JIA 121 (1994) 573-588

J.I.A. **121**, III, 573–588

SOME THOUGHTS ON THE DEVELOPMENT AND STRUCTURE OF THE NEW ZEALAND LIFE INSURANCE INDUSTRY

By M. B. Adams, B.A., M.Sc., I.P.F.A., A.C.M.A.

(of Massey University, New Zealand)

ABSTRACT

This paper seeks to explain key characteristics of the New Zealand life insurance industry, in particular the important role played by overseas-controlled mutual companies, and the dearth of regulation relative to other countries. It proposes that the dominance of mutual companies reflects the historical development of the New Zealand life insurance market. It also examines how agency theory may help to explain how the market has come to be dominated by mutual companies, and suggests that the unregulated nature of the life insurance industry may reflect the New Zealand government's historical role of direct intervention in the market through the Government Life Office. Further light on this issue is shed by the economic theory of regulation. This theory suggests that cartelisation and reinsurance may help to explain the existence of the unregulated insurance market in New Zealand. The paper concludes that many socio-economic and historical reasons may account for the distinctive features of the New Zealand life insurance industry. The possibilities are presented in this paper as a stimulus for further insurance markets-based research.

KEYWORDS

New Zealand; Life Insurance; Agency Theory; Economic Theory of Regulation; Cartelisation; Reinsurance

1. Introduction

1.1. There are a number of important features which distinguish the New Zealand life insurance industry from that of other countries:

(1) The main provisions governing the conduct of life insurance contained in the New Zealand Life Insurance Act 1908 remain largely unchanged since that Act entered the statute books.
(2) The New Zealand insurance sector is reported to be the most unregulated insurance market in the western world (Commerce Clearing House, 1991).
(3) By virtue of its historical development the industry is closely integrated with overseas insurance markets, particularly those of Australia and the United Kingdom.
(4) Although there has been some increased competition from new entrants in recent years, New Zealand's life insurance industry is still fairly concentrated compared with other western countries.

1.2. The purpose of this paper is to examine these distinctive features of the life insurance industry in New Zealand in the light of agency theory and the economic theory of regulation. Some thoughts are provided with regard to three important research questions as follows:

(1) Why is the New Zealand life insurance industry dominated by mutual companies?
(2) Why is the New Zealand insurance industry relatively unregulated by international standards?
(3) What processes sustain the concentrated and unregulated nature of the New Zealand life insurance market?

1.3. The remainder of the paper is organised as follows:

—Section 2 describes the development and structure of the New Zealand life insurance industry.
—Sections 3 and 4 seek to address the three aforementioned questions by reference to prior published studies in agency theory and the economic theory of regulation respectively.
—Section 5 summarises the main points and draws some conclusions which could form the basis for future research.

2. The New Zealand Life Insurance Industry

Brief History

2.1. The Government Life Office (forerunner of the Tower Corporation) was the first life insurance company to operate in New Zealand when it was formed by the government in 1869 (Geddes, 1967). It was quickly followed into the market by the major Australian mutual companies—Australian Mutual Provident Society in 1871, National Mutual Life in 1879 and Colonial Mutual Life in 1883. The early entry of these four mutual companies has, over time, enabled them to establish strong market positions based on: comprehensive distribution networks, the build-up of substantial assets and reserves, and the development of reputations for stability and confidence. Today, the four companies account for approximately 60% of the total annual premium income generated in New Zealand's life insurance market.

2.2. Nobbs (1983) attributes the growth of mutual insurance companies in nineteenth century Australia and New Zealand to a number of key factors—namely the emphasis placed by early colonial society on life insurance, the meagre amount of national insurance legislation covering personal risk cover, and rapid economic growth[(1)]. Additionally, Nobbs emphasises that a distinguishing characteristic of the New Zealand insurance market in its early years of development was the major role played by the state-controlled Government Life Office.

Recent Developments

2.3. In 1992, 34 companies (excluding six reinsurers and small friendly societies) were transacting life insurance business in New Zealand. As at 31 December 1992, total assets held by life insurance companies amounted to NZ$ 12·61 billion, of which approximately 80% was held by the six largest companies. Therefore, New Zealand is currently a highly-concentrated market. The six companies ranked in terms of value of total assets were: Australian Mutual Provident Society (NZ$ 3·16 billion); National Mutual Life (NZ$ 2·92 billion); Tower Life (NZ$ 1·72 billion); NZI Life (NZ$ 0·98 billion); Prudential Assurance (NZ$ 0·65 billion) and Colonial Mutual Life (NZ$ 0·58 billion).

2.4. Approximately two-thirds of New Zealand life insurance companies are branches or subsidiaries of multinational corporations. In terms of ownership structure, 14 companies are (or are owned by) entities with mutual status, while 20 companies are, (or are owned by) stock (or proprietary) companies. Of the latter category of companies, five entities are branches or subsidiaries of major banking corporations which have entered the New Zealand life insurance market since 1985.

