing	-	-06	-	-	-	-	-	-	-04	-28	39
Government Securities	17	-	28	06	-	-	01	02	-	-61	06
Companies securities	04	-07	01	-	-	-	03	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	07	-	-	-	-07
Life Assurance/Pension Funds	26	-	-	-	-	-	-26	-	-	-	-
Official External Reserves	-	-	-	28	-	-	-	-	-	-	-28
Advances by Government	-	-	-	-	-	-	-	-	-	-	-
Advances to Government	-	-	-	-	0,6	0,4	-	-	-	-10	-
Balancing Item -Residual	31	-24	-02	-26	02	03	-03	-	-	18	03
Financial Surplus/Deficit	95	-47	07	01	-	-	-12	-	-	-82	39

Table 6 Financial Transactions Between Sectors, 1976 - 1980, per cent of GNP

	Personal	Industrial/ Commercial	Banking Sector	Central Bank	POSB	FSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	08	04	-	-12	-	-	-	-	-	-	-
Deposits with Licensed Banks	40	17	-98	-	-	-	04	02	01	-	33
Deposits with Non-Banks	40	-	-	-	-02	-05	-	-26	-07	-	-
Small Savings Schemes	04	-	-	-	-04	-	-	-	-	-	-
Lending Banks	-55	-37	94	-	-	-	-01	-	-01	-	-
Non-Banks	-10	-04	-	-	-	-	-	-	14	-	-
House Purchase Loans	-30	-	08	-	-	-	-	21	-	-	-
Direct External Borrowing	-	-09	-	-	-	-	-	-	-08	-46	62
Government Securities	16	01	14	07	-	-	08	05	01	-65	12
Companies Securities	02	-04	-02	-	-	-	04	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	10	-	-	-	-10
Life Assurance/Pension Funds	30	-	-	-	-	-	-30	-	-	-	-
Official External Reserves	-	-	-	20	-	-	-	-	-	-	-20
Advances by Government	-	-	-	-	-	-	-	-	-	-	-
Advances to Government	-	-	-	-	04	03	-	-	-	-07	-
Balancing Item -Residual	53	-47	-09	-12	-	01	01	-02	01	-03	18
Financial Surplus/Deficit	100	-79	07	03	-	-	-06	-	-	-122	96

Table 7 Financial Transactions Between Sectors, 1981-1985, per cent of GNP

	Personal	Industrial/ Commercial	Banking Sector	Central Bank	IOSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	03	01	01	-05	-	-	-	-	-	-	-
Deposits with Licensed Banks	32	03	-67	-	-	-	07	02	03	01	19
Deposits with Non-Banks	34	-	-	-	-02	-05	-	-23	-03	-	-
Small Savings Schemes	08	-	-	-	-08	-	-	-	-	-	-
Lending Banks	-21	-24	48	-	-	-	-02	-	-01	-	-
Non-Banks	-01	-04	-	-	-	01	-	-	05	-	-
House Purchase Loans	-23	-	03	-	-	-	-	20	-	-	-
Direct External Borrowing	-	-10	-	-	-	-	-	-	-01	-70	81
Government Securities	06	-	19	-	-	-	27	02	-	-57	02
Companies Securities	01	-06	-01	-	-	-	05	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	08	-	-	-	-08
Life Assurance/Pension Funds	51	-	-	-	-	-	-51	-	-	-	-
Official External Reserves	-	-	-	14	-	-	-	-	-	-	-14
Advances by Government	-	-	-	-	-	-	-	-	-	-	-
Advances to Government	-	-	-	-	08	04	-	-	-	-12	-
Balancing Item -Residual	30	-25	01	-06	01	-	-	-01	-01	-02	03
Financial Surplus/Deficit	119	-64	03	02	-	-	-05	01	-	-141	84

notably companies and non-residents, the banks are still the dominant player in the deposit market. Because they held a near monopoly of deposits in the early part of the period, the roughly equal sharing of the *increase* in personal sector deposits over the past decade has meant a decline in the banks' share of the total stock of deposits.

A second important feature has been the large increase in funds flowing to the assurance companies/pension funds (For reasons given in the Appendix, assurance companies and pension funds are grouped together). To put this in perspective, in 1960 net inflows to assurance companies/pension funds were approximately £9 million. By 1985, this had grown to an estimated £990 million. This increase reflects not only strong growth in the traditional life assurance and pensions business, but also in medium to long-term savings with a small life assurance element. These have taken the form, *inter alia*, of unit-linked savings plans as well as investments via guaranteed income and growth bonds. These savings instruments have been strongly marketed by the life assurance companies and have been perceived to offer generally good returns to the investor - well documented in the press - as well as having attractive tax advantages.

It is worth noting that there has been some recent discussion in the literature of the effect of savings by way of life assurance and, especially, pension schemes on the level of aggregate personal saving (Feldstein (1977), Threadgold (1978)). One hypothesis is that this, to a significant extent, largely contractual saving represents a full net addition to total personal saving. An alternative hypothesis is that total personal saving is unaffected by net inflows into life assurance and pension schemes, changes in individuals' savings of this kind are fully offset by compensatory changes in voluntary savings. The tentative conclusion of these studies for the UK and US is that aggregate personal saving has been increased significantly by savings through the life assurance/pensions medium. Although no comparable analysis has been conducted for the Irish case, it is likely to correspond to the UK and US examples. (This conclusion is tentatively supported by a recent study of occupational pension schemes in Ireland, Bristow and Ryan (1985)).

A further feature of the tables (column 2) is the comparatively undercapitalised nature of the (non-financial) companies sector. This has been well documented in two recent studies (NESC, 1983 and Stewart, 1986). The obverse of this is the extensive recourse to bank borrowing resulting in a highly geared financial structure for companies in Ireland.

Finally, the large volume of Government paper issued in recent years as well as high levels of direct external borrowing are evident from the tables.

4 CONCLUDING REMARKS

We have endeavoured to investigate, using the National Accounts as a starting point, how the different broad economic sectors have deployed their net financial surpluses/deficits over the period 1960 to 1985. While there are lacunae in the data, it is believed that the data sources used have permitted a reasonably accurate picture to be sketched.

The flow of funds data presented here confirm the by now commonly-held view of increased competition for savings between financial institutions. The dominance of the banks as a repository for savings has been eroded in recent years by other financial institutions and, most significantly, by the life assurance companies and pension funds. It would appear that an increasing portion of this flow to assurance companies/pension funds is in the nature of discretionary, as opposed to contractual, savings. Of new life assurance business done by life companies in 1983, revenue by way of single premiums, essentially discretionary, was more than five times greater than revenue through yearly renewed premiums, whereas these magnitudes were rather similar in 1975. This may be of interest for analysing consumption behaviour, since these discretionary savings can be curtailed if consumers wish to maintain consumption in the face of declining real income and, indeed, in recent years, life companies in their annual reports have commented on significant liquidations of such investments.

The financial accounts so constructed are of necessity

couched in terms of flows rather than stocks of assets and liabilities, since the National Accounts themselves relate to flows of income, etc. savings in any one year, therefore, are identical to increases in wealth, whether real or financial. Since portfolio adjustments are undertaken in order to attain stock equilibrium - flows being part of the process of attaining portfolio balance - econometric analysis should be conducted in terms of stocks of assets and liabilities. Although not all of the items considered in the financial accounts here are available in stock terms - company securities and external assets of the private sector, perhaps, being the most obvious - many of them are

It is the conventional wisdom that the level of income and wealth and relative rates of return determine portfolio allocation between different assets and liabilities. Future work might be directed towards constructing a model of portfolio behaviour that would explain the financial flows documented in this paper. Relevant work has already been undertaken by Browne and Honohan (1983) who established a hierarchy of substitution between various bank and building society assets and liabilities. As already adverted to, shifts in the pattern of savings flows can have significant implications for the structure of interest rates and economic activity (see Friedman (1982) for an analysis of the US case). The extent of financial innovation and the degree to which different financial institutions have developed financial instruments for different groups of savers and investors has, no doubt, played a role in influencing the pattern of savings flows. Although econometric modelling of financial behaviour is subject to more complexities than that of the "real" economy - the failure to adequately model exchange rate behaviour being an example of this - one could envisage a financial model helping to assess the impact of the shift in savings towards longer-term (life assurance/pension fund) investment as well as, for example, to clarify the impact of tax changes on income from financial assets such as is proposed in the 1986 Finance Act.

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APPENDIX 1

A *Sources and Methods - Broad Sectoral Flows*

The basic methodology employed is that used by Dowling (1973) and Honohan (1982). The data sources are identical to those as described extensively in Honohan (op cit, pages 208, 209). For the most recent years, preliminary estimates have been made where necessary. These have been obtained from CSO, Budget Statements or are Central Bank estimates.

