

**Mutual life offices:
a contribution to the governance debate**

**Stephen Diacon, Chris O'Brien, Leigh Drake,
Noël O'Sullivan**

CRIS Research Report 2004-1

December 2004

**A report prepared for the
Financial Services Research Forum**

We gratefully acknowledge financial support from the Financial Services Research Forum for the preparation of this report.

For further information concerning the Centre for Risk and Insurance Studies please contact

Chris O'Brien, Director, Centre for Risk and Insurance Studies
Nottingham University Business School

Jubilee Campus
Wollaton Road
Nottingham
NG8 1BB
Telephone 0115 846 6519
Email christopher.obrien@nottingham.ac.uk

**Mutual life offices:
a contribution to the governance debate**

**Stephen Diacon*, Chris O'Brien*, Leigh Drake*,
Noël O'Sullivan†**

*** Centre for Risk and Insurance Studies, Nottingham University Business School**

† Loughborough Business School, Loughborough University

Abstract

There is a substantial theoretical literature on the co-existence of mutual and proprietary insurers. There is also a substantial body of empirical research in this area, much of which discusses the performance of mutual and proprietary life insurance in the UK. We have been able to add to the empirical research, updating it so that we can make up to date comparisons using 2003 data and, in addition, looking at trends from 1985 onwards.

We show that the market size of mutuals (by assets) has more than halved in the past ten years. The size of the average mutual has not grown since 1995.

We have found that mutuality does have a significant effect on the customer-orientated performance measures that we identified. For example, it is associated with lower withdrawal rates; but the average free asset ratio was lower than for proprietary life insurers writing with profit business. However, and perhaps surprisingly, mutuality as such did not have a significant effect on the manager-orientated performance measures, such as expense ratios.

We also examined the impact of a number of corporate governance measures on the performance of mutuals. We found that the proportion of directors who are non-executive appears to reduce "managerial" behaviour.

December 2004

1. INTRODUCTION

The problems at Equitable Life, one of the UK's most prominent mutual life insurers have again led to a debate on the relative merits of the mutual and proprietary forms of organisation for life offices. Equitable Life, established in 1762, closed to new business in 2000 following a ruling by the House of Lords on the Society's guaranteed annuity options, and its finances remain in a fragile state. The issues involved led the government to establish an enquiry by Lord Penrose, who reported in March 2004 (Penrose, 2004). Amongst the concerns of Lord Penrose were a number relating to corporate governance within Equitable Life, and this resulted in the government establishing an enquiry into corporate governance in mutual life offices, led by Paul Myners. A consultative document was issued in July 2004.

A discussion of the issues regarding mutuality is also pertinent following the wave of demutualisations that have taken place. Sandler's (2001) review of the UK savings market found that there were 70 over the period 1990-2001. Standard Life, the largest mutual, having resisted pressures to demutualise, announced in 2004 that it was planning to convert to proprietary status. The moves from mutual to proprietary status are not confined to the UK: Swiss Re (1999) reported on similar trends in the USA, Canada, South Africa and Australia.

The purpose of this paper is to review the academic literature which has investigated quantitatively the differences between mutual and proprietary life insurers in the UK, and to contribute the findings from our own research. This is part of an ongoing programme at the Centre for Risk and Insurance Studies into the management and measurement of performance in insurance companies.

The remainder of this paper is organised as follows. Section 2 summarises briefly the theoretical issues regarding mutuals and proprietaries. Section 3 contains some general comments on that the nature of the quantitative research in this area. Section 4 reviews relevant papers that have been issued on this subject. Section 5 updates some of the comparisons between mutual and proprietaries, with particular emphasis on mutuals carrying on with profit business. Section 6 contains a more extensive analysis, taking into account performance over a 19-year period, 1985-2003. Section 7 contains some conclusions.

2. THEORETICAL BACKGROUND

There is a substantial literature on theoretical issues concerning the relative merits of mutual and proprietary forms of organisation. This literature extends beyond life insurance, and considers the way in which a number of forms of financial institution can take either the mutual or proprietary form (see, e.g. Drake & Llewellyn (2001) regarding banks and building societies). We cannot here do full justice to what is an extensive literature. The summary below relies heavily on O'Sullivan and Diacon (2003).

The operation of life insurance companies involves three main parties: owners, managers and policyholders (customers). Mutual insurers differ from proprietary in that they do not have external shareholders. Therefore, while there may be conflicts in proprietary insurers between the interests of shareholders and customers, these do not apply to mutuals. Mutuals may therefore be able to concentrate on meeting of the needs of their customers. However, we also need to remember the managers of insurers: it may be that proprietary companies are better able to control the potential conflict between managers and customers, e.g. because of the threat of takeovers. This has led to the "managerial discretion"

theory, which suggests that mutuals will be more prominent in areas where management does not need to exercise a great deal of discretion. The theory also predicts that expenses of mutuals will be higher as a result of lesser controls.¹ However, we also recognise that Equitable Life had expense ratios that were far mowder than the average for the industry, as illustrated in its report and accounts.

Agency theory applied to insurance focuses on the incentive conflicts between the parties, and the manner in which these conflicts can be controlled. Corporate governance mechanisms are potentially an important tool in managing these conflicts. For example, the board of directors may be the main source of monitoring available to mutual policyholders, as a way of monitoring managers' performance.

Therefore, we are concerned not only about the empirical evidence on the relative performance of mutual and proprietary life insurers, but also about how corporate governance operates in these two different forms.

As some further background, we set out the various parties involved and the constraints on the way that firms operate. We see that several stakeholders may have a corporate governance role. Note that Corley et al. (2001) believed that the fact that Equitable Life did not obtain business from independent financial advisers allowed Equitable to adopt some policies and practices that were not prevalent elsewhere in the life assurance industry.

We can mention some issues regarding the role of various parties:

- Policyholders cannot use the threat of "exit" in the same way as building society members, as surrendering their policy may mean losing potentially valuable death benefits and/or suffering some financial penalty in the surrender value;
- Not all policyholders in a mutual may be members, and there may be conflicts of interest between different members (this was obviously the case at Equitable Life);
- Shareholders' influence depends on, *inter alia*, whether the life insurer is a listed company or not; and also by the way in which the insurer may be a subsidiary company in a much larger organisation;
- While mutuals do not have equity capital, they can borrow from the stock market through debt.² This may lead to greater market discipline, though there are issues regarding the relative rights of and potential conflicts between bondholders and with profit policyholders. Mutuals may also use reinsurers, who again have a monitoring role.

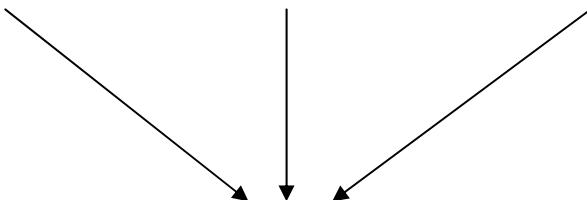
By regulation we include quasi-regulation the form of guidance and codes, etc. However, the chart illustrates that markets can themselves constrain the way in which firms operate, and that.

	Product markets	Capital markets	Labour markets
Direct participants	Customers: mutual members mutual non-members Policyholders of proprietary firms	Shareholders Bondholders Lenders Reinsurers	Managers Staff
Influencers	Advisers (commission-)	Analysts Market	

¹ The case study of Knights & Willmott (1993) is interesting as an example.

