Life assurance company and private pension fund investment, 1962–84

Life assurance and pension funds (LAPFs) have become major vehicles for personal sector saving. In 1984, £17 billion was channelled into LAPFs, equivalent to nearly two thirds of personal sector saving. Net personal sector equity in LAPFs totalled £227 billion at end-1984. As large scale investors, the LAPFs collectively represent a major force in the securities markets. They hold about 50% of British government stocks outstanding and over 50% of the market value of the total ordinary share issue of UK companies quoted on the London Stock Exchange. The Bank has produced integrated stock flow data[1] for LAPFs over the period 1962–85. This article uses that data to describe the development of the portfolios of funds in the private sector over the period 1962–84.

The business of life assurance companies and private pension funds.

The Insurance Companies Act of 1982 separates insurance business into two categories, 'long-term business' and 'general business'. The latter is concerned with spreading risks, giving cover against contingencies such as fire, damage to property, or theft. Although general insurance companies must have sufficient reserves to meet uncertain future liabilities, they are not a vehicle for personal sector saving and are not considered further in this article. In contrast, 'long-term' business is concerned with extended contracts, often with level premiums throughout (although single premium business is also important), to provide a payment on the death or incapacity of the insured or on his survival to a certain age. It has developed into a major form of personal sector saving as new forms of life insurance policy have been introduced. Life companies have sold 'with profits' policies, in which bonuses accrue to policy holders, and have introduced new products covering whole life insurance, endowment insurance, term insurance, annuities, policies linked to the performance of specified portfolios, single premium insurance and pension business.

Occupational pensions are for most workers a relatively recent development. Although some employers paid pensions before 1914 and the practice spread between the two world wars, rapid growth in private pension schemes only began after 1945. In 1936, 2.6 million employees belonged to pension schemes, of which 1.6 million were in private schemes. Total coverage had increased to 6.2 million employees by 1953, and to 12.2 million by 1967. Of these, 8.1 million were in private schemes, but by 1983 this total had fallen back to 5.8 million, largely due to a reduction in the proportion of male manual workers covered (the public sector had 5.3 million in pension schemes in 1983).[2]

To provide retirement benefits to members, pension schemes establish investment funds to which employers and, in most cases, employees, make contributions, which are used in turn to acquire assets, so generating income and capital gains out of which benefits are paid. In the United Kingdom the only significant exceptions to this 'funded' approach are found in certain governmental public sector schemes which operate on a 'pay as you go' basis. The existence of an adequately funded scheme generally ensures that an employee's accrued benefit entitlement is maintained, independent of the employer's subsequent fortunes. Funded pension schemes can operate in several ways. They may be self administered, and employ their own full-time investment managers; or the board of trustees of a scheme may enlist the services of one or more financial institutions to manage the fund. Many large schemes employ a mixture of internal and external fund management. Where an individual fund might be considered too small to achieve a satisfactory spread of investments, the trustees might join a pool of managed funds which operate in a similar fashion to a unit trust. Another possibility is the provision of group insurance and pension arrangements through a life assurance company, business which is included in the LAC balance sheets.

(1) A ***Discussion paper*** (***Technical series***) to be published early in 1987 will present balance sheets and flow accounts for insurance companies and pension funds, 1962–85. The accounts aim to reconcile balance sheet values with the cash transactions reported by the institutions. Notes will be provided on sources, definitions and methodology. The accounts for insurance companies update previous work discussed in the September 1978 *Bulletin*. Accounts for pension funds have been prepared for the first time. Some of the data in the ***Discussion paper*** will reflect revisions made after this article was completed.

(2) The ***Technical series*** paper and the related statistical exercise will deal with local authority and other public sector funds as well as the private sector funds. At end-1984 the asset portfolios of these funds were very similar to those of the private pension funds except that local authority funds contained a smaller, and other public sector funds a larger, share of property (the obverse being differences in holdings of ordinary shares). This probably reflected the average size of the different types of fund: investment in property is more practicable for large funds.

However, the similarity in asset portfolios of public and private funds was the product of convergence from very different portfolios at end-1962. At that date public sector funds, especially those of local authorities, were heavily committed to long-term loans to local authorities, whereas private sector funds held very little of their portfolio in the form of loans. Public sector funds were less committed to UK equities, and in particular equities accounted for a very small share of local authority funds. This article focuses on the development of life assurance companies and private pension funds only, and does not consider public sector funds, nor compare their development with that of the private sector funds.

Table A

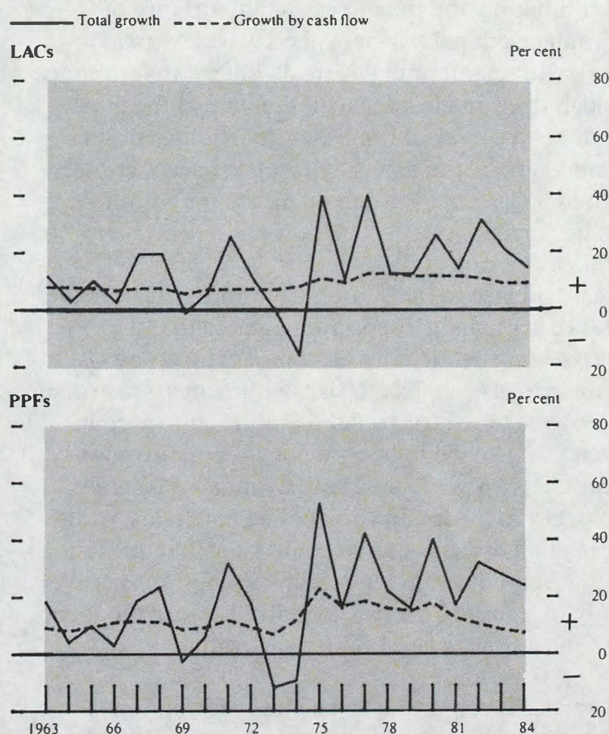
Total assets of life assurance companies and private pension funds, 1962–84

	Life assurance companies				Private pension funds			
	Total assets £ millions	Percentage growth over year			Total assets £ millions	Percentage growth over year		
		By cash flow	By revaluation and unidentified	Total		By cash flow	By revaluation and unidentified	Total
1962	7,339				2,460			
1963	8,178	7.9	3.5	11.4	2,909	9.2	9.1	18.3
1964	8,405	7.7	- 4.9	2.8	3,021	8.1	- 4.2	3.9
1965	9,237	7.3	2.6	9.9	3,321	9.4	0.5	9.9
1966	9,460	6.6	- 4.2	2.4	3,415	11.1	- 8.3	2.8
1967	11,273	7.3	11.9	19.2	4,015	11.5	6.1	17.6
1968	13,449	7.3	12.0	19.3	5,003	11.3	13.3	24.6
1969	13,254	5.4	- 6.9	- 1.5	4,862	8.6	-11.4	- 2.8
1970	14,017	6.8	- 1.0	5.8	5,154	9.2	- 3.2	6.0
1971	17,550	6.9	18.3	25.2	6,793	11.8	20.0	31.8
1972	19,377	7.0	3.4	10.4	7,999	9.4	8.4	17.8
1973	19,123	6.8	- 8.1	- 1.3	7,057	6.7	-18.5	-11.8
1974	15,996	7.8	-24.2	-16.4	6,395	11.8	-21.2	- 9.4
1975	22,315	10.6	28.9	39.5	9,763	22.7	30.0	52.7
1976	24,521	9.1	0.8	9.9	11,306	16.6	- 0.8	15.8
1977	34,239	12.2	27.4	39.6	16,076	18.5	23.7	42.2
1978	38,380	12.2	- 0.1	12.1	19,616	15.9	6.1	22.0
1979	43,030	11.2	0.9	12.1	22,719	14.9	0.9	15.8
1980	54,068	11.3	14.4	25.7	31,823	17.8	22.3	40.1
1981	61,470	11.2	2.5	13.7	37,218	12.6	4.4	17.0
1982	80,492	10.4	20.5	30.9	49,122	10.4	21.6	32.0
1983	96,926	8.6	11.8	20.4	62,793	8.5	19.3	27.8
1984	110,701	8.8	5.4	14.2	77,844	7.2	16.8	24.0

The growth of life assurance and pension funds, 1963–84

The growth of funds is shown in Table A and Chart 1. Between end-1962 and end-1984 private pension fund (PPF) assets increased thirty-fold, from £2.5 billion to £77.8 billion: this was considerably more rapid than the fourteen-fold increase shown by the life assurance companies (LACs) over the same period from £7.3 billion to £110.7 billion. (Nominal GDP grew twelve-fold.) Chart 1 shows that the rate of growth of assets was extremely erratic, and, in both types of fund, this instability was due in large measure to the effects of fluctuations in asset values.

