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Appendix 11

The UK with-profits life insurance industry: a market review

A report for the policyholder advocate in connection
with the reattribution of the inherited estates
of the CGNU Life and CULAC with-profits funds

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Note: This paper is academic research and does not necessarily reflect the views of the Policyholder Advocate

Contents

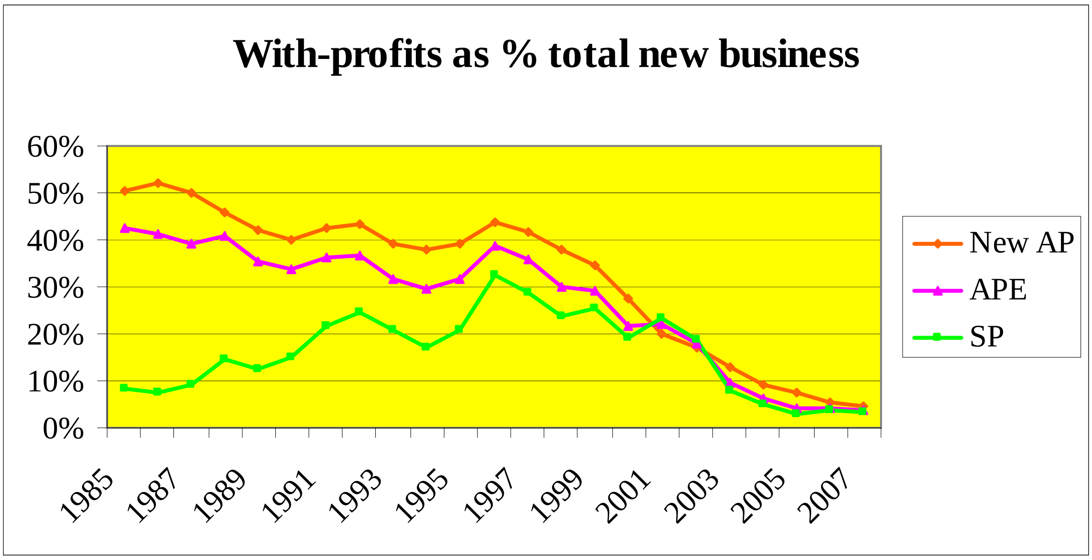
1.00 Introduction

The life insurance industry has a major presence in the UK economy. In 2007 it received £185 billion premiums and paid £170 billion in claims (ABI, 2008). It is a major investor, with assets totalling £1478 billion (ABI, 2008). Its importance is also shown through international comparisons: it is the second largest life insurance industry in the world, measured by premiums; and, measured by premiums per head, it is the largest in the world (Swiss Re, 2008). It is therefore important to understand the structure of this market and how it operates.

This report focuses on the with-profits sector of the market. With-profits business has traditionally been the mainstay of the UK life insurance market, but recent years have brought significant challenges. The financial position of many with-profits life insurers worsened following the decline in long-term interest rates and the fall in equity markets in 2000-03. Many firms have closed to new business, and the market has seen substantial consolidation, with several changes of ownership. New with-profits business has declined significantly, Chart 1 showing how the with-profits share of new business in the market has fallen for each of annual and single premium business, and for new business annual premium equivalent (“APE”), a combined measure which is new annual premium plus 10% of single premiums, commonly used in the industry[1]. The fall has indeed been dramatic: using APE as the measure, with-profits was, in 2007, only 3.7% of total new business, whereas it had been 42.6% in 1985.

[1] Note that recent new business figures have been inflated by the transfer of policies between companies.

Chart 1. With-profits as % of total new business



It is therefore opportune to examine the UK with-profits life insurance market from an industrial economics perspective. In Section 2 we examine the nature of with-profits business, illustrating some of the trends in greater detail, and with reference to the sub-markets that it comprises. In Section 3 we review a number of studies of financial services markets, in order to establish some key market indicators on which to focus. We then go on to examine a number of aspects of market structure, conduct and performance: concentration (section 4), market mobility (section 5), entry and exit (section 6), costs (section 7), products and innovation (section 8), consumers and switching (section 9), and prices and price dispersion (section 10). Section 11 contains the conclusions.

The figures in this section and in section 2 are from the author's calculations using the SynThesys Life database of Standard and Poor's.

2.00 The UK with-profits life insurance market

We begin by setting out some basic data on the development of the with-profits market, in the context of the development of life business overall.

Chart 2 illustrates that new with-profits regular premium business declined from £1,088m in 1985 to £224m in 2007. Linked business increased from £834m to £3,677m, while non-profit business increased from £228m to £1,195m (references in this section to non-profit business exclude linked business). Chart 3 shows that with-profits business has typically made only a small contribution to single premium business, which has been dominated by linked business.

Chart 2. New regular premium business

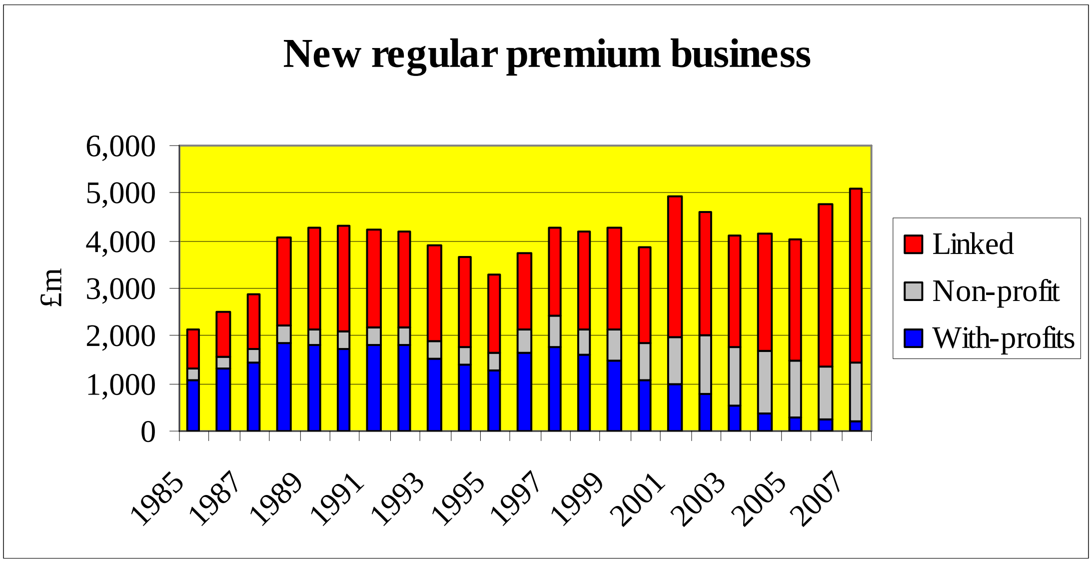
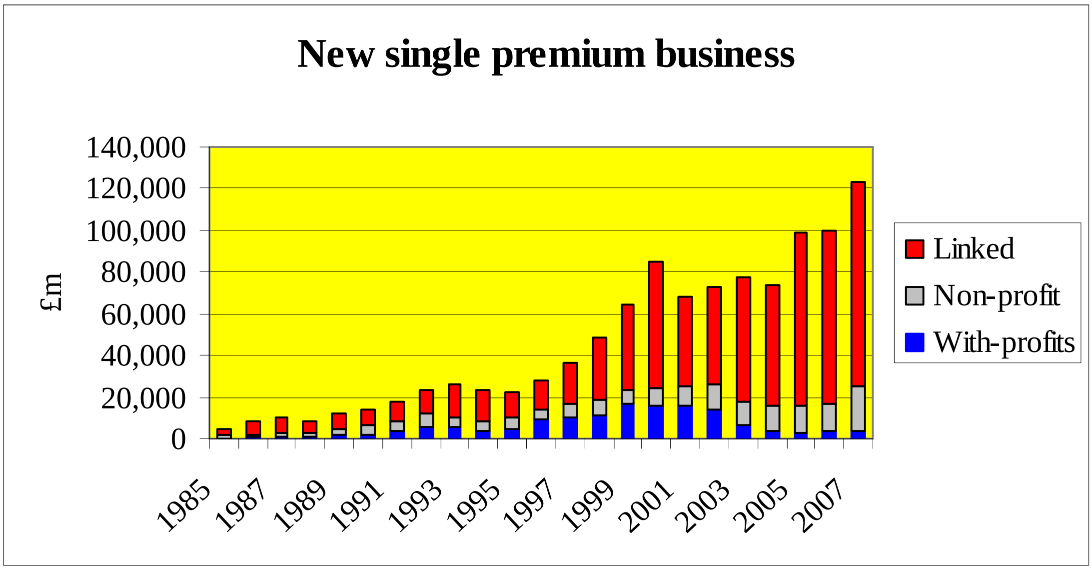


Chart 3. New single premium business



The changes in new business APE in the market are shown in Chart 4, with-profits business declining from £1,129m to £643m over the 22-year period. In contrast, linked business increased from £1,172m to £13,555m while non-profit business increased from £349m to £3,260m. Chart 5 puts the figures in real terms, using the GDP deflator, with the total of with-profits, linked and non-profit business APE increasing at an average rate of 5.2% p.a. over the period, and new with-profits business APE, in real terms, being only 27% of what it was in 1985.

Chart 4. New business APE

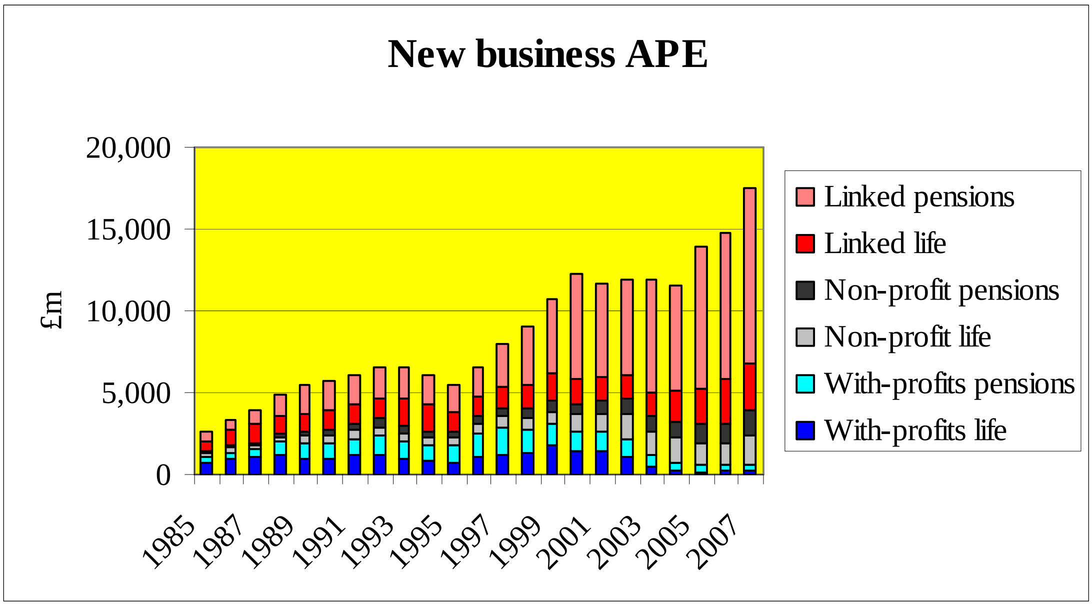
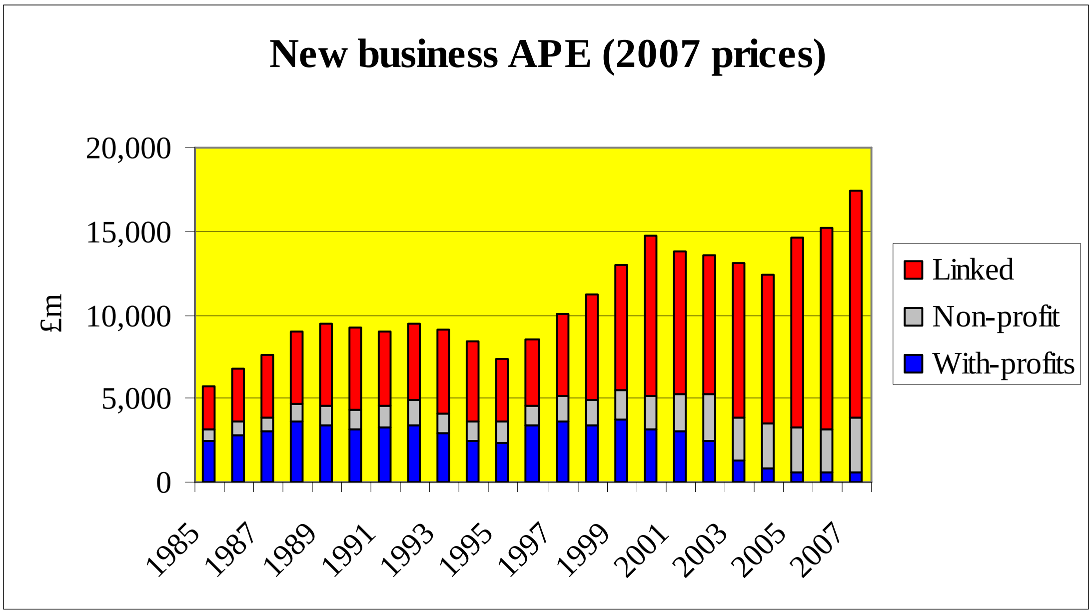