² Note that Equitable Life raised money through subordinated debt.

	based and other) Market commentators (e.g. journalists)	commentators (e.g. journalists)	
Market regulation	Product market regulation (e.g. Treasury, FSA, OFT)	Capital market regulation (Companies Act, FSA)	
Corporate governance regulation	e.g. arising from FSA rules	e.g. Combined Code	



Internal controls	Firm	External controls
	Board of directors	
Non-executive directors Board committees Internal audit Compliance function Appointed/with profits actuary	Corporate governance	Regulators External audit Directors' & officers' insurance

While we have referred to the absence of shareholders in a mutual, it can be a mistake to say that the governance issue is merely that the managers must act in the policyholders' (or members') short-term interest. In Equitable Life, the managers emphasised their commitment to serving policyholders, but paid bonuses higher than could be afforded, and their philosophy of not holding back any surplus meant that they were serving a short-term interest of policyholders but neglecting the well-being of the entity as a whole, and what this would mean for policyholders whose policies were yet to mature, or indeed for future generations of policyholders. Governance in mutuals does need to address the well-being of the entity (for the future benefit of policyholders) as well as short-term interests of policyholders.

3. INTRODUCTION TO EMPIRICAL RESEARCH

The empirical research on life insurance has to take account of the specific features of the industry. In particular, we recognise that many insurance companies are part of a large group, which may contain a number of insurers, and the ultimate holding company may or may not be an insurer: example, it may be bank or a non-financial firm. Where a life insurer is a subsidiary within a large group, the corporate governance reflects not only the arrangements within the subsidiary, but also the way in which the parent has its own governance and how it controls the subsidiary.

A number of studies have made comparisons of performance indicators between mutual and proprietary life insurers. A number of results are shown later. These may be useful as broad-brush measures. However, we need to understand that performance indicators will reflect many aspects of the insurer's business. For

example, we expect the expenses of a life insurer to depend on a number of factors, such as the size of the company and the amount of new business being written, as well as the types of policy the company has in force. We should therefore be cautious when making simple comparisons between mutuals and proprietaries.

Some researchers have therefore gone on to estimate more complex ways of measuring performance, e.g. econometric approaches to efficiency. However, the way in which performance should be measured is still a matter of debate, and conclusions from more complex research methods needs to reflect the precise way in which the measurement is done.

We should emphasise that life insurance products take a number of different forms. In particular, there are differences between with-profit policies and unit linked policies. With profit policies involve significant discretion by the insurer (e.g. on investment policy and bonus rates): this is clearly very pertinent to the governance debate. We then add that the financial reporting of with profit and unit-linked business differs, so that care is needed when comparing the performance of insurers with different types.

4. REVIEW OF LITERATURE

There is a substantive body of literature that has compared mutual and proprietary insurers, life and general. We here focus on the evidence concerning the UK life insurance industry, as it is most relevant to our work.

Much of the research has been concerned with the relative expenses of life insurers, and the payouts they provide to policyholders.

Colenutt (1977) examined expense ratios (expenses/premiums) in 49 life insurers in 1968. Although he used a number of variables to explain why firms' expense ratios differed, he found no significant difference arising from mutual/ proprietary status.

Armitage & Kirk (1994) used the surveys in *Money Management* on the payouts on endowments assurance policies, data being available for 42 mutual and 53 proprietary companies over 1970-1992, though not every company contributed to the survey each year. On 10-year policies, mutuals were higher in each of the 23 years, and in six years the difference was significant at the five per cent level. Overall, using the data for policies of various terms, for the 79 years of observations, mutuals have a higher average payout in 75. The authors comment that non-participation by some offices is unlikely to have biased the results in favour of the mutuals. However, particularly in more recent years, we should be aware that some offices deliberately decided not to contribute to *Money Management's* survey, and this may well reflect them having relatively low payouts.

Armitage & Kirk also show that the average mutual was somewhat larger than the average proprietary company, in 1990, measured by premium income. The average growth of mutuals' premium income over 1981-90 exceeded that of proprietary offices, although there was a high proportion of very small, fast-growing proprietaries.

Their survey also showed that mutuals had noticeably lower expense ratios (expenses plus commissions divided by annual premiums). This was the case for each year from 1983-90, with the differences being significant at the 10 per cent

level in one year, at 5 per cent in a further two, and at 10 per cent in a further three. When expense ratios were compared between mutual and proprietary insurers of a similar size, mutuals still showed an advantage.

Draper & McKenzie (1996) used data for 58 companies (including 33 mutual) on the payouts from profit endowments maturing over 1970-93 (from *Money Management*). They model differences between mutuals and proprietary companies, and while they comment that unambiguous interpretation of the differences is difficult, they say "the advantage consistently lies with the mutuals". Indeed, looking at the results for each of 10-, 15- and 25-year policies maturing in each of the 24 years 1970-93, in 69 of the 72 comparisons, mutuals have the higher average payout, in many cases statistically significant. They also found that the limited data on surrender values suggested that, in most cases, these were higher for mutuals than proprietaries.

They also found that the expense ratio of mutuals was lower than that of proprietaries. However, when they developed a more complex model to explain expenses, in particular taking into account serial correlation of expenses and the way in which expenses depend on the level of new business, the form of company (mutual/proprietary) was no longer significant.

Hardwick (1997) used the data from 54 companies over five years (1989-93) to estimate "cost frontiers", using a number of data items for each company (with premiums as a measure of the company's output): this frontier represents maximum efficiency being those companies with the lowest costs for a given output. Inefficiency is the extent to which costs exceed this frontier level: the index of inefficiency was similar for mutual and proprietary companies.

Genetay (1999) used data on 27 proprietary and 14 mutuals over 1988-92. She found the average size of mutuals and proprietaries to be similar, with similar growth of assets over the period of her study. She computes the return on assets, being the net income after taxes for proprietaries (for mutuals, she uses 10 per cent of the distributed surplus), divided by assets. There is a significantly higher return for proprietaries. She also has a measure of risk, being the standard deviation of returns, as a measure of volatility and hence risk: mutuals demonstrate significantly lower risk.

She also calculates expense ratios as the ratio of expenses plus commission to premiums, and finds that mutuals have a significantly lower expense ratio.

Hardwick & Letza (2000) examined 37 mutual and 63 proprietary companies over the five years 1992-96, making 500 data points. Most of their results, summarised in Table 1, are self explanatory. The index of diversification (a Herfindahl index) is the sum of S_j^2 for each of the four main lines of business (life insurance and general annuities, pensions, permanent health insurance and other business), where S_j is the regular premiums plus 10% of single premiums for that class of business as a proportion of all: the index can vary between 0.25 (most diversified, and arguably less risky) and 1.00 (totally specialised). There was little difference between mutual and proprietary companies. The authors found that the expense ratio of mutuals (total management expenses as a proportion of premiums) was lower than that of proprietary companies (and statistically significant at the five per cent level). They went on to estimate a cost function for life insurers, taking into account a number of outputs. In this approach, their conclusion was that proprietary insurers did have higher costs, but not significant at the five per cent level.

Letza et al. (2001) use data on 20 mutual and 27 proprietary companies over 1995-96. A summary of their comparisons are shown in Table 1. Mutuals were slightly larger; they had a higher free asset ratio, on average, but the difference compared to proprietaries was not significant at the 5 per cent level. Diversification was measured by a Herfindahl index, based on the proportion of premiums in the three categories of life, pensions and permanent health insurance: mutuals were slightly more diversified but not significant at the 5 per cent level. However, it was clear that proprietary insurers were writing a higher proportion of their new business in linked form.