Chart 1
Percentage growth of total assets, 1963–84



Long-term insurance business that serves as a vehicle for long-term and contractual saving has become increasingly important relative to ordinary life cover. Whether such contractual saving represents an addition to or a substitute for other types of saving is a matter which has been discussed elsewhere.(1) The growth of life assurance business as a vehicle for long-term saving has been related to the growth of pension provision through life assurance and the need to meet the threat to traditional life assurance contracts posed by inflation, and was encouraged, until 1984, by the availability of tax relief on life assurance premiums. There was also a need to meet competition from other forms of savings medium; between 1963 and 1983, for example, annual inflows into life assurance and pension funds from the personal sector increased fifteen-fold, but the increase of flows into building societies was twenty-seven-fold. LACs introduced new products to compete with these challenges: for example, in 1970 the shares of new premiums accounted for by personal pension business and group pension and life assurance schemes were 2% and 29% respectively: by 1984, these shares had increased to 9% and 48%. Over the same period linked life policies in force increased from under 7% to 23% of total ordinary policies in force.

Although the coverage of occupational pension schemes increased only a little over the period in question, the real growth of PPF assets has been stimulated by several types of government influence. First, the taxation treatment of 'approved' occupational pension schemes is favourable. All contributions to such funds, whether by employer or employee, are deductible from taxable income. All income from, and capital gains on, investments are also

(1) See, for example, A R Threadgold; *Personal savings: the impact of life assurance and pension funds.* Bank of England ***Discussion paper*** No 1.

tax-exempt. The only taxation to which PPFs have been subject was the development land tax, although pensions—including the implicit reimbursement of contributions previously deducted from taxable income—are taxed as earned income. Second, during periods in which formal incomes policies were in operation, 1972–74 and 1975–78, pension benefits were unrestricted and pensions became an important focus of collective bargaining, leading to, for example, improved benefits. The inclusion of pension benefits in pay negotiations may also have been important for senior staff seeking to improve their overall remuneration without incurring high marginal rates of taxation.

A third influence has been the relationship between state and private pension provisions. The National Insurance Act of 1959 introduced a second tier of earnings-related state pensions above the flat-rate pensions paid since 1925. Only if private pension schemes could demonstrate that they offered benefits equivalent to those offered by the state scheme could they 'contract out' of the state graduated pensions scheme. A more significant development was the introduction in 1978, under the 1975 Social Security Pensions Act, of the State Earnings Related Pension Scheme (SERPS), which required 'contracted out' schemes to meet tougher minimum requirements on benefits. This introduced a guaranteed minimum pension (GMP), to which employees have to be entitled if they are to 'contract out' of SERPS and pay lower national insurance contributions. In essence the GMP is 1¼% of earnings for each year between specified lower and upper limits, for the best twenty years of service, each year's earnings being indexed for retail price inflation from the year in which they are earned to the year before retirement: it is broadly equivalent to the pension which would have been paid under SERPS. After retirement the part of the occupational pension which represents the GMP is indexed for retail price inflation, the indexation being paid through the state scheme.

With the introduction of SERPS, employers were faced with a decision as to whether to 'contract in' and allow the state to provide an earnings-related pension, or to 'contract out' and ensure that their scheme met the requirements. A third option chosen by some employers was to 'contract in' and continue to provide their own supplementary, or top-up, scheme. Most schemes 'contracted out': nearly all funded public sector schemes are 'contracted out' and in 1979 out of a total of 6.2 million employees in private occupational schemes only 1.4 million were members of schemes not 'contracted out'. The effect of 'contracting out' was to require employers in some cases to raise the level of benefits paid and in all cases to ensure that provision for future benefits was adequate. This followed a period of inflation which had left some schemes with increased liabilities for which existing funds threatened to be inadequate, necessitating 'topping up' by employers.

Investment strategy

Life assurance companies

Portfolio allocation is influenced by the term and structure of liabilities, the availability of and return on different types of investment, and, where applicable, regulations governing the valuation of assets for solvency purposes. In 1880 some two thirds of LAC assets were mortgages and loans to local authorities and British municipal and county securities: this concentration reflected both the nominally fixed nature of liabilities and the relative scarcity of government securities and company shares. By 1937 the shares of equities and British government securities in LAC portfolios had increased to 18% and 22% respectively. This was largely a reflection of the increased relative supply of such assets, but changing attitudes within the life assurance industry to nominal capital certainty relative to overall asset returns (income plus capital gains) were also influential.

The financing requirements of the Second World War pushed all LACs towards a different portfolio structure, as they agreed with the Treasury to commit new funds and investment income to government securities. An important development was the downward movement of interest rates during the war, and the belief that it was to be official policy to keep money 'cheap' in the post-war years. This encouraged LACs to adopt further the strategy of 'matching', refined as 'immunisation', whereby future liabilities were matched by assets of the same maturity, pushing funds toward medium and long-term redeemable assets, eg gilts. By the late 1940s, about 40% of LAC assets were gilts, compared with some 22% in 1937 and only 1% in 1913.

With the end of the cheap money policy, the gathering pace of inflation and the increasing importance of performance-related business, the 1950s saw greater concern with maintaining the real value of investments. Although fixed-interest securities remained the most important type of asset in the LAC portfolio, equities accounted for 29% of assets by 1963. Property, another 'inflation hedge', made more modest gains within the portfolio.

In their evidence to the Wilson Committee in 1977 the insurance companies' associations stated that the objective of investment by insurance companies was to maximise return, subject to risk, within an asset structure that took the term structure of liabilities into account. The fund created needed to be a safe but competitive savings medium. Risk was reduced both by matching liabilities and assets and by holding diversified portfolios, while ensuring that assets acquired could be held in the long term. The emphasis on long-term holdings was partly because of transactions costs but also because the sheer size of most funds placed limits on turnover.

That part of LAC portfolios which is pension-related is currently tax-exempt, but cannot be separated out from the available data, and thus the influence of tax liability

cannot be considered easily. The tax status of an investment was not cited in evidence to the Wilson Committee as a dominant factor in investment decisions, but had to be considered. In addition to the exemption from capital gains tax, during this period, of profits made on gilts held for more than one year, a major influence must have been the distinction between capital gains tax levied only when such a gain was realised, and taxation of current income.

Private pension funds

Although both life assurance and pension business is concerned with long-term liabilities, pension business has a greater emphasis on real as opposed to monetary liabilities, and thus pension funds place different emphasis on various asset characteristics. Traditionally, many life assurance liabilities were fixed in money terms either as sums assured or bonuses already declared, although the structure of LAC liabilities has moved towards a greater emphasis on real values. Although many pension funds have operated schemes in which fixed benefits were purchased, they have increasingly come to have an 'open' commitment, in that when a member joins a scheme the value of his pension right, be it based on final salary or average earnings, cannot be predicted with certainty. This problem is made worse by inflation, which increases the size of benefits related to final salary to be paid from a fund already accumulated from contributions based on nominal earnings over a working life. An added complication may arise if any adjustment for inflation is made to pensions already in payment.

The concept of matching can therefore be less relevant to a pension fund, with more unpredictable commitments, than to a life assurance fund. A pension fund may therefore be expected to concentrate investment in assets expected to yield positive real returns, although the expected return on assets free of default risk, such as index-linked gilts, may be used as a benchmark for comparison. As exempt funds, PPFs' investment strategy is not influenced directly by the UK tax treatment of income and capital gains.

Pension funds operate under trust law, and are therefore bound by legal restraints imposed either by statute or by their own trust deeds, which take precedence over statute. Before 1961 the relevant statute was the 1925 Trustee Act which limited the 'authorised investments' of trusts, failing other specific provision in their trust deeds, to British government or government-guaranteed securities and the stocks of local authorities and certain railways and utilities. This was superseded by the Trustee Investment Act of 1961, which widened the scope of authorised investments to include company securities and unit trusts, but limits were placed on the proportion of assets to be held in certain types of investment. In addition, trustees were not allowed to invest in assets which required that either repayment of capital or income payments be made in a currency other than sterling. In practice, the scope of most trust deeds is wider than the minimum set out in the 1961 Act.

Asset characteristics

The LAPF portfolio data prepared by the Bank cover thirty-eight types of asset: to ease exposition in this article the data are aggregated into larger groups, chosen with a view to presenting an aggregation that is reasonably close to that used by managers when making strategic decisions about the overall structure of a portfolio. To this end, the criteria for aggregation should be such as to ensure distinct grouping within which assets can be regarded as more or less homogeneous. However, criteria in practice will vary according to the concerns and aims of investors and thus a classification scheme which most closely resembles those criteria used by investors may not yield altogether homogeneous groupings. The aggregation used is set out in the appendix.

There are several difficulties in analysing the portfolio data aggregated into groups. The structure of a fund's portfolio changes from year to year, partly because the managers plan their investment decisions to achieve such changes, and partly because the value of their existing investments changes. Therefore it is insufficient to look only at the changes in the overall structure of the funds' portfolios; it is necessary to consider how those changes came about. The new integrated accounts break down changes into those reflecting cash flow (ie, conscious investment behaviour), changes in valuation of the initial portfolio during each period, and a residual element. This last factor reflects not only measurement errors but also revaluation of assets purchased during the period in question: the construction of the balance sheet data is discussed in the ***Technical paper*** already referred to. The analysis of portfolio structure which follows looks at both cash flow and revaluation. In aggregate, net new cash investment covers investment of the surplus of premium and contribution income and investment income over benefits paid and administration and other costs incurred. Net investment in any one category can reflect not only a claim on aggregate cash flow but also sales of assets in other categories.

