

PART II

APPENDICES ETC. TO AN EXPERIMENT IN ‘FAIR VALUE’ ACCOUNTING? THE STATE OF THE ART IN RESEARCH AND THOUGHT LEADERSHIP ON ACCOUNTING FOR LIFE ASSURANCE IN THE UK AND CONTINENTAL EUROPE

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EUROPE

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prepared for the Centre for Business Performance, ICAEW

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AN EXPERIMENT IN ‘FAIR VALUE’ ACCOUNTING?

THE STATE OF THE ART IN RESEARCH AND THOUGHT LEADERSHIP ON ACCOUNTING FOR LIFE ASSURANCE IN THE UK AND CONTINENTAL EUROPE

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APPENDICES: The literature

I. Accounting-based academic research

Our overall comment: There has been only a limited amount of specifically insurance focussed research, and additional work, both conceptual and empirical is needed. A variety of work is underway on our CBP sponsored project (see Appendix I.e)). An important contribution lies in linking the problems of life insurance accounting to those that are common to all accounting standards, in particular in the context of a general trend towards greater reliance on 'fair values' (FV).

a) Horton & Macve, 1995: *'Accounting Principles for Life Insurance: A True and Fair View?'*

This study has two main parts (Yardley, 1995). The first part focuses on the changes introduced into UK Company Law in order to implement the EU Insurance Accounts Directive ('IAD') with effect from 1.1.1995. It explores whether the MSSB thereby introduced could be considered to meet the new requirement under the IAD that audit reports state whether insurers' accounts give a 'true and fair view'. Noting that 'true and fair' is a dynamic concept whose meaning evolves over time as ideas and practices change, the study distinguishes two major meanings of 'true and fair': 'true and fair (actual)' and 'true and fair (ideal)'. 'True and fair (actual)' is a 'legal term of art reflecting only what a court would regard as an acceptable basis of accounting in the light of current statutory requirements and accounting standards taken together with established practice.' By contrast, 'true and fair (ideal)' reflects 'desirable developments in accounting practice towards more realistic representation on financial performance and position.' On this basis it is argued that the traditional basis can be used in 'true and fair (actual)' accounts and, while the MSSB would require companies to change the presentation of their accounts, it would not generally require them to change the principles on which their accounts are based.

The second part of the study moves on to the wider question of whether the new methods being proposed by various sectors of the industry (such as embedded values or the 'accruals basis')¹ could be regarded as compatible with the general framework of accounting principles and as capable of giving a 'true and fair' view, and what further developments may be desirable. It identifies three major objectives of financial reporting: 'signalling' expectations to investors to assist shareholders (and, where relevant, policyholders) in appraising the company's financial position, performance and prospects; establishing 'property rights' (e.g. policyholder bonuses, dividends, taxation, management bonuses); and 'regulatory' (monitoring of solvency etc.). It argues that the property rights and regulatory objectives can be dealt with by the separate regulatory returns which insurers have to provide to the DTI² and publish annually under the ICA, and which distinguish them from 'ordinary' companies where the Companies Act accounts have to serve these other purposes too. So for insurers the Companies Act accounts can focus on giving a 'true and fair' view for the purposes of the signalling objective, which implies that, in determining what may be included in the primary financial statements, 'relevance' can be given a greater emphasis over 'reliability' than is conventional in accounting for other enterprises. This means that companies that wish to incorporate a basis such as the 'achieved

¹ Later the two approaches were given the generic title of 'achieved profits' (ABI 2001).

² Now to the FSA.

profits' basis into their main financial statements (as several bancassurers and some stand-alone insurers had already started to do) may legitimately do so: which in turn may raise questions about the bases on which other financial institutions prepare their accounts.

Yardley (1995) supports this move but criticises the attempted justification through focussing solely on the 'signalling objective'. He sees the current trend as one where the different objectives are converging, and where, for example, both tax authorities and regulators may wish to see a greater convergence between the principles underlying the Companies Act accounts and the bases used for 'property rights' and 'regulatory' purposes: there is a useful tension which the conflicting objectives bring to financial reporting. Yardley also regards as 'depressingly unambitious' what he sees as the study's concluding support merely for continuing experimentation with *supplementary* statements on an 'achieved profits' basis, which the study argued is to be both expected and encouraged as the most likely way forward. But he appears to miss the study's stronger conclusion, which is that there is no impediment in the way of those companies that wish to incorporate the new 'achieved profits' basis into their main financial statements. As he says himself, 'it is hard to see why they should not report on a common basis that is broadly consistent with methods used for internal management'. In this regard, the study also points out that issues that still need resolution include in particular the accounting for long-run investment returns and how this is best to be made compatible with the interrelated accounting for long-term insurance business—some 'smoothing' of returns may be conceptually appropriate although there are doubts about how useful this is to users in practice. Continuing professional guidance—both from the actuarial profession and from accounting standard setters—will be needed to determine the bounds on what are acceptable alternative approaches to profit measurement over the life of a long-term insurance policy.

Appendices review the main developments that have been occurring in other countries with regard to providing more realistic measures of life company performance.

It may be noted that, although the IAD's requirements have been supplanted for listed European insurers by IFRS, under current domestic legislation such as the Companies Act 2006, the obligation still remains for both listed and unlisted UK companies to prepare annual accounts that give a 'true and fair view',³ so this study's examination of that concept remains relevant.

³ Section 393: http://www.opsi.gov.uk/acts/acts2006/ukpga_20060046_en_24 (accessed 09.09.07)

b) Horton & Macve, 1997: 'UK Life Insurance: Accounting for Business Performance'

This study, published by FT Finance in association with the ICAEW, builds on and complements Horton & Macve (1995) and in particular provides many illustrations from practice of the emerging trends in UK life assurance accounting and reporting. It focuses on the controversy in the UK over the accounting for investment returns (which had stalled the issue of the revision to the SORP which was originally intended to cover the IAD changes) as well as over 'achieved profits' reporting. It also summarises the evidence set out in Horton & Macve (1998) as to the stock market impact of the ABI's initial proposals, beginning in 1990, to introduce the 'accruals' method of more realistic life company reporting. That research found that there was little, if any, immediate impact from the announcement of the 'accruals' numbers and that there would need to be a long period of familiarisation before anybody other than expert analysts would understand what value or function the new method might have. This was borne out by the apparent lack of interest both in Prudential's first (on 2nd November 1992) and second (on 19th April 1993) announcements on this basis, and in both the first and second announcements by BATs in 1992 and 1993 (where the dominance of the non-insurance activities appears to have led to the restatement of the life subsidiaries' results being virtually ignored). However there was some more evidence of a share price reaction affecting Britannic and Refuge, which had both been traditional with-profits life companies that had not given much information beyond their statutory results. It may be that any information about the Prudential in its own announcement had been anticipated but that the confirmation that the announcement provided caused a reassessment of the potential situation in these other life companies. Disappointment that the Prudential had not given an indication of any intention to allocate a higher proportion of its profits and estate to shareholders may have diverted speculative investment interest to those other companies where there might be potential for unlocking a greater proportion for shareholders. This is consistent with the significant positive reaction that was found to Legal & General's announcement in 1991 of its increased attribution of elements of its estate to shareholders (pp.109-10).⁴

A chapter of the 1997 study focuses on the issues and controversy surrounding the increasing practice of companies identifying and unlocking their estates and agreeing with the DTI a basis on which these can be allocated between shareholders and policyholders which, while having to respect the 'reasonable expectations' of policyholders, has provided often unexpected windfalls to shareholders.

The concluding chapter of the study suggests a new strategy for shaping future accounting developments. With the advent of 'international standards' on the horizon, it argues for a 'two-tier' approach to standardisation, not just for life insurance but for all industries. The five main elements of such a strategy are:

- developing an 'information' perspective on accounting choices
- standardising consolidated rather than company accounts
- developing appropriate concepts for investment accounting
- applying insights from the particular features of life insurance to establishing principles for accounting more generally
- developing a common regulatory approach

⁴ Full details of the research are provided in Horton & Macve (1998).

In developing the first of these elements the study builds on the ‘signalling’ objective emphasised in Horton & Macve (1995) and argues that it is important to resist the increasing danger that the rules imposed by accounting standards, nationally and internationally—which are not only themselves a form of regulation but also seem increasingly to be driven by regulators’ needs (as, in the USA, by the SEC and, internationally, by IOSCO)—will render insurers’ financial statements increasingly ritualistic and irrelevant, unless the opportunity is now taken to argue for a more flexible and informative approach.