Chart 5. New business APE (2007 prices)



While this study examines the with-profits life insurance market, it consists of a number of product sub-markets. Of £1088 million new with-profits annual premium business in 1985, 62% (£675 million) was life business, with 38% (£412 million) being pensions business. However, in 1994, pensions business overtook life business in importance, and by 2007 represented 80% of new with-profits annual premium business. This partly reflects the increasing importance of the pensions market. However, it is also consistent with consumers recognising that saving through a life insurance policy in a taxed fund, with higher expenses than some other savings products is, in many circumstances, not a suitable option. In particular, where individuals wish to save to repay a mortgage, there has been a turnaround in the market. Many life endowment policies effected for this purpose in the 1990s are now no longer on track to repay the mortgage, and new borrowers would not normally find it advisable to effect an endowment policy for this purpose.

Single premium with-profits business was, in 1985-89, very largely pensions business. However, with-profits bonds emerged as a major investment product in the 1990s, so that pension business, having constituted 92% of new single premium with-profits business in 1989, was only responsible for 28% in 1999. With-profits bonds also fell into disfavour after the stock market continued to decline in 2002-03 so that, by 2007, pensions business had risen to 54% of new single premium with-profits business. However, there were indications of growing sales of with-profits bonds in 2007-08 (Shaw, 2008).

The trends are apparent from Charts 6 and 7.

Chart 6. New with-profits APE (life & pensions)

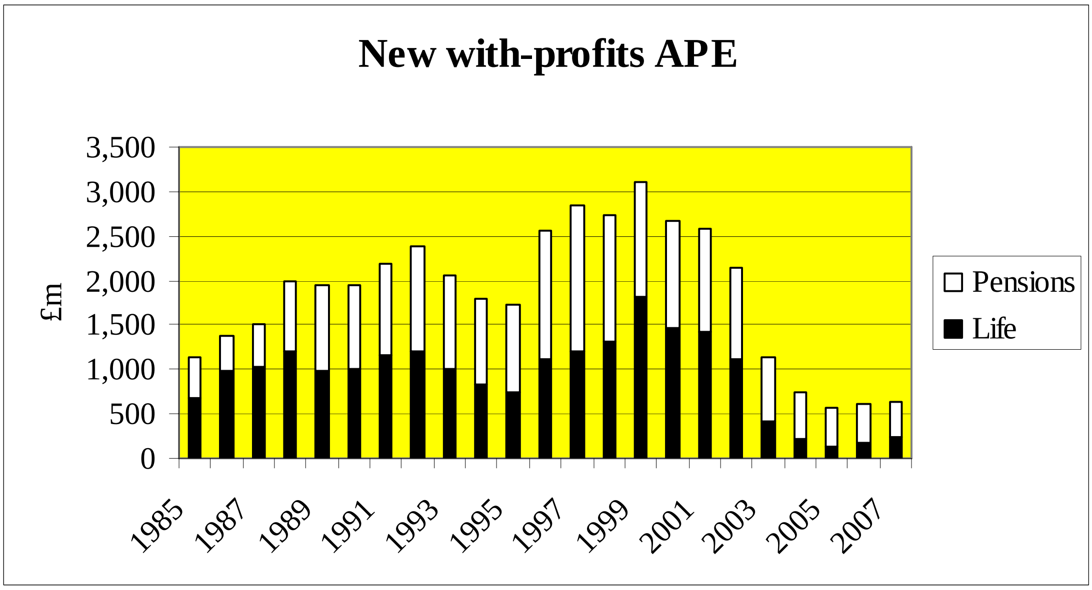
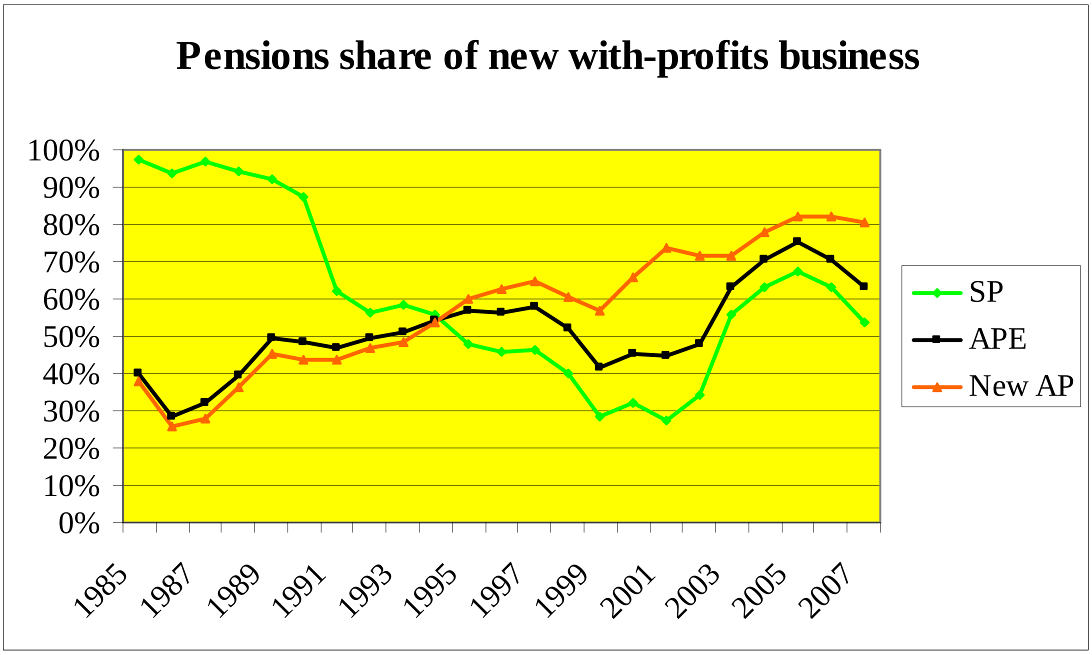
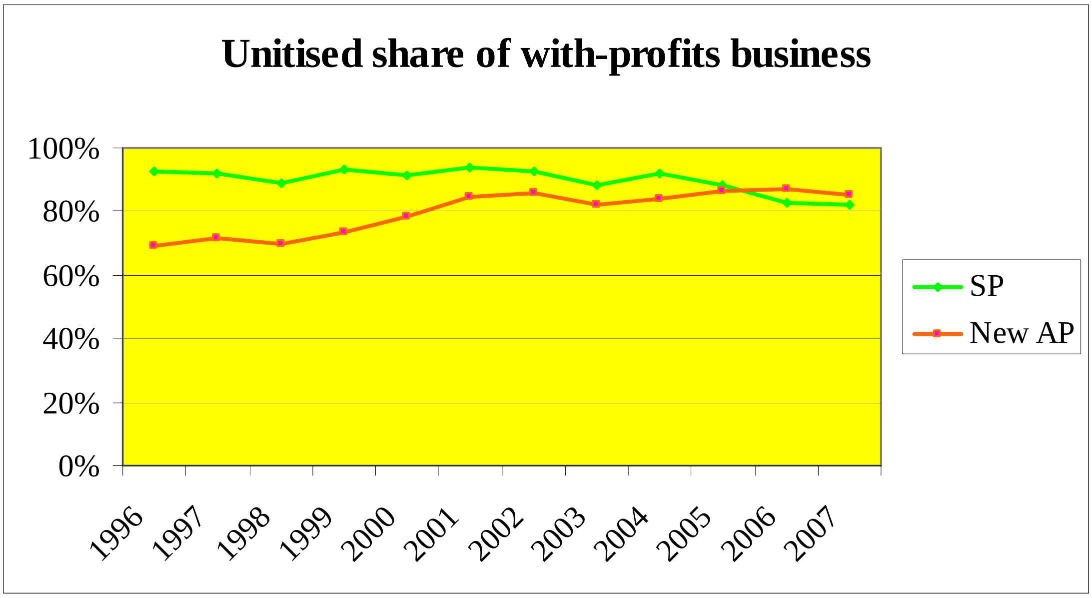


Chart 7. Pensions share of new with-profits business



The market offers products in "traditional" and "unitised" form. In traditional business, the guaranteed benefit is determined with reference to the whole of the premiums paid through the lifetime of the policy. In contrast, the guaranteed benefit on unitised policies grows more slowly: each premium, as it is paid, secures units that provide a guaranteed benefit, so that the amount payable to the policyholder depends on the number of units secured for the policyholder over time, and their value. This is therefore similar to a unit-linked policy, except that the value of the policy depends on bonuses that are added rather than directly on the value of assets. Unitised business was developed in the 1980s but separate data is only available from 1996. This indicates that unitised business was 69% of new annual premium with-profits business in 1996, rising to 85% in 2007 (see Chart 8). The comparable figures for single premium business are 92% and 82%; however, where only a single premium is payable on a policy, the distinction between traditional and unitised business is of little significance.

Chart 8. Unitised share of new with-profits business



3.00 Previous research

Market scope

In analysing a market, we need to consider what the relevant market is. The Competition Authority (2005) indicated that this involves identifying the product or group of products comprising a relevant market, as well as the geographical scope of the relevant market, based on an analysis of substitutability. It suggested the approach below:

- The relevant market includes products that are close substitutes for each other. Products outside a market may also provide competition in the future by new entry or product repositioning;

- Relevant markets have both product and geographic components. From the product viewpoint, substitutability is looked at from the demand side and supply side. From the demand side, one approach is to ask how buyers would respond to a Small but Significant Non-transitory Increase in Price ("”SSNIP”). If a SSNIP of 5% or 10% for one product would result in many consumers switching to a different product, then both products would be in the relevant market. Supply-side substitutability measures the extent to which an existing product that is currently not a good substitute for consumers could be made a close substitute with only relatively minor modifications;

- A similar methodology can be used to define the relevant geographic area. On the demand side, are products in another area close substitutes for buyers in the area of interest? On the supply side, can a supplier outside the area begin quickly to supply within the area?

Our study is of the UK with-profits life insurance market. The geographical scope is satisfactory as very few UK customers buy life insurance from overseas life insurers, and there are significant differences between national markets, such that we would not expect non-UK life insurers to find it easy to access the UK market without actually establishing a presence and being authorised in the UK. This finding that the UK is the appropriate geographic area is consistent with the view of the European Commission in the AXA/Winterthur case (European Commission, 2006) and decisions of the Office of Fair Trading, e.g. in the Pearl/Resolution case (Office of Fair Trading, 2008a).

With-profits policies are sold by friendly societies as well as authorised life insurers. Most friendly societies are very small, and often serve specialised markets, based on occupation or district. However, there are some larger friendly societies, and these can be regarded as competitors for other insurers, and it is therefore appropriate to include them in our study. Nevertheless, we do examine a number of statistics for the market exclusive of friendly societies.

As regards the product scope, the Office of Fair Trading (2008a) indicated that life insurance has three sub-categories, protection policies, pensions and annuities policies, and investment savings products. There are some different views on whether the three sub-categories should be considered together in the same frame of reference (one view is that it may depend on the context) and OFT has not reached a conclusion on this.

More relevant for this paper is the comment by the Office of Fair Trading (2008a) that further segmentation may be possible between with-profits and non-profit funds. OFT (2008a, c) has not found it necessary to conclude on this. We mention the following arguments.