2.5. Since the early 1980s, additional developments have occurred in the market. For instance, other than the banks, new companies, such as Sovereign Assurance (in 1989), Hallmark (in 1990) and Regent Insurance (in 1992) have also become a part of the New Zealand life insurance industry. Furthermore, there have been some changes brought about by corporate acquisition and merger activity. For example, in 1989 Prudential Assurance acquired General Accident Life, and Sun Alliance Life took over the New Zealand operations of Royal Life. Industry statistics for 1992 indicate that the branches and subsidiary companies of Australian corporations maintain their market domination by accounting for approximately 64% of annual premium income, while the U.K.-owned life offices account for roughly 30% of annual premium income. These figures confirm that the New Zealand life insurance industry continues to be closely tied to overseas companies, particularly those from Australia and the U.K.

2.6. Industry rationalisation and increased competition from new entrants has prompted some insurance industry commentators (e.g. Davies, 1991) to speculate that many of the smaller New Zealand-owned insurers might be taken over by larger overseas companies or disappear, because of increased competition and/or insolvency. Another increasingly common feature is that many of the smaller companies, such as Sovereign Assurance, rely on agreements with multinational reinsurance companies, such as Cologne Reinsurance and Victory Reinsurance. The importance of reinsurance to the New Zealand life insurance industry thus provides a further international dimension.

Regulatory and Legislative Environment

2.7. All major insurance markets have laws regulating the business conduct of insurance entities, although the exact nature of regulation varies between markets (Ellis, 1990). In New Zealand, the principal legislation governing solvency reporting and judicial management is the Life Insurance Act 1908. New Zealand life insurance companies are also subject to the Insurance Companies' Deposits Act 1953, which requires them to lodge a refundable deposit of NZ$ 500,000 with the Public Trust Office prior to trading. Furthermore, the Securities Act 1978 controls life offices activities with regard to the marketing of life insurance policies and other public securities, by requiring life offices to be authorised by the New Zealand Securities Commission.

2.8. The current regulatory and legislative regime in New Zealand is reported by industry commentators to be "... less than adequate and potentially open to abuse" (Commerce Clearing House 1991, Section 3100). This view is illustrated by contrasting the relatively unregulated insurance market in New Zealand with the tighter supervision of insurance companies in Australia.

2.9. In Australia, legislation requires all insurance companies to:

(1) submit a business plan with the regulatory authority, the Insurance and Superannuation Commission (ISC);
(2) comply with statutory restrictions on the use of accumulated funds;
(3) maintain statutorily prescribed minimum levels of solvency;
(4) meet stringent licensing requirements, such as the demonstration of net economic benefits to the domestic economy; and
(5) file quarterly, half-yearly and annual business returns to the ISC for solvency monitoring and control purposes.

2.10. By contrast, insurance companies in New Zealand are not subject to such stringent statutory regulations. For example, no business plan need be submitted prior to authorisation, while the Life Insurance Companies Investment Regulations (1983), governing the compulsory investment of life office funds, were revoked by the government in 1985 as part of its commitment to the free market. Moreover, while life insurance companies must file annual returns with the New Zealand Department of Justice, their operations do not have to meet statutorily-prescribed minimum solvency levels. These trans-Tasman differences in insurance industry regulation are incompatible with the objectives of the Australian-New Zealand Closer Economic Relations Agreement 1983, which provides for greater harmonisation of legal and commercial practices between the two countries.

2.11. As a relatively unregulated market, the New Zealand life insurance industry is not significantly out of line with other sectors of the domestic economy. Moreover, whilst there is little New Zealand regulation, most of the life insurance companies in New Zealand are subsidiaries or branches of overseas corporations, which are subject to extensive regulation in respect of their world-wide business. Therefore, it may be argued that this situation, to some extent, obviates the need for extensive regulation of life insurance companies. Nonetheless, many industry commentators concede that some improvement in life insurance regulation is in the public interest. Indeed, the Life Insurance Accounting Standard (due to be issued in late 1994 or early 1995) and the proposed Appointed Actuary regime are two regulatory initiatives which should help to promote public confidence in New Zealand's life insurance industry.

2.12. Some insurance industry commentators (e.g. Ford, 1974) argue that regulation is costly, and that the imposition of bureaucratic procedures stifles business performance. By contrast, others consider that external regulation serves the public interest. For example, Meier (1991) reports that regulation protects the consumer from unforeseen insolvency and helps to promote fair trading practices. He argues that a low level of regulation may not be in the best interests of the general public, and may adversely affect their confidence in the insurance industry in the event of a catastrophe. Moreover, the insolvency of a life office could become a political issue, and could commit the state to high unanticipated expenditure, such as the costs associated with the judicial management of an insolvent company.