B *Sources and Methods Detailed Flows of Funds*

1 *Notes and Coin*

Change in currency outstanding as per Central Bank balance sheet. Holdings by non-bank sectors in aggregate is derived as difference between currency outstanding and holdings by banks. Distribution of notes and coin between Personal and Industrial/Commercial companies effected on arbitrary 2:1 basis.

Source Central Bank Bulletins

2 *Deposits at Licensed Banks*

Changes in deposits (current and deposit accounts) of Associated and non-Associated banks, some extrapolation is required in the case of deposits at the latter in the early 1960s. Personal, companies and non-resident deposits obtained from internal Central Bank files. Bank deposits of TSBs, Assurance Companies/Pension Funds and ACC/ICC obtained from relevant annual reports, assurance companies/pensions funds' bank deposits are computed as indicated below. Bank balances of building societies are obtained from their balance sheet as published in Central Bank bulletins. For the early years, the change in "investments and cash" is distributed equally between bank deposits and Government securities. Explicit data are available for later years.

Source Central Bank Bulletins, Assurance Companies (Annual Report, "Blue Book" of the Department of Industry and Commerce, Annual reports of ACC/ICC), internal Central Bank files

3 *Deposits with Non-Banks*

Changes in deposits of POSB, TSB, Building Societies, ACC/ICC All these deposits are attributed to the personal sector

Source Central Bank Bulletins, mainly Money and Other Liquid Assets Table

4 *Small Savings Schemes*

Change in amounts outstanding, including interest, where appropriate in respect of small savings instruments National Instalment Saving, index-linked bonds, savings certificates, prize bonds and tax reserve certificates All are attributed to the domestic personal sector

Source Central Bank Bulletins, Money and Other Liquid Assets Table and Government Savings Schemes Table, data to 1972 see Dowling (1973)

5 *Lending Banks*

Change in non-Government domestic credit of licensed banks less, since 1977, lending for housing which is specifically identified The allocation to personal and companies' sectors is done by defining the former sector as the sum of agriculture, tourism, retail, professional services etc, personal, schools/charities, etc, sectors in the sectoral distribution of credit, analysis of advances Companies, therefore, relates to all other sectors

Source Central Bank Bulletins, Analysis of Advances Table, Domestic Credit Table

6 *Lending Non-Banks*

Change in lending (non-Government) of TSBs, Assurance Companies and ACC/ICC Lendings of ACC are attributable to the personal sector, ICC lending is

allocated to the companies sector
Source Annual Reports of TSBs, Assurance Companies
Blue Books, Annual Reports of ACC/ICC

7 *Home Purchase Loans*

Change in lendings of Assurance Companies, Building Societies and of licensed banks as indicated in the Analysis of Advances

Sources Assurance Companies Blue Books, Central Bank Bulletins

8 *Direct External Borrowing*

This is identified specifically for (i) State-sponsored bodies (Excluding ACC/ICC) which is included in the Companies Sector, (ii) ACC/ICC, (iii) Government

Sources Balance of Payments Statements, ACC/ICC Annual Reports, Budget Statements, Dowling (op cit)

9 *Companies' Securities*

Total companies' securities issues are obtained from Table C25 "Funds raised by Issues on the Domestic Capital Markets", Central Bank Annual Report Equity capital raised by banks is separately specified - obtained from internal Central Bank sources and relates to two Irish clearing bank groups Prior to the amalgamation of the clearing banks in 1972, equity capital raised is arbitrarily extrapolated backwards Uptake of companies securities by assurance companies/pension funds is calculated as indicated at item 12 below, while the personal sector's uptake is a residual Non-resident uptake is assumed to be zero, except in 1972-1977 when Honohan's (1982) data are used The uptake for these years was in fact, quite small

10 *Government Securities*

Total issues up to 1972 taken from Dowling (op cit), for 1973 to 1974 data taken from Table Marketable Government Securities, Central Bank

Bulletin, net issues to non-Government sector For 1974, issues for 9 month period are gross up to give annual estimate For later years data are taken from Monetary Developments chapter of Central Bank Bulletins or Budget Tables

Allocation to sectors is taken from relevant Central Bank Bulletins (Monetary Development Chapters) for more recent years For earlier years, uptake by banks is obtained from Domestic Credit Tables of Bulletins and that by Central Bank from its balance sheet in Bulletins Uptake by Assurance Companies/Pensions Funds, building societies, ACC/ICC is derived from Blue Books (as modified below), balance sheets (as in Central Bank Bulletins) and ACC/ICC Annual Reports, respectively Honohan's (1982) estimate of non-residents' uptake is used for 1972 to 1976, data for earlier years are derived in a similar way to Honohan Uptake by non-financial companies obtained from Stock Register held by Central Bank from 1976 on, for earlier years, proportion of "companies" holdings of total other holdings of Marketable Government Securities for the years 1976-1978 was applied to "Other" holdings "Personal" holdings is a residual

11 *Identified Foreign Investment*

Relates solely to external portfolio investment by Life Assurance Companies/Pension Funds

12 *Life Assurance/Pensions*

The revenue of the life assurance companies/pension funds is computed as follows (per Blue Book, Department of Trade, Commerce and Tourism)

(a) Companies incorporated in Ireland

Premiums *plus* annuities "within Ireland" plus Interest, Dividends, etc
less claims, surrenders, annuities, bonuses, commission and expenses and "within Ireland", =
Net Revenue

(b) Companies incorporated outside Ireland

Premiums *plus* annuities "within Ireland" x net revenue for companies incorporated in Ireland + premiums *plus* annuities (within Ireland) of companies incorporated in Ireland

- (c) To account for revenue of pension funds other than those included in (a) and (b), the net revenue of all assurance companies (as computed at (a) and (b)) is grossed up by the ratio of estimated revenue of assurance companies and pension funds, as reported to Exchange Control Department for seeking approval for outward portfolio investment, to estimated revenue of assurance companies only for the years 1981 to 1983. On this basis, the revenue of pension funds, other than assurance companies, is roughly one-third of the combined revenue of assurance companies/pension funds. The implied funds flowing to pension funds, so calculated, is incidentally close to that estimated by an Irish Life Assurance Company spokesman, as quoted in *The Irish Times* of 22 March 1986.

Estimated bank borrowings by assurance companies, etc., apparently mainly for external investment is taken from the balance sheets of life assurance companies.

The investment of the revenue of the assurance companies/pension funds is based on the balance sheets of the life companies incorporated in Ireland, appropriately grossed up (Blue Book). Where, as in later years, the value of assets reflects capital appreciation (as reflected in the "miscellaneous" item in the Revenue Accounts), this is allowed for on a pro rata basis as between gilts, equities, properties. The major difficulty pre-EMS and extension of exchange controls is the attribution of portfolio investment to domestic or foreign outlets. In the case of gilt investments, estimated purchases of Irish government paper can be verified by reference to internal Central Bank data on stock registration. In the case of equities, net investment is apportioned equally between

Irish and external investments, perhaps somewhat surprisingly, the amounts involved, at least up to 1980, are not very large. From 1979, outward portfolio investment, which is primarily equity investment, is known definitively (cf. Central Bank Exchange Control Department)

13 *Official External Reserves*

Source Central Bank Bulletins

14 *Advances to Government*

These represent advances by the TSBs, POSB to the Exchequer. The former is known (TSB Annual Reports), and the latter is the difference between "Small Savings" accruing to the Exchequer and TSB advances to the Exchequer. From 1960 to 1971, data from Dowling (op cit) are used

15 *Residual*

Balancing item - includes changes in various assets/liabilities which are not known specifically or in which we are not interested for the present exercise

16 *Net Financial Surplus/Deficit*

For the personal, Government and overseas sectors, these are calculated in the first part of the paper (see Sources and Methods, part A). The net financial surplus/deficit of the companies sector is partitioned into that attributable to the specified financial institutions and the remainder, i.e., non-financial industrial and commercial companies. It might be noted that the pure intermediation role alone of the POSB is taken into account, its other activities being absorbed in the Government sector up to 1973 and in the companies sector for 1984 and 1985. The net financial deficit attributed to assurance companies/pension funds reflects the estimated physical capital formation by these entities. For the specified financial institutions, the net financial surplus/deficit is,

ideally, equal to retained (after-tax) income *plus* depreciation *plus* capital transfers *less* gross capital formation *less* increase in the value of stocks *less* taxes on capital. In practice, in the present instance, the estimate of net financial surplus/deficit is calculated, as indicated in the text, as retained earnings *plus* depreciation *less* increase in fixed assets. The latter entity is taken, where possible, from the Sources and Applications of Funds of the relevant institutions' annual accounts in order to abstract from valuation changes in fixed capital.