There is no simple solution to many of the difficulties (e.g. Macve, 1997), but a hopeful way forward is that suggested by the ASB’s standard FRS10 (ASB, 1997) on goodwill accounting. This adopted what can be identified as a two-tier, information based approach which should set the model for other standards. At ‘level one’ there is a strict, ‘default’ rule (i.e. ‘capitalise and amortise goodwill over a maximum of 20 years’). This is the accounting that, *prima facie*, all companies are expected to adopt. However, if they are prepared to invest in information systems that allow them to track the goodwill and subject its value to ‘impairment’ tests (Arnold *et al.*, 1992) they may move to ‘level two’ and continue to carry it at full value or for a longer period. This is not an ‘option’ to use an alternative policy simply because the company wishes to do so—the ‘level one’ (i.e. default) rule is clear and universal, and only if the company considers that it is worth providing its shareholders and other users with more informative accounts, and only if it puts resources into developing and maintaining its relevant information systems to a level that enables its auditors to be satisfied as to the reasonableness of the figures, may it not use the default rule but move to ‘level two’ reporting and provide accounts on a basis that more appropriately reflects its own commercial situation. (It is therefore to be regretted as a retrograde step, as argued by the two dissenting Board members, that the IASB has now followed the lead of the FASB and withdrawn the goodwill amortisation option in favour of solely an ‘impairment’ approach in IFRS3 (IASB, 2004c).)

This kind of two-tier approach already has parallels in banking and securities regulation (Macve and Jackson, 1991), where regulators supervising companies’ capital adequacy have initial ‘defaults’ of say 100% for every open position (both assets and liabilities), but will accept the evidence of sufficiently rigorous internal models of risk diversification to accept reductions for offsetting positions and overall portfolio structure (e.g. Vieten, 1996).⁵

The study argues that it is therefore appropriate for the recent developments in UK life insurance accounting to continue. While initially, as currently envisaged by the ABI, the majority of listed companies may continue to develop supplementary ‘achieved profits’ accounting disclosures to their main MSSB accounts, some companies (including the bancassurance groups) have already begun to use alternative methodologies in the main consolidated accounts. More companies may do so when agreed guidance is available, as managers, as well as analysts, have a concern that there should be comparability of reporting, and the issuance of guidance may remove inhibitions on attempting individualistic reporting developments. This will be reinforced if the guidance is incorporated into a SORP issued by the ABI.

However, fundamental change to the ‘main’ accounts on the ‘two-tier’ information basis that is being argued for has to overcome the pressures that would

⁵ Or again, where the FSA now supplements its new standard ‘twin peaks’ approach to insurance regulation with ‘Individual Company Assessments’ (e.g. ASB, 2004a, Appendix IV, para. 3.19).

inhibit such developments, both nationally and internationally, including taxation and existing accounting practice. The discussion of the remaining elements of the strategy addresses these issues, again applying the 'two-tier' approach as appropriate.

The conclusions to the study rehearse how the emergence of multi-activity financial services and other groups has highlighted the contrasts between the accounting principles now being developed for life insurance and those that are still conventional for other, competing financial products and for the generality of non-financial business activities. The debate over life insurance accounting has been largely driven by the argument that the traditional statutory solvency basis, while reporting the strict legal position and the distributable profits, does not give comparable information on the year's performance to that given in the accounts for other kinds of business. There is a need to catch up, but in the event the introduction of the IAD and MSSB accounting has made only marginal, if any, changes, and has also currently still left unresolved the fundamental issue of accounting for investment returns.

In the meantime, work has proceeded on developing alternative methods, now under the umbrella of 'achieved profits'. But as the traditional statutory solvency basis is essentially still that required under ICA1982 for purposes of distribution of profits, these developments have been freed of some of the constraints which apply to accounting for other businesses (where the accounts are the starting point for taxation assessments, and the basis for determining legally distributable profits, in the way that MSSB accounts are in leading continental European countries). Paradoxically, the 'new' life insurance accounting is now in many respects in the vanguard of accounting practice, in particular in respect of its attempts to measure the profitability resulting from marketing and selling activity, and to report 'real' investment performance. It conflicts with what are perceived to be the boundaries of normal accounting standards seem increasingly likely to make accounts that comply with accounting standards appear almost as legalistic and lacking in information relevance as accounts prepared strictly for legal purposes.

The developments in life insurance accounting reflect a wider movement towards acknowledging the relevance of value based information for accounting, in turn reflecting the increasing depth and sophistication of markets—whether at the level of transforming individual blocks of contractual cash flows into marketable/securitisable assets, or utilising the expanding markets for derivative products to manage risks, or at the level of financial engineering and valuing 'goodwill' and other intangibles in the transactions that restructure whole businesses and companies, or major segments of them, within new group formations. At the same time, the competitive emphasis on branding, marketing and selling is changing the emphasis of management activity towards achieving success on these dimensions as much as in more traditional productive asset and human resource management. In the investment arena, competition, self-regulation, benchmarking by 'index-tracking' and changing tax regimes have brought new approaches to investment strategy, at individual and fund management levels, and require new approaches to demonstrating performance and cost efficiency.

Several of those interviewed during the research that underlies this study commented that insurance company management has in the past been able to hide inefficiencies and poor product development and marketing behind the 'slack' provided by the build up of large capital funds that were not fully revealed in the statutory solvency based accounts. The new MSSB has weakened this protection to some extent but the full force of the pressures for accountability and disclosure have

appeared primarily in the demands for accounting for ‘achieved profits’ on a realistic basis and for identifying the ownership of the inherited estates.

In developing new approaches to measuring their business performance, UK life insurers, who have traditionally kept well below the parapet as controversies have raged over the accounting and reporting required of other kinds of businesses, now find themselves as the revolutionaries of the accounting world—albeit perhaps as reluctant revolutionaries!

The study outlines the essential elements, as the authors see them, of the strategy that now needs to be adopted if insurers, in company with other businesses, are to argue for the continuance of that revolution in ensuring that the standards set by ASB, and now even more importantly by IASC,⁶ provide an adequate basis for demonstrating accountability to stakeholders and for accounting for business performance. The ‘two-tier’ approach advocated here allows for continuance of the present rules as the ‘default level’ standard—but for potential development of new accounting methods in appropriate circumstances. In this way standards would work with, not against, the grain of business realities and of how managements run their businesses.

The emphasis in this study, as in most of the accounting developments in insurance, is on proprietary insurers and other groups. Work needs to continue on researching the special circumstances of mutual companies and the needs of their stakeholders in order to develop appropriate mechanisms of accountability and measures of business performance that reflect their alternative capital and ownership structures.

c) Klumpes, 1999: ‘Measuring the Profitability of UK Proprietary Life Insurers’

This paper builds on the ‘earned profits’ approach of O’Brien (1994) and models the ways in which this, the MSSB basis and ‘achieved profits’ bases incorporate different elements of the profitability of the current book of life policies.

The abstract states that ‘this paper compares and evaluates various legal and economic methods to measure and report UK life insurance company profitability in terms of their (i) treatment and recognition of profits emerging from life insurance business over time; and (ii) compliance with ‘true and fair view’ requirements of the Companies Act and the concepts set out in the Accounting Standards Board (‘ASB’) proposed *Statement of Principles*. A simple life insurance policy model is used to demonstrate the differential impact of each method on the pattern of profit recognition over time. Legal methods of reporting ‘profit’ used by the UK industry to comply with conservative UK solvency regulations fail to provide investors with insight into the value of the business. Economic methods provide a more ‘realistic’ basis for reporting to shareholders by incorporating discounted future profits into the value of life insurance business, but these do not accord with the European Union Insurance Accounts Directive (‘IAD’). A legal ‘earned profits’ method, although not endorsed by the industry, is the only one that appears to provide a ‘true and fair view’ as envisaged by the Companies Act and meet the objectives of the ASB. Various outstanding issues between the industry-endorsed economic methods and the ASB’s requirements are discussed.’

⁶ Now superseded by IASB.

Our overall review comment: For the reasons discussed in Horton & Macve (1995) (see Appendix I. a)) we reject this paper's conclusion (and that of O'Brien, 1994), that the 'earned profits' method is the only 'realistic' method that can comply with the Companies Act.

d) Klumpes, 2005: 'Managerial use of discounted cash-flow or accounting performance measures: evidence from the UK life insurance industry'

This paper surveys the relevance of EV based methodologies to CEOs for strategic planning and control purposes and seeks to identify the company characteristics that differentiates those who utilise them. Proprietary companies are found to be more likely to adopt them than mutuals.

Our overall review comment: Given the restructurings and demutualisations within the industry in recent years the conclusions give limited insight. In particular, 'embedded value' in the UK largely originated with the Pearl takeover by AMP (Salmon & Fine, 1991) and anecdotal evidence suggests that potential 'target' mutuals have given increasing attention to estimating their EVs and attending to their own performance in the light of these. The author acknowledges these limitations on the paper's results.

