

REALISTIC REPORTING OF LIFE INSURANCE COMPANY POLICY LIABILITIES AND PROFITS: DEVELOPMENTS IN ANGLO-AMERICAN COUNTRIES

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ABSTRACT

This paper examines international developments in life insurance generally accepted accounting practice (GAAP) for policy valuation and profit recognition in four major Anglo-American markets—the U.K., Australia, the U.S.A. and Canada. Each valuation method examined has its advantages and disadvantages with respect to the needs of preparers and users of the annual corporate reports of life insurance companies. The paper documents that the statutory basis and U.S. GAAP are considered to have substantive deficiencies. In contrast, the U.K. accruals method, the Australian margin on services method and Canadian GAAP have much to commend them, particularly with regard to their flexibility to accommodate valuation adjustments for unexpected events. Nevertheless, from the preparers' point of view, the systems which would have to be developed to facilitate the U.K. accruals and Australian margin on services methods would be difficult and costly to implement. Profit reporting under Canadian GAAP is also sensitive to changes in actuarial reserving assumptions. The authors conclude that, since national preferences in actuarial and accounting practices are inevitable and because the product-market structures of life insurance markets are so distinctive, international harmonisation of life office GAAP is unlikely to occur for a very long time.

KEYWORDS

Policy Valuation; Profit Recognition; Profit Emergence; Life Office GAAP; Anglo-American Countries

1. INTRODUCTION

1.1 This paper discusses generally accepted accounting principles (GAAP) recommended for policy valuation and profit recognition in life insurance companies operating in four major markets of the world—the United Kingdom, Australia, the United States of America and Canada. The literature suggests that accounting and reporting for life assurance business is generally perceived by policyholders, shareholders, investment analysts and the general public alike, to be "... shrouded in mystery unlike any other industry. The inquisitive 'outsider' has often had his questions dismissed with the wise and knowing shake of the head, accompanied by a remark that 'you just don't understand' and that 'you can't explain it that simply' ..." (Bartlett, 1992, 110)⁽¹⁾.

1.2 Two important features which largely explain the idiosyncratic nature of life assurance accounting are:

- (1) The uncertainty as to future cash flows emanating from an insurance contract at the point of sale. Because of the long-term nature of life insurance contracts, sufficient reserves must be built up by life offices so that they can meet their obligations to policyholders when they fall due. Uncertainty of future claims experience also means that reserves must be set with a margin for prudence, so that profits will gradually emerge over the term that the policy is in force.
- (2) The problem of matching revenue with expenses over a life insurance policy which could extend for twenty years or more. This creates accounting difficulties with regard to the recognition of profit over the many accounting periods that the policy is in force.

1.3 To ensure that the life assurance industry is able to meet its obligations to policyholders over the long term, all Anglo-American countries⁽²⁾ have imposed statutorily prescribed solvency requirements on life offices. For example, in the U.K., regulations laid down in the U.K. Insurance Companies Act 1982, and related legislation—notably the U.K. Insurance Companies Regulations 1981, and the U.K. Insurance Companies (Accounts and Statements) Regulations 1983—require life offices to file annual business returns with the Department of Trade and Industry (DTI) for solvency monitoring purposes. The statutory basis of policy valuation used to ensure the maintenance of corporate solvency also influences the form and content of the published financial statements. Most significantly, U.K. life insurers are currently afforded special disclosure exemptions under the U.K. Companies Act 1985. The most important exemption is that which permits life offices to maintain hidden reserves and allows the annual reported surplus to be increased or decreased by the undisclosed movement on those reserves. The utilisation of disclosure exemptions largely explains the diversity of presentation and disclosure reported by the U.K.'s life insurance companies (KPMG Peat Marwick McLintock, 1990)⁽³⁾. Currently, life insurance companies in all Anglo-American countries, except Canada, report differently for statutory (regulatory) and general (GAAP) purposes.

2. RECENT DEVELOPMENTS

2.1 The life assurance industry in Anglo-American countries has, in recent years, been subject to calls for rapid change in its financial reporting practices. These changes have mainly derived from:

- (1) the needs of publically-listed stock insurers to provide more meaningful information to shareholders and prospective investors,

- (2) the valuation needs of mutual companies contemplating the transition to public-listing status, and
- (3) financial analysts and the accountancy and actuarial professions, who wish to see greater uniformity in accounting and reporting practices by life offices (Miles & Gubbay, 1987)⁽⁴⁾.