The sources of information are as follows

- (i) *Banks* annual reports of two main clearing bank groups, internal Central Bank data. Prior to 1972, when the amalgamation of clearing banks took place, data are extrapolated backwards.
- (ii) *Central Bank* Annual Accounts, Central Bank Bulletin.
- (iii) *Trustee Savings Banks* Annual Accounts of Various TSBs, information from Department of Finance.
- (iv) *Building Societies* Balance Sheets, Central Bank Bulletins (change in fixed assets may reflect valuation changes).
- (v) *ACC/ICC* Annual Reports for early years, when flows were apparently quite negligible, a degree of extrapolation is involved.

Financial Transactions Between Sectors, 1961 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	36	18	02	-56	-	-	-	-	-	-	-
Deposits with Licensed Banks	167	88	-277	-	-	-	-	-	-	-09	24
Deposits with Non-Banks	68	-	-	-	-41	-18	-	-09	-	-	-
Small Savings Schemes	44	-	-	-	-44	-	-	-	-	-	-
Lending											
Banks	-75	-11	89	-	-	-	-04	01	-	-	-
Non-Banks	-25	-30	-	-	-	-	15	-	40	-	-
House Purchase Loans	-31	-	-	-	-	-	21	10	-	-	-
Direct External Borrowing	-	23	-	-	-	-	-	-	-	-39	16
Government Securities	89	10	71	32	-	-	30	-	-	-232	-
Companies Securities	-16	-14	-	-	-	-	30	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	24	-	-	-	-24
Life Assurance/Pension Funds	128	-	-	-	-	-	-128	-	-	-	-
Official External Reserves	-	-	-	67	-	-	-	-	-	-	-67
Advances to Government	-	-	-	-	92	11	-	-	-	-103	-
Balancing Item - Residual	16	-311	158	-28	-07	09	-	07	-38	155	39
Financial Surplus/Deficit	401	-227	50	15	-	02	-12	09	02	-228	-12

Financial Transactions Between Sectors, 1962 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	25	13	15	-53	-	-	-	-	-	-	-
Deposits with Licensed Banks	196	119	-321	-	-	-	-03	03	01	-28	33
Deposits with Non-Banks	98	-	-	-	-56	-15	-	-25	-02	-	-
Small Savings Schemes	42	-	-	-	-42	-	-	-	-	-	-
Lending Banks	-03	-200	206	-	-	-	-	-03	-	-	-
Non-Banks	-15	-36	-	-	-	-	05	-	46	-	-
House Purchase Loans	-56	-	-	-	-	-	34	22	-	-	-
Direct External Borrowing	-	-06	-	-	-	-	-	-	-	-10	16
Government Securities	199	10	19	05	-	-	26	03	-	-262	-
Companies Securities	88	-104	-10	-	-	-	26	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	24	-	-	-	-24
Life Assurance/Pension Funds	123	-	-	-	-	-	-123	-	-	-	-
Official External Reserves	-	-	-	84	-	-	-	-	-	-	-84
Advances to Government	-	-	-	-	106	07	-	-	-	-113	-
Balancing Item - Residual	-343	-78	151	-27	-08	10	01	01	-43	143	193
Financial Surplus/Deficit	354	-282	60	09	-	02	-10	01	02	-270	134

Financial Transactions Between Sectors, 1963 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	4 9	2 5	1 0	-8 4	-	-	-	-	-	-	-
Deposits with Licensed Banks	10 0	6 1	-22 6	-	-	-	-	0 2	-0 1	0 3	6 1
Deposits with Non-Banks	9 5	-	-	-	-3 6	-1 9	-	-3 7	-0 3	-	-
Small Savings Schemes	6 2	-	-	-	-6 2	-	-	-	-	-	-
Lending											
Banks	-9 4	-12 9	22 8	-	-	-	-0 1	-0 4	-	-	-
Non-Banks	-2 0	-1 7	-	-	-	-	-	-	3 7	-	-
House Purchase Loans	-8 0	-	-	-	-	-	3 9	4 1	-	-	-
Direct External Borrowing	-	-	-	-	-	-	-	-	-	-3 9	3 9
Government Securities	8 5	1 0	14 0	0 2	-	-	2 8	0 2	-	-26 7	-
Companies Securities	9 7	-12 5	-	-	-	-	2 8	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	1 7	-	-	-	-1 7
Life Assurance/Pension Funds	12 7	-	-	-	-	-	-12 7	-	-	-	-
Official External Reserves	-	-	-	15 7	-	-	-	-	-	-	-15 7
Advances to Government	-	-	-	-	11 0	0 7	-	-	-	-11 7	-
Balancing Item - Residual	-13 4	-10 7	-8 2	-6 8	-1 2	1 4	-0 1	-0 1	-3 1	12 7	29 5
Financial Surplus/Deficit	28 7	-28 2	7 0	0 7	-	0 2	-1 7	0 3	0 2	-29 3	22 1

Financial Transactions Between Sectors, 1964 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSD	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	11 1	5 5	-0 7	-15 9	-	-	-	-	-	-	-
Deposits with Licensed Banks	19 6	8 1	-37 4	-	-	0 1	-0 3	0 5	-	3 9	5 5
Deposits with Non-Banks	11 6	-	-	-	-6 3	-1 0	-	-6 2	-0 1	-	-
Small Savings Schemes	7 8	-	-	-	-7 8	-	-	-	-	-	-
Lending											
Banks	-32 3	-8 2	41 5	-	-	-	-0 2	-0 8	-	-	-
Non-Banks	-4 6	-	-	-	-	-	0 3	-	4 3	-	-
House Purchase Loans	-10 7	-	-	-	-	-	5 5	5 2	-	-	-
Direct External Borrowing	-	-9 5	-	-	-	-	-	-	-	-13 8	23 3
Government Securities	28 2	1 0	-1 9	1 1	-	-	2 8	0 5	-	-31 7	-
Companies Securities	20 6	-22 4	-1 0	-	-	-	2 8	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	2 0	-	-	-	-2 0
Life Assurance/Pension Funds	14 5	-	-	-	-	-	-14 5	-	-	-	-
Official External Reserves	-	-	-	29 1	-	-	-	-	-	-	-29 1
Advances to Government	-	-	-	-	13 2	0 9	-	-	-	-14 1	-
Balancing Item - Residual	-27 8	-13 7	7 5	-13 4	-0 1	0 3	-	-0 1	-4 0	17 6	33 7
Financial Surplus/Deficit	38 0	-38 2	8 0	0 9	-	0 3	-1 6	0 1	0 2	-38 1	31 4

Financial Transactions Between Sectors, 1965 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	07	04	02	-13	-	-	-	-	-	-	-
Deposits with Licensed Banks	198	109	-331	-	-	-	-	02	-	-02	24
Deposits with Non-Banks	96	-	-	-	-29	-	-	-45	-22	-	-
Small Savings Schemes	48	-	-	-	-48	-	-	-	-	-	-
Lending											
Banks	-34	-60	92	-	-	-	-04	06	-	-	-
Non-Banks	-58	-35	-	-	-	-	10	-	83	-	-
House Purchase Loans	-111	-	-	-	-	-	74	37	-	-	-
Direct External Borrowing	-	-22	-	-	-	-	-	-	-	-59	81
Government Securities	90	10	297	-	-	-	26	02	-	-25	-
Companies Securities	79	-105	-	-	-	-	26	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	23	-	-	-	-23
Life Assurance/Pension Funds	165	-	-	-	-	-	-165	-	-	-	-
Official External Reserves	-	-	-	-131	-	-	-	-	-	-	131
Advances to Government	-	-	-	-	77	-	-	-	-	-77	
Balancing Item - Residual	-173	-309	30	172	-	03	-	-	-62	134	205
Financial Surplus/Deficit	307	-408	90	28	-	03	-10	02	-01	-429	418