The authors found that the expense ratio of mutuals was higher than proprietaries; management expenses were 26.5% of premiums (only 23.9% for proprietaries). They said this might reflect greater corporate control or lower diversification, although the difference was not significant at the 5 per cent level. They went on to compute a cost efficiency index, by regressing the natural log of management expenses on the natural log of premium income and its square: the index of cost (technical and allocative) efficiency is based on the deviation of each firm's actual cost from the minimum cost for that size of firm. Mutuals were found to be have greater technical and allocative efficiency than proprietaries, hence showing a higher index of cost efficiency. However, proprietaries were more scale efficient.

They also examined the performance of unit-linked funds of the companies. Although only about a quarter of all life offices were mutuals, 44% of the 32 best-performing fund management groups in the life insurance category were mutuals. However, for pensions, mutuals had just 10 of the top 35 best performers.

Ward (2002) examines the efficiency of life insurers, using data on 44 companies over 1990-97. He measures output as claims plus the increase in reserves, an approach used by a number of US researchers (e.g. Cummins et al., 1999), although some researchers have concerns at the implication that high claims imply a firm is efficient rather than inefficient (Diacon et al., 2002). The inputs are labour and capital. His particular concern is to relate efficiency to distribution channel and, in particular, the proportion of business sold through independent financial advisers (although his data on inputs and outputs relates to the firm's activities as a whole, rather than only its acquisition efforts). Mutuality is only weakly confirmed as tending to reduce costs. It is, however, significantly associated with use of the independent financial advisers. Ward goes on to note "the strong and significantly negative relationship between mutuality and profits that could be indicative of an inferior mode of corporate governance" (p.1965), although the meaning of mutuals' profits in this context is not clear.

There are further figures on payouts, based on data collected by the regulator, the Financial Services Authority, which should reduce the problems of non-participation in commercial surveys. Strachan (2004) shows that mutuals do tend to outperform proprietaries, although comments that mutuals that are financially weak may be taken over, so that the true performance for policyholders effecting policies with mutuals may not be apparent. Furthermore, few mutuals were in the survey (only 11; there were 35 proprietaries); most with profit mutuals are small, and FSA do not have the data to show how they compare with larger firms.

The paper by Hardwick and Adams (1999) examines the use of derivatives by UK life insurers, with data for a random sample of 88 life insurers in 1995. They consider a number of determinants of derivative use, of which organisational form is one. Organisational form is significant: mutuality is associated with greater derivative use. They note that only 26.9 per cent of mutuals in their sample did

not use derivatives, compared with 58.1 per cent of proprietors, a statistically significant result.

Adams et al. (2002), investigating the taxation of UK life insurers, find that mutuality has a negative effect on the tax payable.

Diacon & O'Brien (2002) found that mutuality had a positive effect on the persistency experience of life insurers, over 1993-99.

Adams & Hardwick (2003) investigated the determinants of actuarial surplus over 1991-99, and found that mutuality had a slightly positive effect, although statistically insignificant at the five per cent level. However, surplus reflects, *inter alia*, the number of policies happening to mature in a year, which is not an indicator of management performance as such.

O'Sullivan and Diacon (2003) were particularly concerned with corporate governance, and compared 21 mutual and 32 proprietary life insurers, over the period 1984-91. They report figures separately for those companies that are independent, i.e. not subsidiaries of other companies. They confirm the expectation that non-executives represent a higher proportion of the board in mutuals than in proprietary firms. We note particularly the finding that the remuneration of the highest-paid director is significantly greater in proprietary companies, contrary to what one would expect from the managerial discretion perspective. Otherwise, there is little in the way of significant performance differences between the two organisational forms.

A more detailed regression analysis indicates that, in mutuals, the (lagged) proportion of non-executives has a negative impact on new business sales (significant at the 3 per cent level). Separation of CEO/Chairman roles is associated with increasing top salaries and new business sales in proprietary firms, but reducing them in mutuals. However, in most cases, their findings in respect of performance measures indicated that board composition does not seem to significantly impact overall performance.

We also mention that the work of O'Sullivan & Diacon (1999) which, while relating to both life and general insurers, includes some useful material on audit and remuneration committees of mutual and proprietary firms. Also, the paper by Diacon & O'Sullivan (2002), again covering both life and general firms, found that independent mutuals (but not subsidiaries of mutuals) had a lower audit fee than other types of insurer.

Hardwick et al. (2003) carried out a study of 17 mutual and 33 proprietary life insurers over 1994-99. They noted the higher proportion of non-executive directors in mutuals. They went on to investigate cost efficiency, where output was claims paid plus increase in reserves, and noted a number of results reflecting organisational form and corporate governance mechanisms.

Diacon et al. (2005) carried out a survey, which found that the main criteria for success in proprietary life insurers were sales growth and return on equity, whereas for mutuals the main criteria were performance in customer satisfaction surveys and sales growth.

A different outlook on differences between mutuals and proprietaries can be gained from a survey of UK (life and general) insurance company executives carried out by Diacon & Ennew (1996): there were 115 usable responses, representing a response rate of 33 per cent. Some of the main findings were:

- 25 per cent of mutuals (38 per cent of non-mutuals) had an ethical code;

- 53 per cent of respondents from mutuals indicated that their organisation referred to ethics in its mission statement (44 per cent of non-mutuals);
- Participants were asked to what extent their personal ethical behaviour was an important consideration in their appointment to their current position: the average score of 3.47 for mutual respondents was significantly larger than the 2.96 for non-mutuals;
- Mutual respondents tended to perceive their companies as more ethical than non-mutuals, when asked how frequently they thought their company undertook potentially unethical activities. In a small number of cases the differences were significant at the five per cent or one per cent levels.

Summary

The past research has been consistent in finding that, in the UK, mutuals have, on average, typically had higher payouts than proprietary life insurers, although we are conscious that there are some issues regarding biases in the companies included in the research.

Mutuals have been found to be, on average, larger or about the same size as proprietary companies. However, proprietary companies have a higher proportion of unit-linked business.

Several of the studies have found lower costs of mutuals than proprietaries. However, this is not a universal finding, and in any event we are well aware of the dangers of comparisons of simplistic ratios. Some studies have considered cost functions and efficiency measures in a more complex way, although there are difficulties in such more complex analyses, and it is not easy to come to conclusions on their implications.

Past research has been consistent in finding that mutuals are more likely to have a higher proportion of non-executives on the board. However, the link between governance and performance is less clear.

Table 1. Previous research

	Years		Mutuals	Proprietary firms
Armitage & Kirk (1994)	1970-92	Payout: years where average mutual or average proprietary outperformed other	75	4
	1990	Average premium income (£m)	465	351
	1981 to 1990	Growth rate of premiums (% p.a.)	15.9	11.6
	1990	Expense ratios	24.4%	32.5%
Draper & McKenzie (1996)	1970-93	Payout: years where average mutual or average proprietary outperformed other	69	3
Hardwick (1997)	1987-93	Economic inefficiency index	1.27	1.33
Hardwick & Adams (1999)	1995	Users of derivatives	73.1%	41.9 %