Since the U.K. Pearl Group was purchased by Australian Mutual Provident (AMP) in 1989, another major motivating factor for change in the U.K. has been the need for proprietors of life insurance companies to see reported results more in line with the entity's economic value. It is argued that, without realistic reporting, life insurance companies are at greater risk of unwelcome acquisition bids. In the U.K., a further catalyst for better reporting by life insurance companies has been the E.C. Insurance Accounts Directive which will require life assurance companies to prepare financial statements which comply with a 'true and fair' view from 1 January 1995. This Directive seeks to promote comparability in the preparation and interpretation of financial statements with the use of specified formats and agreed definitions of accounting items⁽⁵⁾.

2.2 Pressure for change has stimulated the accountancy profession and the life insurance industry in Anglo-American countries to develop life office GAAP. The objective of life office GAAP is to measure and report "... the financial condition and progress of a life company that is not only reliable in absolute but is also comparable year to year, with other insurance companies and, ideally, with companies in other industries" (Keith, 1983, 1)⁽⁶⁾. However, the task has not been easy and a host of technical and conceptual difficulties have still to be overcome in many countries. The major complications tend to relate to the appropriate basis for the valuation of the long-term liabilities of policyholders and the derivation of the surplus (profit) which can be transferred out of the long-term (life) fund to finance policyholders' bonuses and, in the case of stock companies, the distribution of dividends. Attempts to develop life office GAAP in the U.K., Australia, the U.S.A. and Canada, and to facilitate the realistic reporting of life assurance business are summarised in Table 1 and discussed further below.

3. UNITED KINGDOM METHODS

3.1 In the U.K., three significant approaches to policy valuation and profit recognition have been utilised by life assurance companies in recent years⁽⁷⁾. These are:

- (1) the statutory (or solvency) basis,
- (2) the embedded value, and
- (3) the accruals method.

Table 1. Life Office GAAP: International Developments

	STATUTORY BASIS	U.K. METHODS EMBEDDED VALUE	ACCUALS METHOD	AUSTRALIAN MARGIN ON SERVICES	U.S. GAAP	CANADIAN GAAP
SOURCE	Insurance Companies Act (1982)	Life insurance industry	ABI (1991)	IAA (1989) & LIFA (1991)	AICPA (1972) FASB 60 (1982) FASB 97 (1988) FASB 113 (1992)	CICA (1992)
PRIMARY FEATURES	<ul style="list-style-type: none"> • Demonstration of solvency • 'Losses' reported in early years due to 'new business strain' 	<ul style="list-style-type: none"> • Aggressive front loading of recognised profit • Valuation assumptions not locked in 	<ul style="list-style-type: none"> • Front loading of recognised profit • Valuation assumptions not locked in 	<ul style="list-style-type: none"> • Profit recognised at point of sale, but profit profile more even • Valuation assumptions not locked in 	<ul style="list-style-type: none"> • Even profit profile • Valuation assumptions locked in 	<ul style="list-style-type: none"> • Aggressive front loading of recognised profit • Valuation assumptions not locked in
APPLICATION	<ul style="list-style-type: none"> • Stock Companies • Mutual Companies • Reinsurers 	<ul style="list-style-type: none"> • Stock Companies 	<ul style="list-style-type: none"> • Stock Companies 	<ul style="list-style-type: none"> • Stock Companies⁽¹⁾ 	<ul style="list-style-type: none"> • Stock Companies⁽²⁾ 	<ul style="list-style-type: none"> • Stock Companies • Mutual Companies • Reinsurers

MAIN ADVANTAGES	<ul style="list-style-type: none"> Facilitates solvency control 	<ul style="list-style-type: none"> Recognises profit at point of sale Flexibility in valuation assumptions—profit adjusted for actual experience 	<ul style="list-style-type: none"> Recognises profit at point of sale Flexibility in valuation assumptions—profit adjusted for actual experience 	<ul style="list-style-type: none"> Recognises profit at point of sale Flexibility in valuation assumptions—profit adjusted for actual experience 	<ul style="list-style-type: none"> Recognises profit at point of sale Flexibility in valuation assumptions—profit adjusted for actual experience 	<ul style="list-style-type: none"> Recognises profit at point of sale Flexibility in valuation assumptions—profit adjusted for actual experience 	<ul style="list-style-type: none"> Recognises profit at point of sale Flexibility in valuation assumptions—profit adjusted for actual experience
	<ul style="list-style-type: none"> No good for realistic reporting of profitability—largely based on actuarial, rather than accounting conventions 	<ul style="list-style-type: none"> Aggressive front loading of profit recognition Valuation rather than profit allocation technique Incompatible with E.C. Directive 	<ul style="list-style-type: none"> Allegedly complex and difficult to implement Mixed support Incompatible with E.C. Directive 	<ul style="list-style-type: none"> Possibly more complex than U.K. accruals method Mixed support 	<ul style="list-style-type: none"> Lock in of valuation assumptions raises questions as to extent of the 'realism' which exists in financial reports prepared under U.S. GAAP 	<ul style="list-style-type: none"> Susceptible to major fluctuations in earnings, from subtle changes in assumptions Overly subjective in establishment of provisions 	<ul style="list-style-type: none"> Recognises profit at point of sale Flexibility in valuation assumptions—profit adjusted for actual experience
USER	Widespread	Selected cases, e.g. life subsidiaries of banks	Selected cases, e.g. Prudential Assurance 1992 Accounts	Rare	Widespread—in U.S.A. & elsewhere e.g. Holland	Displacing statutory reporting as standard practice	