Financial Transactions Between Sectors, 1966 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /ension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	38	19	12	-6.9	-	-	-	-	-	-	-
Deposits with Licensed Banks	42.4	14.0	-76.2	-	-	0.2	0.9	0.5	-	11.8	6.4
Deposits with Non-Banks	6.5	-	-	-	-0.7	-0.4	-	-4.8	-0.6	-	-
Small Savings Schemes	7.2	-	-	-	-7.2	-	-	-	-	-	-
Lending Banks	3.3	-21.9	19.3	-	-	-	-0.4	-0.3	-	-	-
Non-Banks	-2.2	-0.3	-	-	-	-	-	-	2.5	-	-
House Purchase Loans	-11.4	-	-	-	-	-	6.9	4.5	-	-	-
Direct External Borrowing	-	-0.5	-	-	-	-	-	-	-	-10.9	11.4
Government Securities	1.7	1.0	25.4	-	-	-	3.1	0.5	-	-31.7	-
Companies Securities	6.8	-8.2	-2.0	-	-	-	3.4	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	6.5	-	-	-	-6.5
Life Assurance/Pension Funds	21.6	-	-	-	-	-	-21.6	-	-	-	-
Official External Reserves	-	-	-	30.3	-	-	-	-	-	-	-30.3
Advances to Government	-	-	-	-	7.4	0.9	-	-	-	-8.3	-
Balancing Item - Residual	-30.8	-33.0	42.3	-20.6	0.5	-0.4	0.1	-0.2	-1.6	8.6	36.1
Financial Surplus/Deficit	48.9	-47.0	10.0	2.8	-	0.3	-1.1	0.2	0.3	-30.5	16.1

Financial Transactions Between Sectors, 1967 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	5.5	2.8	-0.4	-7.9	-	-	-	-	-	-	-
Deposits with Licensed Banks	50.7	16.7	-78.7	-	-	-0.1	1.3	0.6	-	-	9.5
Deposits with Non-Banks	15.2	-	-	-	-5.8	-1.2	-	-7.1	-1.1	-	-
Small Savings Schemes	5.9	-	-	-	-5.9	-	-	-	-	-	-
Lending											
Banks	-42.5	6.0	38.3	-	-	-	-1.6	-0.2	-	-	-
Non-Banks	-1.9	-0.3	-	-	-	-	-	-	2.2	-	-
House Purchase Loans	-11.4	-	-	-	-	-	5.5	5.9	-	-	-
Direct External Borrowing	-	-2.2	-	-	-	-	-	-	-0.5	-1.7	4.4
Government Securities	18.9	1.0	12.8	2.9	-	-	3.4	0.6	-	-39.6	-
Companies Securities	4.3	-9.0	-	-	-	-	4.7	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	7.8	-	-	-	-7.8
Life Assurance/Pension Funds	23.0	-	-	-	-	-	-23.0	-	-	-	-
Official External Reserves	-	-	-	2.9	-	-	-	-	-	-	-2.9
Advances to Government	-	-	-	-	11.7	1.2	-	-	-	-12.9	-
Balancing Item - Residual	1.1	-43.5	39.0	5.5	-	0.4	0.1	0.3	-0.1	15.6	-18.4
Financial Surplus/Deficit	68.8	-28.5	11.0	3.4	-	0.3	-1.8	0.1	0.5	-38.6	-15.2

Financial Transactions Between Sectors, 1968 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	4 4	2 2	3 4	-10 0	-	-	-	-	-	-	-
Deposits with Licensed Banks	77 6	24 6	-122 1	-	-	0 3	1 7	0 7	-	0 2	17 0
Deposits with Non-Banks	8 7	-	-	-	-2 0	-1 4	-	-6 0	0 7	-	-
Small Savings Schemes	3 2	-	-	-	-3 2	-	-	-	-	-	-
Lending Banks	-86 3	12 4	86 5	-	-	-	-1 2	-1 2	-0 2	-	-
Non-Banks	-1 6	3 7	-	-	-	-	-0 3	-	-1 8	-	-
House Purchase Loans	-11 9	-	-	-	-	-	5 5	6 4	-	-	-
Direct External Borrowing	-	-0 4	-	-	-	-	-	-	-0 3	-6 8	6 5
Government Securities	11 7	1 0	34 2	6 3	-	-	3 0	0 7	-	-66 9	-
Companies Securities	8 2	-12 0	-2 0	-	-	-	5 8	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	8 3	-	-	-	-8 3
Life Assurance/Pension Funds	25 8	-	-	-	-	-	-25 8	-	-	-	-
Official External Reserves	-	-	-	47 4	-	-	-	-	-	-	-47 4
Advances to Government	-	-	-	-	2 5	4 0	-	-	-	-6 5	-
Balancing Item - Residual	28 8	-76 2	12 0	-40 3	2 7	-2 6	-	-0 2	2 0	25 3	48 5
Financial Surplus/Deficit	58 6	-44 7	12 0	3 4	-	0 3	-3 0	0 4	0 4	-43 7	16 3

Financial Transactions Between Sectors, 1969 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	43	21	08	-72	-	-	-	-	-	-	-
Deposits with Licensed Banks	-37	227	-884	-	-	-02	-	16	-	31	749
Deposits with Non-Banks	221	-	-	-	-26	-95	-	-85	-15	-	-
Small Savings Schemes	10	-	-	-	-10	-	-	-	-	-	-
Lending											
Banks	-663	-491	1070	-	-	-	-10	-05	-01	-	-
Non-Banks	-28	-27	-	-	-	-	-	-	55	-	-
House Purchase Loans	-130	-	-	-	-	-	70	60	-	-	-
Direct External Borrowing	-	-311	-	-	-	-	-	-	-02	-147	460
Government Securities	671	10	429	-245	-	-	16	16	-	-897	-
Companies Securities	-	-48	-	-	-	-	48	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	65	-	-	-	-65
Life Assurance/Pension Funds	300	-	-	-	-	-	-300	-	-	-	-
Official External Reserves	-	-	-	619	-	-	-	-	-	-	-619
Advances to Government	-	-	-	-	84	47	-	-	-	-131	-
Balancing Item - Residual	175	-141	-393	-287	-48	53	-	-03	-32	510	166
Financial Surplus/Deficit	662	-760	130	15	-	03	-111	-01	05	-634	691

Financial Transactions Between Sectors, 1970 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	11.7	5.9	2.0	-19.6	-	-	-	-	-	-	-
Deposits with Licensed Banks	48.4	-8.7	-70.6	-	-	4.2	13.2	4.5	-	7.6	1.4
Deposits with Non-Banks	47.5	-	-	-	-18.5	-1.6	-	-21.3	-6.1	-	-
Small Savings Schemes	3.1	-	-	-	-3.1	-	-	-	-	-	-
Lending Banks	-147.3	78.0	72.1	-	-	-	-1.8	-1.2	0.2	-	-
Non-Banks	-3.3	-2.5	-	-	-	0.4	-0.6	-	6.0	-	-
House Purchase Loans	-18.1	-	-	-	-	-	5.8	12.3	-	-	-
Direct External Borrowing	-	-29.3	-	-	-	-	-	-	-1.3	-20.4	51.0
Government Securities	7.1	1.4	40.2	0.1	-	-	1.1	4.5	-	-54.4	-
Companies Securities	10.8	-15.7	-2.0	-	-	-	6.9	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	6.9	-	-	-	-6.9
Life Assurance/Pension Funds	38.2	-	-	-	-	-	-38.2	-	-	-	-
Official External Reserves	-	-	-	2.4	-	-	-	-	-	-	-2.4
Advances to Government	-	-	-	-	21.0	7.5	-	-	-	-28.5	-
Balancing Item - Residual	105.5	-129.8	-27.7	18.9	0.6	-10.2	-	1.6	1.5	17.4	22.2
Financial Surplus/Deficit	103.6	-100.7	14.0	1.8	-	0.3	-6.7	0.4	0.3	-78.3	66.3

Financial Transactions Between Sectors, 1971 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	8 2	4 1	1 0	-13 3	-	-	-	-	-	-	-
Deposits with Licensed Banks	3 8	15 8	-70 6	-	-	-3 7	-14 5	0 8	0 4	7 6	60 4
Deposits with Non-Banks	49 9	-	-	-	-11 1	-9 0	-	-23 6	-6 2	-	-
Small Savings Schemes	14 6	-	-	-	-14 6	-	-	-	-	-	-
Lending Banks	-147 3	75 7	72 1	-	-	-	0 7	-1 5	0 3	-	-
Non-Banks	-6 8	-4 7	-	-	-	0 1	-2 2	-	13 6	-	-
House Purchase Loans	-23 6	-	-	-	-	-	2 3	21 3	-	-	-
Direct External Borrowing	-	-17 4	-	-	-	-	-	-	-0 6	-17 7	35 7
Government Securities	19 1	0 1	38 1	-1 1	-	-	14 5	-1 4	-	-69 3	-
Companies Securities	21 0	-15 9	-	-	-	-	-5 1	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	7 6	-	-	-	-7 6
Life Assurance/Pension Funds	43 8	-	-	-	-	-	-43 8	-	-	-	-
Official External Reserves	-	-	-	90 8	-	-	-	-	-	-	-90 8
Advances to Government	-	-	-	-	23 3	9 5	-	-	-	-32 8	-
Balancing Item - Residual	98 5	-97 1	-25 6	-71 6	2 4	3 4	1 2	5 5	-9 4	19 4	73 3
Financial Surplus/Deficit	81 2	-39 4	15 0	4 8	-	0 3	-39 3	1 1	-1 9	-92 8	71 0