Genetay (1999)	1992	Average assets (£m)	6852	6654
	1988 to 1992	Growth in assets	75%	83%
	1988-92	Average return on assets	0.369%	0.623%
		Standard deviation of return on assets	.00058	.00254
		Expense ratio	22.90%	27.06%
Hardwick & Letza (2000)	1992-96	Average premium income (£m)	463	269
		Average assets (£m)	4950	2564
		Free asset ratio	18.0%	20.8%
		Index of product diversification	0.703	0.694
		Linked new business ratio (premiums)	0.19	0.27
		Surplus/premium	0.083	0.063
		Investment income/premiums	0.52	0.57
		Expense ratio	23.7%	28.9%
		Average premium income (£m)	677	597
		Average assets (£m)	8081	6190
Letza et al. (2001)	1995-96	Free asset ratio	16.5%	12.3%
		Index of diversification	0.79	0.87
		Linked new business ratio (premiums)	0.29	0.60
		Linked new business (contracts)	0.24	0.54
		Surplus to premium ratio	0.47	0.22
		Investment income/premium ratio	0.71	0.61
		Expense ratio	26.5%	23.9%
		Technical and allocative efficiency	66.8%	62.4%
		Scale efficiency	0.75	0.88
	1999	32 top-performing life insurance funds	44%	56%
		35 top-performing pension funds	29%	71%
Adams & Hardwick (2003)	1991-99	Net premium income (£m)	638.4	358.1
		Surplus (£m)	225.5	109.2
Hardwick et al. (2003)	1994-99	% of non-executive directors	42%	32%
O'Sullivan & Diacon (2003); changes are over 1985- 91; [] relate to independent companies	1991	No. of directors	11.35 [11.42]	9.76 [11.73]
		Non-exec directors	8.30 [8.37]	5.82 [6.82]
		% non-exec directors	72.18 [72.29]	53.70 [52.57]
		CEO/chairman duality	0.05 [0.05]	0.06 [0.09]
	1984-91	log ₁₀ ord life fund	8.95 [8.94]	8.88 [9.25]
		% change in ord life fund	10.53	12.73

			[10.43]	[11.13]
	\log_{10} ord life premiums	8.17 [8.15]	8.16 [8.46]	
	% change in ord life premiums	14.83 [14.98]	15.01 [14.66]	
	\log_{10} APE (£m)	7.42 [7.41]	7.42 [7.71]	
	APE/total life premiums	1.77% [1.80%]	1.77% [1.66%]	
	\log_{10} total investments	9.08 [9.06]	9.01 [9.44]	
	% change in total investments	9.95 [10.04]	12.52 [10.04]	
	\log_{10} highest paid director's salary	4.85 [4.85]	4.95 [5.03]	
Strachan (2004)	2004 (?)	% in 1 st [4 th] quartile of payouts	51 [15]	15 [31]

5. AN UPDATE OF COMPARISONS: 2003

Overall market

We now update some of the comparisons between mutuals and proprietaries.

One issue that has not always been addressed previously is how do we define a mutual? Arguably it is one without share capital. However, share capital may be provided by another organisation but with the life office being run on mutual lines, for the benefit of its policyholders. In some cases a mutual organisation may establish a life insurer as a separate entity merely as a result of legislation that requires this, without a real intention for a commercial rate of return to be paid to the mutual parent.

For the purpose of this report, we define various categories of company authorised by the UK regulator to carry on long-term insurance business:

- (i) primary mutual insurers, being insurers:
 - incorporated under the Industrial and Provident Societies Acts;
 - limited by guarantee;
 - incorporated by special Act, Royal charter, etc; or
 - that are a subsidiary of a primary mutual as defined above or of a UK-registered friendly society;
- (ii) secondary mutual insurers, which are a subsidiaries of some other organisation that is a building society or some other company limited by guarantee;
- (iii) friendly societies, sub-divided into directive and non-directive societies (according to whether they are subject to EU insurance directives);
- (iv) state insurers, where the share capital is held by the state (Life Insurance Corporation of India); and
- (v) proprietary insurers, being the remainder.

We also analyse the data according to groups. If the head of the group is a friendly society it is a friendly society group; otherwise it is a life insurance group.

The data for the table is derived from the Synthesys database, provided by Standard & Poor's; it is believed that there is very little business of UK-authorised insures omitted.³ It does not cover life insurers elsewhere in the European Union and writing business in the UK; however it is believed that such business is not material. The data refers to 31 December 2003.

A list of the primary and secondary mutual insurers is given in Appendix A. During 2004, of the 26 such companies, 2 have transferred their business to another company.⁴

Table 2.

	No. of groups	No. of life insurers in groups	No. of friendly societies in groups
Primary mutual life insurer groups	13	20	
Friendly society groups:			
directive societies	23	1	23
non-directive societies	16	0	16
<i>total friendly society groups</i>	39	1	39
<i>total primary mutual life insurer & friendly society groups</i>	52	21	39
Secondary mutual life insurer groups	6	6	
State life insurers	1	1	0
Proprietary life insurer groups	70	138	0
Total	129	166	39

We set out some basic data, for the groups. The figures relate to UK business, except that the assets are the total in the long-term business fund (valued using insurance accounts rules). Annual premium is measured as annual premium equivalent, i.e. new annual premium plus 10% of single premium. With profits liabilities are as shown in companies' regulatory returns; in addition, some of the additional miscellaneous liabilities shown by insurers will relate to with profit business. We show Standard Life group figures (included in the total) given its importance to the mutual sector and its plan to demutualise.

Table 3.

	Assets (£bn)	Premiums (£bn)	New business premiums (£bn)	Proportion of new business that is with profits	Proportion of liabilities that is with profits
1 Primary mutuals	144.934	12.138	1.435	27.76%	54.28%
2 Friendly	16.094	1.114	0.123	59.71%	67.03%

³ One insurer, Capital Life Insurance Limited refused to provide a copy of its report and accounts, and its returns to FSA; however, it has very little business in the UK.

⁴ In addition, Hannover Standard Life plans to transfer its business to its parent, Standard Life.

societies					
3 = 1 + 2	161.027	13.251	1.558	30.28%	55.48%
4 Secondary mutuals	2.537	0.271	0.056	1.33%	18.59%
5 State	0.051	0.004	0	94.59%	95.45%
6 Proprietary	815.169	93.093	10.256	6.53%	33.87%
7 = Total market	978.786	106.618	11.870	9.63%	37.26%
Standard Life group	76.126	7.561	0.956	23.08%	43.37%

The proportions of the total market are:

Table 4.

	Assets	Premiums	New business premiums
1 Primary mutuals	14.81%	11.38%	12.09%
2 Friendly societies	1.64%	1.04%	1.03%
3 = 1 + 2	16.45%	12.43%	13.12%
4 Secondary mutuals	0.26%	0.25%	0.47%
5 State	0.01%	0.00%	0.00%
6 Proprietary	83.28%	87.31%	86.40%
Standard Life group	7.78%	7.09%	8.06%

It is worth noting that mutuals and proprietaries are not always in the same market; for example, a number of mutuals sell a higher proportion of their business to lower-income groups.

With profit business

We now move on to comparisons of with profit life insurers. The reasons for concentrating on this sector are:

- (a) It is with profit business which involves discretion by the insurer in choice of investments and bonuses: it is therefore potentially more relevant for considering the governance issues;
- (b) With profit business is where FSA has, in 2004, introduced new measures to improve governance: in particular;
 - companies have had to issue PPFM documents (Principles and Practices of Financial Management), setting out how they run their with profit funds, to be followed by customer-friendly versions of this;
 - has encouraged the establishment of with profit committees (or some other mechanism, with some degree of independence from management) to monitor that the business is being operated fairly and in accordance with the PPFM;
 - has set a requirement on firms to issue an annual report to with profit policyholders on whether the PPFM have been complied with;
 - required some subsidiary firms to appoint non-executive directors;

- has replaced the appointed actuary role by the with-profits actuary and the head of the actuarial function, placing more responsibility on the directors for actuarial matters; and
- required “realistic” reporting of assets and liabilities, for the larger funds (the Accounting Standards Board has also proposed that such information be also used in the preparation of companies’ accounts from 2005);

(c) Comparisons between insurers writing with profit business are more meaningful than if we included companies writing unit-linked or other classes.