From the demand viewpoint:

- With-profits may be regarded as not a separate market:
    - One view (Pearl's) is that most life insurance products satisfy similar consumer needs and can therefore be considered demand-side substitutes (Office of Fair Trading, 2008a);
    - The decline in demand for with-profits policies has been matched by the growth of demand for unit-linked policies, so these appear to be substitutes;
- With-profits may be regarded as separate:

- With-profits policies offer features of guarantees and smoothing, with substantial equity investment, which other policies do not, and customers are therefore buying a different product when they buy a unit-linked or other non-profit policy;
- Unique to with-profits is policyholders having some expectation of distributions from the inherited estate without paying a charge for that (although the expectation is imprecise and difficult to quantify);
- We do not have evidence that customers would switch to unit-linked as a result of a SSNIP.

From the supply viewpoint:

- With-profits may be regarded as not a separate market:
    - One view (Royal London's) is that there is a degree of supply-side substitutability, as most life insurance providers are present in most, if not all, parts of the market (Office of Fair Trading, 2008b);
    - Suppliers can supply some combination of life insurance protection, equity (e.g. unit trust) investment and some element of guaranteed investment, which could be regarded as "doing the same job" as with-profits life insurance;
    - Some insurers are considering new forms of product that combine equity investment with guarantees, feasible as a result of using modern hedging techniques;
- With-profits may be regarded as separate:
    - With-profits, as currently written, requires a substantial inherited estate, enabling the insurer to write new business without external financing, and to offer policyholders an investment strategy with a high proportion of equities; this restricts participation to a few incumbent firms;
    - Many with-profits firms have, in practice, used the inherited estate to pay mis-selling costs, pay shareholders' tax and/or fund strategic investments that benefit shareholders (Treasury Committee 2008), an option not available to other insurers;

- Attempts to replicate a with-profits policy by a combination of other financial products are complex and would, in practice, produce a different outcome, and lack the convenience that the consumer gains from a with-profits policy providing its specialist features in one contract; and
- New forms of product that use hedging to offer equity investment and guarantees may not be as attractive to suppliers as with-profits policies where the risks are largely taken by the inherited estate.

The review by the Financial Services Authority (FSA) of the regulation of with-profits business is further evidence of special characteristics of the business.

The author's view is that with-profits policies have features that distinguish them from unit-linked policies, both as regards demand (in particular, guarantees and smoothing) and supply (the benefit of a substantial inherited estate), which makes the market for with-profits policies a suitable topic for study. This is not to say that with-profits is necessarily a separate market consistent with the definitions of competition authorities. However, the analysis in this paper may contribute to an understanding of the economics of with-profits business and what competition issues there are.

We have to bear in mind that the impact on customers of the operation of the with-profits market is limited by the relatively small amount of new with-profits business now being written (although a large volume, purchased earlier, is still in force), and the availability to customers of unit-linked policies, albeit their product characteristics are different. A related subject is whether there are adverse effects on competition for non-profit and unit-linked business as a result of inherited estates. The Office of Fair Trading (2008c) concluded that this was not a significant issue (the author believes this is worthy of further study).

Market indicators

A major study of the economics of the UK life market was carried out by Franklin and Woodhead (1980). They used the traditional structure-conduct-performance paradigm which supposes that the structure of the market (e.g. the size distribution of firms) affects the conduct of firms (e.g. the prices they set and the innovations they carry out), which in turn affects their performance (e.g. as measured by their profits). There are, however, alternative views about whether that paradigm is appropriate. It would ordinarily be thought that a high level of concentration in an industry, with the leading firms having strong market power, would lead to higher prices and profits. As Demsetz (1973) and others have pointed out, though, the causal direction may be the reverse: firms that are more efficient are thereby able to achieve higher profits and to increase market share, leading to a highly concentrated industry, but one where those leading firms are highly efficient.

In considering the structure of the industry, Franklin and Woodhead examined the size distribution of firms and the degree of concentration (their figures are in appendix 1) and the nature and incidence of new entry. When investigating the conduct of firms, they highlighted marketing and product policy, investment management, mergers and acquisitions. Performance measures included profitability, payouts to with-profits policyholders and expense ratios.

The structure-conduct-performance approach was also used by Aaronovitch and Samson (1985), when examining the insurance industry in countries of the EEC. They examined the structure and growth of insurance markets, with topics such as concentration, competition, co-operation, barriers to entry, profitability, efficiency and innovation.

In a study of non-life insurance, The Competition Authority (2005) in Ireland considered the structure of supply, with particular reference to:

- Market concentration;
- The stability of market shares over time and level of entry and exit;
- The level of vertical integration;
- Cost and technology factors such as innovation, research and development intensity; and
- Product differentiation.

The Competition Authority was conscious of the issue that concentration may reflect the efficiency of firms rather than necessarily being a cause of firm conduct: it said that concentration in a market is at best indicative of a potential problem with competition.

Lastly, some of the issues investigated by Cruickshank (2000), who investigated competition in UK banking, are also relevant. His analysis included the following areas: the degree of concentration; price dispersion; do consumers shop around; are excess profits being made; are there barriers to switching; how many firms have entered the market; and what is the pattern and pace of innovation?

The Sandler review and the FSA With Profits Review

Sandler (2002) examined medium-and long-term retail saving in the UK, and his analysis of competition in the market paid particular attention to with-profits life business. His analysis included changes in concentration; and prices, measured by the "reduction in yield", i.e. the costs and profits of life insurers that mean customers receive back less than the accumulated value of their premiums and investment return. He identified a series of concerns about with-profits products from the perspective of competition and efficiency, which we summarise as follows:

- The product as it currently exists is extremely opaque: customers cannot determine whether the overall return on their policy has been the result of good investment performance, or whether there has been poor performance that has been smoothed up using the inherited estate;
- Ideally, competition should focus on the investment returns and cost efficiency, but the opacity of the product means that these cannot be determined;
- The focus on price and costs is weak, with charges not routinely reported to customers in a clear way;
- The main basis for competition between with-profits products has been payouts at maturity and financial strength: however, these give only a very partial picture at best of the true performance of the fund. Important issues, such as

the actual investment returns of the fund and the cost efficiency of the provider are obscured;

- With the 90:10 structure, the incentives for minimising costs are weak, and opacity is increased by the unclear nature of the 90:10 structure and it bearing no relationship to the genuine assessment of risk to which shareholder capital is exposed.

Sandler was critical of the way that inherited estates can both distort competition and lead to inefficient capital allocation; among his criticisms were that they can be used to meet excess costs, weakening incentives to minimise these; or to invest in ways which benefit shareholders disproportionately. He also made the point that, "Because of the advantages that these [inherited estate] assets deliver to incumbents, their existence tends to act as a barrier to entry to new entrants, thus dampening broader competitive pressures in the industry" (para. 6.45). He was keen for insurers to clarify the amount and ownership of inherited estate assets.

Some of his concerns applied not just to with-profits products, in particular the lack of understanding of consumers; the lack of incentives for providers to produce simple products; and the mixture of insurance accounting approaches (none particularly satisfactory) that lessened competitive pressure from shareholders.

The Sandler Review highlighted the fact that with-profit policies are very difficult for consumers to understand, a point that also underlies much of FSA's work in this area. At the point of sale, most consumers have only a very limited understanding of what they are buying, the payout on the policy depending not only on the investment return but also on factors such as what charges are applied, what miscellaneous profits are allocated to the policy, and also the company's policy of smoothing payouts. The investment return depends on the mix of assets, which can change over the lifetime of the policy, as can the company's approach to managing the fund, for example, the smoothing that is applied. Furthermore, when the policy matures, the policyholder is told what his or her payout is, but is given no information to demonstrate why the payout is what it is. A policyholder is not normally informed of the asset share for his or her policy, which would be needed to bring greater accountability in the running of with-profit business (the asset share is the accumulation of their premiums and investment returns minus costs).

Hence we have a problem of asymmetric information between insurer and customer. Not only is this because any analysis of a life insurer's with-profits business is difficult, but also because what policyholders expect to receive depends on future circumstances and management actions, which can be very difficult to predict. Only limited assistance to address the information problem is possible from the intermediary market, which also has its own problems, noticeably its dependence on commissions, which can skew incentives.

At the same time as Sandler was preparing his report, the FSA was carrying out its With-Profits Review. The FSA has made a large number of changes to its rules: this has not included the recommendations that Sandler made to change the nature of the operation of with-profits funds, but they amounted to a very substantial change in the regulatory regime for with-profits business compared to that which operated in the 1990s. These changes have increased transparency about the operation of a firm's with-profits business, and its performance. In particular, insurers issue a Principles and Practices of Financial Management document; and disclose investment returns of the with-profits fund in the regulatory returns; and publish a more realistic calculation of the inherited estate (at least for medium-sized and large firms). We now have greater focus on firms' investment strategy and performance than previously. However, many of the structures of with-profits business that led to Sandler's criticisms remain in force.

Topics for investigation

These previous studies help inform the current study on what it is appropriate to investigate as regards the UK with-profits life insurance market. Using publicly available information we can investigate the following questions, in the sections as indicated:

- What is the degree of concentration in the market (section 4)?
- What is the mobility of insurers' market positions over time (5)?
- What is the experience of entry to and exit from the market (6)?
- What is the structure of firms' costs (7)?

- What can we learn from the nature of with-profits product innovation (8)?
- What can we learn about switching and persistency (9)?
- What is the dispersion of prices (10)?

Ideally, we would examine the profitability of with-profits life insurers. However, this is fraught with problems, because of the unsatisfactory nature of life insurance company accounts. The International Accounting Standards Board is working on a project to address this, but it is incomplete. The Accounting Standards Board (2004) introduced a new standard for medium-sized and large with-profits life insurers (FRS27), but this does not identify fully the interest of the shareholders in the assets shown on the balance sheet. Meanwhile, most proprietary life insurers in the UK have been reporting their results on an "embedded value" basis[2]; and whilst this arguably gives greater insights into the performance of the business, insurers still perform their embedded value calculations on different bases, and while data is available at holding company level, it is not available at the level of individual life insurance companies. The further problem we have is that several with-profits life insurers are mutuals, the profits of which are shared with policyholders, and are inconsistent with the profits reported by proprietary insurers as allocated to their shareholders. This study, therefore, makes no attempt to assess the profitability of with-profits life insurers.

One other area we are unable to investigate in this study is consumer choice and the role of intermediaries, which would require the collection of additional data.

4.00 Market concentration

Introduction

An industrial economics perspective of markets has traditionally emphasised the degree of concentration in the market. However, high concentration may reflect either a lack of competition or the outcome of competition, as successful firms increase their market share

[2] The embedded value is a measure of the value of shareholders' interests in the business

(Demsetz, 1973). If the latter applies, high concentration may still need monitoring to ensure that there is no market power leading to abuse and consumer detriment.

Nevertheless, to understand the with-profits market, we do need to understand the market structure and the extent to which the market is concentrated. We firstly address a number of questions:

- The geographical unit of the market;
- The product definition and product sub-markets;
- The output or other performance measure used to measure concentration;
- The definition of firm; and
- The concentration measures to use.

The geographical unit for the study is the UK, and with-profits policies are the product group, as referred to in section 3.

The market for with-profits business is not uniform: there are sub-markets, reflecting the purpose of the purchase of the policy. We consider:

- Regular premium life business – largely endowment policies, but also including whole life;
- Single premium life business – typically with-profits bonds;
- Regular premium pension business – i.e. saving towards retirement; and
- Single premium pension policies – typically single premium saving towards retirement, but also including with-profits annuities.

The sub-markets are not entirely separate, however. For the most part it is relatively easy for an insurer operating in one sub-market to move into another, except possibly for with-profits annuities (which bring additional longevity risks). We shall therefore largely consider the market as a whole.

The market can also be segmented by distribution channel, although we are hampered by the absence of product-specific data by distribution channel, and therefore do not pursue channel-specific concentration measures, although we comment on distribution when we consider prices later.

The data includes both ordinary and industrial branch business, the latter historically being low-premium business where a life insurance company salesman collects the premiums from the household. In practice, very little industrial business is now sold.