NOTES:

- (1) The 1992 proposal of the Financial Reporting Taskforce to the Australian ISC recommended a uniform approach for stock and mutual companies.
- (2) Many mutual companies in the U.S.A. employ GAAP for internal management purposes.

The Statutory Reporting Basis

3.2 The statutory basis of life insurance company reporting used in the U.K. and elsewhere (such as Australia), derives from the U.K. Life Assurance Act 1870, which was drafted following the collapse of two major insurers, the Albert and the European Insurance Companies (Barrow & Ferguson, 1984, 235)⁽⁸⁾. The statutory basis is still the most widely practised method of accounting and reporting employed by U.K. life offices, particularly among mutual insurers who do not have to satisfy the financial reporting needs of shareholders. Furthermore, it is reported that the method helps companies to build up long-term business reserves which can be used by actuaries to adjust for heavy initial acquisition expenses (i.e. Zillmerisation), as well as anticipated events, such as high claims and volatile interest rates, that may arise over the period that the life insurance policy is in force (Fisher & Young, 1965)⁽⁹⁾.

3.3 Under the statutory basis, reserves for future uncertainties are determined using conservative actuarial assumptions of mortality, expenses and investment performance. Some or all costs of acquiring new business, such as commission, underwriting expenses and promotion, are written off against policyholders' funds when incurred, rather than matched against realised revenue over the duration of the contract. This means that, under the statutory basis, profit emergence over the period that an insurance policy is in force will tend to be tail-end loaded (see Figure 1). Statutory restrictions on the appropriation of surplus as dividends and policy bonuses add to make the method a relatively poor basis for evaluating the annual financial performance of a life office (Dunsford, 1988)⁽¹⁰⁾. Moreover, the statutory basis is unsuitable for realistic reporting, since it is designed to eliminate the reporting of negative values.

The Embedded Value Method

3.4 An embedded value is the aggregate of the value of net assets held outside the life fund which are available for the generation of life insurance business and the present value of future earnings expected to emerge on life assurance business currently in force and available for appropriation to the profit and loss account, discounted at a risk rate of return (commonly set at either 12% p.a. or 15% p.a.). It has been used by some U.K. banks (e.g. Barclays), and composite insurers (e.g. Royal Insurance), to consolidate life assurance operations in a way which better reflects performance of the consolidated group. In contrast to the statutory basis, actuarial experience assumptions are less conservative. This means that on term insurance products the embedded value method tends to produce a profit emergence profile which is front-end loaded, in that it recognises substantial profit in the early years that the policy is in force (see Figure 2). The tendency to increase reported profit, and thereby enhance corporate listing status, in the short term may explain why stock insurers—like Royal Insurance—have been eager to experiment with embedded values. A common criticism with the embedded value concept is

that it is volatile, in that it presents a fairly realistic picture of performance when a life assurance company is experiencing growth, but it can disclose a very poor picture in periods of low business generation, poor lapse performance and increasing renewal expenses. These reasons may help to explain why many life insurance companies are reluctant to use the technique (e.g. see Roff, 1990, 10)⁽¹¹⁾.

3.5 Other deficiencies with the embedded value concept are that first, it brings unrealised profits into account, and second, reported profits are more influenced by the arbitrary choice of risk discount rate, than by the underlying business activities of the life office. Jenkins (1990, 11)⁽¹²⁾ also considers that the credibility of the embedded value method is often diminished by the absence of public disclosure of the actuarial assumptions (e.g. mortality and interest rates) used in calculating embedded values. These deficiencies have led some commentators (e.g. Whewell, 1990)⁽¹³⁾ to suggest that the embedded value technique is incompatible with true and fair reporting. Because the embedded value method is essentially a valuation method, rather than a profit allocation technique, there is some doubt as to whether it is compatible with the E.C. Accounts Directive. Like the accruals method, the embedded value concept is also incompatible with the E.C. Directive, because it anticipates and accounts for future profits before they are realised. Moreover, because it tends to recognise larger profits in the short term, the embedded value method appears to have been commonly employed by U.K. stock life insurance companies, particularly unit-linked offices, rather than by mutual companies (Wright, 1991)⁽¹⁴⁾.