The number of life insurers writing with profit business at the end of 2003 is:

Table 5.

	Mutuals		Proprietaries	
Not subsidiaries			12	0
Subsidiaries				
Have net liabilities	With profit business not wholly inwards reinsurance	7	With profit business not wholly inwards reinsurance	43
	With profit business wholly by inwards reinsurance	1	With profit business wholly by inwards reinsurance	1
	Total	8	Total	44
All with profit liabilities reinsured		0		10
<i>Total</i>		8		54
Total	Having net with profit liabilities	20	Having net with profit liabilities	44
	All with profit liabilities reinsured	0	All with profit liabilities reinsured	10
Total		20		54

Appendix B shows the proprietary life insurers writing with profit business at the end of 2003.

So 74 insurers had with profit liabilities, of which 10 wholly reinsured, leaving 64 having net with profit liabilities.

In addition, two companies, authorised to write business only through reinsurance, had some inwards reinsured with profit business. We do not include them in the analysis below.

The following analysis relates to groups rather than companies:

Table 6.

	Mutuals		Proprietaries	
Have net liabilities	With profit business not wholly inwards reinsurance	16	With profit business not wholly inwards reinsurance	27
	With profit business	0	With profit business	0

	wholly by inwards reinsurance		wholly by inwards reinsurance	
Total	16		Total	27
All with profit liabilities reinsured	0			2
Total	16			29

So 45 groups had with profit liabilities, of which 2 wholly reinsured, leaving 43 having net (of reinsurance) liabilities.

In the tables below, we exclude firms who have reinsured their with profit liabilities, except where stated. In view of the size of the standard Life group (3 with profit life insurers) and its plan to demutualise, we show figures for mutuals excluding the Standard Life group, marked ^a. We also show figures excluding both the Standard Life group and the Equitable Life group (including University Life): ^b.

First, consider the average size of insurers and of groups (all figs in £m):

Table 7.

	Insurers		Groups	
	Mutual	Proprietary	Mutual	Proprietary
Assets	7,107 4,142 ^a 3,610 ^b	10,804	8,884 4,694 ^a 3,868 _b	17,606
Premiums	604 237 ^a 257 ^b	822	755 269 ^a 276 ^b	1,340
New business single premium ⁵	383 125 ^a 130 ^b	628	478 142 ^a 139 ^b	1024
New business annual premium ⁶	35 13 ^a 14 ^b	55	44 15 ^a 15 ^b	89
New business APE ⁷	73 25 ^a 27 ^b	118	92 29 ^a 29 ^b	167

Eight of the 20 mutuals have assets of under £50m,⁸ compared to just one proprietary that is this small. There is considerable variety within the mutual sector, with many concentrating on affinity groups.

We also note the number of firms who have industrial branch business (which do not include the Standard Life or Equitable Life groups):

Table 8.

	Mutual	Proprietary
Firms	5 [25%]	4 [9%]
Total premiums (net of reassurance, £m)	232	145
Industrial branch as % of total premiums (net of reassurance)	1.92%	0.40%

⁵ Direct business, ordinary branch plus industrial branch

⁶ Direct business, ordinary branch plus industrial branch

⁷ APE = annual premium equivalent, being new business regular premium plus 10% of new business single premium, a measure commonly used in the industry.

⁸ This includes Cuna Mutual, an overseas-registered insurer, where our data relates to UK branch business

We note the increase, from each of 1993 and 1999, to 2003, for the firms that had with profit business at the end of 2003⁹. 1999 was, of course, the year before the bear market began. The increases are % p.a.

Table 9.

	Mutual	Proprietary
Increase in assets		
1993-2003	8.28% 7.76% ^a 10.60% ^b	12.08%
1999-2003	2.21% -0.86% ^a 7.76% ^b	4.14%
Increase in premiums		
1993-2003	4.89% -0.11% ^a 7.62% ^b	8.55%
1999-2003	7.04% -9.87% ^a 10.04% ^b	1.46%
Increase in APE		
1993-2003	2.45% -3.08% ^a 4.47% ^b	8.33%
1999-2003	-1.14% -14.71% ^a 9.93% ^b	3.51%

We show the average free asset ratio¹⁰ of companies at the end of 2003. However, we are aware that this is not an especially good reflection of financial strength.

Table 10.

	Mutuals	Proprietary
Before solvency margin	6.43% 7.75% ^a 8.43% ^b	9.03%
After solvency margin:		
- including future profits	4.31% 5.07% ^a 6.18% ^b	6.15%
- excluding future profits	3.17% 4.25% ^a 5.11% ^b	5.40%

A number of mutuals write unit-linked business in their fund: such business is less risky and requires a lower solvency margin. Therefore, we may expect a somewhat lower free asset ratio for mutuals, on average (proprietaries typically write unit-linked business in a separate company where 100% (as opposed to 10%) of the surplus can be allocated to shareholders).

Nevertheless, it is worth reminding that mutuality should not necessarily be equated with security, as evidenced by the difficulties at Equitable Life (and some other mutual life insurers that have been acquired by other firms, e.g. UK Provident Institution, Provident Mutual).

The following table illustrates new business in relation to premiums and assets. New business is measured as APE; "premiums" means regular premiums plus

⁹ The proprietaries' figures reflect, *inter alia*, some companies did not do business in 1999/2003.

¹⁰ Admissible assets minus liabilities in the statutory solvency valuation, divided by liabilities.

10% of single premiums in 2003; and assets are as measured using insurance accounts rules.

Table 11.

	Mutuals	Proprietary
APE/premiums	24.26% 19.57% ^a 18.77% ^b	30.53%
APE/assets	1.03% 0.61% ^a 0.74% ^b	1.09%

We show below a number of expense ratios. In this table we include firms that have reinsured their with profit liabilities.

Table 12.

	Mutuals	Proprietary
Net expenses/assets		
- Management expenses (acquisition)	0.44% 0.32% ^a 0.42% ^b	0.36%
- Commission (acquisition)	0.23% 0.14% ^a 0.18% ^b	0.49%
- Management expenses (maintenance)	0.46% 0.56% ^a 0.58% ^b	0.48%
- Commission (not acquisition)	0.13% 0.02% ^a 0.02% ^b	0.09%
- Management expenses (other)	0.07% 0.09% ^a 0.05% ^b	0.14%
Total	1.33% 1.13% ^a 1.24% ^b	1.57%
Net expenses/net premiums	15.64% 19.71% ^a 17.44% ^b	18.40%
Acquisition expense ratio¹¹	58.35% 74.02% ^a 79.35% ^b	68.69%
Renewal expense ratio¹²		
Management expenses (maintenance)	9.54% 14.85% ^a 11.04% ^b	12.41%
Management expenses (other)	1.77% 3.29% ^a 1.34% ^b	3.83%
Renewal commission	3.11% 0.61% ^a 0.63% ^b	2.52%
Total	14.42% 18.75% ^a 13.01% ^b	18.76%

Overall, there is evidence that mutuals have lower costs than proprietary firms, although this does not take into account the precise make-up of insurers' portfolios, and there is considerable variation between insurers.

We show specifically the proportion of acquisition costs that are commission (as this gives potential influence to commissioned agents). We here include insurers

¹¹ Management expenses and commission in connection with acquisition, net of reinsurance, divided by direct written APE (worldwide), ordinary branch business

¹² Management expenses and commission, net of reinsurance, not in connection with acquisition of business, divided by regular premiums received plus 10% of single premiums received, ordinary branch business

that reinsure all their with profit business, which means we have to use figures net of reinsurance.