Industry concentration is usually measured with reference to output (or capacity), but the question of what constitutes output in the life insurance industry and how to measure it has been controversial. A number of authors have used claims (including the increase in a firm's liabilities) as a measure of a firm's output (e.g. Cummins and Zi, 1998). However, this has been criticised: a firm will not wish to have a higher rather than a lower amount of claims (Diacon et al, 2001). One approach, used in the UK national accounts, is to say that a firm's output is the sum of the premiums it has received plus the investment return it has earned minus the claims it has paid (including the increase in its liabilities): this represents what policyholders are paying for the services the insurer is providing, being the amount they are forgoing from what they would otherwise have received (O'Brien, 1991). However, the nature of life insurance accounting data means that it would be difficult to construct a suitable measure of concentration based on output measured in this way.

We therefore measure concentration with reference to other market indicators: assets, liabilities, premiums and new business.

Assets is a measure that is clearly relevant to concentration of power in investment markets, although with-profits life insurers are not, of course, the only investors. Concentration by measure of liabilities is more directly relevant to the potential effects of concentration on customers, although it reflects largely the build-up of liabilities over the years. The premium measure does combine the effect of new and existing business. However, most important for competition and the potential impact on consumers is concentration of sales, hence we regard new business of particular importance.

We now consider what we mean by "firm". Although data is available for each authorised insurer, there are many cases where two or more insurers belong to the same "group", i.e.

share the same ultimate holding company. The firms in a group typically share the same management, and it is reasonable to suppose that they are managed together. Our unit of analysis is therefore at group level.

Lastly, we need a measure of concentration, and we use:

- n-firm concentration ratio (CR_n), i.e. the market share of the n largest groups: we focus on n = 4, 10, 20; and
- The Hirschmann Herfindahl index (HHI), i.e. the sum of the squares of the market shares in percentages (hence with a score of 10,000 for a monopoly; 500 if there were 20 firms all having a market share of 5%).

The European Commission's Directorate-General for Competition (2007) uses the HHI as a measure of the level of concentration, describing a market as un-concentrated if the index is less than 1000; moderately concentrated if between 1000 and 1800; and highly concentrated if above 1800.

Previous findings

Most previous studies relate to the UK life insurance market as a whole. There are also a number of issues of definitions and coverage, and it is likely that there are some differences of detail in the surveys reported. Specifically in relation to with-profits business, Sandler (2002) referred to 84% of sales being from 13 firms.

We show the results of previous research, on the UK life market as a whole, up to the year 2000, in appendix 1. Our general observations are:

- Concentration levels are low: the HHI is generally well below the 1000 mark that may raise issues about market power;
- Using the figures from the 1990s on new business, while there was an increase in concentration in 1993-98 this did not continue to 2000, and concentration appears less than in 1960-72;

- While we would expect greater concentration when using figures on new business than on other measures, given that some insurers are closed to new business, this does not appear to have been the case.

While this paper is unable to cover research in non-UK markets, we note that the HHI is generally lower in larger markets, which may be a result of economies of scale leading to small markets being unable to support a large number of firms (Swiss Re, 1999).

Data

The data we use for the research in this paper is from the SynThesys Life database of Standard & Poor's, which collates data from the regulatory returns of insurers who are authorised by the UK regulators. This is combined with data collected by the Centre for Risk and Insurance Studies at the University of Nottingham. SynThesys Life has very nearly 100% complete coverage of UK life insurers (slightly less in the earlier years of the survey, but the difference is not material).

We exclude firms that are pure reinsurers, and we exclude firms not operating in the UK.

We use data for UK contracts; except that assets are for a firm's worldwide business (most firms do not have a material amount of non-UK business). Assets are largely at market value.

Data on assets and premiums are available for each firm but not specifically for a firm's with-profits business. We therefore define a firm as a with-profits firm if at least 40% of its liabilities are with-profits or if its with-profits liabilities are at least £8 billion (in 2007, or the equivalent, at constant prices, in earlier years); this is consistent with the definition in Ernst & Young (2008). We then analyse concentration figures based on the assets and premiums for such firms.

The data on liabilities and premiums are net of reinsurance. The new business data relates only to directly written business.

Findings

The main points can be summarised as follows (the data are in appendix 1):

- Concentration is greater for new business than for the other indicators; this is not surprising given that several firms have closed to new business;
- The HHI for new business APE was 720 in 2000, lower than in any of the years 1995-99; it then increased to 1653 in 2007 (in the "moderately concentrated" range); it was in 2002 that it first reached over 1000;
- The 4–firm concentration ratio, using new business APE, was 42% in 2000, lower than in any of the years 1995-99, but then increased to 65% in 2007.

The top four companies, by new business APE, in 2007 were: Prudential (32.7%), Aviva (20.6%), Aegon (5.8%), and Legal and General (5.4%). The Prudential's market share has grown from 20.2% in 2003. Aviva's market share has also grown; it was 6.2% in 2003. The top with-profits insurer in 2002 was Standard Life (25.1%); in 1995-2001 the only instance of an insurer having a market share over 20% was Equitable Life (22.8% in 1995).

Charts 9 and 10 illustrate the trends.

Chart 9. HHI

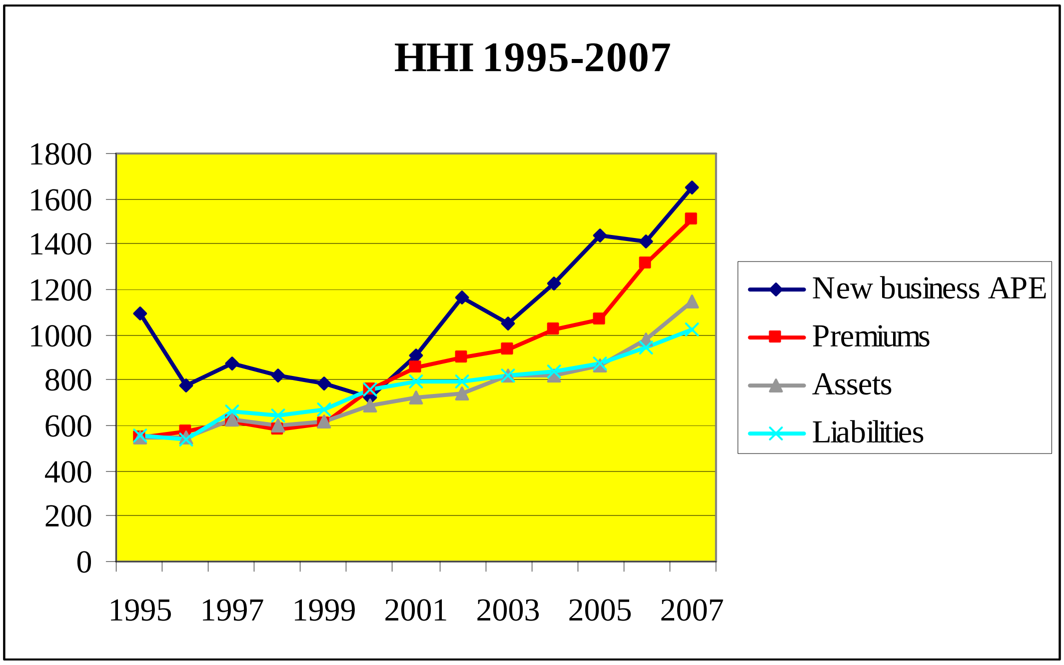
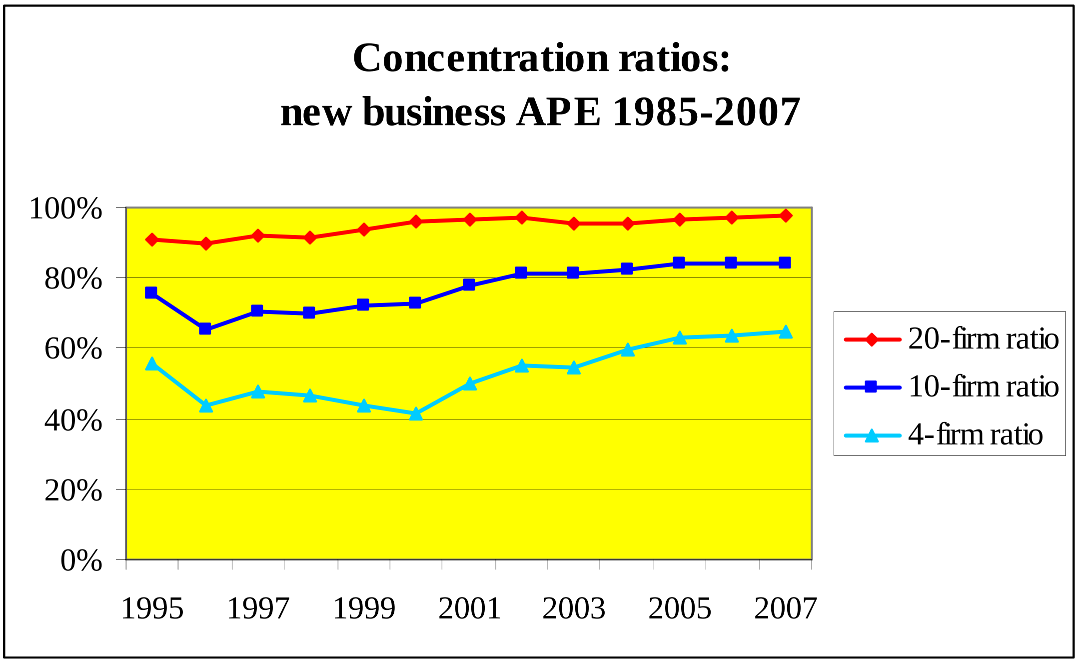


Chart 10. Concentration ratios: new business APE



The sub-markets typically show higher levels of concentration than the with-profits market as a whole (see appendix 1). These high levels may not cause undue concern as it is relatively easy to move between sub-markets. However, we note the especially high HHI of 3031 for single premium with-profits life business, where Aviva had a market share of 49.1%.

In contrast, we can compare the HHI of 1653 for new with-profits business APE with the figure of 608 for all new business (with-profits and other), where there is clearly a relatively low level of concentration. This is consistent with the Office of Fair Trading's (2008a) comment that the industry is highly fragmented with numerous competitors.

Comments

The HHI in excess of 1000 for new business (1653 in 2007) indicates that the with-profits market is now moderately concentrated. The index has increased markedly in recent years. This reflects both demand-side and supply-side factors.

The declining with-profits market was highlighted in sections 1 and 2. Many customers have been disappointed by the payouts achieved or projected under both with-profits and unit-linked products, as a result of the decline in equity markets in 2000-03. However, the reputation of with-profits policies has suffered more, as customers realised that the protection offered by smoothing in with-profits was quite limited. There has been particular dissatisfaction that many with-profits mortgage endowments will not pay off mortgages.

Complementing the decline in demand have been supply-side factors. Low rates of interest have led to an increase in the cost of providing guarantees on a product that contains a significant amount of equity investment. However, the amount of capital in the industry has declined as a result of the fall in interest rates together with the stock market crash of 2000-03. Not all with-profits insurers were left with sufficient capital to maintain the degree of equity investment that was needed to attract new customers. We may therefore regard the increased concentration being the outcome of a process whereby weak insurers withdrew, and only the better quality players (in terms of financial strength and ability to offer equity investment) remain in the market. We review this further when we consider entry and exit in section 6.

Concentration is only one of the features of the market, albeit an important one, and in the remaining sections of the paper, we focus on other indicators, that help us understand whether the increasing concentration is a matter of concern.

5.00 Market mobility

The degree of change in the with-profits market is clear from examining who were the top 10 insurers (by new business APE) each year from 1995 to 2007. The full table is given in appendix 2.

Of the top 10 in 1995, three have closed to new business: Equitable, National Provident Institution and AMP (the last having withdrawn from the UK market). General Accident and Commercial Union are now part of Aviva plc. Scottish Widows and Standard Life have demutualised. Prudential, Aegon and Co-operative are also in the top 10 in 2007; Prudential has always been in first or second place; the latter two companies have not been consistently in the top 10.

While the market is now moderately concentrated it has certainly not been stable, and this is evidence of competitive pressures to remain a leading firm in a period when demand has been declining.

6.00 Entry and exit

Market entry

We now consider how the process of entry operates in the with-profits market, and what we can learn about competitive pressures. Potential entry is the most important determinant of workable competition (although what we observe is actual rather than potential entry).