The United Kingdom Accruals Method

3.6 The accruals method was promulgated by the Association of British Insurers (ABI) in 1990 in response to the concerns of U.K. stock insurance companies that the statutory reporting basis tended to

"... understate profits where there was business growth and to obscure the performance in a particular year. The understatement of profits is a particular concern of the listed proprietary companies since there is a danger that the extent of understatement of profit is not widely understood, with the result that their shares may be undervalued." (KPMG Peat Marwick McLintock, 1990, 35)⁽¹⁵⁾.

As mentioned in §2.1, it is not surprising that many stock life offices feel uncomfortable with the statutory basis, since its use makes them very susceptible to unwelcome corporate takeover bids.

3.7 The accruals method put forward by the ABI only applies to publically-listed companies and it uses similar actuarial assumptions regarding the future emergence of annual profit as the embedded value method. In its application, the assumptions underpinning the accruals method have tended to be set so as to produce a more conservative profit emergence profile than the embedded value technique, but less conservative than the traditional statutory basis (Bartlett, 1992)⁽¹⁶⁾. The main difference between the accruals and embedded

value methods is that the former employs an investment rate of return, rather than a risk rate of return in the calculation of earnings. Another feature of the accruals basis is that it is action, rather than value, driven. This means that the rate of profit recognition reflects the risks borne and work done at each stage of the life of a contract. Future transfers of surplus to the profit and loss account are projected on assumptions which represent prudent (as opposed to overly conservative) actuarial estimates of future claims experience. Profit margins are established to reflect components of the work done and the risks borne by the insurer at the point of sale (e.g. promotion and selling costs). These are discounted to a present value and recognised in the initial years when the policy is in force, while the remaining planned profit margin is allocated over later periods of the contract. The main advantages of the accruals method are that first, no initial loss on profitable contracts is recognised, and second, it enables financial analysts to rate the shares of publically-listed life offices on a price-earnings basis, and not just on a dividend declaration basis.

3.8 The earlier emergence of profit which may be possible under the accruals method is attractive to life offices which are experiencing short-term growth. As illustrated in Figure 3, the application of the accruals method can substantially increase annual reported profit in the early years of a term contract and improve overall financial performance. For example, in 1992 the U.K. Prudential Assurance Company more than doubled its reported profit from £267 m in 1991 to approximately £650 m, by switching from a solvency basis to the accruals method (Freeborn, 1992)⁽¹⁷⁾. The technique also allows for original reserving assumptions to be changed, if necessary, to accommodate actual business experience, which gives it the advantage of flexibility. However, the accruals method has received a mixed reception from the actuarial profession and the life assurance industry⁽¹⁸⁾. For instance, some critics (e.g. Purchase, 1991)⁽¹⁹⁾ consider that it is too complicated (and so expensive) to implement and that it is too flexible to ensure consistency in financial reporting among life insurers.

3.9 Another widespread concern among life insurance companies is that the earlier recognition of profits will accelerate the entity's liability for corporation tax. The fact that the proposal excludes mutual life insurers also raises the question as to whether it is prudent to have separate financial reporting for shareholders and policyholders. Arguably, the realistic (true and fair) reporting of life office operations is equally important to policyholders as it is to shareholders, since sound and sustainable financial performance ultimately affects the solvency of policyholders' funds and the level of bonus allocated to participating (with-profits) policies. As Bannon (1991, 9)⁽²⁰⁾ opines, "... Building Societies report [realistic] profits, so why not mutual life offices?" Indeed, the accountancy profession in Australia and New Zealand consider that stock and mutual life offices do not have radically different accounting objectives, and as such life office GAAP should not distinguish between organisational form.

4. AUSTRALIAN DEVELOPMENTS

4.1 Like in the U.K., the statutory basis is the most commonly applied approach to life office financial reporting in Australia. The requirements for statutory reporting are prescribed in the Australian Life Insurance Act 1945, which is largely modelled on U.K. legislation. Traditionally, the statutory accounts of Australian life offices have made extensive use of a number of exemptions which apply to the statutory reporting of other companies. However, the collapse of the Occidental and Regal Group brought calls for the life insurance industry to introduce more realistic reporting as soon as practicable (Barilett, 1992)⁽¹⁾. Therefore, in 1991 the Life Insurance Federation of Australia (LIFA) proposed the margin on services method, based on earlier research by the Institute of Actuaries in Australia (IAA) and published in that professional body's 'Guidance Note 253—Determination of Life Insurance Policy Liabilities'. Colloquially referred to as the 'Aussie Mossie', the method includes premium rating assumptions which allow for adverse deviations in the costs of policy servicing and risk by means of planned margins of profit.