Table 13.

	Mutuals	Proprietary
Commission/acquisition costs	34.99% 29.68% ^a 29.74% ^b	57.39%

We now consider a number of variables reflecting risk.

Table 14.

	Mutuals	Proprietary
% bonds that are corporate bonds ¹³	34.41% 33.88% ^a 31.20% ^b	54.30%
yield differential on corporate bonds (percentage points) ¹⁴	1.07 0.93 ^a 0.96 ^b	0.71
additional yield on bonds from using corporate bonds ¹⁵	0.37 0.32 ^a 0.30 ^b	0.39
insurers using derivatives	8 [40%] 7 [41%] ^a 7 [47%] ^b	32 [73%]

In other words, mutuals have a lower proportion of their bonds as corporate bonds, but their corporate bonds have a higher additional yield (compared with gilts) than proprietaries. The product of these factors is that mutuals had an additional yield of 37 basis points from using corporate bonds, compared to 39 of proprietaries.

Mutuals make less use of derivatives than proprietaries (in contrast to the result, relating to 1995, of Hardwick & Adams (1999)).

We also have a number of corporate governance variables. Here we show separately the mutuals that are not subsidiaries. All the proprietary life insurers are subsidiaries.

We have shown the average composition of the board of directors. We then show whether there is an audit and a remuneration committee; our information is from companies' reports and accounts¹⁶, and we cannot rule out the possibility of a committee but which is not mentioned. In the case of proprietaries, where they are all subsidiaries, it is unusual for there to be an audit or remuneration committee at the subsidiary level; instead, the parent's committees cover the operations of the subsidiary. We also show whether the auditor is a "Big 4 firm" and then information on the appointed actuary.¹⁷

Table 15.

¹³ Strictly, the proportion of fixed interest securities that are not "approved securities" within assets not matching linked liabilities

¹⁴ The yield on fixed-interest securities that are not approved securities over that on approved securities within assets not matching linked liabilities

¹⁵ i.e. the result of multiplying the two previous items

¹⁶ American Life is excluded from our analysis of directors and committees. We have excluded Save & Prosper Pensions Ltd from the survey of directors, as it has a sole director, J.P. Morgan Fleming Marketing Ltd.

¹⁷ By employee is meant an employee of the insurer or the group.

	Mutuals (not subsidiaries)	Mutuals (subsidiaries)	Mutuals (all)	Proprietary (all)
No. of firms	12	8	20	44
Directors (average)				
Executive actuary	1.17	1.38	1.25	1.71
Executive non-actuary	2.08	1.75	1.95	3.29
<i>All executive</i>	<i>3.25</i>	<i>3.13</i>	<i>3.20</i>	<i>5.00</i>
Non-executive actuary	0.50	0.75	0.6	0.19
Non-executive non-actuary	6.42	3.13	5.1	1.10
<i>All non-executive</i>	<i>6.92</i>	<i>3.88</i>	<i>5.70</i>	<i>1.29</i>
Total	10.17	7.00	8.90	6.29
Board Committees				
Audit C'tee	6 out of 12	1 out of 8	7 out of 20	
Remuneration C'tee	5 out of 12	0	5 out of 20	
Auditors				
Big 4 firm?	8 out of 12	8 out of 8	16 out of 20	43 out of 44
Appointed actuary				
Employee & director	1 [8%]	0	1 [5%]	21 [48%]
Employee & non-director	4 [33%]	4 [50%]	8 [40%]	18 [41%]
Consultant & director	0	1 [12%]	1 [5%]	0
Consultant & non-director	7 [58%]	3 [38%]	10 [50%]	4 [9%]
Employee of outsourcing firm & non-director	0	0	0	1 [2%]

In many cases the subsidiary board has few and perhaps no non-executives; but with non-executives on the parent board. It is worth emphasising that the Combined Code¹⁸ relates to the parent, assuming it is listed, and it is not clear precisely what governance arrangements apply in practice at the subsidiaries. However, the number of non-executives on subsidiary boards has increased noticeably over 2004 (the figures in the table apply to 31 December 2003), which it is understood reflects pressure from the Financial Services Authority.

The Faculty and Institute of Actuaries (2004) suggested that it is important for a mutual board to include an actuary amongst its non-executive members.¹⁹ Of the 12 non-subsidiary mutuals, 6 had no actuaries among their non-executives.

¹⁸ Note that several proprietary life insurers either do not have listed shares or have shares listed overseas, so that they are not obliged to report compliance (or otherwise) with the Combined Code.

¹⁹ Penrose (2004) included an extensive discussion of the problems relating to the non-executive actuaries at Equitable Life.

In each case the Audit and Remuneration committees (of which we are aware) comprise non-executive directors. Half of the non-subsidiary mutuals did not mention an audit and remuneration committee in their most recently available report and accounts.

All insurers that used a non-Big 4 Firm of auditors were of smaller than average size.

6. LONGER-TERM ANALYSIS

Mutual and proprietary life offices

We have examined the share of mutuals over the period 1985-2003. We use the data in the Synthesis database, which is (almost) complete coverage of the market, and we use all firms that have positive non-linked assets²⁰. The major, and many smaller, friendly societies are also included in the database, and we include these as mutuals in our analysis.

Basing our analysis on assets²¹ the share of mutuals has more than halved in the past ten years. In broad terms, the market share of mutuals was 44.5% in 1985, and was 50.5% by 1995. Since then, there has been a decline each year in mutuals' market share, falling to 17.2% in 2002 and 16.8% in 2003.

Mutuals have also become smaller, in relative terms, since 1995. We consider all offices that have positive non-linked assets, and remove the effect of price changes by deflating all years' figures as if consistent with the Retail Prices Index in 1987. We then scale the figures so that the average assets for mutual life insurers, in 1987, are 1.00. We do the same for proprietary life insurers. By 1995, the average figure for mutuals' assets was 1.7, proprietaries 1.8. However, while the average for proprietary life insurers continued to increase, and reached 4.5 in 2003, the average for mutuals has fallen to 1.4.

Our long-term analysis also confirms that with-profit business has been consistently more important for mutuals than for proprietary life insurers. With profit liabilities, as a proportion of total assets, in 1985, amounted to nearly 30% for proprietary life insurers but nearly 40% for mutuals. By 2003, the figure for proprietaries had risen above 30%, but the figure for mutuals was nearly 50%.

We have then gone on to assess the effect of mutuality on a number of performance measures of life insurers, and also on their risk characteristics. To do this, we used a panel data "reduced form" model, controlling for a number of exogenous factors as follows:

- Mutual or proprietary status;
- Size (measured by assets);
- The proportion of with profit business in force that is reinsurance accepted;
- The proportion of non-linked business; and
- The reliance on commission-orientated sales (i.e. commission as a proportion of acquisition costs).

We use data from life offices' regulatory returns, and in the Synthesis database. Our data set covers 178 companies that had with-profit liabilities, and positive

²⁰ This includes many that write primarily unit-linked business.

²¹ Assets in the long term business fund, valued using insurance accounts rules.

long-term fund assets, over the period 1987-2003. Friendly societies within the Synthesis database are included in our analysis.

In considering the impact of mutuality on performance, we distinguish three categories of performance measure: owner-orientated, manager-orientated and customer-orientated, although we appreciate that each performance indicator is of interest to a number of stakeholders.

We looked at a number of measures of the return on assets, being an owner-orientated performance measure, but we find that mutuality was not a significant influence on any of these.