Financial Transactions Between Sectors, 1972 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	12 3	6 2	0 1	-18 6	-	-	-	-	-	-	-
Deposits with Licensed Banks	103 0	58 0	-159 5	-	-	0 3	1 0	2 5	2 4	-28 5	20 8
Deposits with Non-Banks	74 6	-	-	-	-8 8	-9 5	-	-37 4	-16 1	-	-2 8
Small Savings Schemes	4 7	-	-	-	-4 7	-	-	-	-	-	-
Lending											
Banks	-177 2	-61 5	240 8	-	-	-	-0 2	-1 4	-0 5	-	-
Non-Banks	-17 1	-0 5	-	-	-	0 6	-0 5	-	17 5	-	-
House Purchase Loans	-31 5	-	-	-	-	-	-1 2	32 7	-	-	-
Direct External Borrowing	-	3 1	-	-	-	-	-	-	-5 1	-18 8	20 8
Government Securities	69 7	0 7	33 5	5 5	-	-	-6 0	4 9	1 8	-100 4	-9 7
Companies Securities	0 5	-23 2	-5 8	-	-	-	28 0	-	-	-	0 5
Identified Foreign Investment	-	-	-	-	-	-	22 0	-	-	-	-22 0
Life Assurance/Pension Funds	65 5	-	-	-	-	-	-65 5	-	-	-	-
Official External Reserves	-	-	-	51 1	-	-	-	-	-	-	-51 1
Advances to Government	-	-	-	-	14 3	9 1	-	-	-	-23 4	-
Balancing Item - Residual	-4 1	-16 8	-93 1	-35 6	-0 8	-0 1	0 2	-	-1 2	59 6	91 9
Financial Surplus/Deficit	100 4	-34 0	16 0	2 4	-	0 4	-22 2	1 3	-1 2	-111 5	48 4

Financial Transactions Between Sectors, 1973 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	18 3	9 1	7 3	-34 7	-	-	-	-	-	-	-
Deposits with Licensed Banks	97 0	74 8	-310 3	-	-	0 3	2 8	1 4	0 5	7 6	125 9
Deposits with Non-Banks	68 7	-	-	-	-7 9	-8 6	-	-39 1	-13 1	-	-
Small Savings Schemes	1 0	-	-	-	-1 0	-	-	-	-	-	-
Lending											
Banks	-120 3	-114 8	235 9	-	-	-	-0 1	0 9	-1 6	-	-
Non-Banks	-28 9	-1 9	-	-	-	-	-	-	30 8	-	-
House Purchase Loans	-50 3	-	-	-	-	-	13 4	36 9	-	-	-
Direct External Borrowing	-	-17 9	-	-	-	-	-	-	-7 9	-44 2	70 0
Government Securities	24 0	0 3	79 0	4 1	-	-	5 8	3 5	2 0	-124 5	5 8
Companies Securities	-	-16 4	-	-	-	-	12 9	-	-	-	3 5
Identified Foreign Investment	-	-	-	-	-	-	18 5	-	-	-	-18 5
Life Assurance/Pension Funds	91 1	-	-	-	-	-	-91 1	-	-	-	-
Official External Reserves	-	-	-	3 1	-	-	-	-	-	-	-3 1
Advances to Government	-	-	-	-	12 3	5 7	-	-	-	-18 0	-
Balancing Item - Residual	67 7	-5 5	5 4	21 3	-3 4	3 1	0 1	-4 7	-10 3	27 6	-101 3
Financial Surplus/Deficit	168 3	-72 3	17 3	-6 2	-	0 5	-37 7	-1 1	0 4	-151 5	82 3

Financial Transactions Between Sectors, 1974 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	17.2	8.6	2.4	-28.2	-	-	-	-	-	-	-
Deposits with Licensed Banks	143.7	43.1	-326.9	-	-	-	36.9	4.4	1.0	-3.9	101.7
Deposits with Non-Banks	74.7	-	-	-	-10.0	-12.8	-	-30.0	-22.3	-	0.4
Small Savings Schemes	3.2	-	-	-	-3.2	-	-	-	-	-	-
Lending											
Banks	-70.8	-127.0	209.2	-	-	-	-4.1	-8.7	1.4	-	-
Non-Banks	-38.8	-13.6	-	-	-	-	16.8	-	35.6	-	-
House Purchase Loans	-40.7	-	-	-	-	-	12.3	28.4	-	-	-
Direct External Borrowing	-	-60.9	-	-	-	-	-	-	-26.3	-146.7	233.9
Government Securities	34.3	-1.0	90.7	25.3	-	-	-11.2	10.2	-	-162.0	13.7
Companies Securities	23.6	-	-10.3	-	-	-	-13.4	-	-	-	0.1
Identified Foreign Investment	-	-	-	-	-	-	24.1	-	-	-	-24.1
Life Assurance/Pension Funds	69.2	-	-	-	-	-	-69.2	-	-	-	-
Official External Reserves	-	-	-	58.6	-	-	-	-	-	-	-58.6
Advances to Government	-	-	-	-	7.6	10.6	-	-	-	-18.2	-
Balancing Item - Residual	41.3	-85.4	57.8	-60.4	5.6	2.9	-48.2	-3.2	6.3	60.2	13.1
Financial Surplus/Deficit	256.9	-236.2	22.9	5.3	-	0.7	-66.0	1.1	-4.3	-270.6	280.2

Financial Transactions Between Sectors, 1975 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	31.7	15.9	5.6	-53.2	-	-	-	-	-	-	-
Deposits with Licensed Banks	287.6	43.5	-405.5	-	-	0.4	0.4	11.9	2.6	2.0	57.1
Deposits with Non-Banks	132.3	-	-	-	-15.5	-17.6	-	-72.0	-29.6	-	2.4
Small Savings Schemes	10.2	-	-	-	-10.2	-	-	-	-	-	-
Lending Banks	-100.1	-157.2	251.7	-	-	-	1.1	3.2	1.3	-	-
Non-Banks	-9.9	-16.1	-	-	-	1.5	-4.7	-	29.2	-	-
House Purchase Loans	-53.1	-	-	-	-	-	5.3	47.8	-	-	-
Direct External Borrowing	-	7.2	-	-	-	-	-	-	-14.9	-163.6	171.3
Government Securities	83.1	4.6	138.0	50.0	-	-	14.7	14.6	0.5	-381.1	75.6
Companies Securities	5.3	-34.4	-	-	-	-	25.0	-	-	-	4.1
Identified Foreign Investment	-	-	-	-	-	-	32.1	-	-	-	-32.1
Life Assurance/Pension Funds	85.7	-	-	-	-	-	-85.7	-	-	-	-
Official External Reserves	-	-	-	180.6	-	-	-	-	-	-	-180.6
Advances to Government	-	-	-	-	22.5	16.6	-	-	-	-39.1	-
Balancing Item - Residual	222.9	-127.3	33.5	-172.5	3.2	-0.1	-	-3.4	9.0	74.7	-40.1
Financial Surplus/Deficit	685.7	-263.8	23.3	4.9	-	0.8	-11.8	2.1	-1.9	-607.1	57.7

Financial Transactions Between Sectors, 1976 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSD	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	33 3	16 7	-2 1	-47 9	-	-	-	-	-	-	-
Deposits with Licensed Banks	123 9	48 4	-276 6	-	-	3 4	-0 4	1 6	1 0	12 4	86 3
Deposits with Non-Banks	170 2	-	-	-	-25 5	-22 1	-	-91 6	-34 4	-	3 4
Small Savings Schemes	17 0	-	-	-	-17 0	-	-	-	-	-	-
Lending											
Banks	-257 4	-123 5	390 5	-	-	-	-7 8	3 6	-5 4	-	-
Non-Banks	-40 9	-17 6	-	-	-	2 7	-0 9	-	56 7	-	-
House Purchase Loans	-124 9	-	-	-	-	-	-0 2	125 1	-	-	-
Direct External Borrowing	-	1 0	-	-	-	-	-	-	-21 7	-323 7	344 4
Government Securities	65 4	5 0	46 0	-8 3	-	-	55 0	13 5	-1 2	-175 4	-
Companies Securities	26 9	-18 7	-11 8	-	-	-	1 3	-	-	-	2 3
Identified Foreign Investment	-	-	-	-	-	-	24 8	-	-	-	-24 8
Life Assurance/Pension Funds	99 0	-	-	-	-	-	-99 0	-	-	-	-
Official External Reserves	-	-	-	279 5	-	-	-	-	-	-	-279 5
Advances to Government	-	-	-	-	30 1	22 9	-	-	-	-53 0	-
Balancing Item - Residual	375 4	-232 0	-106 1	-207 0	12 4	-5 9	-0 1	-50 8	7 1	92 4	114 8
Financial Surplus/Deficit	487 9	-330 7	39 9	16 3	-	1 0	-27 3	1 4	2 1	-447 3	246 9