4.2 Like the U.K. accruals method, the margin of service approach uses flexible, but realistic assumptions in the setting up of claims reserves, and it recognises profit in relation to the performance of services and risk borne under the insurance policies in force. However, the major distinguishing feature of the margin on services method is that profit emergence over the life of a contract is adjusted, not only for variations in planned margins, but also deviations from original assumptions used in the realistic valuation of liabilities. Thus, there is no lock in of the original valuation assumptions—as is the case with U.S. GAAP. For conventional term insurance products, this results in a more even profile of profit emergence over the duration of the policy (see Figure 4). Further, unlike the U.K. accruals method which spreads some margins on service costs and risks and allows the residual profit to emerge at the initial stages of the contract, the margin on services method requires that all the margins should be spread over the term of the policy. Therefore, profit is recognised as the difference between revenue and the appropriate expense for the period—and, as such, is consistent with accounting conventions regarding the matching of income and expenditure.

4.3 However, a commonly espoused objection to the margin on services method is that, like all life office reporting bases, it can be a complicated method to use, as the performance of services determining the recognition of emerging profit is often difficult to measure. Like the U.K. accruals method, some critics also argue that it is too flexible, and that major inconsistencies in financial reporting practices by life offices will continue to exist.

4.4 In 1992, the Australian Insurance and Superannuation Commission (ISC) commissioned a Task Force to explore the possibility of developing a general purpose framework for life insurance financial reporting which accommodates the needs of solvency and realistic profitability, as part of an overall

review of the Life Insurance Act 1945. The Task Force Report⁽²¹⁾ recommends new reporting formats for the annual report and accounts to improve the presentation and disclosure, and prescribes standard accounting practices, such as the use of market valuation of investments. Unfortunately, the report is silent as to whether the margin of services method is an appropriate basis for the development of Aussie GAAP. It is understood that the margin of services method was not explicitly referred to in the Task Force Report because the issue of an appropriate valuation method for Australian life offices was still being debated at the time the report was prepared. Despite concerns from some quarters, the current position seems to be that the margin on services method is favoured by a majority of members of both the Australian accountancy and actuarial professions. Consequently, it is likely that this policy valuation and reporting method will be accepted as the basis of future life office GAAP in both Australia and New Zealand⁽²²⁾.

5. UNITED STATES GAAP

5.1 The Financial Accounting Standards Board (FASB) in the U.S.A., was the first major international accountancy body to introduce GAAP for stock insurance companies with its promulgation of FAS 60 in 1982. Many of the facets of FAS 60 were derived from the 1972 AICPA Audit Guide 'Audits of Stock Life Companies'—the original U.S. life office GAAP. Creedon (1979, 164)⁽²³⁾ reports that "... U.S. GAAP were developed in order to meet the needs of the shareholder/investor, who needs to compare ... the current and projected returns from alternative investment possibilities . . ." Given that stock companies play a more prominent role than mutual firms in the U.S. life insurance market, it can be argued that the transition from the statutory basis to U.S. GAAP reporting was largely forced through by virtue of strong pressure from the capital market and securities regulators, which does not exist to the same degree in life insurance markets (like Australia), which have traditionally been dominated by mutual firms. At the present time, U.S. GAAP for mutual companies is still not defined in an accounting standard (see § 5.5).

5.2 In its initial research and development work, the FASB identified two basic aspects of the life insurance transaction, namely, the sales aspect and the service aspect. The FASB considered the point of sale to be the primary event in the life insurance accounting cycle. However, the FASB also recognised that the point of sale does not constitute the complete life insurance transaction for two main reasons. First, a life office does not have an enforceable claim to future premiums, and second, there is the risk of an early claim or surrender of the policy. The FASB took the view that variable policy expenses, such as new business acquisition costs, should be matched with premium income earned over the life of the insurance policy. Moreover, long-term liabilities are valued on the so-called net premium basis, which uses realistic assumptions of expected claims experience, with a provision for adverse deviations. The

main deficiencies with the net premium method are that it is an outdated basis for valuing liabilities and does not allow for differences between actual and estimated experiences (e.g. on mortality and expenses) to be properly adjusted and accounted for.