We also considered the following three manager-orientated performance indicators, but in each case, mutuality was again not significant (perhaps surprisingly so):

- Expense ratio (management expenses, not including commission, as a proportion of assets);
- New business proportion (new business APE as a proportion of in-force premiums (regular premiums received plus 10% of single premiums)); and
- The annual increase in in-force premiums.

However, we did find that mutuality was important for two customer-orientated performance measures. Mutuality was associated with:

- A relatively low free asset ratio; and
- A relatively low withdrawal rate.

There was no significant relationship between mutuality and either: cover for with profit business; and sales pressure (acquisition costs as a proportion of assets).

We also found a number of significant relationships with risk-taking measures. Mutuality was associated with:

- A lower proportion of liabilities being reinsured;
- A higher proportion of non-linked investments being in equities;
- A lower proportion of the bonds held (matching non-linked liabilities) being corporate bonds;
- A lower degree of investment concentration, using a Herfindahl index²² across the different categories of investment for non-linked assets; and
- A higher degree of business line concentration, using a Herfindahl index of regular premiums in force for nine types of business²³.

In summary mutuals appear to have better than proprietary life insurers on some "customer-orientated" performance measures. In terms of risk, they use less reinsurance and invest a greater proportion in equities. They have less concentrated investment portfolios and more specialised business lines.

²² We compile a Herfindahl index for a firm by summing $(x_i/x)^2$, for each i , where x_i is the business in a particular line and x is its total business: an index of 1.00 indicates total concentration in one business line, lower figures indicate lesser concentration.

²³ i.e. life and general annuity (non-linked and linked), pensions (non-linked and linked), permanent health (non-linked and linked), other ordinary branch business (non-linked and linked) and industrial branch business.

We should add that our analysis is conducted in terms of different individual life insurance companies, rather than groups. We note that a number of proprietary life insurers write both with profit and unit linked business, reinsuring their unit-linked business to a sister subsidiary. On the other hand a mutual may well write both with profit and unit-linked business within the one entity, which reflects mutual with profit policyholders retaining the risks being run in writing unit-linked business.

We add that our analysis has not been able to include payouts as a customer-orientated performance indicator, as this data is not (yet) included in insurers' returns to the FSA, and we did not wish to rely on the data only for those companies that have chosen to appear in the *Money Management* tables.

Corporate Governance of Mutuals

We have used data on 42 mutuals that had with profit liabilities (including both life offices and friendly societies) to ascertain trends in corporate governance over 1995-2003.

There has been some decline in the average number of directors, from 9.7 in 1995 and 10.1 in 1996 to 8.7 in 2002 and 9.1 in 2003.

There is no clear trend in the proportion of directors who are non-executive: this was 68% in 1995, 71% in 2003 (it was 77% in 2001).

There were some marked changes in the status of appointed actuaries. The proportion of appointed actuaries who are employees fell from 51% in 1995 to 28% in 2003. Over the same period, the proportion of appointed actuaries who were directors fell from 44% to 9%.

The proportion of mutuals with an audit committee was 40% in 1995, 52% in 2003. There have been a number of increases and decreases in this figure over the period, but notably an increase in 1997 to 1998 from 40% to 53%.

Similarly, there have been changes in the proportion of mutuals that had a remuneration committee: this was 40% in 1995, and increased from 40% to 51% in 1997-98. By 2003 the figure had fallen back to 41%.

We examined the proportion of mutuals whose auditor was one of the Big Four (or higher number in some previous years). The proportion has varied from 64% to 75%, being 72% in 2003.

Corporate Governance of Mutuals and Performance

We are now looking to establish the impact, if any, of a number of corporate governance indicators on the performance of mutual life insurers. Again, we use a panel data model, using the same (exogenous) control variables as before.

We have data covering 42 mutuals that had with profit liabilities, including several friendly societies. The data is from the regulatory returns, using Synthesis, and covers the period 1995-2003.

The governance variables are as follows:

- Total number of directors;
- The percentage of directors who are non-executives;

- The percentage of directors who are actuaries;
- Whether the appointed actuary is an employee or not; and
- Whether the appointed actuary is a director or not.

Looking at the corporate governance variables together, we find that they were jointly significant for many of the performance indicators we investigated, namely:

- Manager-orientated performance:
 - New business %; and
 - Increase in APE.
- Customer-orientated performance:
 - Free asset ratio;
 - With profit cover;
 - Sales pressure; and
 - Withdrawal rates;
- Risk-taking performance:
 - Percentage of liabilities reinsured outwards;
 - Percentage of equity investment;
 - Percentage of bonds in corporate bonds;
 - Investment concentration: and
 - Business line concentration.

There was no significant association with return on assets; or expense ratio.

For manager-orientated performance measures, we found that a higher proportion of the directors who are non-executives was associated with:

- Lower growth of new business; and
- A lower increase in-force premiums.

As regards customer-orientated performance, we found that:

- An employee actuary was associated with lower withdrawal rates;
- Actuarial directors are associated with lower cover for with profit business; and higher withdrawal rates;
- The proportion of non-executive directors is associated with lower sales pressure.

As regards risk measures we found that:

- More directors on the board was associated with more diversification;
- An employee appointed actuary is associated with less reinsurance, and a higher proportion of equities, and a higher proportion of bonds that are corporate bonds), i.e. higher risk in these areas; and
- Actuarial directors were associated with more reinsurance, and less concentration in business lines, i.e. lower risk in these areas.

We should say that these are relationships are associations rather than necessarily implying causality.

7. CONCLUSIONS

There is a substantial theoretical literature on the co-existence of mutual and proprietary insurers. There is also a substantial body of empirical research in this area, much of which discusses the performance of mutual and proprietary life

insurance in the UK. We have been able to add to the empirical research, updating it so that we can make up to date comparisons and to look at trends from 1985 onwards.

We have found that mutuality has no significant impact on the owner- or manager-oriented performance measures that we identified. However, it does produce some improvement in customer-oriented performance. The impact of mutuality on risk-taking is mixed

We also examined the impact of a number of corporate governance measures on the performance of mutuals. We found that the proportion of directors who are non-executive appears to reduce "managerial" behaviour. In addition, an employee appointed actuary is associated with better persistency and with some more risk; the proportion of directors who are actuaries is associated with some lower risk, lower cover for with profit business, and higher withdrawal rates.

References

Adams, M.B. & Hardwick, P. (2003) Actuarial surplus management in United Kingdom Life insurance firms, *Journal of Business Finance & Accounting*, 30, 891-904.

Adams, M.B., Hardwick, p. & Hong, Z. (2002) Taxation and reinsurance in the United Kingdom Life insurance Industry, European Business Management School Working paper EBMS 2002/5.

Armitage, S. & Kirk, P. (1994) "The performance of proprietary compared with mutual life offices", *Service Industries Journal*, 14, 2, 238-261.

Colenutt, D.W. (1977) "Economies of scale in the United Kingdom life assurance industry", *Applied Economics*, 9, 219-225.

Corley, R., Abbott, B., Murray, M., Woodley, K., & Caines, Sir John (2001) *Report of the Corley Committee of Inquiry regarding The Equitable Life Assurance Society*. Faculty & Institute of Actuaries.

Cummins, D., Tennyson, S. & Weiss, M. (1999) "Consolidation and efficiency in the US life insurance industry", *Journal of Banking and Finance*, 23, 325-57.

Diagon, S.R. & Ennew, C.T. (1996) "Can business ethics enhance corporate governance? Evidence from a survey of UK insurance executives," *Journal of Business Ethics*, 15, 623-634.