We would also observe that there is an apparent paradox in the enthusiasm of life insurers to restate their accounts onto a 'realistic' EV basis, which for a growing company would be predicted to result in higher reported profit than under MSSB. Under 'Positive Accounting Theory' large companies will fear the 'political cost' resulting from adverse public opinion towards high profits and tend to prefer accounting methods that keep profits low, or at least avoid attention being drawn to them (e.g. Watts & Zimmerman, 1986).

e) Current work in progress

Working papers on the CBP sponsored project on *Emerging Practice in 'Realistic Reporting' by Life-Insurance Companies: Implications for Accounting Standards* (project ref 5-390: http://www.icaew.co.uk/cbp/index.cfm?AUB=TB2I_36010|MNXI_36010) are available as follows. Updated versions may be found on the website: <http://www.lse.ac.uk/collections/accounting/facultyAndStaff/profiles/macve.htm>

(i) Horton, Macve, and Serafeim, 2006a: 'Accounting Principles for Measuring Earnings and Reporting Performance—Some Potential Implications of the IASB Project on Insurance Contracts'

In this paper we demonstrate how the IASB's ongoing debates over life insurance accounting, far from being concerned with technical, specialist issues of an unusual industry, can help to illuminate the issues that currently need to be resolved more widely for 'ordinary' enterprises if the quality of reported earnings is to be enhanced. At root, the problems of life insurance accounting and reporting are the same as those of any other industry. Although there are characteristics which differentiate the insurance industry from others we argue that on closer analysis many (albeit not all) of these 'differences' become matters of degree rather than being absolute. Fundamental projects which are considered to be closely related are those on fair values (FVs), revenue recognition, performance reporting and the conceptual framework. We consider that FASB and IASB are in danger of misunderstanding or ignoring valuable actuarial insights on the performance measurement of life insurance

business—as well as the practical experience that has been gained by UK life companies, as well as life companies elsewhere, in developing a more realistic basis for reporting profits and performance through utilising the now well established, but nevertheless continually improving, EV methodology. Here a particular focus is on the need for continuing exploration of the implications of modern finance theory for determining appropriate discount rates for use when ‘present value’ calculations of ‘FV’ are needed (cf. FASB, 2000, 2004). We therefore consider it vital that a programme of research into actual applications of ‘current value’ accounting methods, and into the quality of the earnings numbers generated by them for life insurance, is completed before IASB or FASB attempts to make any further *ex cathedra* pronouncements on what an international accounting standard should require.

Many decisions by standard setters require judgement about the consequences of adopting new, untried accounting methods or disclosures. Here the primary approach has to be a blend of three main elements: of conceptual reasoning as to the ‘representational faithfulness’ of the proposed numbers and their consistency with other generally accepted accounting principles (GAAP); of judgement as to their likely relevance, reliability and the foreseeable consequences of adopting them as mandatory requirements; and of the insights that may be gained from any existing practical experimentation with alternative measurement and disclosure choices. In other cases, where accounting policies or information disclosures have already become largely standard practice (or corresponding information is available from alternative sources), a fourth element—statistically-based and other empirical investigation of the properties of the resulting earnings numbers, and of their consequences for incentives and behaviour—may be of much greater significance to the standard setters. Such work is relevant here but can only be of limited extent at present (see Appendix I. e) (ii) below).

Indeed the question needs to be asked how far accounting standard setters should follow the growing practice of regulators such as the UK’s FSA in encouraging ‘conversations’ with companies whereby companies may move beyond the ‘basic’ standard reporting requirements if they can demonstrate sufficient knowledge and expertise to utilise their own ‘custom-based’ reporting models, supported by suitable disclosures of assumptions and other relevant information. Thus the IASB’s basic ‘standardization’ approach may be considered appropriate, and indeed necessary, for an international insurance accounting standard in so far as it would have to be applied in countries where there is little or no tradition of actuarial expertise, but much more flexibility needs to be allowed for countries and situations where actuarial expertise and independence of state control are much higher. One proposal not further explored in this paper for improving ‘quality of earnings’ is therefore that international standards should adopt a ‘2-tier’ system of requirements, i.e. providing a strict default ‘benchmark’ standard, but allowing greater flexibility—whether to individual countries or companies—subject to greater information disclosure and assurance by relevant qualified and experienced professionals, such as auditors, valuers, and actuaries (see Appendix I. b) above).

(ii) Horton, J., 2007: ‘The Value Relevance of ‘Realistic Reporting’: Evidence from UK Life Insurers’

This paper (now published in *Accounting and Business Research*) explores, through empirical investigation of UK life insurers’ share price behaviour, the value relevance of the alternative ‘realistic reporting regime’ based on the disclosures of EVs that have been generally adopted by leading UK and Continental European insurers in recent years.

Under IASB’s criteria, as stated in the *Framework*, it would appear that EV would be suitable for use as a measurement in the balance sheet, as it is designed to communicate value creation/destruction (rather than the legal ability to pay dividends) and to reflect economic reality, in particular the effect of management decisions. However, whether the IASB would accept the greater emphasis on ‘relevance’ rather than ‘reliability’ is questionable—although not inoperable.

Overall the paper’s empirical results indicate that the supplementary information is price relevant and has incremental price relevance over the GAAP accounts.

Although much of the ABI’s work has been focused on persuading the ASB and now the IASB to accept EV into the main accounts, it must be emphasised that the ‘realistic reporting’ appears to be value-relevant in its current form, i.e. as supplementary information. It is also noted, following a number of interviews with interested parties, that the view is growing in strength among UK preparers that, if EV was accepted for inclusion in the main accounts, it may then become less relevant due to the need for a more standardized approach, being subject to IASB jurisdiction.

This empirical work is being further extended internationally by Serafeim (2007).

(iii) Macve, R. and Serafeim, G., 2007: ‘Deprival value vs. Fair Value Measurement for Contract Liabilities in Resolving the Revenue Recognition Conundrum: Towards a General Solution’

This paper explores two alternative methods of measurement and recognition, those for revenue and for liability. Two companies, one insurance and one magazine publisher, are considered and it is suggested that their revenue and liability recognition and measurement methods should be essentially identical. In the beginning the simplest setting is adopted without interest rates and “abnormal profits” and the paper then builds up to more complex settings. A conflict between the two approaches most generally arises over deciding how to treat situations where enterprises expect to earn profits that cannot be identified as ‘factor costs’ in the way that ‘interest’ and ‘reward for risk bearing’ may. Moreover, in many circumstances even these two elements may not be separately estimable with any reliability from market benchmarks. In other cases, while companies may have invested in building up the necessary intangibles that enable them to achieve these apparent ‘super-profits’ thereafter, current GAAP accounting for those intangible fails properly to match investment and return.

The conceptual conflict is exacerbated by the adoption of FV (an ‘exit’ value’) as the measurement basis for assets and liabilities rather than the theoretically sounder basis of ‘deprival value’. Deprival value reasoning (in the form of ‘relief value’) does offer a reconciliation of the ‘asset/liability’ approach and the ‘revenue recognition’ approach to the measurement of liabilities themselves, just as it does of the ‘asset/liability’ approach and the ‘cost matching’ approach to the measurement of assets—at least until prices change. Unlike the wholly ‘exit value’ liability measurement approaches currently favoured by standard setters (whether FV or

‘entity specific value’) it does not therefore force the recognition of ‘profit on inception’ of a contract, which has proved to be the stumbling block in the IASB’s discussion of life insurance contracts. But this balance sheet reconciliation is still insufficient in itself to determine the issue of when profits should be recognised: that requires specific consideration of how performance should be measured, and not just of how it should be presented. It is therefore unfortunate that it is only the latter issue which is the focus of the standard setters’ current projects on ‘performance reporting’ (recently redesignated as ‘presentation of financial statements’). Therefore we argue for the need to focus on measurement of performance.

The standard setters’ ‘revenue recognition’ project will therefore need to consider the whole issue of accounting for intangibles, and more generally the adequacy of a model that identifies ‘comprehensive income’ solely in terms of changes in recognized assets and liabilities, before it is likely to make any progress towards resolving the arguments over ‘revenue recognition’ issues and the appropriate presentation of the corresponding reported performance.

(iv) Horton, J., Macve, R., and Serafeim, G., 2006b: ‘Market Consistent Embedded Values as ‘Fair Value’ Measurements for Life Insurance Accounting: a Step Too Far with Finance Theory?’