5.3 As illustrated in Figure 5, after a small initial reported loss resulting from the write off of fixed acquisition costs to reserves, profit emerges in a gradually increasing manner over the life of the contract as it is released in accordance with discharged risk. Unlike the U.K. accruals method and the Australian margin on services method, the actuarial reserving assumptions established at the commencement date of a policy under U.S. GAAP cannot be adjusted to match against actual mortality, inflation and investment yield experience (i.e. they are locked in). This means that profit emerging from variations between actuarial reserving assumptions and actual experience are gradually accounted for over the term of the policy against the original assumptions made, rather than at the end of the term.

5.4 A principal deficiency is that under U.S. GAAP, the lock in of (often overly prudent) actuarial assumptions means that the recognition of profit does not reflect actual financial performance and, as such, it does not facilitate realistic reporting in a particular accounting period. Additionally, there are some inconsistencies with regard to the accounting treatment of some transactions. For example, only variable policy acquisition costs (e.g. brokers' commission) are treated as an amortised deferred asset in accordance with the matching principle. Other business acquisition costs (e.g. marketing overheads and salaried sales employees' remuneration), are treated as fixed costs and written off against reserves when incurred.

5.5 Moreover, U.S. GAAP, as originally promulgated in FAS 60, has not kept up with the growth of hybrid and investment-linked products sold by stock insurers. Consequently, U.S. GAAP has been modified so that it can be applied to universal life products (FAS 97) and to reinsurance business (FAS 113). As previously mentioned, mutual life offices are exempt from compliance with U.S. GAAP, which arguably reduces comparability of financial performance between the two types of corporate form⁽²⁴⁾.

6. CANADIAN GAAP

6.1 In 1992, an accounting standard applicable to both mutual and proprietary life offices was promulgated by the Canadian Institute of Chartered Accountants (CICA), following consultations with the life insurance industry and the Canadian Institute of Actuaries. An important feature which distinguishes Canadian practice from that of other Anglo-American countries is that under Canadian GAAP, regulatory and GAAP reporting are the same. This allows regulators and other users to assess life insurance company performance on a comparable basis, and saves life insurers the costs of preparing financial statements on two different bases.

6.2 Canadian GAAP is similar to U.S. GAAP in many ways—for instance, it allows deferral of acquisition expenses. However, Canadian GAAP has some important distinctive features as follows. In contrast to U.S. GAAP, Canadian GAAP gives much more emphasis to the recognition of profit at the point of sale—and in this respect, it is very similar to the U.K. accruals method. For both statutory solvency control and financial reporting purposes, liabilities are valued by the policy (or gross) premium method, which makes an allowance for the early lapse and surrender of policies, plus a margin for adverse variations between actual and estimated business experience. Any profit in excess of that required to cover the provision for adverse deviations is reported as profit at issue. Generally, this means that profits are recognised at the point of sale to a much greater degree than with any other method described above, with the exception of the embedded value method (see Figure 6). Unlike U.S. GAAP, actuarial assumptions of future expenses and mortality rates under Canadian GAAP can be changed at each valuation date. Such flexibility avoids the lock-in problem of U.S. GAAP.

6.3 The principal criticisms with the premium policy method are that first, it recognises too much profit at the start of the contract, and that second, reported profits are very sensitive to the slightest change in actuarial reserving assumptions. These factors could undermine shareholders' and policyholders' confidence if life offices report markedly fluctuating earnings from one year to the next. As with the embedded value concept, there is also a risk that reported profit might substantially reflect discretionary changes in actuarial assumptions, rather than underlying business performance. However, in spite of these shortcomings the Canadian Insurance Supervisor seems to be satisfied that the policy premium method enables Canadian life offices to report on a true and fair basis (Bartlett, 1992, 121). Intuitively, it appears that the Canadian insurance industry regulator is willing to accept that changes in actuarial assumptions will affect reported earnings, but that such adjustments represent actuarial knowledge of changing economic circumstances, and therefore the future profitability of business in force. Moreover, the Canadian actuarial profession is in the process of developing tighter standards which should alleviate excessive front-end profit recognition and reduce subjectivity in the provisions for adverse variations in reserving assumptions.

7. CONCLUSION

7.1 The fundamental question is "Which of these profit recognition methods is the most appropriate for life office financial reporting?" There is no easy answer to this question, as each method will have its supporters and critics.

7.2 Undoubtedly, the form of life office GAAP adopted by a country will reflect the nature of the domestic capital market, the products sold and the regulatory environment. For these reasons, we believe that the international harmonisation of life office GAAP is unlikely to occur in the foreseeable future.

Other factors, such as the ability of domestic accountancy and actuarial bodies to agree on GAAP and the reluctance of life insurance companies to embrace radical changes to their policy valuation and profit reporting methods, are also important factors which have inhibited the development of life office GAAP in many countries.