Most with-profits life insurers were established many years ago, many dating back to the 18th or 19th century. Only one firm writing with-profits business has been established since 1995: Pension Annuity Friendly Society. This was founded with capital provided by a bank and a reinsurer, so it differs from the traditional with-profits firm, where the capital is thought of as having been largely provided by policyholders. The society demutualised, transferring its business to a proprietary life insurer, Partnership Life, in 2005. However, given the decline in with-profits business sales, the fact that there has been only one recent entrant is not surprising.

A difficulty for new entrants is to establish distribution outlets, which is one reason why U.K. life market new entrants have had only modest levels of sales (O'Brien, 2001). If a firm is to rely on its own sales force, it will take time (and capital) to build this up, while it is difficult for a new insurer to establish a reputation that will result in high levels of sales from independent financial advisers. The alternative of 'direct' channels such as using the internet has not been easy.

New entry into the with-profits market has also been inhibited because incumbent firms have a substantial excess of assets over liabilities, a so-called 'inherited estate,' generally the result of firms paying policyholders in the past less than 'asset share' (the accumulation of their premiums and investment returns minus costs). This represents capital, the rights to which are not precisely defined, but the general view is that both policyholders and shareholders have an interest in it (which may be in the ratio 90:10).

There are both demand- and supply-side reasons for regarding inherited estates as restricting competition. The demand-side reason is that new policyholders have some expectation of receiving distributions for the inherited estate, for which they are not charged. Indeed, since the expectation is imprecise it is difficult to quantify it. In practice, it is not clear how much this affects the demand for with-profits policies. However, new providers cannot replicate this and it is therefore a potentially distorting feature.

On the supply side, the inherited estate is used to finance new business and take investment risks (permitting high levels of equity investment) where the downside is shared between policyholders and shareholders. So, while we may ordinarily think that capital should not be a barrier for new entrants – who should be able to raise capital if the new business is profitable – this would mean putting shareholders' capital at risk in a way that does not apply to existing firms, where most of the risks can be borne by the inherited estate. Furthermore, many with-profits firms have, in practice, used the inherited estate to pay mis-selling costs, pay shareholders' tax and/or fund strategic investments that benefit shareholders (Treasury Committee 2008), an option not available to other insurers

The Office of Fair Trading (2008c) concluded that the cost of capital for with-profits firms using the inherited estate is not significantly different from the cost to other firms. However, it is not clear that this is consistent with the benefits that shareholders of with-profits firms are gaining. While the size of inherited estates has tended to fall over time (Office of Fair Trading, 2008c), the few remaining firms where the inherited estate is large can still benefit. The OFT's preliminary conclusion that inherited estates are not significantly distorting competition is therefore open to question.

A large inherited estate means that an insurer is financially strong, and strong firms tend to have a higher proportion of equities in their fund, which makes them attractive to policyholders. To demonstrate this, we use data from the regulatory returns of the 36 with-profits life insurers who report to the FSA with a 'realistic balance sheet' at 2007[3]. We measure financial strength as the excess of the realistic value of assets (plus certain assets available under 'support arrangements') over the realistic value of liabilities, divided by those liabilities. Of those 36 firms, some write little new with-profits business, and they have prepared their balance sheets on the assumption that any surplus assets they have will be distributed to policyholders as bonus: this constitutes a 'planned enhancement' to the benefits payable to policyholders, and is therefore counted as a further liability, hence eliminating (or largely eliminating) what would otherwise have been surplus assets. We calculate their 'adjusted' financial strength by calculating their liabilities without those planned enhancements (using approximations where necessary).

The adjusted financial strength varies from nil to 79.6%, with an (unweighted) arithmetic mean of 12.1%. Equities vary from 0.2% to 74.0% of the assets, with a mean of 37.9%. The correlation coefficient between adjusted financial strength and the equity proportion is 0.5098 (p-value 0.0015), clearly highly significant. If we divide firms into the "strong" (i.e. with adjusted financial strength above the median) and those that are "weak", the average (unweighted) equity proportion in the strong firms is 42.9%, compared to 32.9% in the weak firms.

New entrants to the life insurance industry have largely written non-profit and unit-linked business. Without an inherited estate it is difficult, if not impossible, to write with-profits business as traditionally operated: this appears a significant barrier. This means that not only is this an increasingly concentrated market but also it is not contestable, in the sense of there being potential entrants who could force existing firms to behave as if the market were less concentrated (Baumol et al, 1982). However, the rapidly declining demand for with-profits business has also been a major factor in what sectors new entrants write new business.

[3] The 'realistic balance sheet' sets out the assets and liabilities of major with-profits life insurers on a broadly market-consistent basis, the valuation of liabilities taking into account their obligations to pay bonuses and the guarantees and options on policies.

As mentioned earlier, entry to the market may also be inhibited by firms subsidising new business, which we refer to in section 11.

7.00 Exit

Exiting from the life insurance industry is not straightforward, given that firms have long-term liabilities. In practice, it is usual for a life insurance company to be a subsidiary of another entity, which may sell the life insurer to another firm. Alternatively, an insurer may close to new business, although the firm is still exposed to the risks from the existing business.

The UK life insurance industry has seen many firms close to new business in recent years, and a number of "life fund consolidators" have grown up to acquire closed books of business. O'Brien and Diacon (2005) make the point that this can be a stimulus to competition: new entry to the market can be encouraged by firms knowing that, in the event that entry is unsuccessful, there is a potential exit strategy - close to new business and sell to another party. O'Brien and Diacon (2005) examined closures in the UK life industry in 1995-2004, including both with-profits and other firms. They examined the characteristics of firms three years before they actually closed, and found that firms were more likely to close if they:

- Had a low margin of solvency;
- Were doing low amounts of new business;
- Had high acquisition and/or maintenance expenses; and
- Were proprietary rather than mutual.

This is consistent with what economic theory leads us to expect: financially weak firms operating with high costs are firms that fail to attract customers in a profitable way and close.

8.00 Costs

We investigate the cost structures of with-profits life insurers for two reasons. First, we consider the inter-firm variation in expenses. If the variation is high, this raises questions about whether the market is operating effectively so as to eliminate unnecessary costs. We also add to the evidence about what cost differentials there are between mutual and proprietary life insurers. Second, we investigate whether small insurers are at a cost disadvantage: if so, this can inhibit market entry.

We use the data in firms' regulatory returns to FSA for 2007. We carry out the analysis for with-profits firms, which we define as those where with-profits liabilities are at least 40% of their long-term liabilities, or where they have at least £500m of with-profits liabilities and hence are required to publish "realistic balance sheets" in accordance with FSA rules. There are 59 such firms. These comprise 27 proprietary and 32 mutual firms; the latter include 25 friendly societies. We prepare some aggregate figures including friendly societies, but for the bulk of the analysis we concentrate on the figures excluding friendly societies.

We exclude certain firms from the analysis. Wiltshire Friendly Society has no expense data on SynThesys Life; and Standard Life Pension Funds Ltd does not report acquisition expenses although new business is positive. In analysing maintenance costs, we exclude two further firms: Communication Workers Friendly Society and Pharmaceutical & General Provident Society, neither of which classifies any expenses as maintenance. That leaves 55 firms: 26 proprietary and 29 mutual firms (including 22 friendly societies).

In analysing acquisition costs, we only include firms that are open to new with-profits business (which means excluding firms open only for increments and options on existing business), leaving 34 firms. These comprise 13 proprietary firms and 21 mutuals (including 17 friendly societies).

Firms analyse their expenses into five categories:

- Management expenses in connection with the acquisition of business, which we refer to as acquisition expenses;
- Commission in connection with the acquisition of business, which we refer to as initial commission;
- Management expenses in connection with the maintenance of business, which we refer to as maintenance expenses;

- Other commission, which we refer to as renewal commission; and
- Other management expenses (which may be project expenses, for example).

We refer to the sum of commission and management expenses as “costs”.
In carrying out the analysis, there are a number of factors to bear in mind. First, firms have some discretion in how they categorise expenses, so some of the figures may not be entirely consistent. Second, we carry out the analysis at the level of individual insurance company; in some cases, that company may be part of a larger group (e.g. it may have a sister company writing unit-linked business), although we would still expect any relationship between expense ratios and size to be apparent from the individual company data. Thirdly, some of the differences between firms in their costs may reflect genuine differences in the service they are providing to policyholders, but information on this is not available. Lastly, the industry has been in a process of considerable change, with many firms re-structuring their business and all having to cope with substantial regulatory change, so we cannot be sure that the conclusions will necessarily apply in the future.

Some insurers write a substantial amount of pension business through employers. These group pension arrangements may involve cost savings, and may be a reason for larger firms to have lower cost ratios on pension business.

We calculate a firm’s acquisition expense ratio as its acquisition expenses divided by new business annual premium equivalent (“NBAPE”). Since new business figures are only available on a basis that is gross of reinsurance, we correspondingly use acquisition expenses on a gross basis (for some firms, this may result in a distortion, depending on the nature of any reinsurance agreement). Similarly, we calculate the initial commission ratio, as the ratio of initial commission, divided by NBAPE, again gross of reinsurance.

We refer to “acquisition costs” as the sum of acquisition expenses and initial commission, and correspondingly derive the acquisition cost ratio as the sum of the acquisition expense ratio and the initial commission ratio.

We calculate the maintenance expense ratio as a firm's maintenance expenses divided by existing business annual premium equivalent ("EBAPE"). EBAPE is the sum of the regular premiums received by the firm plus 10% of the single premium in the year. It is acknowledged that this ratio could be calculated with a different denominator: however, while some authors have calculated expense ratios by dividing by premiums as a whole, it did seem inappropriate for a maintenance expense measure to give full weight to single premiums. These figures are calculated gross of reinsurance, for consistency with the approach taken to acquisition costs.

We calculate a firm's renewal commission ratio as the renewal commission divided by existing business regular premiums. It is not appropriate to include single premiums in the denominator, although some firms do pay renewal commission on the funds accumulated under single premium policies which commenced in earlier years. This ratio is also calculated gross of reinsurance.

It is also of interest to compare costs with a firm's assets. The figures for assets are available only on a worldwide basis. It is appropriate to use costs net of reinsurance in this measure, and we therefore develop a number of ratios for different types of cost, divided by worldwide assets (taken as the average of the assets at end-2006 and end-2007, as an approximation to an average figure for 2007). The ratios presented include that for "other management expenses", which are those that the firm categorises as neither in connection with acquisition nor maintenance.

We show the cost ratios separately for UK life business, UK pensions business, and total UK business. We also distinguish between:

- Friendly societies and others; those others are also analysed between:
- Small and large (based on UK total NBAPE in the case of new business and UK total EBAPE for maintenance); and
- Mutual and proprietary (mutual firms tend to be smaller than proprietary).

We mention that much previous research in the UK has tended to find that mutuals' costs are lower than those of proprietary firms (Diacon et al, 2004).

The results are reported in appendix 4, and we highlight the main findings as:

- There are some substantial differences between firms in the ratios;
- Costs tend to be higher in life than in pensions business;
- Small firms tend to have higher expenses than large firms, although there is some offset from the tendency for firms with low expenses to pay relatively high commission;
- While mutuals have higher costs than proprietary firms in some areas, this is not a consistent finding; the limited sample size makes it difficult to draw conclusions, and the small size of most mutuals is a relevant factor;
- Friendly societies have higher expense ratios and lower commission ratios than others.

We can observe some relationships from pairwise correlations (shown in appendix 4), although these may not be reliable as they do not standardise for the effects of other variables, and it would be useful to pursue this research into costs using a more detailed multivariate analysis:

- There is a strong tendency for firms writing a large amount of new business to have a low acquisition expense ratio;
- For pensions business, there is a strong tendency for firms with a large amount of existing business to have a low maintenance expense ratio; and;
- Firms with a low expense ratio for acquisition tend to have a low ratio for maintenance.

We conclude that cost structures may favour large firms. This suggests there are benefits from the increased concentration in the industry; Sandler (2002) had expressed concern that industry fragmentation had hampered progress towards greater efficiency through economies of scale. There do remain significant cost differences between firms, which may reflect weak competitive pressures, although firms may specialise in certain products or markets as, for example, friendly societies do, and this may help to offset apparent cost disadvantages.

9.00 Products and innovation

Previous research has demonstrated that consumers have a poor understanding of with-profits policies, and there is a strong desire for products to be de-mystified and made more understandable and accessible (Financial Services Authority, 2002). In this section we consider whether the market has been effective in product innovation.