Life assurance and pension fund portfolios, 1962–84

At end-1962, LAC and PPF portfolios were markedly dissimilar, as shown in Table B and Chart 2. LAC portfolios were spread across British government securities (gilts) and other fixed-interest securities (35%), UK equities (29%), loans (19%) and property (9%). In contrast, PPF assets were concentrated in fixed-interest securities (45%) and UK equities (44%). In both portfolios, gilts were more heavily represented than other forms of fixed-interest security. These differences in portfolio structure reflected developments in the 1950s. PPFs, which had been overwhelmingly invested in fixed-interest securities in the 1940s, had increasingly turned to ordinary shares—the 'cult of the equity'—in the expectation of achieving greater positive real returns. The lack of diversification into other assets may have reflected in part the constraints of the 1925 Trustee Act on funds

Table B
Structure of portfolios and distribution of cash flow investment, 1962–84

Percentage shares

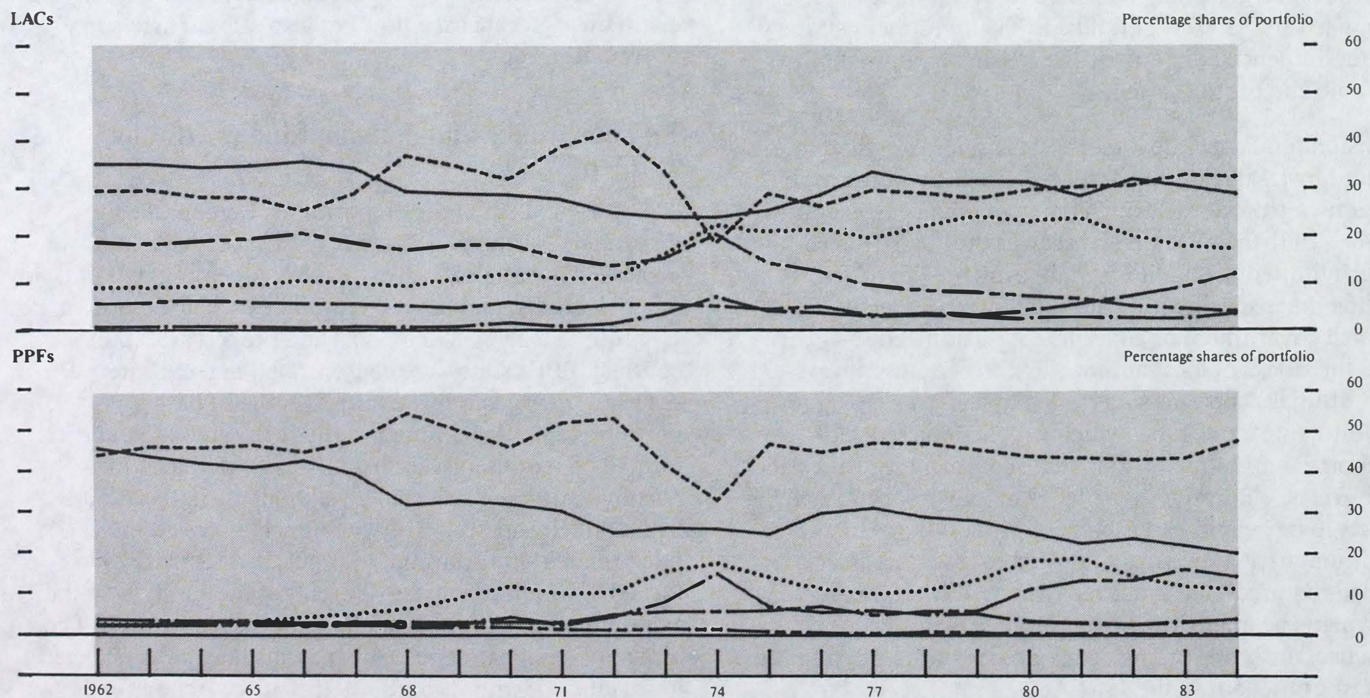
Life assurance companies

	Fixed-interest securities	British government securities	*of which, index-linked*	Ordinary shares	Property	Loans	Overseas assets	Short-term assets	Other
Structure of portfolios (end-year)									
1962	16.1	18.9		29.3	9.1	18.6	5.4	0.7	1.9
1963	17.0	18.0		29.7	8.9	18.0	5.9	0.8	1.7
1964	18.4	16.0		28.1	9.5	19.0	6.5	0.9	1.6
1965	18.4	16.3		28.0	9.6	19.4	5.9	0.8	1.6
1966	19.2	16.5		25.3	10.6	20.5	5.7	0.6	1.6
1967	17.7	16.6		28.9	10.0	18.4	5.7	0.9	1.8
1968	15.6	13.7		36.9	9.4	17.0	5.2	0.7	1.5
1969	15.1	13.7		34.7	11.0	18.1	4.8	0.9	1.7
1970	14.4	14.2		31.8	12.1	18.1	6.0	1.6	1.8
1971	11.9	15.9		38.8	11.0	15.3	4.7	0.9	1.5
1972	11.2	13.7		42.0	10.9	13.7	5.5	1.5	1.5
1973	10.5	13.4		33.7	16.1	15.3	5.6	3.6	1.8
1974	10.1	13.8		18.4	22.2	20.3	5.1	7.1	3.0
1975	9.3	16.1		28.9	20.7	14.3	4.5	4.1	2.1
1976	8.5	20.1		26.2	21.4	12.3	5.1	3.7	2.7
1977	7.6	25.8		29.5	19.4	9.2	3.2	3.0	2.3
1978	6.1	25.1		28.9	22.0	8.4	3.6	3.2	2.7
1979	5.0	26.4		27.8	24.1	7.9	3.2	2.9	2.7
1980	4.1	27.1		29.6	22.9	7.2	4.2	2.5	2.4
1981	3.5	24.8	*0.7*	30.2	23.7	6.7	5.7	2.9	2.5
1982	3.5	28.3	*1.2*	30.5	19.9	5.3	7.4	2.7	2.4
1983	3.7	26.6	*1.5*	32.8	17.8	4.6	9.3	2.7	2.5
1984	3.8	25.0	*1.6*	32.5	17.3	4.1	12.1	3.8	1.4
Investment of cash flow									
1963	30.7	19.1		17.8	10.3	18.3	3.1	1.9	-1.2
1964	30.5	14.6		19.6	9.0	20.4	3.5	1.6	0.8
1965	34.9	9.3		10.7	15.1	30.0	1.1	—	-1.1
1966	35.8	4.8		13.0	19.3	28.2	0.7	- 2.8	1.0
1967	21.0	31.5		20.9	15.0	17.3	-10.9	6.0	-0.8
1968	21.9	15.4		5.7	15.3	24.5	17.7	—	-0.5
1969	13.5	16.7		15.2	25.5	22.5	2.4	2.2	2.0
1970	6.8	17.9		10.9	22.6	12.6	17.3	11.7	0.2
1971	10.0	41.1		40.1	19.5	7.0	- 9.6	- 7.7	-0.4
1972	10.8	20.9		34.4	10.3	0.7	13.5	9.0	0.4
1973	3.3	22.5		14.4	21.7	19.7	9.5	10.1	-1.2
1974	2.3	7.9		8.0	29.9	18.5	- 0.3	30.0	3.7
1975	2.9	67.6		16.7	21.8	3.2	0.9	-13.1	—
1976	- 2.8	74.6		12.5	19.1	- 3.6	1.1	- 0.4	-0.5
1977	- 0.5	61.5		16.6	12.4	3.9	1.2	5.0	-0.1
1978	- 1.4	58.0		17.2	11.7	1.3	2.9	4.4	5.9
1979	- 0.4	59.0		19.1	13.7	4.8	2.6	0.6	0.6
1980	- 1.4	44.7		17.9	16.7	9.7	11.7	1.9	-1.2
1981	- 0.1	36.5	*7.0*	19.9	16.6	4.5	14.2	7.7	0.7
1982	3.9	28.7	*7.7*	25.2	15.7	0.6	19.5	7.1	-0.7
1983	5.2	30.3	*10.8*	21.8	12.2	4.3	19.2	6.0	1.0
1984	4.5	28.7	*2.6*	24.1	9.0	4.3	9.1	19.0	1.3