Financial Transactions Between Sectors, 1977 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	39 5	19 8	-6 2	-63 1	-	-	-	-	-	-	-
Deposits with Licensed Banks	220 2	44 3	-465 6	-	-	-	-3 0	0 6	7 2	6 8	189 5
Deposits with Non-Banks	254 8	-	-	-	-20 5	-63 8	-	-119 1	-52 2	-	0 8
Small Savings Schemes	24 5	-	-	-	-24 5	-	-	-	-	-	-
Lending											
Banks	-410 2	-91 2	504 6	-	-	-	-0 5	-0 1	-2 6	-	-
Non-Banks	-54 2	-16 2	-	-	-	3 0	-1 5	-	68 9	-	-
House Purchase Loans	-138 3	-	46 9	-	-	-	1 7	89 7	-	-	-
Direct External Borrowing	-	-83 1	-	-	-	-	-	-	-25 5	-86 0	194 6
Government Securities	36 0	6 8	154 0	4 4	-	-	46 9	34 9	-	-412 0	129 0
Companies Securities	30 5	-29 1	-21 1	-	-	-	19 5	-	-	-	0 2
Identified Foreign Investment	-	-	-	-	-	-	66 6	-	-	-	-66 6
Life Assurance/Pension Funds	147 3	-	-	-	-	-	-147 3	-	-	-	-
Official External Reserves	-	-	-	245 2	-	-	-	-	-	-	-245 2
Advances to Government	-	-	-	-	51 9	50 1	-	-	-	-102 0	-
Balancing Item - Residual	421 7	-280 5	-159 6	-185 1	-6 9	12 1	1 0	-3 9	5 3	89 4	106 5
Financial Surplus/Deficit	571 8	-429 2	53 0	11 4	-	1 4	-16 6	2 1	1 1	-603 8	308 8

Financial Transactions Between Sectors, 1978 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	56.9	28.5	4.3	-89.7	-	-	-	-	-	-	-
Deposits with Licensed Banks	525.8	143.5	-864.3	-	-	-0.7	11.3	7.6	6.9	-4.3	174.2
Deposits with Non-Banks	241.7	-	-	-	-16.9	-6.8	-	-135.7	-88.6	-	6.3
Small Savings Schemes	37.5	-	-	-	-37.5	-	-	-	-	-	-
Lending Banks	-455.3	-250.6	732.8	-	-	-	-14.2	2.0	-14.7	-	-
Non-Banks	-72.1	-21.4	-	-	-	4.0	-	-	89.5	-	-
House Purchase Loans	-206.6	-	102.9	-	-	-	-1.9	105.6	-	-	-
Direct External Borrowing	-	9.1	-	-	-	-	-	-	-11.0	-23.0	24.9
Government Securities	112.8	1.2	67.0	-3.8	-	-	45.4	27.3	0.1	-650.0	300.0
Companies Securities	10.8	-20.1	-16.4	-	-	-	25.7	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	70.8	-	-	-	-70.8
Life Assurance/Pension Funds	196.3	-	-	-	-	-	-196.3	-	-	-	-
Official External Reserves	-	-	-	51.2	-	-	-	-	-	-	-51.2
Advances to Government	-	-	-	-	50.8	14.2	-	-	-	-65.0	-
Balancing Item - Residual	247.4	-333.1	26.8	58.3	3.6	-9.8	-	-0.3	19.5	-88.5	76.0
Financial Surplus/Deficit	695.2	-442.9	53.1	16.0	-	0.9	-59.2	6.5	1.7	-730.8	459.4

Financial Transactions Between Sectors, 1979 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	71.1	35.5	15.3	-121.9	-	-	-	-	-	-	-
Deposits with Licensed Banks	217.4	215.1	-693.3	-	-	4.3	49.4	35.1	-0.6	8.7	163.9
Deposits with Non-Banks	336.3	-	-	-	-6.3	-26.0	-	-256.9	-49.8	-	2.7
Small Savings Schemes	20.3	-	-	-	-20.3	-	-	-	-	-	-
Lending											
Banks	-605.0	-262.8	760.5	-	-	-	-2.5	-0.5	10.3	-	-
Non-Banks	-82.5	-39.9	-	-	-	10.3	-1.1	-	113.2	-	-
House Purchase Loans	-280.1	-	114.8	-	-	-	4.4	160.9	-	-	-
Direct External Borrowing	-	-34.6	-	-	-	-	-	-	-83.7	-609.0	627.3
Government Securities	119.5	2.8	104.0	100.0	-	-	55.8	67.7	10.2	-410.0	-60.0
Companies Securities	30.8	-43.4	-5.4	-	-	-	18.0	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	73.6	-	-	-	-73.6
Life Assurance/Pension Funds	249.5	-	-	-	-	-	-249.5	-	-	-	-
Official External Reserves	-	-	-	-277.2	-	-	-	-	-	-	277.2
Advances to Government	-	-	-	-	22.6	4.4	-	-	-	-27.0	-
Balancing Item - Residual	397.8	-507.3	-263.8	332.3	4.0	7.8	-	-12.3	4.0	-73.9	111.4
Financial Surplus/Deficit	575.1	-634.6	32.1	33.2	-	0.8	-51.9	-6.0	3.6	-1011.2	1058.9

Financial Transactions Between Sectors, 1980 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	62 1	31 0	-6 1	-87 0	-	-	-	-	-	-	-
Deposits with Licensed Banks	235 1	62 7	-938 1	-	-	6 0	63 5	18 2	34 6	-16 1	474 1
Deposits with Non-Banks	327 4	17 3	-	-	-6 6	-46 4	-	-268 6	-24 6	-	0 5
Small Savings Schemes	23 4	-	-	-	-23 4	-	-	-	-	-	-
Lending Banks	-192 7	-480 7	708 3	-	-	-	-3 2	1 6	-23 3	-	-
Non-Banks	-58 0	-44 3	-	-	-	-	-	-	102 3	-	-
House Purchase Loans	-223 3	-	-8 1	-	-	10 3	-	221 1	-	-	-
Direct External Borrowing	-	-173 5	-	-	-	-	-	-	-115 1	-666 0	854 6
Government Securities	183 8	19 0	99 0	143 0	-	-	57 7	37 8	21 7	-679 0	17 0
Companies Securities	-35 9	-18 1	-1 7	-	-	-	55 7	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	55 7	-	-	-	-65 7
Life Assurance/Pension Funds	284 9	-	-	-	-	-	-284 9	-	-	-	-
Official External Reserves	-	-	-	371 3	-	-	-	-	-	-	-371 3
Advances to Government	-	-	-	-	28 8	23 2	-	-	-	-62 0	-
Balancing Item - Residual	298 0	-183 0	210 9	-383 4	1 2	7 6	-	-13 1	5 5	-115 5	181 8
Financial Surplus/Deficit	964 8	-779 6	64 2	33 9	-	1 7	-65 5	-3 0	1 1	-1,328 6	1101 0

Financial Transactions Between Sectors, 1981 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	51 1	25 5	-0 2	-76 4	-	-	-	-	-	-	-
Deposits with Licensed Banks	710 0	40 3	-1123 5	-	-	2 2	156 4	18 1	20 7	20 7	155 1
Deposits with Non-Banks	367 8	-	-	-	-20 3	-47 8	-	-251 6	-47 4	-	-0 7
Small Savings Schemes	50 7	-	-	-	-50 7	-	-	-	-	-	-
Lending Banks	-605 3	-350 1	888 4	-	-	-	-24 3	-0 3	-8 4	-	-
Non-Banks	-49 7	-68 3	-	-	-	16 6	-0 4	-	101 8	-	-
House Purchase Loans	-368 2	-	114 5	-	-	-	1 9	251 8	-	-	-
Direct External Borrowing	-	-194 3	-	-	-	-	-	-	-45 0	-1285 0	1524 3
Government Securities	131 3	3 4	120 0	-7 5	-	-	60 3	1 6	3 4	-282 5	-30 0
Companies Securities	86 2	-111 3	-32 1	-	-	-	57 2	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	57 0	-	-	-	-57 0
Life Assurance/Pension Funds	408 4	-	-	-	-	-	-408 4	-	-	-	-
Official External Reserves	-	-	-	120 9	-	-	-	-	-	-	-120 9
Advances to Government	-	-	-	-	29 6	46 4	-	-	-	-76 0	-
Balancing Item - Residual	-29 7	-240 4	114 5	26 1	41 4	-16 0	0 2	-7 3	-23 6	-69 2	204 0
Financial Surplus/Deficit	852 6	-895 2	81 6	63 1	-	1 4	-100 1	12 3	1 5	-1692 0	1674 8