Most with-profits products sold now have a quite different design from traditional with-profits products as sold prior to the 1980s. Most new business is unitised with-profits, one particular form of which has had a substantial impact: with profit bonds were introduced in the late 1980s and provided competition for unit-linked bonds in the market for single-premium savings business.

The reduction in interest rates since the early 1990s has led firms to reduce the guarantees on their products, so that many policies now offer merely an accumulation of premiums, minus charges, with the bonus providing the investment return. However, firms have developed other means of introducing guarantees of some sort. Some policies have a guarantee that no market value reduction will be made at certain points in the policy lifetime; and one firm introduced a bond that guarantees the return will be not less than the rate of inflation.

With-profits annuities were introduced by Equitable Life in the late 1980s, followed by Prudential in the early 1990s, and a flurry of firms in the late 1990s (Money Marketing, 2000). In 2000 Windsor Life became the first insurer to offer with-profits structured settlements, followed by NFU Mutual (Lewis, undated).

The product charging has altered, too. Much new business is written on the basis that the deduction from asset shares for expenses is not the actual expenses incurred, but is a defined charge, with the risk that actual expenses are higher being borne either by the inherited estate or by a separate management services company. Changes in charging structures have also included more firms making explicit charges for the guarantees provided by their products.

Some firms have introduced greater sophistication to the investment of their assets. For example, several insurers now have a different mix of assets in their inherited estate from asset shares (this used to be the exception: see the survey in 2000: Tillinghast, 2001). Some firms also vary the equity content of asset shares depending on the extent of guarantees in the product and, in some cases, the term to maturity. There has also been more extensive use of derivatives.

Distribution is an important part of life insurance. The industry has seen many changes since the introduction of the Financial Services Act in April 1988. These include the decline in direct sales forces and the introduction of web-based marketing and sales, albeit on a modest scale. London Economics (2000) calculated approximate concentration measures for sales in the tied sector and derived markedly higher figures than for the market as a whole. However, developments in distribution are not specific to with-profits business, and we do not consider them further.

It is possible to be critical of some innovation. HM Treasury (2000) say, in relation to retail financial products,

"… it has been possible to over-engineer products to appeal to advisers more than to customers. This typically introduces such complexity that it can be almost impossible for people to select financial services without advice."

On the other hand, they say, "Fortunately not every financial services firm has a strategy of selling products so complex that customers are readily misled. Some appreciate that looking after their customers' interests is a sound way to develop service relationships – often long-term – to benefit both the public and their businesses" (page 13).

It is true that there is a great number of financial products, many complex and many that differ only a little (Sandler, 2002). However, the author's view is that some of the criticism is harsh. Finsinger, Hammond & Tapp (1985) found that the life insurance market in the UK developed in a more innovative way than that in Germany when, prior to the single European market, the German market was more tightly regulated: they saw clear benefits of competition encouraging product development. Recently the UK industry has been very aware of the criticism of poor transparency in product charges and features, and the Association of British Insurers Raising Standards Quality Mark Scheme included a standard that required firms to discontinue certain product charging structures which were misleading or difficult to understand.

We comment that the industry has not taken up the challenges of more radical changes for with-profits products, as suggested by Clay et al (2001) and Sandler (2002). However, there has been little development on these lines, which may partly reflect the financial advantages of with-profits insurers who have an inherited estate to bear risks which, in the case of alternative products, have to be borne by shareholders.

10.00 Consumers and switching

One of the concerns is that insurance is often regarded as being sold rather than bought, and normal market disciplines may not apply. However, that concern may be exaggerated. In a survey of unit-linked personal pensions in the UK, Burkart (2002) found that demand did respond to relative price levels. There is no comparable research available on with-profits policies, where the lesser transparency of the product may give rise to concerns.

Life insurance products are complex, and consumers may not have adequate information to make decisions, especially with so many differentiations of the same product (Dorfman, 1972; Sandler, 2002).

One issue of particular interest is whether policyholders can easily switch from one provider to another. If there are barriers to switching, that may inhibit competition. As life insurance policies are long-term contracts, a low level of switching creates a customer base that can effectively be regarded as captive, which is likely to reduce the level of effective competition (Alfon, 2002). We recognise that, if the health of an insured life deteriorates, this makes it difficult to switch. In other cases, and in pension policies in particular, that need not be an undue barrier.

There are two characteristics of with-profits policies that are important in this respect. First, they are less transparent than unit-linked policies. It is not easy to understand how the value of a with-profits policy grows over time, and the policyholder is likely to have to contact the insurer (or intermediary) to find out the surrender value. Second, surrender values on with-profits policies have traditionally been low in relation to asset share, with a general feeling that surrendering such a policy involves some “penalty”. The Financial Services Authority changed its conduct of business rules in 2005 which led to an increase in surrender values, so the impact of this is likely to have reduced, although policyholders may still find that the rate of return they achieve on surrender is less than on maturity[4]. There is therefore a case for

[4] FSA rules permits a number of deductions from asset share on surrender (see COBS 20.2.13-14) and COBS 20.2.15 indicates that an insurer can set a target range for surrender payments where the top-end of the range is lower than the top-end of the relevant range for maturity payments.

thinking that switching barriers may be particularly high on with-profits policies. So we would expect to find a lower number of surrenders (and similar discontinuances) of with-profits compared to unit-linked policies.

We are aware from Financial Services Authority (2008b) that many policies are discontinued in the early years. However, the emphasis in this paper is on differences between with-profits and other policies, which is not readily available from the FSA surveys. However, some data is available in insurers' regulatory returns up to 2004, which can help throw some light on this. We can examine UK life and pensions policies, with a division between non-linked and linked. While the non-linked category will include traditional (not unit-linked) non-profit policies, it will largely consist of with-profits business.

We consider the UK market as a whole, excluding pure reinsurers, and calculate, for each year from 1985 to 2004, a "withdrawal rate" calculated for regular premium business and using the level of premium payable on surrenders, etc:

Surrenders + forfeitures + conversions to paid-up policies
½((In-force premiums at start of year) + (in-force premiums at end of year).

Charts 11 and 12 demonstrate clearly, for each of life and pension policies, that the withdrawal rates are higher for linked than for non-linked business. This is what we expected. However, a number of other factors may be present. Direct salesmen (where persistency in the early years is generally lower than business sold through independent intermediaries) have tended to concentrate on selling unit-linked business. The outcome may also reflect greater satisfaction with the sale of with-profits compared to unit-linked policies.

The data underlying the charts is shown in appendix 5.

Chart 11. Withdrawal rates (life)

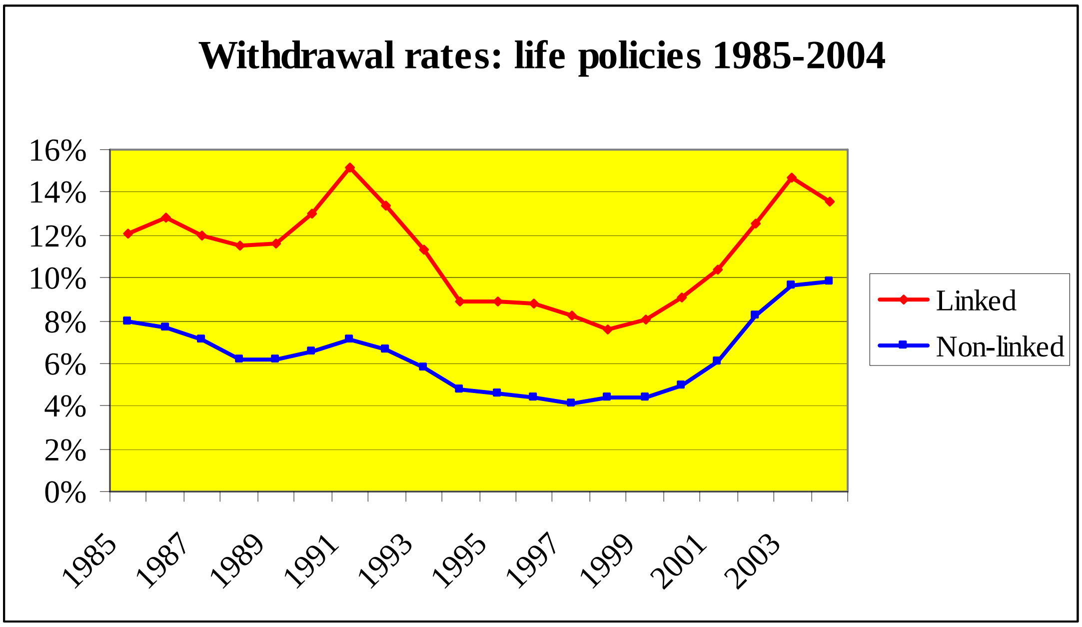
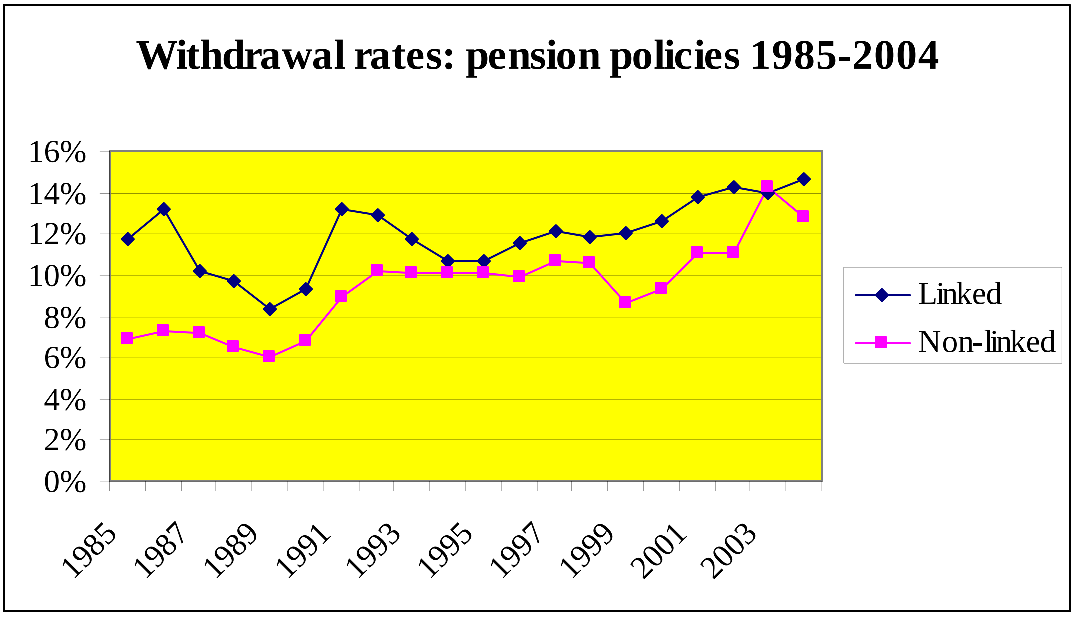


Chart 12. Withdrawal rates (pensions)



Data is not available to test whether there has been any change in withdrawal rates following the changes in the FSA conduct of business rules in 2005.

11.00 Prices and price dispersion

Introduction

One indicator of competition is price dispersion. In a competitive market we would not expect vast differences in prices between providers for the same product. However, neither would there be large differences in a market characterised by monopoly or collusion, so we need to take care in interpreting the data. We begin by reporting some previous research and then go on to analyse the current UK market.

Previous research

Winter (1981) examined price dispersion in the US life insurance market, defining price as the amount forgone by the policyholder under the policy, i.e. equivalent to the charges made by the life insurer. He calculated the coefficient of variation for specimen whole life policies (for with-profits and for corresponding non-profit policies) and found, overall, a coefficient of variation which averaged 0.036 for each of the four with-profits and also the four non-profit policies.

Some of the variation in price could be explained by a number of characteristics in a regression analysis. Taking account of these, the coefficients of variation remaining were still very similar, averaging 0.030 for the with-profits and 0.033 for the non-profit policies.

Existing research in the UK has already established significant differences between product providers. Cook et al (2002) examined charges on policies, and found that a policyholder choosing the cheapest savings endowment would expect to achieve a rate of return 1.7% p.a. higher than if he or she chose a policy with the average charge. For personal pensions, the difference was 0.7% p.a. The survey included both with-profits and unit-linked products.

Consumers may believe that there is little price dispersion. One UK survey found that 39% of consumers thought that financial markets are so competitive that there is little difference between the prices of different providers (Financial Services Consumer Panel, 2001).