Product Market Features

2.13. By international standards, the increased diversification and sophistication of products promoted by the New Zealand life insurance industry are relatively recent phenomena (Jessup, 1981). Jessup attributes the traditionally slow rate of product development in the New Zealand life insurance market to a combination of factors, namely: an historically adverse tax regime, conservatism of executives based at overseas head offices, and an exclusive agency network which is more concerned with ". . . acquiring the disciplines and techniques of selling rather than seeking new products" (p. 12). In his 1985 paper, Jessup suggests that the removal of tax concessions on traditional insurance contracts by the government in 1984 was the single most important factor fostering the growth of unit-linked products in New Zealand. More recently, increased competition, arising from the entry of new companies, such as Sovereign Assurance, into the New Zealand life insurance market, has also led to increased product diversification, and in particular to the growth in unit-linked product sales.

2.14. The removal of tax incentives for superannuation schemes in December 1987 has undoubtedly retarded sales of personal and group scheme retirement business over the last few years compared to countries like Australia and the U.K., where tax incentives for superannuation schemes are in place. For example, in 1989 there was a 6% annual decrease in superannuation business in New Zealand compared to a 24% annual increase in Australia (Korgemets, 1990). However, the phased reduction in the real value of state retirement pensions has led to some growth in single premium superannuation business. Currently, single premium life contracts (annual premium income of NZ$ 448 m) and single premium superannuation business (annual premium income of NZ$ 418 m) are the most popular products sold in the New Zealand life insurance market (Life Offices' Association, 1993). Latest available industry figures for 1992 indicate that, overall, conventional whole-life and endowment products constitute approximately 33% of market share as measured by annual premium income, compared with 35% for unit-linked products and 28% for superannuation products (Life Offices' Association, 1992).

Business Performance

2.15. At the end of 1992, five of the six major operators recorded growth in new business premiums which was less than the 15% average figure for the industry as a whole. This suggests that, overall, the rate of new business growth for smaller companies grew faster than for larger companies. The high level of discontinued business—which includes claims due to maturity and mortality, surrenders and lapses (where the policy has not accrued a surrender value)—is also a major problem for the New Zealand life insurance industry, particularly with regard to superannuation policies. Indeed, in 1992 approximately one-third of life offices lost more annual premium income due to discontinuances than they gained in new business. The U.K.-based Securities and Investment Board (1991) gives many reasons for poor business persistency. These include: aggressive marketing, economic recession, and competition from alternative savings products. Inevitably, high levels of discontinuances are bound to affect adversely the profitability of New Zealand life insurance companies and put a strain on their long-term solvency.

3. Agency Theory and the New Zealand Life Insurance Industry

3.1. This section of the paper uses agency theory to explain why the New Zealand life insurance industry is dominated by mutual companies.

3.2. Knights & Willmott (1993) propose that there are two main reasons why mutual insurance companies are able to compete successfully with publicly-listed stock insurance companies. First, mutual companies are not restricted by the obligation to maintain a return on shareholders' capital prior to declaring a bonus allocation to policyholders. Second, they are not subject to stock market pressure to raise levels of earnings performance. However, some researchers (e.g. Mayers & Smith, 1981, 1988; Fields & Tirtiroglu, 1992) consider that agency theory offers a richer explanation as to why mutual companies may have the edge in competing with stock insurers and, thus, why they come to dominate insurance markets like New Zealand's.

3.3. Agency theory derives from the financial economics literature, and it is a framework which can be applied to help explain activity choice decisions in organisations operating in capitalist economies. It postulates that business practices are the outcome of a contractual relationship between the owners of economic resources (the principals) and the managers who are in day-to-day control of the business (the agents) (Jensen & Meckling, 1976). Agency theory assumes that, if unchecked, agents will act opportunistically to maximise their own economic interests at the expense of principals. For instance, managers may shirk their responsibilities, not produce at maximum output, and grant themselves excessive salaries and perks. To minimise the risk of such aberrant behaviour, owners will incur *monitoring expenditures*—for example, regular financial reporting—to ensure that their interests in the firm are protected. At the same time, managers will incur *bonding costs*—for example, by appointing actuaries and setting up internal audit units—in order to signal their compliance with their contractual obligation to serve the owners' economic objectives and to ensure their continued employment. The costs incurred by both parties to ensure that their contractual relations are maintained are referred to as *agency costs*. Agency theory predicts that economic advantages can accrue to firms which can devise contractual relationships that minimise their agency costs.

3.4. In the insurance industry there are three major contracting groups: shareholders, managers and policyholders. Agency theory predicts that the combined agency costs incurred by these groups will differ between mutual and stock forms of ownership. However, unlike shareholders in stock companies, policyholders in mutuals are predicted to be less effective in their monitoring of the contracting process and in their control of agency costs, because they are a more diffuse and incohesive ownership group.