Financial Transactions Between Sectors, 1982 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	FSD	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	47.7	23.8	10.6	-82.1	-	-	-	-	-	-	-
Deposits with Licensed Banks	658.5	13.6	-992.1	-	-	4.4	-28.2	47.8	48.5	3.2	244.3
Deposits with Non-Banks	436.3	-	-	-	-22.0	-62.8	-	-301.4	-49.0	-	-0.1
Small Savings Schemes	47.9	-	-	-	-47.9	-	-	-	-	-	-
Lending											
Banks	-240.9	-314.1	594.0	-	-	-	-15.9	-20.0	-3.1	-	-
Non-Banks	-35.3	-96.7	-	-	-	17.5	-	-	114.5	-	-
House Purchase Loans	-266.1	-	29.8	-	-	-	6.9	229.4	-	-	-
Direct External Borrowing	-	-178.0	-	-	-	-	-	-	-71.2	-1148.0	1397.2
Government Securities	146.1	4.4	237.0	13.0	-	-	291.0	67.5	-4.0	-736.0	-18.0
Companies Securities	12.4	-25.0	-	-	-	-	12.6	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	128.2	-	-	-	-128.2
Life Assurance/Pension Funds	440.4	-	-	-	-	-	-440.4	-	-	-	-
Official External Reserves	-	-	-	120.9	-	-	-	-	-	-	-120.9
Advances to Government	-	-	-	-	41.2	38.8	-	-	-	-83.0	-
Balancing Item - Residual	210.7	-333.2	173.4	-17.4	2.7	1.0	-	-12.6	-33.5	-64.5	40.4
Financial Surplus/Deficit	145.7	-905.2	52.7	34.4	-	-1.1	-45.8	10.7	2.2	-2018.3	1414.7

Financial Transactions Between Sectors, 1983 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	63 5	31 7	10 6	-105 8	-	-	-	-	-	-	-
Deposits with Licensed Banks	34 2	27 6	-744 4	-	-	17 4	193 5	9 4	28 2	14 2	419 9
Deposits with Non-Banks	429 9	-	-	-	-22 7	-63 0	-	-319 4	-26 4	-	1 6
Small Savings Schemes	89 6	-	-	-	-89 6	-	-	-	-	-	-
Lending											
Banks	-290 2	-461 0	873 5	-	-	-	-60 6	0 4	-4 9	-	-57 2
Non-Banks	0 1	-45 3	-	-	-	6 7	-2 2	-	40 7	-	-
House Purchase Loans	-322 0	-	22 4	-	-	-	1 8	297 8	-	-	-
Direct External Borrowing	-	-161 8	-	-	-	-	-	-	-22 2	-794 0	978 0
Government Securities	332 0	5 0	225 0	-12 0	-	-	221 7	32 2	0 1	-839 0	35 0
Companies Securities	-41 3	-105 4	-36 7	-	-	-	183 4	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	104 0	-	-	-	-104 0
Life Assurance/Pension Funds	646 8	-	-	-	-	-	-646 8	-	-	-	-
Official External Reserves	-	-	-	420 8	-	-	-	-	-	-	-420 8
Advances to Government	-	-	-	-	105 0	37 0	-	-	-	-142 0	-
Balancing Item - Residual	762 3	-171 9	-314 7	-277 7	7 3	-1 1	0 1	-8 9	-13 8	-146 1	164 5
Financial Surplus/Deficit	1704 9	-881 1	35 7	25 3	-	-3 0	-5 1	11 5	1 7	-1906 9	1017 0

Financial Transactions Between Sectors, 1984 (£ million)

	Personal	Non-financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos / Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	11 1	5 5	33 2	-49 8	-	-	-	-	-	-	-
Deposits with Licensed Banks	525 8	87 2	-1032 4	-	-	-	82 0	13 4	51 5	24 0	248 5
Deposits with Non-Banks	486 3	-	-	-	-37 3	-66 4	-	-346 0	-38 9	-	1 3
Small Savings Schemes	119 6	-	-	-	-119 6	-	-	-	-	-	-
Lending Banks	-191 4	-365 5	612 6	-	-	-	-16 0	1 3	-5 3	-	-5 7
Non-Banks	-9 2	-40 0	-	-	-	8 0	-	-	41 2	-	-
House Purchase Loans	-331 1	-	26 9	-	-	-	3 4	300 8	-	-	-
Direct External Borrowing	-	-83 0	-	-	-	-	-	-	-10 0	-649 0	752 0
Government Securities	-196 5	-6 2	463 0	122 0	-	-	578 6	23 4	-19 3	-1036 0	70 0
Companies Securities	30 4	-47 7	-44 7	-	-	-	62 0	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	104 0	-	-	-	-104 0
Life Assurance/Pension Funds	885 0	-	-	-	-	-	-885 0	-	-	-	-
Official External Reserves	-	-	-	86 4	-	-	-	-	-	-	-86 4
Advances to Government	-	-	-	-	124 2	36 8	-	-	-	-161 0	-
Balancing Item - Residual	470 0	-488 8	-43 7	-135 0	32 7	20 9	-	16 7	-18 8	98 7	48 3
Financial Surplus/Deficit	1810 0	-978 5	14 9	23 6	-	-0 7	-81 0	10 6	0 4	-1723 3	924 0

Financial Transactions Between Sectors 1985 (£ million)

	Personal	Non-Financial Companies	Banking Sector	Central Bank	POSB	TSB	Assurance Cos /Pension Funds	Building Societies	ACC/ ICC	General Govt	Overseas
Notes and Coin	31 1	15 6	-8 0	-38 7	-	-	-	-	-	-	-
Deposits with Licensed Banks	218 6	28 0	-627 8	-	-	-13 0	84 2	54 5	32 0	-38 8	252 3
Deposits with Non-Banks	537 2	-	-	-	-63 8	-96 0	-	-313 9	-63 5	-	-
Small Savings Schemes	199 1	-	-	-	-199 1	-	-	-	-	-	-
Lending Banks	-206 3	-47 2	266 1	-	-	-	-40 0	11 7	-18 5	-	34 2
Non-Banks	-1 1	-4 1	-	-	-	21 1	-	-	-15 9	-	-
House Purchase Loans	-267 6	-	13 2	-	-	-	4 0	250 4	-	-	-
Direct External Borrowing	-	-19 0	-	-	-	-	-	-	20 0	-806 0	806 0
Government Securities	-24 8	12 4	240 0	-109 0	-	-	654 0	8 8	29 2	-894 0	83 4
Companies Securities	36 0	-99 7	-	-	-	-	64 7	-	-	-	-
Identified Foreign Investment	-	-	-	-	-	-	139 0	-	-	-	-139 0
Life Assurance/Pension Funds	990 0	-	-	-	-	-	-990 0	-	-	-	-
Official External Reserves	-	-	-	170 7	-	-	-	-	-	-	-170 7
Advances to Government	-	-	-	-	274 0	97 0	-	-	-	-371 0	-
Balancing Item - Residual	603 3	-479 6	131 4	0 5	-11 1	-8 1	-0 1	-0 9	18 1	-8 3	-245 2
Financial Surplus/Deficit	2114 5	-583 6	14 9	23 5	-	1 0	-84 2	10 6	1 4	-2108 1	620 0

DISCUSSION

G Keenan It is my pleasure to propose the vote of thanks to Tom O'Connell for the paper he presented to the Society. The paper is obviously the result of much searching through scattered material and so involved a lot of tedious work.

An analysis of flow of funds attempts to answer two questions, first, what was the total financial surplus or deficit of the different economic agents in any period and, secondly, how are those surpluses or deficits distributed over the different financial assets and liabilities available to the saver?