Private pension funds

	Fixed-interest securities	British government securities	*of which, index-linked*	Ordinary shares	Property	Loans	Overseas assets	Short-term assets	Other
Structure of portfolios (end-year)									
1962	20.9	24.6		44.0	2.4	2.2	3.5	2.1	0.3
1963	22.2	21.4		46.1	2.2	2.3	3.3	2.2	0.3
1964	22.8	19.3		45.9	2.9	2.3	3.2	3.1	0.5
1965	22.7	18.4		46.6	3.1	2.5	3.2	3.0	0.5
1966	24.5	18.3		44.9	4.2	2.1	2.7	2.6	0.7
1967	22.0	17.5		47.8	5.0	2.3	2.9	2.2	0.3
1968	18.9	13.1		54.5	6.3	1.7	3.0	2.2	0.3
1969	20.0	13.0		50.3	8.9	1.9	3.0	2.6	0.3
1970	19.8	12.4		46.2	11.8	1.9	3.1	4.3	0.5
1971	16.8	13.7		52.2	10.0	1.4	3.0	2.5	0.4
1972	14.7	10.4		53.3	10.3	1.3	5.0	4.5	0.5
1973	14.4	11.9		41.8	15.4	1.6	5.7	8.1	1.1
1974	12.4	13.6		32.9	17.4	1.4	5.7	15.0	1.6
1975	9.0	15.7		46.9	14.0	0.9	6.0	6.9	0.6
1976	7.7	22.2		44.8	11.0	0.7	7.0	5.5	1.1
1977	6.2	24.9		47.1	9.8	0.5	4.8	6.0	0.7
1978	4.5	24.3		46.9	10.8	0.9	5.8	5.0	1.8
1979	3.6	24.3		45.4	13.3	0.7	5.8	5.2	1.7
1980	2.6	22.5		43.8	17.9	0.4	9.4	3.3	0.1
1981	2.1	20.3	*1.8*	43.4	18.7	0.4	12.2	2.9	—
1982	1.7	21.9	*2.4*	43.0	14.2	0.3	13.2	2.6	3.1
1983	1.4	20.5	*2.6*	43.5	11.8	0.2	15.9	3.2	3.5
1984	1.6	18.4	*2.4*	47.7	11.0	0.2	14.1	3.8	3.2
Investment of cash flow									
1963	32.4	- 8.0		60.4	8.0	1.3	1.3	2.7	1.9
1964	19.2	- 0.4		56.8	6.8	1.7	- 0.9	15.0	1.8
1965	37.5	19.1		36.0	8.1	0.7	1.8	- 2.8	-0.4
1966	36.3	19.8		35.2	6.5	1.4	1.1	0.3	-0.6
1967	21.2	13.8		46.0	13.6	2.1	2.3	—	1.0
1968	12.6	0.2		56.7	22.2	0.2	3.3	3.7	1.1
1969	29.9	7.9		27.1	25.0	1.2	5.1	2.8	1.0
1970	16.1	- 1.4		45.1	21.5	0.7	5.8	12.1	0.1
1971	8.5	31.4		47.3	10.7	-0.5	4.1	- 4.3	2.8
1972	3.2	- 3.3		44.3	14.7	1.3	11.8	26.8	1.2
1973	1.9	27.9		- 7.1	32.2	0.9	13.1	23.4	7.7
1974	- 1.2	36.9		-12.6	30.0	2.0	- 0.7	43.9	1.7
1975	3.7	34.0		58.9	13.2	-0.2	7.2	-15.0	-1.8
1976	0.1	49.9		31.1	17.4	-0.6	3.1	- 1.7	0.7
1977	- 0.4	32.4		37.0	13.0	-0.2	2.7	14.6	0.9
1978	- 2.9	38.4		35.2	10.6	4.1	11.8	0.6	2.2
1979	- 1.1	45.8		26.7	9.9	-0.1	10.3	5.3	3.2
1980	- 0.9	36.2		33.7	9.8	-0.9	23.5	- 2.8	1.4
1981	0.2	25.5	*18.6*	25.2	12.5	0.1	29.6	1.6	5.3
1982	0.6	9.1	*9.8*	30.5	11.8	0.4	39.2	3.0	5.4
1983	1.2	35.9	*14.5*	18.2	7.6	-0.2	19.4	16.6	1.3
1984	2.3	31.8	*7.5*	32.0	8.7	0.2	7.5	18.8	-1.3

Chart 2
Asset distribution in LAC and PPF portfolios, 1962–84



without specific trust deeds to allow investment in instruments other than fixed-interest securities, and the non-retail nature of pension funds, which limited the potential of loan business. In contrast, LAC managers, unconstrained by the Trustee Act, had a wider spread of assets including, in particular, loans, of which the bulk were to persons.

As already noted, both LACs and PPFs faced changes in the nature of their liabilities which increased the importance of searching for the highest *real* returns on assets. A major influence on the liability structure, in pension business especially, was inflation. This was, of course, also a dominant influence on investment behaviour because of the impact it had on the (ex post) real returns on different types of asset. However, there were also other significant shocks and changes during the period. Foremost amongst these might be numbered the two oil price shocks in 1973 and 1979; the collapse of the stock market in 1973–74; price and dividend controls; the rent freeze imposed in 1973 and the property market collapse of 1974–75; the move from positive to negative (ex post) real interest rates and back again; and the abolition of exchange controls. There were also important developments in the funding operations of government, both local and central, and companies.

Chart 3
GDP deflator

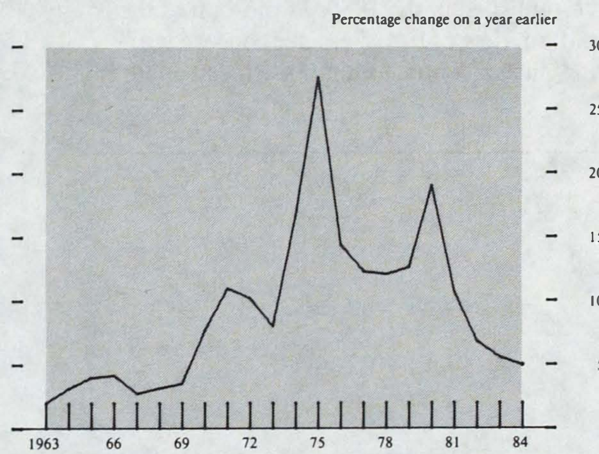
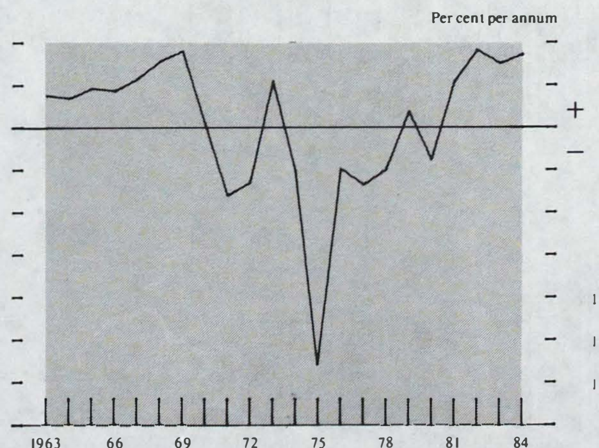
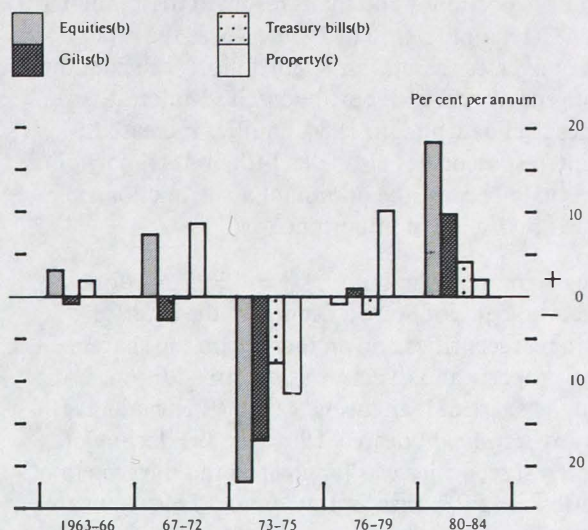


Chart 4
Real interest rates,[a] 1963–84



(a) Average local authority three-month interest rates less percentage change in GDP deflator.

Chart 5
Real return on assets[a]



(a) Compound rate of growth with income reinvested and capital gain unrealised of specified fund of assets.
(b) Equities, gilts and Treasury bill returns are as measured by de Zoete & Bevan indices.
(c) Property returns from Jones, Laing and Wootton overall index (from 1968).

The influence of these developments can be seen in Charts 3–5. Charts 3 and 4 show the rate of inflation as measured by the GDP deflator and an indicator of the real interest rate. Chart 5 shows the real return on four types of domestic asset. Returns are expressed as yield plus realised and unrealised capital gains on specific groups of assets, over the periods identified, at compound annual rates. As such, these are estimated returns ex post on notional funds, not ex ante expectations of returns (which might be better measures of influences on funds investment behaviour), nor returns actually achieved by LAPFs.