3.5. Consequently, Mayers & Smith (1981, 1988) postulate that, to control the possibility of aberrant behaviour by agent-managers, and so compete successfully in the market place with stock companies, mutual insurance companies will develop distinctive business characteristics. For instance, they will tend to specialise in those forms of insurance, such as life insurance and superannuation business, which utilise discretion-limiting techniques, such as established actuarial tables. In addition, they argue that mutual insurers will seek to control managerial discretion and protect policyholders' interests by restricting business activities to specific lines of products, and by enabling policyholders to participate in the annual surplus of the company through with-profits policies(2). Similar arguments concerning variations in managerial decision making between mutual and stocks insurance companies have also underpinned more recent research carried out in the U.S. insurance markets (e.g. Petroni, 1992). Agency theory also ascribes that restrictions on managerial discretion, together with cost economies from specialisation, help to provide mutuals with economic advantages, which allow them to compete effectively with stock companies(3).

3.6. In an interesting study which applies agency theory to the insurance industry, Sherris (1987) argues that the actuary plays an important role in managing the *information asymmetry* problem which exists between managers and policyholders. This problem arises where managers, in running the company, have more information about the performance of the entity than policyholders as an ownership group. By managing effectively the information asymmetry problem in mutuals, the actuary has performed a useful governance function which has helped the mutual form to attract customers and thereby to compete successfully with stock companies in insurance markets. Sherris suggests that, in particular, the actuary performs an important *surrogate monitor* role on behalf of policyholders—notably in applying conservative assumptions to the actuarial valuation of long-term liabilities, the determination of annual profit and the distribution of surplus to with-profits policyholders(4).

3.7. Whether the propositions of agency theory are valid, or otherwise, can only be determined by further empirical research. Nearly all agency theory research has been carried out in insurance markets other than New Zealand, mostly in the U.S.A. Nevertheless, it is considered that agency theory provides an intuitively appealing theoretical framework which offers scope for explaining the survival of mutual companies in the New Zealand market.

4. The Economic Theory of Regulation and the New Zealand Life Insurance Industry

4.1. This part of the paper seeks to explain why the New Zealand life insurance industry is relatively unregulated by international standards.

4.2. Several researchers (e.g. Stigler, 1971; Posner, 1974; Peltzman, 1976; and Rahman, 1992) argue that the economic theory of regulation offers a rigorous framework for analysing, not only regulated, but also unregulated markets, such as that for New Zealand insurance.

4.3. The economic theory of regulation is based on the assumptions of neoclassical economics, notably that people seek to advance their private interests and that they do so in a rational manner. It posits that state regulation is an economic good whose allocation is governed by the laws of demand and supply (Posner, 1974). The contention of proponents of the economic theory of regulation is that regulation will be supplied by the state as long as the benefit for politically effective groups is greater than the economic cost to them (Rahman, 1992).

4.4. Often regulation is supplied to a market in response to some industrial crisis which can severely harm the industry, such as corporate failure or new competition. Hence, the relative absence of major crises, such as the collapse of a major operator, could explain why stringent regulation has not been applied to the New Zealand insurance sector(5). One view is that demand for regulation stems frequently from industry groups. Industry groups may seek to lobby for selective regulation that will benefit existing members of the industry. For instance, Strickland (1980) argues that, as a result, government intervention could end up benefiting the regulated firms, and not society or consumers. Peltzman (1976) postulates that, because industry groups possess more information than other groups, such as consumers, they will tend to determine the nature and extent of regulation applied to the industry. The likelihood that corporate interests will capture and influence the regulatory process is judged to be particularly high with regard to the insurance industry, since the business is generally acknowledged to be technically complex (Meier, 1991). An example where the insurance industry has reportedly captured a regulatory authority is cited by Kingsford-Smith (1993). He criticises the Deputy Commissioner of the Australian Insurance Superannuation Commission (ISC) for being more sympathetic to the interests of the insurance industry than to the general public because he ". . . retains a residual loyalty to the industry and . . . [seeks] to resolve difficulties . . . without disturbing personal relationships which are perceived to be useful to the ISC . . ." (p. 33).

4.5. Like many other New Zealand industries, the life insurance lobby has had only limited success in influencing legislation[(6)] and policies which would directly impact upon insurers. For example, the industry has had no success in its lobbying efforts to prevent the government's removal of concessionary Corporation Tax treatment in April 1990; the unfavourable tax treatment of superannuation schemes in New Zealand compared to Australia and the U.K.; and the absence of stringent licensing controls over prospective new entrants to the market. Therefore, the unregulated New Zealand environment could reflect the lack of demand for regulation from both consumer and industry groups. Moreover, in recent years, the lack of commitment to more regulation probably reflects the New Zealand Government's drive towards greater deregulation of the economy.