Brendan Dowling in his 1973 paper to the Society answered the first question fully and gave a partial answer to the second. The second issue of the asset distribution, however, was handled by Honohan in his paper to the Society in 1982. O'Connell has built on the work of Dowling by extending the series on financial surplus and deficits to 1985 essentially applying the same techniques based on the National Accounts. In answering the second question, however, he has followed a different approach to Honohan. Honohan used a probabilistic framework to distribute the discrepancies between the estimated total financial surplus/deficit of each sector and the sum of the more readily identifiable financial assets acquired by the sector. In this paper O'Connell has adopted a more traditional approach and has painstakingly tried to unearth some of the data which had been previously missing. His task was made more possible than it was for Honohan by the change in compilation of banking returns with a switch in emphasis from location of branch to residency of customer resulting in a much improved presentation of data on a sectoral basis. Because of this it is possible to link much of the entries in O'Connell's flow of funds table directly back to official data particularly in the later years. While some may argue that an "act of faith" is required in using official data, one can feel more confident of these data than those "manufactured" from the inadequate published and unpublished data which were previously available.

The uses for these types of data are potentially many.

and varied. In its current state of development I think it is most useful for descriptive presentation of the evolution of the financial structure in Ireland during a period in which we have witnessed substantial real income growth and rapid change in the industrial structure. Potentially such data should also be vital in tracing the effect of monetary and fiscal policy on the different sectors of the economy and the evolution of the financial structure in response to these policy changes. A most obvious recent example is the imposition of the DIRT and the potential significant effect this will have on asset allocation decisions. The cells in a flow of funds table should help pick up these effects in the coming years. A third obvious potential use should allow an analysis of the change in the financing of economic activity over time.

It is noteworthy that O'Connell has refrained from any of these uses in his paper. I presume this partly reflects the amount of work which was required to get the paper to its present stage. But it probably also reflects a degree of caution on his part in actually making too much of the data at this stage. As I stated earlier I think in its present form that data are mainly useful for historic descriptive analysis of the evolution of the financial structure. A flow of funds table does not suggest anything about causation so that an assessment of the potential use of the table for policy purposes is as critically dependent on the amount of information which is absent from the table as it is dependent on the information actually presented. In this regard it is useful to examine the size of the balancing or residual item for each sector relative to the size of the overall financial surplus/deficits of the sector. If we therefore, look at Tables 2 and 7 we can see that for the five sub-periods considered the residual item in the personal sector column was never less than an average of 25 per cent of the total financial surplus/deficit of the sector and was over 50 per cent of the total in two of the five year periods. Likewise for the (Non Financial) Company sector the residual was never less than 40 per cent of the total savings on average over any of the five year periods and was as high as 100 per cent in one five year period. Errors and omissions of this scale, which it must be said are a feature of such tables in other countries, should severely limit the immediate use of such data for policy

analysis and prescription

It is all too easy to slip from an observation of the data to policy recommendations for altering the sectorial flows to what is considered a more desired level. Too often we have too narrow a focus on the interaction between sectors and not enough emphasis on the nature of the assets and liabilities in each cell of the flow of funds table. The increased allocation of personal sector savings to the life offices for instance reflects in part direct competition between the banks, building societies and life offices for secure savings. The products offered by the life offices to attract the funds, for example "Guaranteed Income Bonds", are invested in gilts in order to cover the guarantees given by the life offices on such savings. The guarantees could not be given if these funds were invested in equities, for example, and so the deposits would stay with banks and building societies.

On a more general level O Connell says in his paper that specific consideration of a number of assets such as unit trusts, credit union deposits, and the deposits with finance and provident companies are currently omitted from the table. Unless one was willing to justify the rather heroic assumption that the potential asset distribution dichotomises it seems to me almost inevitable that there will be significant omitted variable bias in coefficient estimates, if these data, as currently presented, were used for modelling portfolio behaviour.

I want to make a couple of minor points of clarification in relation to life offices as mentioned in the paper. First, as the author states, no consideration has been given to unit trusts in outlining the asset distribution. He suggests that unit trusts are covered to the extent that life offices/pension funds invest in these given that these funds are invested in gilts and equities. Such investment by life offices/pension funds in unit trusts is probably negligible as such unit trusts are usually direct competitors of the life offices in the savings market. However, the total estimated unit trust holdings is only around £20m so that the annual flows would not be significant.

Of more importance is the estimate of the life offices and pension funds net annual flows. These estimates seem to me too high by a significant margin. Taking the year 1983 as an example, O'Connell's estimate is of a net annual flow to these institutions of £647m. The life offices had an inflow of around £377m in that year which implies an inflow to private pension funds of £270m. Based on estimates of the assets of private pension funds this would imply a ratio of net cash flow to total assets of around 22 per cent compared with a figure of around 14 per cent for life office pensions, at that stage. On the basis of the experience of the life offices it would seem that the estimated net flows to private pension funds of £270m could be nearly £100m too high in 1983. The same argument would also apply to the data for other years.

In conclusion, I do not know whether the author intends to hand over the reins to someone else to continue the mammoth task which he has undertaken or whether he proposes to continue his excellent efforts. If he does propose to continue I wish him every success and am very happy to propose this vote of thanks on the Society's behalf.

P Honohan I welcome the greatly extended data period now covered in the flow of funds estimates, it is to be hoped that these can now be updated annually. However the residual errors are still very large - of the order of 5 per cent of GNP for the surplus of the personal sector, for example. I maintain that it is worth attempting to distribute these residuals throughout the table, as I did in my 1982 paper to the Society, using a least squares method. Although such allocations have been criticised by some as being arbitrary, I take great comfort in the fact that my 1982 exercise suggested that, for 1975-77, the balance of payments deficit was understated by a cumulative £200 million. Subsequent revisions to the official Balance of Payments statistics were in the same direction and even larger - a cumulative £300 million for those years. The 1982 paper also suggested a reduction in personal sector savings for 1975-77 of some £250 million. Once again this anticipated the direction of the official revisions. However, in the case of savings, the official versions were smaller, and, like Brendan Dowling, I therefore feel that there may be a need for further downward adjustments.

The five-year tables presented in O'Connell's paper include some interesting features. First of all there is a strong trend in the residual for the surplus of the personal sector, which starts at -2 per cent of GNP in the early 'sixties and swings around to +5 per cent and +4 per cent in the last decade. Whatever the explanation of these "missing savings", they are not static. A growth in bogus "non-resident" bank accounts is certainly not the full story here, as the cumulative magnitudes involved (a stock build-up of up to 150 per cent of GNP) are far too large.

Mr O'Connell mentions the so-called Ricardian hypothesis according to which private and public savings are negatively correlated. Whatever the truth of the theory, there is certainly a strong negative correlation (-0.98) between the personal sector financial surplus and that of the Government in the five year averages and, over 25 years, the two magnitudes sum to zero. The correspondence does not appear to hold so well at the level of individual years, but is nevertheless a striking and hitherto unremarked finding.

Of course, the Ricardian hypothesis should apply to the private sector generally, and should therefore include that part of the company sector which is Irish-owned. In fact, the strongest correspondence is between the deficit of the company sector and the overseas sector position, i.e., the balance of payments. Once again the 25 year totals net out, and the correlation here is -0.99.

J C Stewart There are two points that I would like to make in relation to this paper. The first point is that it would be useful to compare the flows of funds to the pension funds with estimates of the stock of pension fund assets contained in the study by Bristow and Ryan. Secondly, the author refers to an earlier paper by me in support of his argument that non-financial companies in Ireland are "undercapitalised". However, as pointed out in my paper it is very difficult to make statements about the level of gearing or undercapitalisation from flows of funds data, particularly because of the effects of inflation in increasing owners equity. Rather my paper shows that the main source of funds to non-financial public companies is from the banking sector.

Reply by Thomas O'Connell I would take the point made by several speakers that there remain significant problems in fully articulating financial flows in the economy. The residual or balancing item for the personal sector is disconcertingly large, suggesting, as some speakers have averred, that National Accounts estimates of personal savings may be too high. Also, data on the companies sector remain sparse. Although some speakers have questioned some of the data in certain respects - for example, some of the flows attributed to assurance companies/pension funds, and the allocation of Government securities between sectors - I would maintain that, particularly for recent years where new data sources have been used, these data are reasonably reliable.

As regards what can be done with funds flow data, a question raised by Patrick Honohan, they can be useful for shedding light on structural changes and, indeed, as he has indicated, on interesting regularities where these exist. More interesting analyses, however, require data on stocks rather than flows and it is to be hoped that recent improvements in the areas of banking and balance of payments statistics will provide the stimulus to researchers to explore the question of producing more extensive data on stocks of financial assets and liabilities.