Previous research has suggested that price dispersion may be high if:

- The search costs for consumers are high;
- Products are differentiated, so that dispersed prices reflect product differences; and
- Products are not transparent.

We expect price dispersion to be higher for with-profits than unit-linked policies since the former are less transparent. We can also use the data to test the hypothesis that average prices are higher for with-profits policies, which we may also expect as a result of lesser transparency or limited competition.

Evidence from the UK market

We consider price dispersion in the UK with-profits market by comparing with-profits and unit-linked policies. We consider three types of product: investment bond, endowment assurance and personal pensions.

The policies considered are:

- Endowment assurance:
  - age 30, non-smoker, 10-year-term, monthly premium £30 (EA).
- Investment bond:
  - age under 65, investment £10,000 (IB)
- Personal pension (retirement age 65 in all cases):
  - age 30, monthly premium £20 (PP1).
  - age 30, monthly premium £100 (PP2).
  - age 45, monthly premium £20 (PP3).
  - age 45, monthly premium £100 (PP4).
  - age 45, single premium £10,000 (PP5).

The data for the comparison is taken from the FSA comparative tables (updated at 2 January 2007), and we focus on the total charges on the policy, assuming the policy stays in force for the full term. We assess, for each of the seven policies, the lowest and highest charges, mean, standard deviation and coefficient of variation (standard deviation divided by mean).

We recognise that the data is not ideal for our purposes. Some products have different characteristics, such as the ability to switch between funds (see Ward, 2005). While almost all product providers participate in the survey, some providers appear more than once in the tables, with product offerings that differ (but not always greatly). Some providers offer product variants, which may have different charges, which are not shown in the main tables. Nevertheless, the data should be suitable for establishing broad trends.

The detailed results are in appendix 6. We summarise the main points as:

- The differences in charges are very high: in five of the cases, the most expensive policy costs twice as much as the cheapest (which is very unlikely to be explained by differences in product characteristics);
- In the five PP policies, the unit-linked policy has an average charge that is lower than the with-profits policy; for the EA and IB the with-profits is cheaper;
- The coefficient of variation, which is a measure of dispersion, is lower for unit-linked policies in all seven cases, although, in some cases, the differences are only modest.

Now there is a strong argument for saying that the guarantees and smoothing in with-profits policies should mean they are more expensive than unit-linked policies. However, not only are the charges on with-profits policies relatively high, we observe considerable dispersion within each of the unit-linked and with-profits categories. This throws doubt on whether the relatively high and variable charges we observe on with-profits policies are consistent with a well-functioning market. It may also raise questions about how well the intermediary market is performing if some insurers continue to offer policies at high prices.

Subsidising new business

It has been possible for insurers to use their inherited estate to subsidise new business. This has been the case for many insurers and (subject to some constraints) has been permitted by FSA. These subsidies can be substantial (see appendix 3). The FSA Returns for the with-profits funds of two leading groups indicate that the new business that Prudential wrote in 2008 reduced its inherited estate by £136m (£94m in 2007); for Aviva the effect was a reduction of £67m (£59m in 2007). The subsidies were provided by the inherited estates of the individual life insurance funds (rather than by the group parents).

These new policies are expected to generate bonuses for policyholders and, as shareholders receive payments that are one-ninth of the value of bonuses, shareholders expect these policies to produce profits for them. But if the inherited estate bears the loss, this does not directly affect what is typically reported as the shareholder's profit in the year the new business is sold, although there is a reduction in the shareholders' interest in the inherited estate since that is now lower then otherwise.

The paper has not carried out a full survey of new business profitability. However, when two leading players use a source of capital that is not available to new entrants in order to write new business at a loss, the market is clearly not working as a well-functioning competitive market would.

However, in 2008, FSA indicated that "we do not allow new business to be subsidised… we are not supportive of subsidising new business out of funds" (FSA, 2008a). They went on to say, "What we would not be allowing is a clear, unreasonable degree of subsidisation against what would be considered to be reasonable industry norms." It remains to be seen how this affects the market.

The subsidies discussed above are separate from a further feature of with-profits business, whereby current policyholders provide capital support for future policyholders (not discussed in this section).

12.00 Conclusion

The structure of with-profits policies is opaque, and there are conflicts of interest between policyholders and shareholders. The weak position of consumers means the market for with-profits policies cannot be expected to operate as an effectively competitive market.

Since 2000 we have seen a marked increase in concentration in the with-profits sector. In a number of ways this has been very positive: it is largely the financially strong and low-cost firms which have remained open to new business, and economies of scale mean there should be cost advantages for the leading firms. There have also been marked changes in the top ten players, meaning that leading firms cannot rest on their laurels.

Competition in the with-profits market is, however, restricted by the advantage that an inherited estate gives to incumbents. The inherited estate is passed from generation to generation, with new policyholders having some (imprecise) expectation of receiving a payment from it without charge: something that new entrants or unit-linked competitors cannot offer. A large inherited estate also enables a with-profits insurer to invest in equities and take other risks, but with the risks being borne largely by the inherited estate rather than fully by shareholders. Some with-profits firms have also used the inherited estate to pay mis-selling costs and shareholders' tax, and to fund strategic investments, an option not available to other firms. These issues have been compounded by some leading firms having been subsidising new business, taking advantage of their having inherited estates in a way that weaker firms (and unit-linked insurers) cannot. It remains to be seen how the market is affected by the FSA's stance on not supporting new business subsidies.

The charges made by with-profits insurers – essentially the price of the product – vary considerably between firms. We also see some marked differences in costs between insurers; while there are likely to be some high-cost firms that have particular advantages that mean they can and should survive, it suggests that there are efficiency gains yet to be realised. Question marks have been raised about the 90:10 structure and also the position of mutuals, which may dilute efficiency incentives. The market has seen a number of product innovations, although it has not moved in a more radical way to adopt the form of transparent with-profits put forward by Sandler.

We emphasise that the with-profits market has declined; new business in 2007 was only 27% of 1985 levels, in real terms. Consolidation in a declining market is unsurprising, and may help promote efficiency, but the potential for leading firms to take undue advantage of their position needs to be monitored carefully.

The impact on customers of the market not working as well as we might wish is, however, limited by the relatively small amount of new with-profits business now being written, and the availability to customers of unit-linked policies, albeit their product characteristics are somewhat different. However, there remains a substantial amount of existing with-profits business in force, and reviewing the market will continue to be important.

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Appendices

Appendix 1. Concentration

Concentration measures: previous research

	Sums assured								
	1913	1937	1948	1953	1960	1963	1965	1968	1972
CR_n									
1	11.9	12.4	17.3	18.0	18.0	18.0	18.7	19.5	16.8
2	17.3	18.5	24.1	29.2	27.8	28.9	30.4	29.6	26.7
4					41.2			41.6	39.7
5	30.1	33.4	38.8	43.9	44.9	45.7	46.4	47.2	44.5
10	46.4	48.5	54.6	59.1	59.9	62.3	61.4	66.8	62.4
20	68.9	67.9	73.3	75.9	79.0	80.9	83.2	83.7	80.4
HHI					640			710	600

Sources: 1913-53: Johnston & Murphy (1957); 1963-65: Clayton (1971); 1960, 1968, 1972: Richards & Colenutt (1975).

	Premiums								
CR_n	1960	1968	1972	1975	1980	1983	1993	1994	1998
1	13.5	13.1	8.7	10.4					
2	23.3	22.2	15.5	20.7					
4	38.1	34.1	25.8	30.5					
5	41.7	39.1	30.6	34.2	34	32.1	38.7		
10	58.8	58.3	51.4	50.5	52	47.1	54.2		
20	79.2	79.1	70.8		65	68.7	73.9	67	80
HHI	530	490	350			360	460	320	400

Sources: 1960-72: Richards & Colenutt (1975); 1975: Franklin & Woodhead (1980); 1980: Aaronovitch & Samson (1985); 1983-93: Hardwick (1997); 1994-98: Swiss Re (1999).

	Assets												
CR_n	1960	1968	1972	1975	1990	1991	1992	1993	1994	1995	1996	1997	1998
1	13.4	13.7	11.7	13.7	13.0	12.1	13.6	13.3	14.6	13.0	15.2	13.4	13.2
2	23.8	24.5	21.8	23.8									
4	38.0	37.9	34.9	36.2									
5	41.4	43.2	40.0	40.3	36.3	35.3	34.2	38.1	35.9	34.7	35.6	34.8	38.6
10	58.4	62.0	58.1	57.2	50.5	50.5	49.5	53.5	51.3	49.1	52.1	51.1	58.0
15					62.3	61.8	60.5	64.4	62.2	61.0	63.2	61.0	72.8
20	77.8	81.7	76.4										
HHI	530	550	470										

Sources: 1960-72: Richards & Colenutt (1975); 1975: Franklin & Woodhead (1980); 1990-98: Group of Ten (2001).

	New business premiums													
CR_n	1960	1968	1972	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total														
1	21.0	20.8	9.1											
2	32.2	31.3	16.5											
4	41.7	46.7	30.2											
5	45.6	50.3	34.5											
10	60.9	65.1	51.6	40.3	43.0	40.8	41.4	43.1	44.2	49.6	48.6	47.6	44.9	41.3
15														
20	80.0	81.7	75.2											
HHI	730	760	380											
Life														
5							25	24	23	24	23	27		
10							38	38	38	37	39	43		
HHI							241	238	236	267	258	290		
Pensions														
5							31	36	37	39	36	40		
10							43	51	52	56	53	58		
HHI							302	388	434	456	421	440		

Source: 1960-72: Richards & Colenutt (1975), using the sum of new annual and single premiums.
1993-98 Life and Pensions: London Economics (2000); 1990-2000 Total: Sandler (2002).
Note: the London Economics figures relate to APE; Sandler does not state if his figures also used APE.

Concentration measures: the UK with-profits market 1995-2007

HHI

HHI	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Assets	550	551	626	601	617	691	724	743	819	820	862	976	1149
Liabilities	555	541	662	646	669	760	791	797	821	842	869	942	1020
Premiums	546	572	615	584	612	757	857	897	931	1022	1065	1312	1506
New business APE	1096	772	874	822	783	720	911	1164	1053	1228	1438	1416	1653

n-firm concentration ratios

Assets	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CR_4	39%	38%	39%	38%	38%	42%	44%	45%	49%	48%	49%	54%	60%
CR_{10}	63%	63%	67%	65%	65%	71%	71%	72%	75%	77%	80%	86%	90%
CR_{20}	84%	85%	88%	87%	91%	95%	97%	97%	98%	98%	99%	100%	100%

Liabilities	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CR_4	38%	36%	40%	40%	40%	45%	45%	46%	46%	48%	48%	52%	55%
CR_{10}	63%	63%	67%	68%	68%	74%	73%	72%	73%	74%	76%	80%	81%
CR_{20}	83%	85%	89%	88%	92%	95%	97%	96%	96%	97%	97%	98%	98%

Premiums	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CR_4	37%	38%	39%	36%	36%	43%	49%	51%	51%	54%	54%	64%	71%
CR_{10}	63%	64%	69%	66%	71%	75%	81%	82%	86%	89%	90%	95%	96%
CR_{20}	86%	89%	91%	91%	94%	96%	98%	98%	99%	99%	99%	100%	100%

New business	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007

APE													
CR_4	56%	44%	48%	47%	44%	42%	50%	55%	55%	60%	63%	64%	65%
CR_{10}	76%	65%	71%	70%	72%	73%	78%	81%	81%	83%	84%	84%	84%
CR_{20}	91%	90%	92%	91%	94%	96%	97%	97%	96%	96%	97%	97%	98%

Concentration measures: sub-markets 2007 (with-profits)

	Life Regular Premium	Life Single Premium	Pensions Regular Premium	Pensions Single Premium	All Regular Premium	All Single Premium	Life APE	Pensions APE
HHI	940	3031	2605	1789	1772	1752	2107	2090
CR_4	50%	86%	75%	64%	61%	69%	73%	68%
CR_{10}	78%	99%	95%	92%	81%	90%	92%	93%
CR_{20}	95%	100%	100%	100%	96%	100%	98%	100%