4.6. At first sight, the relatively unregulated nature of the life insurance industry in New Zealand could reflect the view that ". . . as there are so few major companies operating in the market, very few specific regulations are required" (KPMG Peat Marwick McLintock, 1991, p. 193). However, the lack of supply of regulation probably reflects the traditional preference for promoting government policy in the insurance sector through state-controlled enterprises. For 120 years, the direct involvement of the state through the Government Life Office was a means of promoting the government's social welfare objectives. For instance, this was achieved by directing the funds of the Government Life Office into public sector investments, underwriting policyholders' long-term liabilities and by ensuring minimum standards of training for agents.

4.7. Some commentators (e.g. Jessup, 1985) suggest that the substantial role played by the government in the New Zealand life insurance market has obviated the need for extensive regulation and legislation. From their research in European insurance markets, Finsinger & Pauly (1986, p. 5) share this view, and they also report that state-controlled companies can be more cost effective in implementing government policy than external regulation. However, state involvement in the New Zealand insurance sector ended in 1990 when the government privatised the Government Life Office (now the Tower Corporation), and sold its general insurance company, State Insurance, to the U.K.-based Norwich Union group.

4.8. In the U.S.A., some academics, such as Meier (1991), argue that, given its important position in society and the economy, the insurance lobby is relatively ineffective in the political process. Meier (1991, p. 704) offers two main reasons to support the argument:

(1) the lack of efficient and effective resource mobilisation, and
(2) product heterogeneity in the industry.

He considers that the insurance industry does not effectively allocate resources towards developing political skills and public relations expertise. This is attributed to an ignorance of politics and political processes within the industry and to the diversified range of business interests within the insurance sector. Meier also argues that separate representative groups within the same industry mitigate against the presentation of a united 'front', and as such, they are unlikely to be successful in the lobbying process.

4.9. Significantly, the interests of the New Zealand life and general insurance industries are represented by two independent bodies, the Life Office Association and the Insurance Council(7). These two organisations have separate policy agendas, distinct political goals and different administrative structures. Meier suggests that diverse policy interests might even exist among sectors of the same insurance industry. For example, a life insurance company which specialises in superannuation products will have different policy objectives from a company which sells more traditional life insurance products. These views are shared by Sutton (1984), who considers that diversified producers (like New Zealand-based life offices) are less likely to be effective lobbyists than more specialist producers.

4.10. Additionally, the economic theory of regulation suggests that cartelisation and reinsurance could help to sustain the concentrated and unregulated nature of the New Zealand life insurance market. These are considered below.

Cartelisation

4.11. Proponents of the economic theory of regulation contend that opposition to regulatory initiatives and the advocacy of self-regulation arises when an industry perceives that its economic interest will be adversely affected by the regulatory process. For instance, insurance industry groups might seek to avoid regulation by playing down the political and financial impact of crises, such as the insolvency of an insurance company, and by stressing that insurance is a technical and complex business best left to regulation by the industry. Posner (1974) suggests that such self-motivated behaviour is most likely to occur in small oligopoly markets where there is scope for cartel arrangements to develop. He argues that cartelisation provides members of an oligopoly with an alternative and more cost-effective substitute for regulation, as well as providing prospects of monopoly profits.

4.12. In New Zealand, cartels are generally illegal under the Commerce Act 1986, and this may deter firms from entering into such agreements. However, the legal sanctions could provide firms with an incentive to conceal collusive practices which they have entered into. Therefore, the New Zealand life insurance market might be conducive to the formation of cartel arrangements, or of gentlemen's agreements to avoid competition. Although there is currently no empirical evidence to substantiate such an assertion, the existence (or otherwise) of cartelisation in New Zealand's life insurance industry is nevertheless considered to be an interesting area for future investigative research.

4.13. Furthermore, limited circumstantial evidence suggests that there may be conscious attempts by the New Zealand life insurance industry to limit the political impact of issues in order to maintain the comparatively unregulated environment and to preserve the industry's reputation. First, larger insurance companies have sought to limit the adverse publicity associated with corporate insolvency by voluntarily taking over the policyholders' liabilities of smaller companies which have recently gone into receivership. For example, the business of the failed Capital Life Insurance Company was taken over by NZI Life in 1990. However, Barrow & Ferguson (1984) point out that large life offices might be reluctant to continue amalgamating with troubled or insolvent companies, since ultimately such a practice could jeopardise their financial stability. Second, a recent initiative by the Life Office Association to provide a conciliation and arbitration service for the resolution of consumers complaints could be interpreted as a gesture to minimise the risk of more direct (and potentially costly) consumer protection legislation being imposed on the industry. Third, the New Zealand life insurance industry is heavily reliant on the reinsurance market. Mayers & Smith (1981, pp. 429–430) suggest that ". . . reinsurance is simply an institutional response to avoid bankruptcy. . . ." Therefore, reinsurance arrangements (particularly financial reinsurance) could be one of the mechanisms which some life insurance companies (e.g. small life insurers) employ to prevent corporate insolvency from becoming a politically salient issue(8).