This paper, which is still only in a preliminary version, is concerned with EV value reporting and more specifically with the recent concept of Market Consistent Embedded Values (‘MCEV’). The established practice calls for an allowance for risk through calculation of a risk discount rate, cost of holding regulatory capital and time value of options and guarantees. The underlying framework of MCEV methodology is entirely based on market efficiency, in terms of equilibrium market prices reflecting fundamental values. Whether markets are efficient in this fundamental sense is contestable (Shiller 2003; Shleifer 2000; Barberis and Thaler, 2002). Market inefficiency could also undermine one of the most important IASB/FASB projects, the one towards FVs, since conceptually market prices in an inefficient market, or in a market out of equilibrium, cannot be considered to be either ‘fair’ or ‘true’ (e.g. Bromwich, 2007; Hitz, 2007). With respect to MCEV methodologies, it is argued that both ‘top-down’ and ‘bottom-up’ approaches face significant complications that may lead to an unrealistic allowance for the risk which a life insurer bears, and balance sheet valuation of individual elements that are inconsistent with normal accounting methods. In addition examination of each element of an ‘economic balance sheet’ (see Figure 3) questions how far current developments in practice and the professional literature (e.g. O’Keeffe *et al.*, 2005; Towers Perrin Tillinghast 2005, 2006), that claim the support of ‘modern financial economics’, may in fact suggest that there may be double counting of elements or a misunderstanding of the synergistic nature of overall firm value which may invalidate the simple addition of the ‘values’ for individual elements. A full reconciliation of the three literatures and conceptual frameworks—of financial economics, actuarial literature and accounting theory—is needed.

II. The actuarial profession

The recent papers reviewed here chiefly focus on ‘fair values’ (FVs) and ‘embedded values’ (EVs). The Forfar and Masters paper appears to leave the final decision on how FVs should be measured to the accountants: i.e. what consequent pattern of profit emergence is acceptable. The later papers focus on the developing debate over the ‘shortcomings’ of traditional EV methods, the advances made in the EEV principles, and the increasing focus on ‘MCEV’ methodology. This review does not consider various technical papers on detailed issues of application of FV measurement to particular aspects of insurance products (e.g. Ballotta, Haberman & Wang, 2006). The number of such papers is likely to grow given that IASB’s DP only gives broad guidance on issues such as the appropriate principles for risk margins, presumably leaving development of specific techniques for actuarial expertise (IASB, 2007, para 86 (c) and Appendix F).

The MCEV debate has been conducted in the context of the application of modern finance theory to insurance companies. But the theory is equally applicable to the valuation of all companies: a major implication for the accounting profession and standard setters must therefore be how far they also need to master the theory if they are to make progress in understanding the meaning and applicability of FV in the context of accounting for the generality of businesses (including *inter alia* their investments, defined-benefit pension obligations, and outstanding stock-options).

In some respects the actuaries’ own explication of the theory and of ‘economic balance sheets’ itself needs further analysis, including caution against the risk of double counting of various elements. For example, they would debate whether to recognise as part of a company’s overall valuation the value of the ‘shareholders’ put option under limited liability.⁷ But given the basic ‘Modigliani-Miller’ theorem that, at least in ‘perfect and complete’ (and tax-free) markets, capital structure cannot alter the value of the firm as a whole, any additional value to shareholders from limited liability must be offset by an equal loss to debt-holders/creditors—in other words it should already be reflected in the market value of debt and other liabilities as ‘credit risk’. Again, structural tax effects may already be reflected in those valuations (e.g. through proper ‘economic’ deferred tax accounting). Reflecting a deduction from value for the cost of holding ‘regulatory’ capital, while this may be held to represent the frictional costs arising from the ‘agency’ problem between shareholders and managers, nevertheless appears inconsistent with the normal rules for accounting valuation of individual assets. Considerable work remains to be done here.

The papers also illustrate the difficulties caused and costs imposed by the IASC’s (and then IASB’s) approach in issuing a range of lengthy, complex but successively inconsistent documents as to what might represent its proposals for a life insurance accounting standard. The Board’s constituents have been faced with the problem of not knowing how seriously to take them as potential expressions of intent. If they had known when the first *Issues* paper (in two volumes) was issued (IASC, 1999) that the Board would currently still be ‘educating’ its own Board members about insurance as it proceeded with ‘Phase II’ in 2006,⁸ they might have been spared a lot of unnecessary reading and effort devoted to inputting detailed responses.

⁷ e.g. O’Keeffe *et al.*, 2005, B.3; Towers Perrin Tillinghast, 2005, 2006; cf. Horton, Macve, & Serafeim 2006b.

⁸ <http://www.iasb.org/NR/rdonlyres/BF1E5FBE-DABC-421A-B98A-8B7E586A09A0/0/SeptemberBoardbriefings.pdf> (accessed 08.07.07).

a) Forfar & Masters, 1999: ‘Developing an International Accounting Standard for Life Insurance Business’

This paper, prepared before the IASC had issued its Issues Paper on insurance, but at a time an international accounting standard was expected to be finalised by 2002, was intended as a ‘wake up call’ to the actuarial profession to try and find agreement on the appropriate accounting for life policies in order to influence ‘the accountants’ in deciding on the principles for life insurance accounting. It was presented at a meeting of the Faculty of Actuaries to which several prominent accountants were invited as guests, who also participated in the discussion.

The paper notes that IAS 32 and the (then) E 62 for IAS 39 define fair value (‘FV’) as: ‘the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction’.

E62 for liabilities proposes that ‘other liabilities’ (i.e. other than trading securities and derivatives but presumably including insurance contracts if they were no longer excluded from the scope) would be measured at consideration paid on initial recognition and thereafter at ‘amortised cost’. This would induce mismatch between assets and liabilities. So can one determine a sensible measure of FV of liabilities? The intention is ‘the amount that the current insurer would have to pay to a third party to take the liability off his hands’: it is an ‘exchange’ value. But the insurance market only creates rather than exchanges liabilities; and on widely varying terms. ‘A FV measure that sought to establish a measure independent of the experience (expense, mortality, lapse, etc.) of the company concerned would cause a misleading and distorted statement of profits. The accounts are designed to measure the profits of the company concerned, and not those of an idealised ‘market’ company.’ (In the examples in Appendix B it is noted that if one uses a ‘market’ benchmark for costs then an ‘inefficient’ office will show an initial loss using FV and then subsequent profits at the (higher) market rate of return—an ‘undesirable result’.)⁹

Absent good markets, IAS32 suggests ‘estimation techniques’ including discounted cash flow techniques—so presumably actuarial valuation techniques would qualify.

The valuation could either be done on a portfolio basis comprising the policy payments themselves (as hedged by a portfolio of gilts), plus an amount for the life office’s own expenses and profit margin. ‘This is effectively equivalent to an actuarial gross premium valuation of the portfolio at a market rate of interest (which allows for the average term of the portfolio) together with an explicit profit margin.’ Alternatively it could be equal to the statutory technical provision (possibly with the addition of any statutory solvency margin) less the present value of profits that would emerge in the future from the statutory provisions being rather conservative (‘PVFP’). In the UK when companies are bought or sold, portfolios would tend to be traded on this basis, where the PVFP would be calculated using a discount rate higher than the expected long-term rate of interest (the so-called ‘risk discount rate’), i.e. an embedded value (‘EV’), tending to regard the whole contract as a financial instrument. It makes an allowance for the capital which must be tied up in the business to meet solvency requirements; the so-called ‘cost of capital’ (consistent with Abbott, 1999). Financial reinsurance deals normally use EV methodology to assess the level of finance that can be provided in relation to the expected future flow of profits on the portfolio which is being ‘securitised’.

⁹ This assumes the present value of the excess costs is recognised as a loss initially. Alternatively, if the inefficient company merely calculates a policy liability value assuming ‘average costs’ it will only reveal its higher costs later on—equally undesirable. See our discussion of DP Q3 in the main text.

In with-profits there is correlation between the future cash flows ('C') and the future rate of interest ('i') (both therefore random variables); and there is 'feedback' between the assets and the liabilities. Policyholders expect 'Policyholders' Reasonable Expectations' ('PRE') to be met: which is generally interpreted as a requirement to pay smoothed asset shares (subject to a minimum guaranteed amount of the sum assured and declared reversionary bonuses) plus any additional contribution from the estate of the office to top up smoothed asset shares to current pay-outs, although, reasonably, it may be the intention to reduce this differential over time. The assets backing the with-profits portfolio can then be divided into the smoothed asset shares, the smoothing fund (which absorbs the difference between smoothed and unsmoothed asset shares), the fund to meet the cost of the guarantee (should it be called on) and the fund to match smoothed asset shares to current pay-outs. It would not seem unreasonable that FV should represent the sum of these four components (less any shareholder share of asset shares that will emerge when terminal bonus is declared), which the authors call the policyholders' PRE measure of with-profits liabilities. In terms of IAS37, PRE could be deemed to constitute a 'constructive obligation', and therefore fall to be included within the liability measure (which raises the question whether the whether the FFA should be split to reveal the amount in excess of the PRE measure i.e. the orphan estate).¹⁰

For defined benefit pensions, where the ability to vary the future contribution rate allows the fund to invest in equities, one needs to allow for correlations between 'C' and 'i' in measuring FV. 'An approach based purely on gilt yields (as in IAS 19) would not seem appropriate.'