The periods were chosen to match identifiable phases in the structure of LAPF portfolios. In *1963–66* there was little change in either type of fund. PPFs saw a switch in the relative importance of equities and fixed-interest securities, without any major changes. In contrast, LAC funds saw a small fall in the share of equities, with loans and property gaining a little. In *1967–72* there was a marked increase in the share of equities in both types of fund, with equities becoming dominant in LAC portfolios for the first time. This increase was at the expense of fixed-interest securities and, within LAC portfolios, loans. PPFs also increased their exposure to property to 10%, from below 5%. The years *1973–75* saw something of a hiatus. The share of equities fell dramatically up to 1974, especially in LAC portfolios, in which they moved from being the largest asset group to only the fourth largest. In both types of fund, property continued to increase in importance, and in LAC portfolios loans also claimed an increased share. The decline of fixed interest securities was temporarily halted. A major development in both types of fund was the accumulation of short-term assets. By end-1975, equities had staged something of a come-back, but in both types of fund property retained its increased importance and there was a far higher proportion of short-term assets than had been the case before 1972. In *1976–79* fixed-interest securities

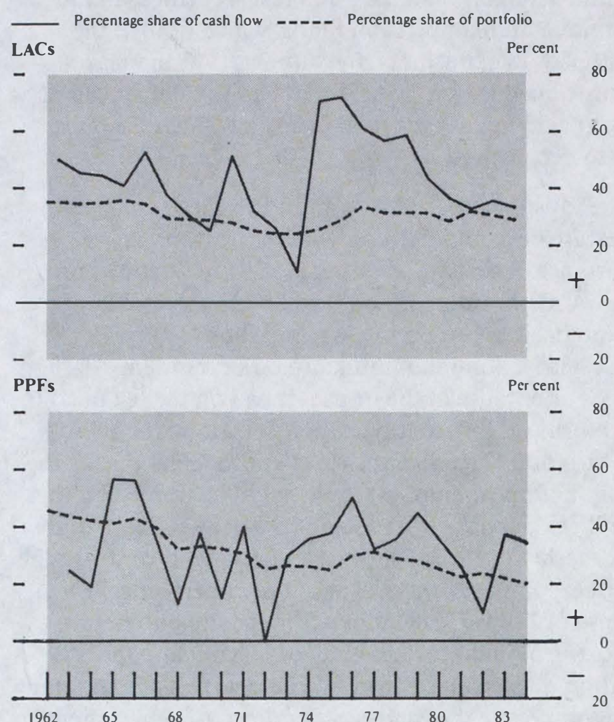
experienced a revival and in LAC portfolios once more became the most important asset. Property increased a little in LAC portfolios and loans resumed their long-term decline. The major feature of *1980–84* was the rapid growth of overseas assets in the portfolios, with a falling away of property. In PPF portfolios, fixed-interest securities declined, and, in 1984, equities increased. Fixed-interest securities also fell a little in LAC portfolios, equities again became the dominant asset, and loans continued to decline in importance.

The long-term trends in both LAC and PPF portfolios over the whole period were a decline in the share of fixed-interest securities and an increase in the shares of equities, property and overseas assets. In addition, LACs reduced the share of loan assets, which PPFs had never held to any significant degree. However, the decline of fixed-interest securities was far greater, and the growth of equities less, in PPFs than in LAC funds. This seems to reflect the increasing diversification of PPFs from a structure more heavily weighted towards these two assets than that of LAC funds, and also the continued greater relevance of fixed-interest securities, especially gilts, to LAC liabilities.

Types of asset within portfolios; 1962–84

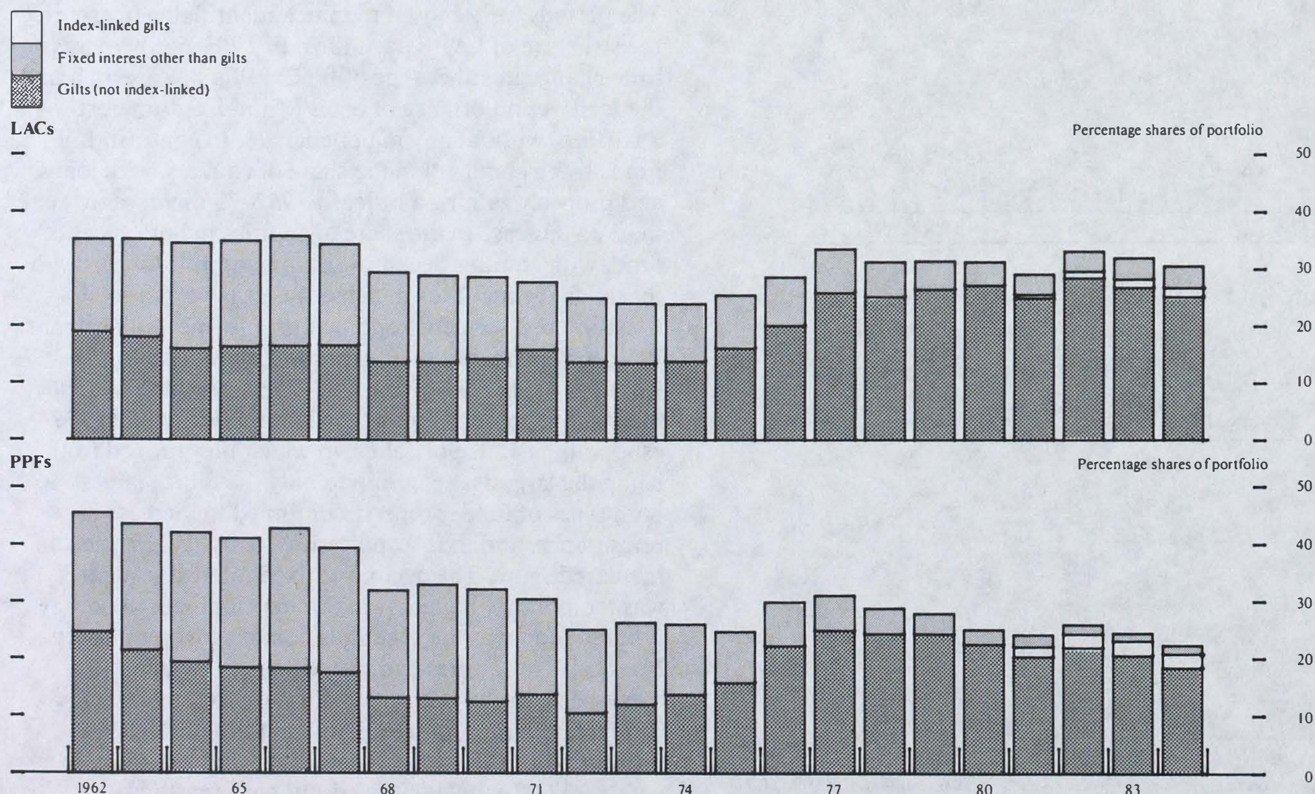
Fixed-interest securities (British government securities plus other fixed interest). Chart 6 shows that the share of fixed-interest securities in LAC portfolios fell from 35% to 28% over the period. Decline set in from 1968, to a low point of 24% in 1974. Recovery to 33% in 1977 was

Chart 6
Fixed-interest securities



followed by fluctuations around 30% until a fall in 1984. In contrast, much sharper and more substantial decline was evident in PPFs, from 46% to 20%, a continuation of a trend established in the 1950s as the 'cult of the equity' took hold. In view of LACs' greater concern with matching, such a contrast might be expected, but it is

Chart 7
Fixed-interest assets in LAC and PPF portfolios, 1962–84

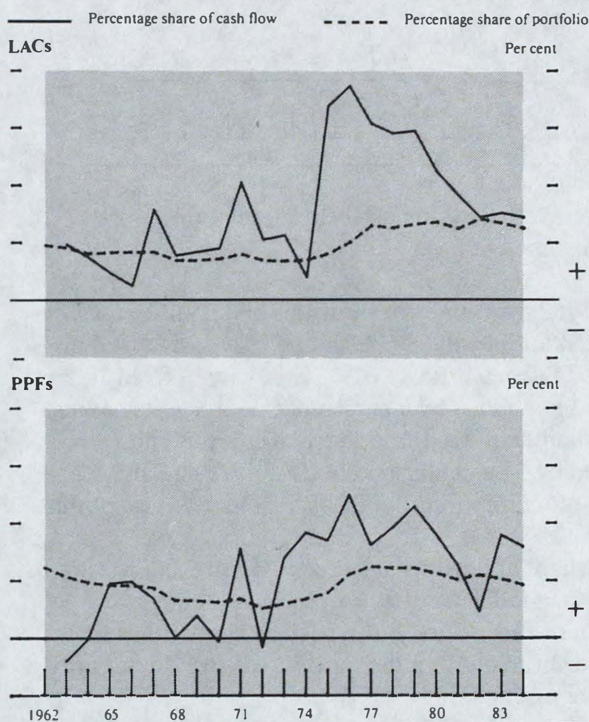


noticeable that the path of fixed-interest securities follows a similar pattern in both types of portfolio, particularly in respect of the revival apparent in the mid-1970s.

Chart 7 shows that there were also very strong similarities in the pattern of change in the structure of fixed-interest portfolios, from being fairly evenly spread across gilts and other forms of security to being dominated by gilts. In addition, from 1981, index-linked gilts rapidly acquired a noticeable share in the fixed-interest portfolio.