Reinsurance

4.14. Mayers & Smith (1981) predict that the probability of reinsurance arrangements increases when a large proportion of the firms in the market are financially of a small size and/or where the major operators are mutual insurers. For instance, mutual companies may view reinsurance as a means of business expansion, given their inability, relative to stock companies, to raise finance on the capital markets. They also contend that reinsurance is favoured by the insurance industry because it is less costly than compliance with solvency controls. Hence, reinsurance is predicted to be relatively more common in unregulated insurance markets, such as New Zealand's, than in more regulated environments. Furthermore, Mayers & Smith suggest that reinsurance helps to strengthen the market position of oligopoly firms, since through reinsurance smaller life offices can effectively become *fronting arrangements* for the larger companies(9).

4.15. Berger, Cummins & Tennyson (1992) also contend that reinsurance arrangements can assist insurance companies to minimise taxation liabilities, and that, consequently, reinsurance will be more common in countries, such as

New Zealand, which do not grant life insurance companies favourable taxation status. However, they also consider that a disadvantage of a heavily reinsured market is that, in an economic crisis, such as that afflicting world capital markets since October 1987, a restriction in supply can result. This increases the price of reinsurance, which translates directly to prices in the primary life insurance market. Consequently, the financial performance of a life insurance market which is reliant on reinsurance, like New Zealand's, could be vulnerable to adverse events in the world's reinsurance markets.

4.16. In contrast to the view that reinsurance is a substitute for regulation, Ellis (1990) argues that a high incidence of reinsurance in an insurance market should be a signal for greater regulation, particularly with regard to the extension of controls over the solvency of reinsurers, the control of the transaction of off-shore reinsurance business, and the selective monitoring of the activities of smaller life offices. Indeed, Mathewson & Winter (1986) attribute the collapse of three major property-casualty insurance companies in Canada to the placement of large amounts of business with off-shore reinsurers which subsequently suffered financial difficulties. Moreover, empirical evidence from the U.S.A., gathered by Bar Niv & Hershberger (1990), indicates that the small and heavily reinsured insurance companies are particularly susceptible to fluctuations in asset values, changing market conditions and economic downturns. Thus, an argument could perhaps be made for the selective solvency monitoring of small and heavily reinsured life offices in New Zealand. The task might be carried out by the Government Actuary's Department.

5. Conclusions

5.1. By international standards, the New Zealand life insurance industry is a small and largely unregulated market, dominated by six long-established companies, four of which are mutual composite insurers, and five being controlled by parent companies resident overseas. This paper has attempted to explain these industry characteristics by drawing on the insurance and financial economics literature. Tentative conclusions are as follows.

5.2. First, mutual insurers dominate the New Zealand life insurance industry by virtue of their long existence in the market, and their large size which probably helps them to achieve operational scale economies.

5.3. Second, overseas researchers, such as Mayers & Smith (1981, 1988) argue that mutual companies have other economic advantages which help them to compete and sometimes dominate insurance markets. For example, mutual insurers can obtain economic advantage by specialising in long-term and low-risk lines, such as life insurance. Moreover, restrictions on managerial discretion helps mutuals to protect the ownership rights of policyholders and to achieve economic advantage by controlling agency costs. Such advantages may have helped mutual companies to establish themselves in New Zealand.

5.4. Third, the unregulated nature of the life insurance industry, although ostensibly a manifestation of the small number of firms in the market, may also possibly be explained by other factors. Historically, the public interest in the life insurance industry has mainly been promoted through the Government Life Office. This could explain why the government has not seen the need to develop a stringent regulatory environment. However, the relatively unregulated environment in New Zealand is at variance with the tight regulatory structure in place in the Australian insurance sector—a country with whom New Zealand should be moving closer together in accordance with the Closer Economic Relations Agreement 1983.

5.5. Fourth, the absence of legislation and regulation protecting the New Zealand life insurance industry from external competition, together with the absence of concessionary taxation treatment for life offices, is largely a manifestation of current government policy. However, research from the U.S.A. suggests that in relation to its economic importance, the insurance lobby very often fails to achieve its political objectives.

5.6. Finally, the heavy reliance of some companies on reinsurers could indicate that reinsurance, at least partially, acts as a substitute for external control.

Acknowledgements

I am grateful to Hector Perera, Mike Pickford, Asheq Rahman, Gregory Tower and two anonymous reviewers for their helpful comments on earlier drafts of this paper. The paper also benefited from the views of participants at an insurance industry seminar hosted by Price Waterhouse (Wellington). I am also indebted to Price Waterhouse for their financial support for my research on the New Zealand life insurance industry. Finally, the usual disclaimer applies.