7.3 To the extent that the statutory reporting basis is judged to be an unsuitable basis for realistic reporting, all the alternative methods of profit recognition outlined in this paper are an improvement. In our view, the least suitable of the realistic reporting methods, largely because of its locked-in assumptions, is U.S. GAAP. We also have reservations concerning the aggressive front-end recognition of Canadian GAAP. However, we are sympathetic to some of the virtues of Canadian GAAP, notably its applicability to both regulatory and general purpose reporting. We consider that the U.K. accruals method and the Australian margin on services method have much to commend them. However, both of these methods, particularly the Australian method, might be difficult for life offices to implement. One thing is certain, it is not an easy task for accountants and actuaries involved in the life insurance industry to develop and implement life office GAAP. Our belief is that it is extremely unlikely that a universally acceptable form of life office GAAP will be around until well into the twenty-first century.

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valuation basis. Therefore, the inclusion of general rather than specific rules means that considerable flexibility in accounting practice among E.C. insurers is likely to remain.

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- (16) However, as pointed out by the two anonymous reviewers, it is relatively easy, by a suitable choice of assumptions, for the accruals method to sometimes produce larger up-front profits than the embedded value method.
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- (18) HORTON, J., HOSKIN, K. & MACVE, R. (1993). Changing accounting principles for U.K. life assurance companies: the role of accounting research. Paper presented at the Sixteenth Annual European Accounting Conference, Turku, Finland. The authors, on page 23, assert that a reason for the actuarial profession's opposition to the proposal is that the accounting profession had a significant input into the drafting of the accruals method. Thus, the opposition of many actuaries to the ABI initiative may at least be partially attributed to their resentment of the accountancy profession's growing influence in life insurance—the traditional preserve of the actuarial profession.
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- (21) INSURANCE SUPERANNUATION COMMISSION TASKFORCE (1992). Review of the Life Insurance Act: Report to the Deputy Commissioner, Life Insurance, Insurance and Superannuation Commission by the ISC Taskforce on Financial Reporting.
- (22) Since 1989, the Australian Accounting Research Foundation (AARF), a body jointly established by the Australian Society of Certified Accountants and The Institute of Chartered Accountants in Australia, has been trying to develop a life insurance accounting standard. It is understood that an Exposure Draft is expected to be issued by the AARF in 1994 and that this document will recommend the use of the margin on services method for valuing policy liabilities. Indeed, New Zealand's Exposure Draft on the life insurance accounting standard specifies the use of the margin on services method for use among life offices in that jurisdiction.
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APPENDIX

PROFIT EMERGENCE PROFILE

Figures 1–6 illustrate the profit emergence profile on the same ‘typical’ ten year term insurance policy with the same future experience assumptions. The profiles should be treated as an approximation of the actual stream of emergent profit given that actuarial assumptions regarding inflation, taxation, mortality and lapse rates equate with prudent best estimates. Figures 1–6 are simplified representations of reality and are presented for illustrative purposes only. The reader should note that the total profit at the end of year 10 is the same under all six methods shown. It is the profile of the stream of profit which differs between the methods.



Figure 1.

UK METHODS

Embedded Value

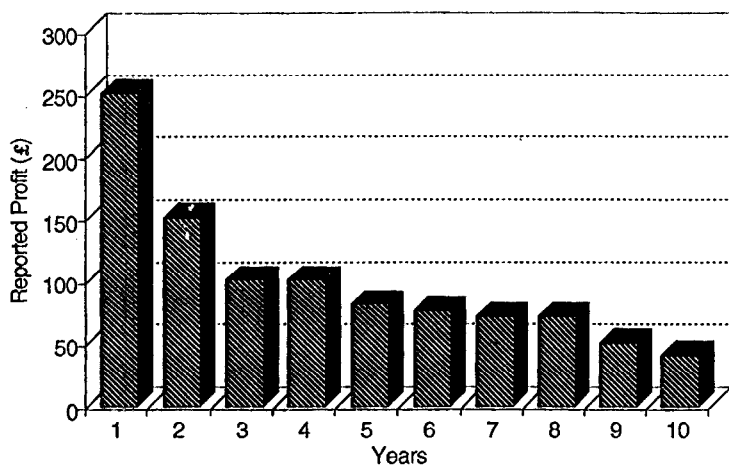


Figure 2.