Diagon, S. & O'Brien, C. (2002) Persistency in UK Long-Term Insurance: Customer Satisfaction and Service Quality, CRIS Discussion paper 2002.III.

Diagon S and O'Sullivan N (2002) 'The Impact of Ownership, Governance and Non-Audit Services on Audit Fees: Evidence from the Insurance Industry', *International Journal of Auditing*, Vol. 6.

Diagon, S.R., Starkey, K. & O'Brien, C. (2002) Size and efficiency in European long-term insurance companies: an international comparison", *Geneva Papers on Risk and Insurance*, 27, 3, 444-466.

Diagon, S.R., Starkey, K., O'Brien, C. & Odindo, C. (2005) Strategies, size and success in UK long-term insurance companies", *Journal of Insurance Research and Practice*, vol.20(1), forthcoming.

Drake, L. & Llewellyn, D. (2001) "The economics of mutuality" in Birchall, J. (ed) *The New Mutualism in Public Policy*, Macmillan.

Draper, P. & Mackenzie, E. (1996) "The returns to policyholders from alternative organisational structures: evidence from the UK life assurance industry", Centre for financial markets Research Management School, University of Edinburgh, Working Paper 98.6

Faculty and Institute of Actuaries (2004) *Myners Review of the Governance of Life Mutuals*.

Genetay, N. (1999), "Ownership structure and performance in UK life offices", *European Management Journal*, 17, 1, 107-115.

Hardwick, P. (1997), "Measuring cost efficiency in the UK life insurance industry, *Applied Financial Economics*", 7, 37-44.

Hardwick, P. & Adams, M. (1999) "Determinants of financial derivatives use in the United Kingdom life insurance industry", *Abacus*, 35, 2, 163-184

Hardwick, P., Adams, M. & Zou, H. (2003) Corporate Governance and Cost Efficiency in the United Kingdom Life Insurance Industry, European Business Management School Working paper EBMS 2003/1.

Hardwick, P. & Letza, S. (2000) "The relative performance of mutual and proprietary life insurance companies in the UK", *Insurance Research and Practice*, 15, 2, 40-46

Knights, D. & Willmott, H. (1993) "A very foreign discipline: expense control in a mutual life insurance company", *The British Journal of Management*, 3/3, 1-18.

Letza, S., Hardwick, P. & Kowalski, T. (2001) "Efficiency in the UK life insurance industry: mutual firms versus proprietary firms", *Journal of Financial Services Marketing*, 6, 1, 40-49

Myners Review (2004) *Myners review of the governance of life mutuals, consultation document*.

O'Sullivan, N. & Diagon, S.R. (1999) "Internal and external governance mechanisms: evidence from the UK insurance industry", *Corporate Governance*, 7, 4, 363-373

O'Sullivan, N. & Diagon, S.R. (2003) Board composition and performance in life insurance companies, *British Journal of Management*, 14, 115-129.

Penrose, Rt Hon (2004) *Report of the Equitable Life enquiry*, London: The stationery Office.

Sandler, R. (2001) *Medium and long term retail savings in the UK: a review*. London: HM Treasury.

Strachan, D. (2004) "Staying power", *Money Management*, October, 33-34.

Swiss Re (1999) "Are mutual insurers an endangered species?" *Sigma* 4/99.

Ward, D. (2002) The costs of distribution in the UK life insurance market. *Applied Economics*, 34, 1959-1968.

APPENDIX A

Mutual life insurers having with profit liabilities

Primary

Co-operative Insurance Society Ltd (a subsidiary of the Co-operative Group)
Criterion Life (a subsidiary of Reliance Mutual)
Cuna Mutual Insurance Society
Customs Annuity & Benevolent Fund Incorporated (business transferred to National Deposit Friendly Society during 2004)
Equitable Life Assurance Society
Hannover Standard Life (a subsidiary of Standard Life)
Liverpool Victoria Life Company (a subsidiary of Liverpool Victoria Friendly Society)
London Aberdeen and Northern Mutual Assurance Society Ltd
Marine and General Mutual Life Assurance Society
National Farmers Union Mutual Insurance Society Ltd
Reliance Mutual Insurance Society
Royal London Mutual Insurance Society Ltd
Society for the Benefit of the Widows of the Officers and Warrant Officers of the Royal Regiment of Artillery Ltd
Standard Life Assurance Company
Standard Life Pension Funds Ltd [R] (a subsidiary of Standard Life)
UIA Insurance Ltd
University Life (a subsidiary of Equitable Life)
Wesleyan Assurance Society

Secondary

Ecclesiastical Life Limited (a subsidiary of Allchurches Trust)
Forester Life (a subsidiary of Independent Order of Foresters, a Canadian fraternal society)

For completeness we set out mutuals as at 31 12 2003 where their liabilities were all non profit policies:

Primary

British Life Office Limited (a subsidiary of and business transferred to Reliance Mutual in 2004)
Standard Life Investment Funds Ltd [R] (a subsidiary of Standard Life)

Secondary

B & CE Life (a subsidiary of Building & Civil Engineering Benefit Schemes)
BUPA Health Assurance Ltd (a subsidiary of BUPA)
Nationwide Life Limited (a subsidiary of Nationwide Building Society)
Revios [R] (a subsidiary of VHV, a German-registered insurer)

[R] indicates that all business arises through inwards reinsurance

Summary of mutuals

	With profit liabilities	No with profit liabilities	Total

Primary	18	2	20
Secondary	2	4	6
Total	20	6	26

APPENDIX B

Proprietary life insurers that had with profit liabilities at 31 December 2003 (44 in number).

Abbey Life Assurance Co Ltd
Alba Life Ltd
Allianz Cornhill Insurance Plc
American Life Insurance Co
AXA Sun Life plc
Bradford Insurance Co Ltd
Britannic Assurance
Canada Life Assurance Co
Century Life plc
CGNU Life assurance Ltd
Clerical Medical Investment Group Ltd
Commercial Union Life Assurance
Eagle Star Life Assurance Co Ltd
Friends Provident Life Assurance Ltd
Friends Provident Life & Pensions Ltd
GE Pensions Ltd
Guardian Assurance plc
Legal & General Assurance plc
Lincoln Assurance Ltd
Lloyds TSB Life Assurance Co Ltd
London Life Ltd
Monarch Assurance plc
National Provident Life Ltd
Norwich Union Life & Pensions Ltd
Norwich Union Linked Life Assurance Ltd
Pearl Assurance plc
Phoenix Assurance plc
Prudential Assurance Co Ltd
Royal & Sun Alliance Life & Pensions Ltd
Reassure UK Life Assurance Co Ltd
Save & Prosper Insurance Ltd
Save & Prosper Pensions Ltd
Scottish Equitable plc
Scottish Mutual Assurance plc
Scottish Provident Ltd
Scottish Widows plc
Scottish Widows Unit Funds [R]
Skandia Life Assurance Co Ltd
Sun Alliance & London Assurance Co Ltd
Sun Life Assurance Society plc
Sun Life Assurance Co of Canada UK Ltd
Swiss Life (UK) plc
Windsor Life Assurance Co Ltd
Winterthur Life UK Ltd

The following insurers write with profit business but all the liabilities are reassured, except that some expense reserve may be retained (10 in number).

Abbey National Life
Countrywide Assured
Eagle Star Insurance
Friends Provident Pensions
Halifax Life
Natwest Life
NPI Ltd
NU Life (RBS)
Prudential (AN)
Royal Scottish Assurance

The following two reinsurers (their authorisation is limited to reinsurance) write with profit business, but all such business is reinsurance accepted:

Hannover Life Re
Swiss Re Life & Health