End Notes

(1) In his study of mutual and stock forms in the U.S. banking sector, Rasmusen (1988) makes the interesting point that in the nineteenth century the altruistic principles upon which banking mutuals were formed helped to explain their success compared to their stock counterparts in a weak legislative environment. Therefore, it may be hypothesised that mutual insurance companies were more suited than stock companies to the weak legislative environment which characterised early colonial Australia and New Zealand.

(2) As pointed out by an anonymous referee, stock companies also sell with-profits products. However, Lamm-Tennant & Starks (1993) cite evidence that, in the U.S.A., with-profits products are more likely to be associated with mutuals than stocks because, by writing such policies, policyholders are able to control the risk of aberrant behaviour by managers and secure for themselves a stake in the future financial performance of the firm. They contend that stock companies will promote with-profits products for reasons of market economics, whereas mutuals are likely to write such business because it provides policyholders with an agency cost advantage.

(3) For example, Sherris (1987) suggests that a reason why all insurance companies are not mutuals is that the more effective monitoring and control by shareholders in stock companies helps them

to reduce agency costs. Further, economies achieved by stock companies from diversification may also provide stock companies with an economic advantage over mutuals.

(4) Appointed Actuaries also look after shareholders' interests in stock companies and this aspect should not be minimised. However, as Sherris (1987, p. 1126) makes clear, policyholders' interests are of primary concern to the actuary because, by contrast to shareholders, policyholders are less efficient in the monitoring and control of the business.

(5) In recent years, the New Zealand life insurance industry has nevertheless witnessed a number of insolvencies among small life offices. For example, Australasian Commercial Life, First Pacific Life, Super Mutual Ltd., and Ticino Life all became insolvent from the late 1980s.

(6) A significant lobbying success by the New Zealand life insurance industry was its success in achieving an amendment on the Human Rights Bill 1992, which originally sought to eliminate gender discrimination in premium charges. Following acceptance of life insurance industry submissions, insurers are still legally entitled to charge differential premiums between male and female policyholders.

(7) This practice differs from the U.K., where the interests of the life and general insurance industries are represented by a single organisation—the Association of British Insurers (ABI).

(8) There is considerable body of opinion, based on empirical evidence from U.S. insurance markets, that reinsurance can help insurers to protect themselves against bankruptcy. In addition to the predictions made by Mayers & Smith (1981), Berger *et al.* (1992) state that even among larger (property-liability) insurers "... *excess of loss* agreements are most common, in which the reinsurer agrees to cover losses in excess of a specified limit. ... This type of reinsurance ... protects the insurer against catastrophic losses and possible insolvency" (p. 253). The degree to which reinsurance is effected to avoid insolvency in insurance markets outside the U.S.A., such as New Zealand, is an interesting empirical question for future research to address.

(9) As pointed out by an anonymous reviewer, small life offices may be motivated to enter into reinsurance agreements with larger life offices because they may offer better terms than specialist reinsurers, rather than because they wish to act as fronting arrangements. However, this begs the question as to whether some large life offices are purposefully under-cutting reinsurance rates to extend their market control by using small companies as fronting arrangements.

REFERENCES

BAR NIV, R. & HERSHBERGER, R.A. (1990). Classifying financial distress in the life insurance industry. *The Journal of Risk and Insurance*, **57**(1), 110–136.

BARROW, G.E. & FERGUSON, D.G.R. (1984). A review of the law relating to insolvent life insurance companies and proposals for reform. *J.I.A.* **111**, 229–257.

BERGER, L.A., CUMMINS, J.D. & TENNYSON, S. (1992). Reinsurance and the liability insurance crisis. *Journal of Risk and Uncertainty*, **5**(2), 253–272.

COMMERCE CLEARING HOUSE (1991). *Australian and New Zealand Insurance Reporter Volume 1.* Melbourne: CCH Australia Ltd.

CUMMINS, J.D. & WEISS, M.A. (1991). The structure, conduct, and regulation of the property-liability insurance industry. (pp. 117–154). Paper presented at the Federal Bank of Boston Conference on Insurance, Harwich Port, MA, U.S.A.

DAVIES, J. (1991). Life insurance marketing in the 1990s—back to better basics. Paper presented at the Insurance Institute of New Zealand Conference, Wellington.

ELLIS, H. (1990). Government regulation of insurance companies. In Diacon, S. (Ed). *A guide to insurance management* (pp. 277–289). London: Macmillan Press Ltd.

FIELDS, J.A. & TIRTIROGLU, D. (1992). Agency-theory implications for the insurance industry: a review of the theoretical and empirical research. *Quarterly Journal of Business and Economics*, **30**(1), 40–61.

FINSINGER, J. & PAULY, M. (1986). *The economics of insurance regulation: a cross-national study.* London: Macmillan Press Ltd.