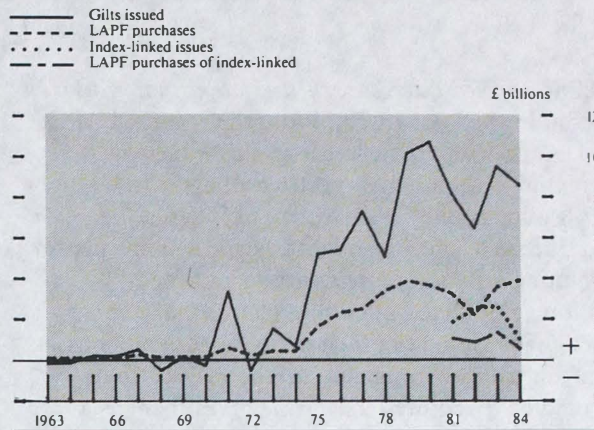
An important influence on the bond market was the very heavy government funding programme from 1976. This pushed up *gilt* yields to levels corporate and local authority treasurers were unwilling to match and probably also, given the declining importance of such securities in LAPF portfolios, satisfied total LAPF demand for

Chart 8
Gilts



fixed-interest securities of all kinds. Chart 8 shows that LACs were less accommodating to the decline of gilts in the portfolio from 1962 to 1973 than were PPFs. For much of this period, LACs devoted to gilts a share of cash flow disproportionate to their portfolio share, but this did little more than offset the decline of real gilt values caused by inflation. Portfolio share fell both because of the appreciation of other asset values and because of the revaluation effects of rising interest rates. PPFs, on the other hand, appear to have sanctioned decline. Chart 5 shows how poor the ex post real returns on gilts were over this period. In the later 1970s the returns on gilts began to look very attractive and LAPFs sharply increased their purchases with the expansion of the government funding programme, and gilts increased in importance in both types of portfolio. However, as Chart 8 shows, the PPFs became heavy buyers from 1973; LACs delayed their

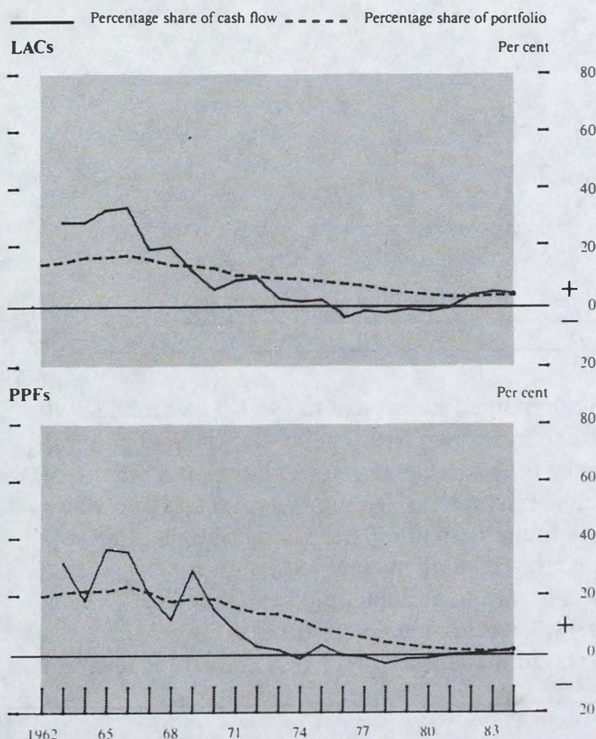
Chart 9
Net issues of gilts and purchases by LACs and PPFs, 1963–84



move back into gilts until 1975. In the 1980s the share of new cash devoted to gilts declined, probably due to falling yields (and the related capital gain) and the growth of overseas investment. The expansion of government debt sales and the importance of LAPF purchases are shown in Chart 9.

Between 1980 and 1984 the share of gilts fell from 27% to 25% in LAC portfolios, and in PPFs from 23% to 18%. Excluding *index-linked gilts* the decline was to 23% and 16% respectively. Index-linked gilts were first issued in 1981 and, as fixed-interest redeemable securities guaranteeing a real return, should be very attractive to LAPFs. Portfolio shares of 2.4% in PPFs and 1.6% in LACs were achieved by heavy concentration of cash flow in 1981–84, but LAPF demand was probably limited by

Chart 10
Fixed-interest securities other than gilts

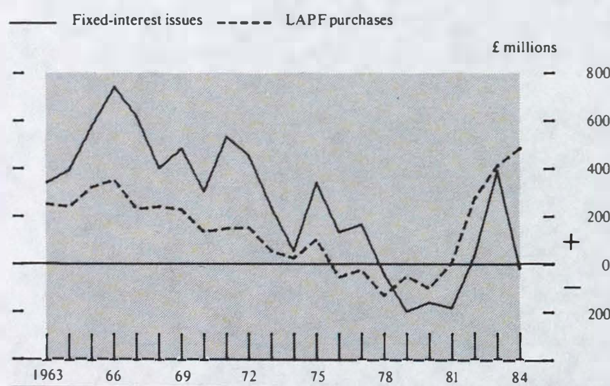


the very high returns on equities. In particular, heavy investment in overseas assets took place at this time. Demand for index-linked gilts may also have been affected by uncertainty about the nature of the young market for such securities.

The decline of *fixed-interest securities other than gilts* (FIS) began in 1967 (Chart 10). From then on the LAPFs invested a proportion of new cash in FIS which was insufficient to maintain their portfolio share, and by the mid-1970s were actually disinvesting in FIS. On the demand side such a decline might be expected in a period of accelerating inflation. Assets with income and redemption values fixed in nominal terms make an unattractive investment in such periods. With other assets increasing in value, maintenance of the FIS portfolio share would have required increasing investment as a share of cash flow.

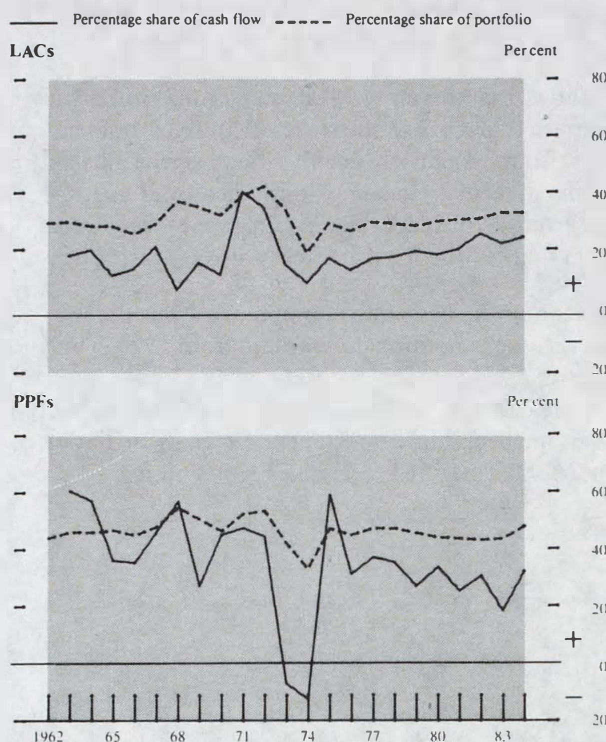
These considerations would have been more significant for PPFs than for LACs, which could still use FIS for matching purposes. However, there were significant changes in the supply of FIS over this period. Chart 11 shows that after a surge in 1965–66 net new issues of FIS declined from 1973 to become negative in 1978–81, before recovering sharply in 1982. The surge of FIS issues in 1965–67 reflected an expansion in company debt issues following the introduction of corporation tax in 1965, which reduced the cost of servicing debt relative to equity. The subsequent decline was determined by the behaviour of company net issues, which by the mid-1970s were negative. Local authority issues became negative only in

Chart 11
Net issues of other fixed-interest securities and purchases by LACs and PPFs 1963–84



1979, but remained so through to 1983. The decline of the FIS market, in which LAPFs had been principal players, was related to the acceleration of inflation and the rise of nominal interest rates. High interest rates and uncertainty about the future path of inflation and nominal interest rates encouraged company and local authority treasurers to turn to variable-rate bank finance.[1] Only by 1982–83, when rates had fallen some way, were there signs of a revival in the market, and LACs at least made large

Chart 12
Equities



purchases, sufficient to halt the decline in their FIS portfolio, albeit at a very low level.

At end-1962 fixed-interest securities and equities together accounted for 64% of LAC portfolios. By end-1984 their share had fallen a little, to 61%. The share of fixed-interest securities had fallen by 6 percentage points (gilts having gained share) and the importance of equities had increased by 3 percentage points. Equities had also become more important in PPFs, by 4 percentage points.

But the share of fixed-interest securities and equities together had fallen from 90% to 68%, as all forms of fixed-interest securities, but especially those other than gilts, had shrunk within the portfolio as PPFs diversified into other assets.