UK METHODS

Accruals Basis

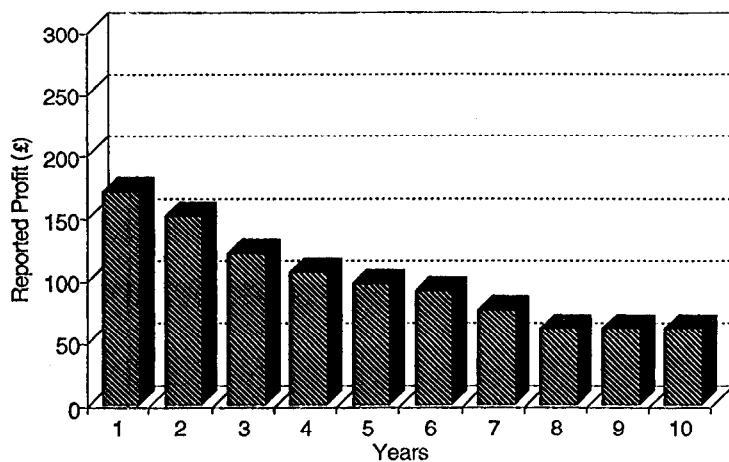


Figure 3.

AUSTRALIAN BASIS

Margin on Services

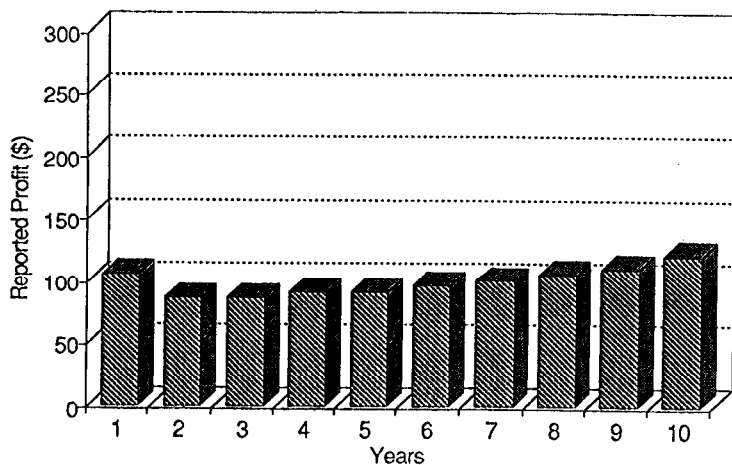


Figure 4.

US GAAP

Net Premium Method

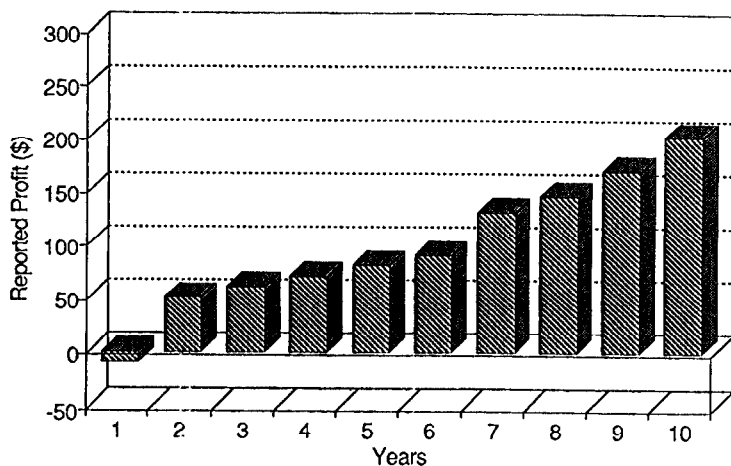


Figure 5.

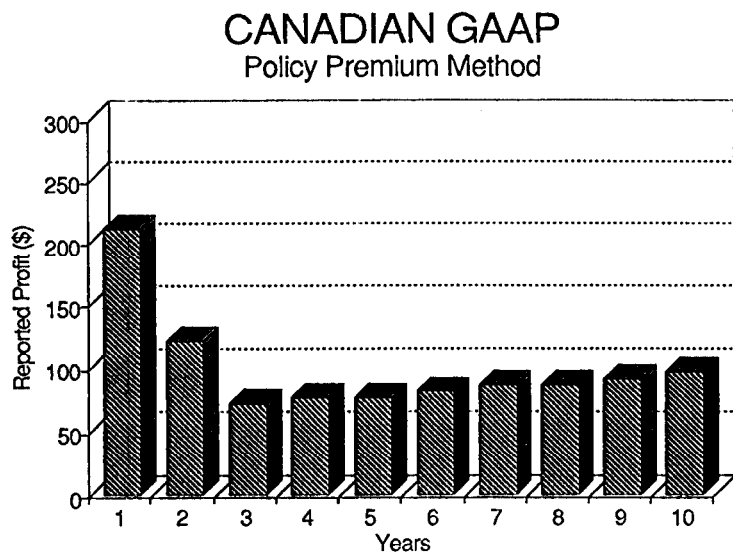


Figure 6.