FORD, A. (1974). Life office returns to the Department of Trade and Industry. *J.I.A.* **101**, 53–87.
GEDDES, J.A. (1967). Some aspects of life insurance in New Zealand. *Transactions of the Institute of Actuaries in Australia and New Zealand*, **5**(1), 161–188.
JENSEN, M.C. & MECKLING, W.H. (1976). Theory of the firm: management behaviour, agency costs and ownership structure. *Journal of Financial Economics*, **3**(3), 305–360.
JESSUP, R.A. (1981). Investment and administrative strategies in an inflationary era. Paper presented at the Tenth Pacific Insurance Conference, Manilla, Philippines.
JESSUP, R.A. (1985). Management strategy towards the 1990s and the role of government. Paper presented at the Twelfth Pacific Insurance Conference, Seoul, South Korea.
KELLNER, S. & MATHEWSON, G.F. (1983). Entry, size distribution, scale and scope economies in the life insurance industry. *Journal of Business*, **56**(1), 25–44.
KINGSFORD-SMITH, D. (1993). The regulation of life insurance and superannuation investments in Australia. *Australian Business Law Review*, **21**(1), 9–42.
KNIGHTS, D. & WILLMOTT, H. (1993). 'It's a very foreign discipline': the genesis of expenses control in a mutual life insurance company. *British Journal of Management*, **4**(1), 1–19.
KORGEMETS, L. (1990). *Where will we be in 1995? Taxation perspectives over the next five years.* Wellington: Association of Superannuation Funds of New Zealand.
KPMG Peat Marwick McLintock (1991). *Insurance company reporting worldwide.* London: Author.
LAMM-TENNANT, J. & STARKS, L.T. (1993). Stock versus mutual ownership structures: the risk implications. *Journal of Business*, **66**(1), 29–46.
LIFE OFFICES' ASSOCIATION OF NEW ZEALAND. (1992). *Annual review.* Wellington: Author.
LIFE OFFICES' ASSOCIATION OF NEW ZEALAND. (1993). *Annual review.* Wellington: Author.
MATHEWSON, G.F. & WINTER, R.A. (1986). The economics of life insurance regulation: valuation constraints. In Finsinger, J. & Pauly, M.V. (Eds.), *The economics of insurance regulation: a cross-national study* (pp. 257–290). London: Macmillan Press Ltd.
MAYERS, D. & SMITH, C.W. (1981). Contractual provisions, organizational structure, and conflict control in insurance markets. *Journal of Business*, **54**(3), 407–434.
MAYERS, D. & SMITH, C.W. (1988). Ownership structure across lines in property-liability insurance. *Journal of Law and Economics*, **31**(3), 351–378.
MEIER, K.J. (1991). The politics of regulation. *The Journal of Risk and Insurance*, **58**(4), 700–713.
NEW ZEALAND COMMERCE ACT, 1986. Wellington: Government Printer.
NEW ZEALAND INSURANCE COMPANIES DEPOSITS ACT 1953. Wellington: Government Printer.
NEW ZEALAND LIFE INSURANCE ACT 1908. Wellington: Government Printer.
NEW ZEALAND LIFE INSURANCE COMPANIES INVESTMENT REGULATIONS 1983. Wellington: Government Printer.
NEW ZEALAND SECURITIES ACT 1978. Wellington: Government Printer.
NOBBS, R. (1983). The development of friendly societies and life assurance in Australia. *J.I.A.* **110**, 457–466.
PELTZMAN, S. (1976). Towards a more general theory of regulation. *Journal of Law and Economics*, **19**(2), 211–240.
PETRONI, K.R. (1992). Optimistic reporting in the property-casualty insurance industry. *Journal of Accounting and Economics*, **15**(4), 485–508.
POSNER, R.A. (1974). Theories of economic regulation. *The Bell Journal of Economics and Management Science*, **5**(2), 335–358.
PROPOSED ARRANGEMENTS FOR A CLOSER ECONOMIC RELATIONSHIP BETWEEN AUSTRALIA AND NEW ZEALAND (1982). Wellington: Government Printer.
RAHMAN, A.R. (1992). *The Australian Accounting Standards Review Board. The establishment of its participative review process.* New York: Garland Publishing.
RASMUSEN, E. (1988). Mutual banks and stock banks. *Journal of Law and Economics*, **31**(2), 395–421.
SECURITIES AND INVESTMENTS BOARD (1991). *Life Assurance—Policy termination rates.* London: AKG Ltd.

SHERRIS, M. (1987). The role of the actuary and the theory of contracting. *Transactions of the Institute of Actuaries in Australia* **2**, 1117–1142.

STIGLER, G.J. (1971). The theory of economic regulation. *The Bell Journal of Economics and Management Science*, **2**(3), 3–21.

STRICKLAND, A.D. (1980). *Government regulation of business*. Boston, MA: Houghton Mifflin Co. Ltd.

SUTTON, T.G. (1984). Lobbying of accounting standard-setting bodies in the U.K. and the U.S.A.: a Downsian analysis. *Accounting, Organizations and Society*, **9**(1), 81–95.