The role for the actuarial profession is to find a workable definition of FV of liabilities with robust and implementable guidelines for calculation, acceptable to the accounting profession. (See e.g. the US Society of Actuaries task force's report in Vanderhoof & Altman, 1998.)

If FV of assets and liabilities is measured as above, should all changes go through the income statement? In favour of FV:

- Gets as close to IAS 32 and E62 as possible, gets balance sheet at 'realistic values' and, if orphan estate shares were quantified, would give shareholder equity on a realistic basis.
- But could be difficulties in agreeing on FV of liabilities: should it be 'EV' or 'gross premium value on a best estimate basis with a profit margin'? For EV, would there be agreement on RAD or other parameters, e.g. rate of growth of the unit fund for unit-linked contracts? For a gross premium valuation, would there be agreement on parameters, e.g. future profit margins? Professional guidance will be needed.
- The bulk of profits would be upfront (discussed further below). Many analysts think this is acceptable but the view of the accountancy profession is crucial.
- Mismatches would create volatility of results—though many analysts think this is 'liveable with'. Perhaps use the 'longer term rate of investment return'

¹⁰ Under the 1991 EU Insurance Accounts Directive (91/674/EEC) Art 27, the life assurance technical provision 'shall comprise the actuarially estimated value of an insurance undertaking's liabilities including bonuses already declared and after deducting the actuarial value of future premiums'. So no allowance is made for the terminal bonus for with-profits policies which is instead normally covered by the FFA (Appendix D).

example in the SORP for how to get some smoothed measure of assets on which to base calculation of 'operating profit'.¹¹

- Especially in early years the 'liability' could be negative: i.e. an asset. This is valid on a portfolio basis.

Are 'up-front profits' acceptable? Not if IAS18 'stage of completion of contract' means 'in proportion to elapsed duration'. But the IASC's Steering Committee on Financial Instruments March 1997 Discussion Paper *Accounting for Financial Assets and Financial Liabilities* says 'all gains and losses arising from changes in the FV of financial assets and financial liabilities are income, and should be recognised as income immediately they arise'. However, can one do more than carry forward DAC (i.e. effectively only recognising that much of future margins in advance)? So current accounting principles are unclear: 'the actuaries look to the accountants for clarification as it is eventually the accountants who must decide.'

The paper discusses the pros and cons of upfront profit recognition. It rejects alternatives to FV for asset values (except that 'amortised cost' of bonds may be appropriate if liabilities are not actively valued). For liabilities, it reviews the various current GAAPs worldwide. If one uses an 'active basis' one has to decide with regard to changes in actuarial assumptions whether to use 'fresh start' (i.e. with the whole difference in current income); 'prospective' over the period of new assumptions (e.g. for gross premium valuation by adjusting the profit margin to get the same overall measure); or 'lock-in'—all subject to overriding recognition of any overall loss on the new assumptions.

The paper reviews the IASC Framework para. 37 and IAS37 and argues that taken together the principles of neutrality, prudence and provision recognition seem to imply something close to a 'best estimate' approach (i.e. without margins for adverse deviations). Currently Australian GAAP adds a profit margin, Canadian GAAP a margin for adverse deviations, and South African GAAP both, to the basic 'best estimate'. Could all these additions be regarded as 'profit margins'?

Should all changes in FV go through the income statement? The alternative is smoothing (as in the SORP re. the longer term investment return). But while possible for bonds, 'the smoothing approaches to equities that have been tried (average value, recognition of realised appreciation only etc.) do not seem to have proved satisfactory.' So it is a matter for debate whether there is a satisfactory method for smoothing assets. For liabilities, a passive method, such as net premium valuation plus a DAC asset, would achieve a measure of smoothing.

Deciding on whether to split the FFA (remembering that the policyholder share of the estate may include future policyholders) is important for 'international' GAAP.

A number of subsidiary questions are reviewed including 'what should the Ideal Profit Signature¹² look like?' If the contract is regarded as part service and part financial instrument (rather than wholly as a financial instrument) then it is reasonable to release profit by one or more 'service drivers'. 'The measure of liabilities should be chosen such that the corresponding profit signature matches the desired emergence of

¹¹ Companies give operating profit based on longer-term investment returns, and then show the effect of short-term fluctuations, in supplementary information to their statutory IFRS accounts (e.g. Prudential, *Annual Report 2006*, p.96).

¹² Unlike the 'Profit Profile', the Profit Signature assumes all profit is distributed as it arises so that the investment return is only on current year cash flows and on the opening policy provision. Using the rate assumed for investment return as the discount rate, discounted profit signatures all have same present value. In a steady state all GAAP give the same annual profit.

profit.’ Different patterns are illustrated in Appendix B. The principle of profit recognition ought to be explicable to a layman. EV regards a policy as a financial instrument where the profit emerges up-front as the PVFP at the outset, and subsequently each year as a percentage (equal to RAD minus the investment rate) of the opening PVFP. This gives a declining profit signature (so not consistent with e.g. fund management service view), with a redemption yield achieved equal to RAD. (If RAD equals the investment rate earned, all profit is upfront.) [The illustrations in Appendix B are for 0 investment rate: but they show a larger up front PVFP and first year profit the lower the RAD (i.e. closer to 0). So with RAD = 0 the PVFP in year 1 is equal to the whole of the future profit margins, and profit in the first year is the whole lifetime profit, while profits in subsequent years are 0.]

In conclusion the authors argue that while there should be a disproportionate amount of profit upfront, how much this should be is debatable.

Both authors favour a realistic PRE measure of with-profits liabilities recognising the correlation between ‘C’ and ‘i’. For other liabilities, one author favours EV (i.e. treat the policy as a financial instrument), though certain pensions unit-linked savings contracts should be wholly service contracts. Unit-linked whole of life contracts are in between, so should be treated as financial instruments. FV should reflect capital tied up in statutory provisions and solvency margins. Change in FV = profit. Increasing liabilities by profit margins is not consistent with IASC Framework concept of ‘prudence’.

The other author favours ‘gross premium value on best estimate basis with a profit margin’. For unit-linked apply this to the sterling cash flows and add unit value. Changes in assumptions should be on a prospective basis. Insurance contracts are part financial instrument, part service contract. The EV profit-signature is too manipulable via the discount rate, and a declining profit signature is unrealistic for the services provided in later years. There is no need to take into account capital tied up in regulatory provisions.

So there is still much room for debate and it is important that the actuarial profession contributes to the development of international GAAP.

In the subsequent **discussion** of the paper, there was some support for the ABI’s guidance on ‘achieved profits’ as broad enough to accommodate different factors, market conditions etc. Frequent concern was expressed about how to educate people with respect to greater P&L volatility, with support for reporting a ‘trend’ operating profit as in the SORP. For FV, there was a suggestion to look to the second-hand policy market for intermediate FVs of policy liabilities (which would be greater than surrender values).

A former analyst emphasised that the whole point of so-called upfront profit recognition is to identify how profitable ‘new business’ is.

Questions were raised as to how big the differences would be in practice: and it was observed that FV needs to be experimented with in practice (e.g. by reporting EV) if IASC are to be persuaded to adopt it. ‘It would be helpful if those individuals in a decision making and advisory capacity could become better informed about how EVs work in practice before drawing their conclusions. The profession has a key role to play in assisting them with this duty.’

There was a question whether EV will signal the end of mutuals (as appeared to have happened under the Australian ‘Margin on Services’ regime where the ‘estate’ had to be identified by the regulator before the new accounting (also used for regulatory purposes) was introduced). However a speaker from a leading mutual observed that his company would not mind disclosing its capital if it could also

disclose how much is needed, i.e. a risk-based capital approach to solvency is also needed. As to how different all this would be from what is done at the moment, his answer was that, in the case of his company, the face of the accounts would not look very different. The words would differ, but the numbers would be much the same. The internal management accounts would not be changed much, because they already use EV techniques and FVs for these ‘as I suspect do most companies in this country.’

The ASB representative noted, with regard to the conflict between the traditional P&L accounting approach and the ‘Asset/Liability’ approach, that the traditional approach ‘is trying to base itself on the added value that the particular reporting entity is bringing to the process, whereas FV is looking to the outside and is saying: “Have we got something here?”, where the outside market is itself changing the value, and we have to recognise that as we go through the reporting process.’