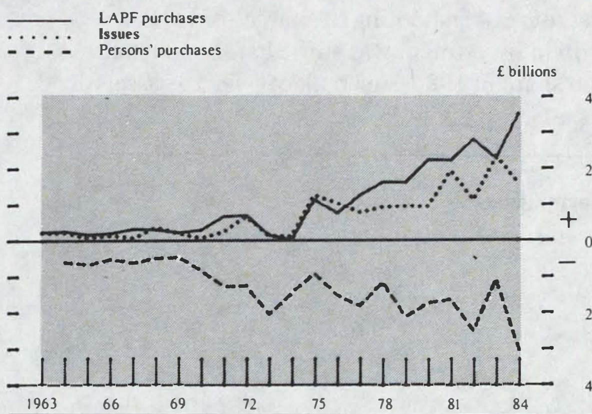
The stability of *equities* within LAPF assets, apparent when 1962 is compared with 1984, hides wide variations in portfolio share, largely caused by fluctuations in valuations. In LAC portfolios the share of equities rose as high as 42% at end-1972 and fell as low as 18% at end-1974, and in PPFs as high as 53% at end-1972 and as low as 33% at end-1974. Chart 12 shows these fluctuations and also indicates how these were dominated by revaluations. In both PPF and LAC portfolios the place of equities would appear steady were it not for the hiatus of 1968–75. The share of equities increased sharply in 1968, fell back a little to 1970, and then bounced back to end-1972, particularly strongly in the case of LACs. The stock market collapse of 1973–74, in the face of price and dividend controls, the oil price shock and great economic

(1) See 'The UK corporate bond market', in the March 1981 *Bulletin*, page 54.

and political uncertainty, sharply reduced the value of LAPF equity holdings and thus the total value of LAPF portfolios, and increased the importance of other assets. PPFs actually disinvested in ordinary shares in 1973 and 1974, whilst LACs continued to invest, but at a lower rate than in the previous two peak years. That, despite this, the value of the LACs equity portfolio fell more than that of PPFs must reflect a different pattern of equity holdings.

The recovery of stock prices in 1975 pushed PPF equity holdings back to the share held in 1970 before prices boomed and collapsed. In LAC portfolios the recovery was less full, and it was only after steadily increasing new investment and capital gains, especially from 1980, that the 1970 share was regained by 1983. In contrast, in PPFs equities actually declined in importance from 1977 to 1982, as the share of new cash flow devoted to equity investment followed a downward trend.

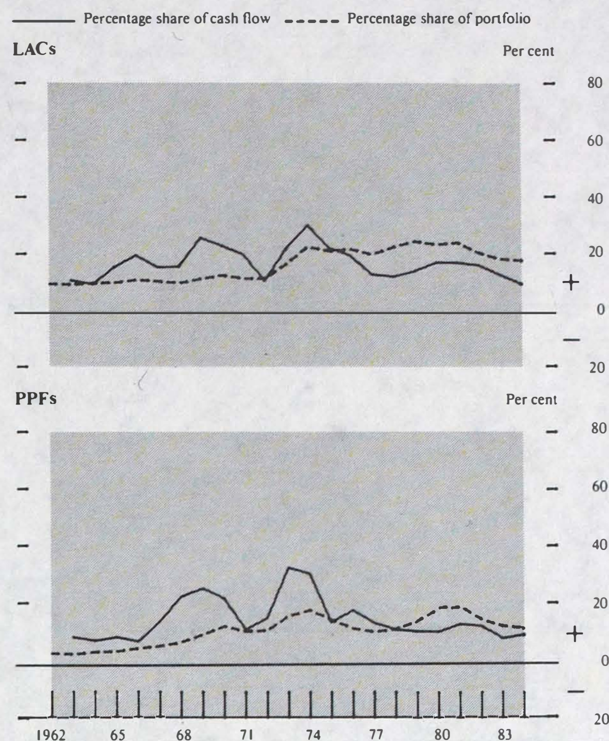
Chart 13
Issues of equities and purchases by LACs and PPFs and by persons, 1963-84



Although equity investment by LAPFs fluctuated widely as a share of total investment, overall the LAPFs were large purchasers during this period. Chart 13 shows that their purchases of ordinary shares and unit trust units exceeded the total of new shares issued. They must therefore have been acquiring, directly and indirectly, shares from other sectors. An important source was the personal sector, which as Chart 13 shows was a net seller of company securities during all of this period. Since LAPFs hold shares on behalf of savers and contributors this redistribution is no more than a switch from direct to indirect ownership. The public sector was also a net seller of shares in 1980–84.

Both PPFs and LACs were concerned to make investments which provide a hedge against high and variable inflation. LACs looked to ordinary shares, in which PPFs were already more heavily invested. Both types of fund increased their exposure to *property*. The share of property in PPF portfolios increased from 2% at end-1962 to a peak of 19% in 1981, before falling back to 11% at end-1984. In the LAC portfolio the property share

Chart 14
Property



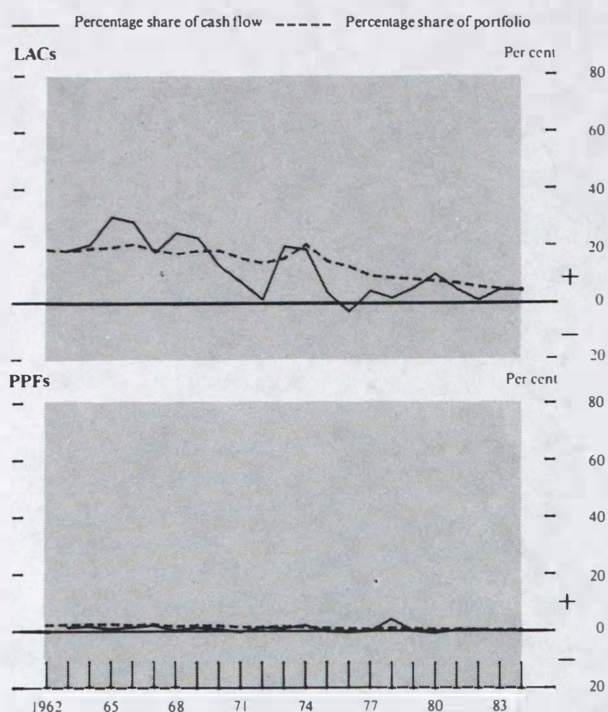
increased from 9% to 24% at end-1979, dropping back to 17% at end-1984.[1] Chart 14 shows that until 1975 both types of fund were devoting a share of new investment to property larger than its share in the portfolio, indicating, particularly with an asset expected to show capital appreciation, a desire to increase its portfolio share. This is not surprising in view of the real returns available on property compared with other types of asset (see Chart 5). The relative importance of new investment in property increased sharply in 1973–74 with the stock market collapse, and the portfolio share of property increased because of this and because of the fall in the value of equity holdings.

LACs reduced the proportion of cash flow going to property from 1975, possibly because of the property market collapse of 1974–75, but the portfolio share of property increased, reflecting the large capital gains available, from 1977 until 1979. In contrast the importance of property in the PPF portfolio declined to 1977, and not because of low levels of investment, before recovering through revaluations to 1980. In the early 1980s property declined in both LAC and PPF portfolios as values stagnated or declined.

In 1962, *loans* were an important part of LAC portfolios, accounting for 19% of assets. In PPFs they were unimportant, accounting for only 2% of assets, and by 1984 this share had fallen to 0.2% (Chart 15). In LAC portfolios loans increased a little to 1966, but subsequently declined almost continuously. This was the result of several factors, including the declining real value

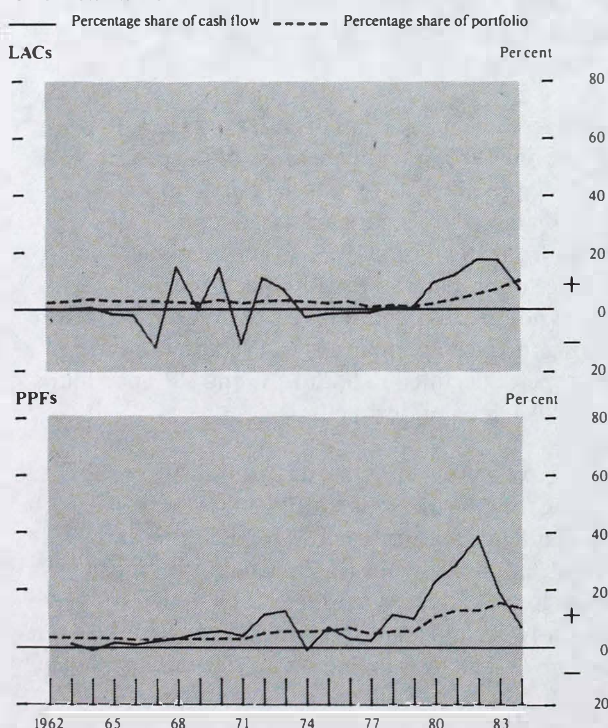
(1) PPF figures include investment in property unit trusts. See the appendix.

Chart 15
Loans



of assets fixed in nominal terms and an increased demand for variable-rate loans, as opposed to the fixed rates LACs had traditionally offered. A temporary halt to the decline was seen in 1973–74. This was partly due to the fall in value of the total portfolio as stock prices collapsed, but new loan business increased as well. In particular, house purchase loans and loans on company policies increased, probably as the effects of the residential property boom forced purchasers to seek additional sources of finance.