Appendix 2. Market mobility

Top 10 companies by new business APE each year 1995-2007

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Equitable	1	1	1	2	2	2							
Prudential	2	2	2	1	1	1	1	2	1	1	1	1	1
Standard Life	3	3	3	4	7	5	2	1	2	2	3	3	5
Co-operative	4	6	10	7	9		6	4	3	6	7		8
General Accident	5	4		9[b]									
Aegon	6					9		9	8	7	9	5	3
National Prov Inst	7												
Scottish Widows	8	5	4	3	4	3[c]	3	8	6	5	6	6	
AMP	9			10		8	7	6					
Comm Union	10												
Norwich Union		7	7	8	6	6[d]		7	5	4	2	2	2
Legal & General		8	6	6	10	10	5	3	4	3	4	4	4
HBOS		9[a]	9[a]									7	
RSA		10											
AXA			5		8		8	5	7	9	5	10	10
Friends Provident			8	5	3	7	9		10	10			
Abbey National					5	4	4					8[e]	
Liverpool Victoria							10						
Royal London								10	9	8	8	9	6
National Farmers											10		7
Wesleyan													9

[a] Halifax Building Society in 1996, Halifax plc in 1997
[b] CGU
[c] Lloyds TSB Group from 2000
[d] CGNU (General Accident, Norwich Union & Commercial Union); Aviva from 2002
[e] Resolution

Appendix 3. New business and inherited estates: 2007

					Direct new with-profits business						
	Proprietary or mutual	Realistic value of assets*	Inherited estate*	Adjusted inherited estate*	UK Regular premium	UK Single premium	UK APE	Market share	Overseas APE	Total APE	New business profits*
		£m	£m	£m	£m	£m	£m		£m	£m	£m
Prudential	P	96,870	8,718	9,251	87	1,236	210	32.7%	93	304	-94.0
Aviva plc	P	62,040	4,447	4,447	21	1,110	132	20.6%	3	135	-59.0
Standard Life plc	P	41,398	0	1,493	17	164	34	5.3%	69	103	0.0
Resolution plc	P	27,780	0	1,061	3	129	16	2.5%	0	16	0.0
Co-operative	M	20,650	1,009	1,009	6	135	20	3.0%	0	20	0.3
Legal & General	P	19,544	1,047	1,047	11	235	35	5.4%	0	35	-29.0
Lloyds TSB Group	P	16,793	-65	50	7	100	17	2.6%	0	17	0.0
AXA	P	16,653	1,703	1,703	8	87	17	2.6%	0	17	-2.0
Pearl Group	P	15,737	70	927	0	3	0	0.1%	0	0	0.0
Royal London Mutual	M	15,252	1,906	2,253	7	141	21	3.2%	5	25	26.0
HBOS plc	P	14,432	1,490	1,490	7	42	12	1.8%	15	27	0.0
Friends Provident	P	12,397	247	274	2	50	8	1.2%	0	8	0.0
AEGON NV	P	12,011	0	953	7	306	37	5.8%	0	37	0.0
Equitable Life	M	6,756	0	620	1	37	4	0.7%	0	5	0.0
Liverpool Victoria	M	5,503	988	1,123	3	62	9	1.4%	0	9	-1.0
National Farmers U	M	4,125	862	862	1	191	20	3.1%	0	20	0.0
Zurich Fin Services	P	3,792	0	112	0	6	1	0.1%	0	1	0.0
Royal Liver	M	3,163	308	308	0	0	0	0.0%	8	8	-0.6
Swiss Re	P	3,068	110	331	0	18	2	0.3%	0	2	0.0
Wesleyan Ass	M	2,518	619	668	5	115	17	2.6%	0	17	-5.0
Sun Life Canada	P	1,751	0	38	0	0	0	0.0%	0	0	0.0

Police Mutual	M	1,081	74	74	10	2	10	1.6%	0	10	0.0
Scottish Friendly	M	722	92	92	5	2	5	0.9%	0	5	0.0
MGM Assurance	M	698	133	133	0	3	0	0.1%	0	0	-2.8
Teachers Provident	M	378	112	112	2	0	2	0.3%	0	2	0.0
Total of above		405,112	23,871	30,431	211	4,175	628	97.8%	194	823	-167.1
Total market		405,112	23,871	30,431	224	4,185	643	100%	194	837	-167.1
Total market 2006		425,238	27,156	34,190	250	3,618	611	100%	187	798	-164.8

Notes

The figures in columns where the headings are asterisked are restricted to the with-profits insurers with realistic balance sheets.
Figures are shown for the groups who own life insurers reporting on the realistic basis.
The realistic value of assets is taken from the realistic balance sheet (form 19 of the FSA Returns).
The inherited estate is the realistic value of assets minus realistic value of liabilities, as on form 19.
The adjusted inherited estate is calculated, with liabilities reduced by closed funds' planned enhancements to liabilities (and similar adjustments).
These adjustments are taken from companies' FSA Returns. In some cases the figures may be open to alternative interpretations and care should be taken before relying on a particular company's figures.
New business is shown as regular premiums and single premiums. Then APE ("annual premium equivalent") = annual premium + 10% single premium.
Market shares are based on APE for the UK.
We then show overseas new business and total (worldwide) figures.
New business profits are the increase in inherited estate resulting from new business, which may include new non-profit business; these figures relate to worldwide business, the source being insurers’ realistic valuation reports in the FSA Returns.

The inherited estate shown for Aviva is after the special distribution of £2,363m.

The 2006 figures for assets and inherited estate exclude Scottish Friendly, which then did not produce a ‘realistic balance sheet’. The 2006 figures for Standard Life include the new business for the pre-demutualisation company. Similarly, the Resolution figures include new business for Alba, Britannic and Phoenix Life & Pensions during 2006.
Source: Standard & Poor's SynThesys Life and insurers' realistic valuation reports.

Appendix 4 Cost Ratios

Cost ratios: UK business, 2007 (all ratios in %)
FSs = friendly societies
Acquisition costs expressed as % of new business APE
Maintenance expenses expressed as % of existing business APE
Renewal commission expressed as % of regular premiums
CV = coefficient of variation
Note: a small number of firms were omitted from certain parts of the analysis where there were inconsistencies in the data

	Inc FSs	FSs	Non-FSs							
			All	Min	Max	CV	Small	Large	Mutual	Proprietary
Acquisition costs										
UK life										
Expenses	38.8	116.2	37.9	9.4	151.0	0.72	46.4	37.1	57.4	36.8
Commission	102.2	41.5	102.9	10.1	266.6	0.78	68.4	106.3	77.5	104.4
Total	139.7	157.6	139.5	55.2	292.0	0.48	114.8	141.9	135.0	139.8
UK pensions										
Expenses	14.1	11.9	14.1	0	60.7	0.77	23.5	13.4	21.3	13.7
Commission	15.0	0	15.0	0	32.8	0.62	18.2	14.8	20.6	14.7
Total	29.1	11.9	29.1	0	67.3	0.51	41.7	28.2	41.8	28.5
UK total										
Expenses	21.0	86.1	20.6	13.4	109.2	0.80	30.2	19.9	32.0	20.0
Commission	41.4	23.2	41.6	8.7	68.8	0.45	36.7	41.9	37.4	41.8
Total	62.2	109.3	61.9	38.5	121.1	0.37	66.8	61.5	69.4	61.4

Maintenance expenses										
UK life	12.0	18.8	11.7	3.6	1575.0	3.94	11.6	11.7	18.5	11.2
UK pensions	9.0	10.9	9.0	1.8	123.0	1.13	34.2	7.6	14.8	8.7
UK total	10.1	15.4	10.0	2.4	1575.0	4.15	19.9	9.0	15.8	9.6
Renewal commission										
UK life	3.0	0.9	3.1	0	9.4	1.10	2.2	3.3	0.3	3.3
UK pensions	1.6	0	1.6	0	6.8	1.18	1.3	1.6	1.0	1.6
UK total	2.1	0.3	2.2	0	6.7	1.00	1.8	2.2	1.7	2.3

Pairwise correlations
(excluding friendly societies)

Correlation between		Correlation coefficient	observations	p-value
UK life acquisition expense ratio	UK life new business APE	-0.43	16	0.097
UK life acquisition expense ratio	UK new business APE	-0.46	16	0.075
UK pensions acquisition expense ratio	UK pensions new business APE	-0.42	17	0.091
UK pensions acquisition expense ratio	UK new business APE	-0.42	17	0.097
UK acquisition expense ratio	UK new business APE	-0.56	16	0.024
UK acquisition expense ratio	UK initial commission ratio	-0.44	15	0.099
UK acquisition cost ratio	UK new business APE	-0.40	15	0.137
UK life maintenance expense ratio	UK life existing business APE	-0.20	32	0.276
UK life maintenance expense ratio	UK existing business APE	-0.18	32	0.312
UK pensions maintenance expense ratio	UK pensions existing business APE	-0.47	30	0.008
UK pensions maintenance expense ratio	UK existing business APE	-0.48	30	0.007
UK maintenance expense ratio	UK existing business APE	-0.18	32	0.321
UK acquisition expense ratio	UK maintenance expense ratio	0.69	15	0.004

Cost ratios: worldwide business, 2007 (all ratios in %)

All costs expressed as % of assets
Note: the figures for acquisition expenses and initial commission include firms that are closed as well as open to new business

	Inc FSs	FSs	Non-FS insurers							
			All	Min	Max	CV	Small	Large	Mutual	Proprietary
Acquisition expenses	0.19	0.34	0.19	0	1.05	1.10	0.10	0.20	0.17	0.19
Initial commission	0.33	0.21	0.33	-0.02	1.21	1.11	0.07	0.37	0.19	0.34
Maintenance expenses	0.33	0.81	0.32	0.06	1.34	0.69	0.36	0.32	0.36	0.32
Renewal commission	0.03	0.03	0.03	-0.12	0.34	1.62	0.05	0.03	0.01	0.03
Other expenses	0.09	0.28	0.08	-0.12	0.69	1.31	0.12	0.08	0.24	0.07
Total costs	0.96	1.67	0.95	0.21	2.51	0.64	0.69	0.99	0.96	0.95

Appendix 5. Withdrawal rates

These are calculated as:

$$\frac{\text{Surrenders + forfeitures + conversions to paid-up policies}}{\tfrac{1}{2}((\text{In-force premiums at start of year}) + (\text{in-force premiums at end of year}).}$$

UK life policies

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Linked	12.08%	12.84%	11.95%	11.55%	11.58%	13.02%	15.16%	13.41%	11.30%	8.86%
Non-linked	7.91%	7.70%	7.13%	6.18%	6.22%	6.55%	7.09%	6.69%	5.76%	4.79%

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Linked	8.93%	8.76%	8.23%	7.56%	8.05%	9.05%	10.34%	12.54%	14.72%	13.55%
Non-linked	4.56%	4.40%	4.08%	4.44%	4.38%	4.92%	6.07%	8.19%	9.61%	9.79%

UK pension policies

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Linked	11.76%	13.15%	10.22%	9.69%	8.33%	9.33%	13.22%	12.85%	11.70%	10.68%
Non-linked	6.84%	7.27%	7.19%	6.47%	6.01%	6.80%	8.94%	10.22%	10.12%	10.12%

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Linked	10.70%	11.56%	12.16%	11.82%	12.06%	12.65%	13.79%	14.25%	13.97%	14.66%
Non-linked	10.11%	9.91%	10.62%	10.58%	8.65%	9.29%	11.01%	11.08%	14.23%	12.76%

Appendix 6. Prices and price dispersion, using total charges

Results: with-profits policies

	Total charges (£)						
	Min	Max	Mean	Range	SD	CV	No. of policies
EA	538	1490	1052	952	271	0.26	17
IB	939	2730	2117	1791	383	0.18	40
PP1	8589	11876	9852	3287	1286	0.13	8
PP2	30672	65200	46894	34528	8855	0.19	18
PP3	1432	2155	1671	723	308	0.18	8
PP4	5636	12400	8074	6764	1775	0.22	18
PP5	7570	12865	9715	5295	1768	0.18	19

Results: unit-linked policies

	Total charges (£)						
	Min	Max	Mean	Range	SD	CV	No. of policies
EA	810	1390	1217	580	273	0.22	4
IB	721	3240	2138	2519	366	0.17	56
PP1	7570	9757	9058	2187	587	0.06	31
PP2	30672	68523	44411	37851	7474	0.17	47
PP3	1200	1767	1506	567	143	0.09	31
PP4	5636	12414	7630	6778	1435	0.19	47
PP5	6310	13924	9293	7614	1489	0.16	49