Our overall review comment: Forfar & Masters’s clear and comprehensive paper starts by pursuing the FV of liabilities in terms of the IASC’s definition as a ‘settlement’ amount but, recognising the thin nature of the market, is driven to various forms of discounted cash flow estimate of what another insurer would need (including profit margins/cover for risk) to take on the business—which then elides into what the current insurer would need to continue to run it. This process ends with the FV of liabilities being determined by what is needed to get the desired profit pattern (by fixing the amount of the deferred profit/risk margin on top of the basic policy-payment liability (as in the excellent and clear Examples in Appendix B using a discount rate of 0)), which (given the articulation of the financial statements) allows the changes in FV to go through P&L account.¹³

However, after allowing for risk (in the discount rate) and/or required profit margins, any remaining surplus ‘pure profit’ appears ‘upfront’, without specific discussion of either what the risk/profit deferrals represent or when the ‘pure profit’ is to be regarded as earned: this appears to be seen as a matter for ‘accounting principles’ to resolve. [By contrast, Macve & Serafeim, 2007—see Appendix I. e) (iii) above)—argue that both the liability measurement basis and the profit pattern must be established individually on their own merits, and show (as do Horton & Macve, 1996) how they can be reconciled within articulated financial statements.]

b) Hairs *et al.*, 2002 ‘Fair Valuation of Liabilities’

This paper is the report of the UK actuarial profession’s ‘Fair Valuation of Liabilities Working Party’ and was presented on 21 November 2001. During the discussion nobody objected to the fundamental principles set out in the paper. Rather much of the debate focused on how practicalities could be worked out.

The authors support the view that different assumptions and approaches to valuation are appropriate depending on several considerations relating to characteristics of the entity under review and to the purpose of the valuation process. Purposes identified include the determination of earnings and tax, assessment of solvency and distribution of surplus, assessment of a firm’s ability to meet policyholders’ reasonable expectations, and investment appraisal. Fair-value based valuation is acknowledged as the core valuation base upon which others can be built. Furthermore, an entity specific

¹³ So, as the authors observe, one can view DAC as a partial (‘constrained’) recognition of PVFP at beginning: a special case of EV.

and a non-entity specific approach are considered to give approximately the same answer, when valuing insurance liabilities which are not publicly traded. This is the case since the FV approach will take into account the insurer's own assumptions, apart from where the market's assumptions are thought to diverge.

The paper argues that it is expected that liability cash flows should include a market value margin (MVM) for non-diversifiable risk. [In the **discussion** there were different opinions on whether liabilities should be valued including an excess over best estimate assumptions - i.e. a market value margin (MVM) for risk. It was suggested that the latest IASB proposal might allow MVMs for diversifiable risk, but the view from the floor that this was contrary to financial theory and market values. Since there is no obvious objective way to determine such adjustments, some felt that allowing them would open the profession to accusations of retaining too much discretion.] While recognizing the difficulties arising in the fair valuation of unquoted instruments, by requiring a greater degree of professional judgement, the Working Party is supportive of the movement towards FVs. Another challenge is to find a reporting framework within which the underlying realities are not distorted by excessive earnings volatility.

As far as prudential reporting is concerned the Working Party argues for the need of additional margins in FV liabilities and enough transparency for any further prudential requirements. Moreover, the paper calls for good risk management practice and for disregarding the legal form of the institution assuming the risk when deciding the level of required capital. On the other hand, considerable attention should be paid to the assets backing liabilities and to options provided to policyholders. The authors are in favour of a risk-based capital approach under which the capital requirement is related to default risk. More sophisticated probabilistic approaches such as stochastic modelling, as recommended by the Baird Report, are preferred over the regulators' "building block" approach.

The Working Party agrees with treating an insurer's legal or constructive obligation to allocate surplus to policyholders as a liability, for general purpose reporting. It is also suggested that the respective interests of shareholders and policyholders in the underlying equity should be shown.

The paper is highly supportive of FVs and market values even though they recognize that inefficiencies are present in the market or that the market price represents the view only of the marginal investor. They conclude that 'such limitations of the term do not invalidate the use of the concept'. The transition from traditional methods to FVs is thought to bear resemblance to the transition from traditional methods to EVs. However, it is acknowledged that FV methodology has distinct differences when compared to EV.

The Working Party's view on credit risk in the valuation of liabilities is that it should apply only to debt issued by the company. This result is explained as follows: 'whereas settlement of own debt could reasonably be expected on terms of reflecting own credit standing, transferring insurance liabilities would break the dependence of those liabilities on the reporting entity and therefore it is unlikely that the terms of the transfer would reflect that entity's credit standing'.

Concluding, the authors highlight the fact that further work needs to be done and that working closely with regulators and IASB is of crucial importance.

Our overall review comment: The Hairs *et al.* paper is a response by a Working Party of the actuarial profession to the emerging (and again lengthy) 'DSOP' (IASB, 2001), which was drafted by an IASB Steering Committee and which in the event,

although released for comment, was never to be completed or approved by the Board. The paper addresses the major outstanding issues of concern as to what a FV basis for life insurance reporting would involve (in particular the tension between ‘market’ and ‘entity specific’ factors in valuation) while also addressing the IASB’s continuing reluctance to endorse EV.

One important issue raised in the discussion of the paper (p. 325), that tends to be overlooked in the consideration of the role of life insurance *accounting*, where generally the focus is on how far the accounting can and should *reflect* proper valuation of the business, is how far it plays a role in the *constitution* of that value. In other words, value (like solvency) largely depends on how well the business is managed (which in turn depends in part on how well the management is supported by investors and other stakeholders). The question is therefore how well different approaches to accounting can provide information (e.g. analysis of product costs and profitability) that can assist managers and others in understanding and controlling the factors that drive the creation of the profitable business operations and related investment management. A similar issue arises in respect of the Exley & Smith (2006) paper discussed at Appendix II. f) below. One speaker (Goford) suggested companies should publish their year end balance sheet at the start of the year, then report the variances against expected results at the end of the year. A clear explanation of variances, pointing out how value has been created or destroyed, is vital (see also Goford, 1985; Asher, 2006). It is also vital the analyst community is involved in this regard, as they are prime users of the output.

c) Sheldon & Smith, 2004: ‘Market consistent valuation of life assurance business’

This paper was presented on 23 February 2004. Following the meeting the profession’s website reported¹⁴ that ‘it drew a large gathering to Staple Inn including a diverse range of visitors from the FSA, ABI and taxation experts. Jeremy Goford chaired the proceedings and invited Tim Sheldon, as co-author of the paper to provide an introduction. He explained that the background to the paper was, in part, due to the contents of CP195 which requires production of market consistent valuations for use in producing realistic balance sheets. He openly admitted that there was is no universally accepted definition of what constitutes a market consistent valuation and noted that there are a range of models, assumptions and algorithms that may fit the requirement.

It was stated that the problems of choice of model and assumptions are by no means simple. On assumptions alone, there are particular issues around whether to derive the risk free discount rate from gilt rates or from interest rate swaps and whether implied or historic volatility is appropriate. Tax adds a further complication. In trying to calibrate models there was considerable discussion around availability of data, and it was suggested that there is possibly a need to start collating data. With complexity of the model, also comes the challenge of explaining the output and conclusions to third parties.

It was acknowledged that some offices already use Monte Carlo simulation which permits reasonably accurate modelling of cash flows and is successfully used to price

¹⁴ The report is no longer available on the website <http://www.actuaries.org.uk> but a recording of the meeting is available at <http://www.actuaries.org.uk/DisplayPage.cgi?search=Sheldon%20Smith;searchtype=quick;stage=1:url=%2Fsearch%2Fresults.html;x=9;y=10> (accessed 08.07.2007)

relatively simple guarantees. It can appropriately reflect internal investment and bonus philosophy at fund level. The majority of the effort with this approach comes in the time to construct and run the simulations. The authors however believe there can be advantages to closed form solutions particularly in the current climate of lower equity holdings and bonus rates. Calculations are much quicker and there is ease and flexibility in performing re-runs on differing assumptions. However, the authors do not advocate abandoning Monte Carlo simulation. Indeed they acknowledge that there are merits in combining the two approaches. For example, the Monte Carlo approach can be used to derive fund level assumptions for use in the closed form solution.

Whilst the majority of the **discussion** centred around applications to with profits life business, notice was drawn to possible alternative applications such as within pension funds, and in general insurance. Even within the life industry, the use may not be restricted to valuation but can be applied to pricing and in dealing with mergers and acquisitions.

Throughout the evening it was emphasised that the new approaches to determining market consistent valuations are still in their infancy. It was stated that there is much scope for exercising judgement and it is unlikely that strict rules will emerge. As such there is a general call for guidance to be issued as the methodology comes into more widespread use. All speakers congratulated the authors on the broad range of the paper though it is clear there will be more welcome debate still to come.'

Our overall review comment: Sheldon and Smith's paper was prompted by the FSA's new 'realistic balance sheet' approach under Solvency II. It brings out many of the highly technical issues that actuaries are grappling with as they try to implement the 'market consistent', including MCEV, approach. The authors identify three main motivations for this development:

- (i) Understanding the behaviour of a company's share price (important in M&A negotiations).
- (ii) Offering a new (or at least additional) perspective on solvency testing: what could the insurance company's assets and liabilities be 'closed out' for now? This approach, as required for the FSA under Solvency II, is comparable to recent approaches to banking solvency assessment.
- (iii) Providing more objective, comparable valuations (as well as preventing accounting manipulations, e.g. through the timing of market realisations of assets and liabilities accounted for at 'historical cost').