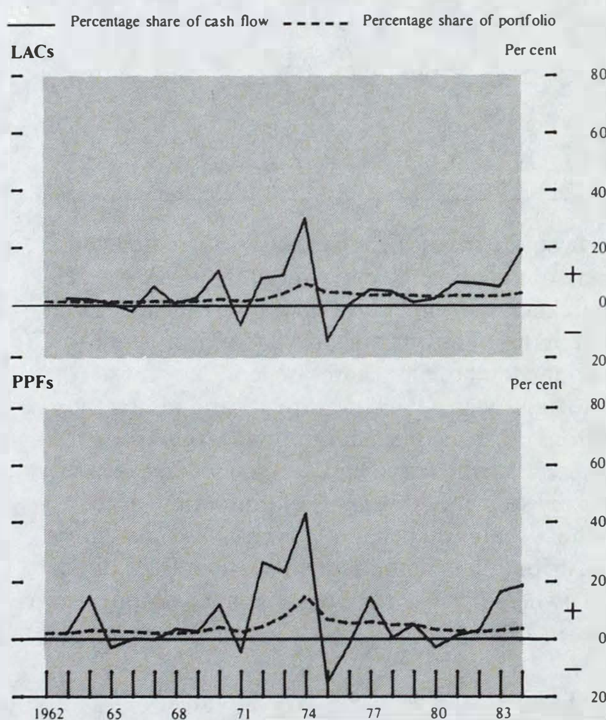
Chart 16
Overseas assets



LACs may have been willing to respond to the demand at a time when new investment opportunities were limited by the loss of faith in the equity market.

One of the most significant developments in the structure of LAPF portfolios did not begin until 1979. Until then *overseas assets* had been of only minor importance. In the LAC portfolio their share had fluctuated between 3% and 6%, and in PPFs between 3% and 7%. By end-1984, they represented 12% of LAC assets and 14% of PPF assets, having risen to 16% in 1983 (Chart 16). The rapid increase in the share of cash flow devoted to overseas assets from 1979, especially by the PPFs, suggests that until their abolition in that year the exchange control regulations had been having a constraining effect on managers, although in individual years they had previously managed to devote significant proportions of cash flow to overseas investment. The strength of sterling during this period was also an influence and the fall in investment in 1983–84 probably reflected the subsequent weakening of sterling which made overseas investment expensive and increased the value of overseas assets, and also, in the case of PPFs, some overshooting of a target, since the reduction in investment was sufficient to reduce the portfolio share in 1984. The bulk of overseas assets are equities.

Chart 17
Short-term assets



LAPF investment is long term and looks for real returns and 'matching' properties. *Short-term assets* are a depository for funds awaiting investment. Liquidity requirements are generally low for LAPFs, which have predictable inflows and outflows. Assets such as deposits and Treasury and local authority bills provide a yield but no prospect of long-term capital gain. Variation in the share of liquid asset holdings may come about because the

total value of the balance sheet changes, or because managers deliberately build up liquidity. This may happen if prospective returns on competing assets are unattractive, or because particularly heavy investment in, say, property or equities is in prospect and cash balances are built up ahead of the purchases. Increases in liquidity may be expected to be achieved by accumulation of new funds rather than by liquidation of existing assets. The scale of LAPF inflows means that rapid accumulation of cash balances is possible, and can have a significant role to play in the behaviour of monetary aggregates.

Between 1962 and 1971, the share of short-term assets in LAPF portfolios was fairly stable, fluctuating between 2% and 3% in PPFs and under 1% in LAC portfolios (Chart 17). Both types of fund saw a sharp increase in short-term assets in 1970, with more than 10% of cash flow being placed in such assets. This probably reflected uncertainties about the new government, inflationary pressures and industrial unrest, which affected confidence in the gilt and stock markets.

The increase in 1970 was very quickly run off in 1971, only to be followed by a rapid buildup in 1972–74. By end-1974 short-term assets accounted for 7% and 15% of LAC and PPF portfolios respectively. Part of this increase was the result of the fall in value of the total portfolio as stock market and gilt prices fell, but there was significant accumulation of balances. In 1974, 30% of LAC and nearly 44% of PPF cash flows were placed in short-term assets, with PPFs divesting themselves of equities in 1973 and 1974, and LACs also selling in the last quarter of 1974. Thus extreme uncertainty about markets created large short-term balances. The re-emergence of positive real short-term interest rates in 1973 may have encouraged this buildup.

These balances were rapidly run down as a proportion of balance sheets in 1975, and in PPFs continued to decline to levels more typical of the pre-1970 period until 1983. Within LAC portfolios they declined but continued to play a more important role than had previously been the case, fluctuating around 3% rather than below 1% as before 1970. In 1983 and 1984 PPFs once more began to accumulate short-term balances, with nearly 20% of new cash flows being thus invested. LACs followed suit in 1984. Two influences seem to have been at work. First, some managers may have taken the view in 1984 that equity and gilt markets were too high to warrant further investment. Second, the emergence since 1981 of high real interest rates (see Chart 4) has made the opportunity cost of holding funds on deposit relatively low.

Appendix
Asset groupings

The most important characteristics of assets are:

- Degree of liquidity—cash and deposits are highly liquid, gilts and ordinary shares are less so, with a hierarchy of declining liquidity below them through debenture and preference stock, loans and mortgages, down to property. Liquidity is determined not only by the size of the market but also by transactions costs: even a highly saleable property has high associated costs of disposal. The degree of liquidity of an asset may also be related to the size of one institution's holding relative to the total stock and the size of all similar institutions' holdings.

- Capital certainty—mortgages and loans are nominally capital certain, ordinary shares and property have associated price risks and are not. Fixed-interest securities are capital certain at maturity but until then fluctuate in value with interest rate movements. Index-linked gilts are capital certain in real terms at maturity, but until then their real value fluctuates with real interest rate movements.

- Income certainty—fixed-interest stocks are income certain, ordinary shares are not. Even fixed-rate mortgages and loans are only income certain if not repaid early or the proceeds are invested at a rate of return not lower than given by the original asset.

- Inflation hedge—index-linked gilts offer protection against inflation, and property and ordinary shares are generally expected to do so. Fixed-interest securities, short-term assets such as cash and deposits, and mortgages and loans all lose real value as the general price level rises, although the income on variable-rate assets will rise to compensate for the erosion in real capital value if interest rates rise with inflation.

- Default risk—all private sector stocks and loans carry a risk of default unless backed by some form of real security. British government securities are risk free, as is property, although both carry valuation risks except for gilts which are held to maturity. Since real assets lie behind mortgages these are also relatively free of default risk, although arrears and repossession procedures can be costly.

- Foreign exchange risk—overseas assets can be sub-divided by all the preceding characteristics, but their dominant feature can be seen as the exposure they offer to currency fluctuations, a special case of price risk. This can be covered by the use of hedging techniques.

For the purposes of this study the assets identified in the balance sheet data are aggregated into eight categories, drawing on the characteristics defined above.

1 *British government securities*
These fixed-interest securities are free of default risk and are income certain, but are nominally capital certain only if held to maturity. A relatively recent development is the index-linked security which guarantees a real return and could therefore be assigned a separate identity. Within the period covered they are relatively unimportant in the LAPF portfolio, but they are identified separately where possible.

2 *Other sterling fixed-interest securities:*
Local authority negotiable bonds and other listed securities
Preference shares
Company loan capital

Preference shares pay a fixed rate of interest but do not guarantee a payment each year. Company loan capital (debentures) pays a fixed return and is usually secured on assets held by the borrower. In general this category can be regarded as nominally income certain but capital certain only if held to maturity and if free from default.

3 *UK equities:*
UK ordinary shares (listed)
UK ordinary shares (unlisted)
Unit trust units
(LACs include any holdings of property unit trusts)[1]

This group of assets stands out as being both capital and income uncertain, but offering the potential of significant real returns. Unit trust units will include underlying investments in overseas assets.

4 *Property:*
Land and buildings (including overseas property)
Other real assets
Property unit trusts (PPFs only)

These are physical assets, or in the case of unit trusts have underlying physical assets, which may be expected on average to maintain or increase their 'real' value over time, but tend to be lumpy, illiquid investments.

5 *Loans:*
Long-term loans to local authorities
Loans for house purchase
Loans on company policies (LACs only)

Other UK loans:
UK public corporations loans and mortgages (PPFs only)
Loans and mortgages to financial institutions (PPFs only)

The characteristics of these assets may vary, depending on whether they are on a fixed or variable interest rate basis and whether there are provisions for early repayment. Unifying characteristics are their security, usually provided by some form of lien, and their general lack of liquidity.

6 *Overseas assets:*
Foreign currency CDs
Overseas ordinary shares
Overseas preference shares
Overseas debenture shares
Overseas government and municipal securities
Short-term assets overseas
Overseas loans (PPFs only)
Other overseas assets (PPFs only)

The unique feature of these assets is their exchange rate risk, although hedging techniques can be used to neutralise such risks. On a fully hedged basis, overseas securities yield a return in sterling, and have other characteristics, broadly the same as that in local currency: equities for example will still be both capital and income uncertain.

7 *Short-term variable-rate assets:*
Treasury bills
Local authority bills and temporary money
Cash and balances with UK banks
Sterling CDs
Building society deposits (LACs only)
Deposits with other financial institutions (LACs only)
Short-term assets with financial institutions (PPFs only)

8 *Other assets:*
Seven miscellaneous categories

(1) The returns made by LACs and PPFs vary slightly in some definitions, and where an asset is identified separately by one type of fund and not by the other this is indicated.