However, under (iii) the authors cite the example of the BT pension fund where, at 31 March 2003, disclosed deficits, *both* apparently arrived at on 'market' bases', were a SSAP24 deficit of £1.4bn and an FRS17 deficit of £9.0bn (relative to assets with a market value of £21.5bn).

So, as far as life insurance company financial reporting goes, it seems likely that it is the discipline of undertaking the valuation on a basis which requires checking at all stages that it is indeed reasonable to regard assumptions and parameters as 'market consistent' (and if not why not)—together with disclosure of the most significant of these and related 'sensitivities'—that is at present the most important feature of this development in practice.

O’Keeffe *et al.*, 2005: ‘Current Developments in Embedded Value Reporting’

This paper, presented at the Institute of Actuaries sessional meeting on 23 February 2005, represents the report of a working party of the UK actuarial profession set up to review current practice and future developments in EV reporting, in particular the approach to risk measurement and the role of ‘MCEVs’, noting that a number of companies (AMP, Royal & Sun Alliance, and HHG) have now published MCEVs. It mainly comprises a review of existing literature and practice, focussing in particular on two recent developments: the CFO Forum’s (2004) *European Embedded Value Principles* and the financial-economics based development of MCEV’s. While recognising that MCEV techniques are in relative infancy it proposes that they are the way forward and sets out areas for possible future development, including ways in which to ‘repackage’ the various risk allowances in the EEV principles into ‘market consistent’ elements. (For example, non-diversifiable risk impacts asset/liability measurements directly, but allowance for ‘diversifiable’ risk only comes through in MCEV approaches as part of the ‘frictions’ between the value of a company and the value of its assets and liabilities.) The underlying ‘economic balance sheet’ model is given in our Figure 3 (with some modifications).

Our overall review comment: The O’Keeffe *et al.* paper reasserts the fundamental theorem that, in principle, both ‘traditional’ and ‘MCEV’ approaches, if applied consistently, should give the same overall valuation result and should be capable of reconciliation. However the authors believe that the MCEV approach offers both a more practicable and a more objective basis for carrying out the valuation.

The discussion at the meeting focussed on the way forward in integrating MCEV with the EEV principles (e.g. in relation to the question of allowing for diversifiable risk). The commentary of one of us who was present was as follows:

‘The focus of this excellent paper is primarily on the new valuation approach with some references to the issues relating to financial reporting. I think in terms of selling this to other professions, which has been commented on, and in particular to the accounting profession and the IASB, there are some issues which need specific attention.

The first of these is the analysis of the change in EV from one year to another. How one describes what has contributed to that performance, and how that is analysed, is of course crucial in making this change comparable to the kind of profit and loss accounts that people are familiar with from other businesses. If we think back long enough, when people first became interested in all this at the beginning of the 1990s, a lot of the ‘accruals’ versus EV debate was about which method would bring out more clearly from a management and investor perspective the factors that are driving performance.

The second issue is that we do not know where we are with the IASB because at the latest announcement its chairman said “we are starting with a clean slate again”. But from previous discussions, one particular issue which was raised in IFRS 4 as a tentative conclusion for the next step was basically that IASB does not like ‘day one’ profits, and if the MCEV method produces day one profits then it is going to have to pass the test which the IASB laid down—which was that there has to be very good market evidence. So I think we have to ask what markets is one calibrating to for all the various elements of this EV? Some of the markets are clear, the investment markets; other markets in insurance liabilities people have always argued are not deep, liquid and transparent. So we have to be clear exactly what is being calibrated to and how reliable that is.

Finally, I do not understand this ‘locked in capital cost’. You have some capital, some of it you use in your insurance business, some of it let us suppose you have to keep because the regulator says you have to have it, let us suppose that it is all in gilt-edged stock. Why is the value of that gilt-edged stock not its market value? The authors may say that that is because of company frictions. In other words, investors would rather be holding the gilt-edged stock themselves than entrust it to an insurance company investment manager to ruin value for them. Not a very good advertisement for your business. Why do people invest in unit trusts and investment trusts and everything else? Take investment trusts, they stand at discounts to their asset value. They always have done but nobody has ever suggested that you would not use the market values of the assets in the accounts; you would then address elsewhere, as it were, the difference from the price at which the company as a whole trades.

It seemed, when reading the paper, there was some ambiguity about whether the authors believed in locked-in capital cost or not.’¹⁵

e) Wright, 2005: ‘A view on the IASB’s work on accounting for insurance contracts and financial instruments’

In this paper the author evaluates the progress that has been made with respect to IASB’s insurance project and related work on financial instruments, up to August 2005.

1. The first part of the paper is devoted to giving background details. The author points out that progress on the insurance project has been very modest and he attributes this fact partly to the EU Regulation in 2002, which required all companies listed in the European Union, from 1 January 2005 onwards, to prepare their consolidated accounts on the basis of IFRS and IAS, so that finalising standards for other areas took priority. The author highlights the fact that Phase I of the insurance project (i.e. IFRS4) does not much change the current practices used by life insurers. However, the definition of an insurance contract became a matter of great significance once the measurement basis for insurance contracts and financial instruments would not necessarily be identical, following the limited progress made by IASB in overhauling IAS39 (due to the heavy criticism met by the initial proposal to measure bank deposits at a valuation below the face value). The Norwalk convergence agreement of 2002, between IASB and FASB, is regarded as an important milestone with a direct by-product being the joint convergence Phase II insurance project, headed up by IASB. The author question whether the similar agreement with Japan is understood by both sides in the same way.

2. In the second section of the paper the author outlines the principal features of IFRS 4. He splits his analysis of the standard into three components.

- First is the definition of an insurance contract. Here the author identifies as a critical problem the judgement of when an insurance contract bears ‘significant insurance risk’. This problem is more significant in long term insurance, where many products contain only minimal risk features, being largely intended as investment contracts.
- The second component of IFRS 4 is the disclosure requirements. In the author’s view, the volume of disclosure suggested by the Implementation Guidance is very large and it is doubtful whether it will all provide real benefits to anyone. He identifies as interesting the disclosure of the information relating

¹⁵ Macve, R., *BAJ*, Vol.11, No.3, p.492 (2005)

to the amount, timing and uncertainty of future cash flows from insurance contracts, which is in alignment with the disclosures now required for financial instruments under IFRS7.

- The third component is the balance of IFRS4, which is intended to be only ephemeral. In general the permitted changes are those that move towards the IASB's thinking on Phase II, with other changes being prohibited. For the present, all participating contracts may continue to be treated as insurance contracts whether or not significant insurance risk is present. With respect to EV accounting, he notes that EVs are provided mainly as supplementary information and therefore the restrictions imposed by IFRS4 on those wishing to adopt it for their main accounts will not have any real effect. However, he thinks that it is probable that national accounting standard setters will seek to impose restrictions on supplementary information in future.
With respect to the FV measurement of financial instruments, the author argues that this is not new for companies in the UK but will be for many companies in Continental Europe, for whom the general FV option on investments opens up the possibility of an artificial asset/liability mismatch because of the asymmetric treatment of their liabilities. He comments that it is unsatisfactory that the FV option in IFRS4 for investment property does not extend to owner occupied property held in a life fund. At the end of this section, investment contracts are discussed and a distinction is made between linked and non-linked business. For non-linked business, attention is given to the fact that the FV approach is problematic because of the EU 'carve out' of IAS39, and the necessity to ensure that the liability reported at issue is not less than the premium received. The simplest way to achieve this is to reduce the adjusted risk free discount rate. Concerning linked business, the author argues that it is not really possible to separate out the 'deferred transaction costs' related to the service element of the contract from those of the financial instrument and he believes that companies are generally assuming that most, if not all, such expenses relate to the provision of services.

3. The next section of the paper identifies the major impacts of the implementation of the IFRS regime and some particular technical difficulties introduced by IFRS4. In general the balance sheet net worth and/or the income statement have been affected in the following areas:

- The lack of amortisation of goodwill arising in business combinations.
- The expensing of share based payments including share option schemes for staff and executives.
- The inclusion of staff pension scheme deficits and surpluses on the balance sheet.
- The treatment of certain preference shares as debt.

In some cases these other changes under IFRS have been more important than those brought about by IFRS4 and IAS39.

The main impacts of these two standards have generally resulted from:

- The elimination of catastrophe provisions.

- Lower deferred acquisition costs/spreading of front-end fees on unit-linked investment contracts.
- Changes in the valuation of non-participating investment contracts.
- In some cases the exposure of asset/liability durational mismatch.

The major practical problem identified is the Liability Adequacy Test ('LAT') and specifically whether this is already in place, thus avoiding the need to consider the implications of IAS 37. It is generally concluded that where the long term business provision (i) is established using a reasonable discount rate which has some regard (at least implicitly) to current market interest rates, (ii) considers at least the intrinsic value of any options/guarantees and (iii) takes account of any intangible asset associated with the provision, then one need not consider IAS37. This creates anomalies in reporting in countries where the pre-existing LAT is weak and does not meet these three tests. Companies there may be forced to adopt the IAS37 test. Moreover difficulties arise with respect to meeting the requirements of IAS37. The standard appears to require a prospective FV approach to the provision, making no allowance for own credit risk. A full allowance for both the time and intrinsic value of options and guarantees would seem to be needed. Further confusion is caused with respect to the required level of prudence when determining the cash flows, as stated by IAS37. The author's view is that the inclusion of deliberate 'market value margins' is prohibited but that caution is required when assessing what is the best estimate of a projection assumption. However, the author agrees that this view does not necessarily fit with the tentative conclusions reached by the IASB for Phase II.

Other practical problems briefly discussed are the FV of non-linked investment contracts and the asset/liability mismatch in unit funds that can arise from the IFRS prohibition on discounting of deferred tax.

Next, the author criticizes the IAA's decision to issue International Standards of Actuarial Practice as 'Practice Guidelines', which are intended to be educational and non-binding in nature. He thinks that they tend to be verbose and the justification for some of the comments made is not always clear. Without endorsement from IASB they should be withdrawn. The work carried out by the drafting committee has however been of some value in highlighting areas where further interpretation of IFRS is required.

4. The paper's fourth section discusses the foundation ideas on which Phase II will build. First of all, the author agrees with the asset/liability approach adopted. Concerning the basis for assessing cash flows—namely that this should be FV rather than entity specific assumptions, where market evidence exists—the author regards market assumptions as particularly unsuitable for demographic and claims expense assumptions, which are influenced by the situation of each individual company. He also argues that, while a restriction on recognizing a net gain at issue is consistent with an entry value approach to FV, this will create the continuing need in most countries outside North America to produce supplementary information along EV lines in order to meet the needs of investment analysts.

On the topic of allowance for the receipt of future premiums the author maintains that it is essential that such allowance should be made for most contracts accounted for as life insurance, on the grounds that continuing insurability is a valuable benefit to the policyholder. The problem area remaining is where there is really no incentive for the policyholder to pay future premiums, such as the UK's stakeholder pensions.

The conclusions that an undiscounted measure is inconsistent with FVs and that expectations about the performance of assets are irrelevant to the measurement of FVs are accepted by the author, while acknowledging that they remain controversial in practice. Whether market value margins (MVM) should be included (either in the cash flows or by reducing the discount rate) is considered next. Arguments for and against are presented and the author takes a view against their inclusion, mainly because of the practical difficulties of MVMs.

The last tentative conclusion has to do with the controversy over the allowance in fair valuation for 'own credit risk'. If included, a company's liabilities would reduce in the case of financial distress and backing out would be needed if the accounts form the basis of any solvency assessment. Moreover, the author cannot understand the rationale for allowing credit for policyholder protection schemes as these do not impact on the obligation of a company towards its own policyholders.

Subsequent developments in Phase II are next discussed. The various models for general insurance and long term contracts, which are under consideration by IASB, are presented, as is the interface with the joint project of IASB and FASB on revenue recognition.

Finally, the author makes a link with solvency by saying that he hopes that the accounting measurement system developed for Phase II could be used when assessing the solvency of insurance companies. However, he draws attention to the danger that IASB may adopt an approach which is inconsistent with this aim. Areas of concern include the allowance for own credit risk, the use of market related expenses and demographic assumptions, the deposit floor, the entry value approach to FV and the use of MVMs. The last three of these could make any solvency standard harsher than the apparent risk of ruin in the one year stress test, whilst the first is clearly unsuitable for a test of solvency as, by definition, liabilities could never exceed available assets. The use of market related, rather than entity specific, expense and demographic assumptions is also inappropriate as part of a solvency standard.

Our overall comment: The paper provides a comprehensive review of the progress of and prospects for the IASB's insurance project and its related work on financial instruments. It provides important and authoritative analysis of, and insights into, the more controversial issues. Perhaps somewhat surprisingly, there is only passing reference to FRS27, which is described as 'rushed through'.

f) Exley & Smith, 2006: 'The Cost of Capital for Financial Firms'

This paper attempts to provide an overview of the concept of cost of capital, how this measure can be useful to the financial industry and from what perspectives it differs from the concept used for other industries. The authors identify a shift of companies' attitude from ensuring operating profit to adding value. This shift can explain the increasing interest in measures such as cost of equity and weighted average cost of capital. It is argued however that the meanings of these measures are still vague and confusing.

The authors proceed by examining aspects of 'asset pricing theory' from modern financial economics and more specifically the choice between expected or actual returns. They recognise the difficulty for insurers of using expected returns and as an alternative they describe the 'replicating portfolios' approach. This method enables the examination of the insurance operations after eliminating the effect of overall stockmarket movements. They support this approach instead of the one based on the

CAPM ‘beta’ since it is argued to be objective, free of the need to calculate long-term parameters, and correctly priced in respect of various sensitivities.

‘Franchise value’ is then introduced as the difference between the market value and the statutory net assets. It is suggested that, through not taking explicitly into account franchise value, biases arise in accounting measures of return. Focusing on return on [balance sheet] equity (ROE) rather than on total shareholder return (TSR) induces incentives to reduce recognised equity and fails to identify activities which give rise to franchise value. In order to fix the bias, ROE has to be adjusted for franchise value and future franchise growth rate by using the following formula:

$$ROE = TSR + (Franchise/Equity) * (TSR - Franchise\ growth\ rate)$$

Embedded Value (EV) reporting is described as one prominent example of a methodology which addresses the bias of ROE, by recognizing as an additional asset the value of inforce business. The unwinding of the discount rate provides the profit needed to meet the cost of capital on this value in all future years, so the bias on ROE is somewhat mitigated. However, a measure that is totally free of bias only arises when an allowance is made for future new business and for all capital likely to be held on a balance sheet and when the profitability assumptions used are consistent with the market view. The authors justify the fact that other financial firms have not developed EV-like reporting on the grounds of the speculative nature of their future margins and the difficulty in distinguishing inforce from new business, the enthusiasm for economic capital methodologies, and the perception that their statutory reporting framework is not as prudent overall as that for life insurance companies.

One way to allow for risk in performance measurement is by utilising ‘Economic Capital’, which is defined as the amount of equity required such that a specified liability will be met over a specified time horizon with a particular probability. (This may be equal to or greater than the capital required by regulators to be held.) Economic Capital can be implemented with a ‘top-down’ or a ‘bottom-up’ approach. However, the diversity of approaches makes impossible a reliable cross-sectional comparison between firms and gives rise to arguments about the ‘arbitrary nature’ of the measure. Moreover, since the concept lacks both uniformity and established independent audit procedures, reliability is not guaranteed. The authors conclude that the Economic Capital methodology fails to remove the bias in ROE due to inconsistency with asset pricing theory and because no allowance is made for differences in franchise value.

The second way to allow for risk is called ‘contingent claim pricing’ or ‘asset pricing theory’ which is the one supported by the authors. Its use in corporate valuation is then supported by using the discounted cash flow method (DCF). They analytically demonstrate the widely known result that the franchise value is equal to the discounted value of future economic value added and that economic profit corrects the accounting bias represented by the difference between accounting and market return on equity.

Valuation of non-traded assets and liabilities of financial firms is approached through the use of swaps of assets and liabilities. First a setting with no probability of default is considered and then bankruptcy is considered as well. The authors demonstrate (as is well known in the finance literature) that one can define franchise value in the current period (F_0) if one knows the after tax ($1 - k_T$) margins on assets (m_A) and liabilities (m_L) after taking into account expenses (k_A , k_L) and the forward value of next period’s franchise value. When default is allowed then the only

additional factor needed in order to define franchise value is the recovery rate (s) of a credit default swap.¹⁶

$$(1 + R_f) * F_0 = (1 - k_T) * [A_0 * (m_A - k_A) + L_0 * (m_L - K_L)] + (1 - s) * F_1 - (R_f + s) * k_T * (A_0 - L_0)$$

In the last section of the paper the authors consider factors that determine an optimal leverage. They argue that shareholder wealth is maximized by maximising franchise value and not market capitalisation. It is demonstrated how the Economic Capital and EV approaches propose a different optimal capital structure and they then propose their own approach which is a mixture of the two approaches. Parameters affecting the hybrid solution are expenses, growth rate, tax rate, agency costs and credit default spread.

The authors conclude by emphasising again that the return required by shareholders applies to the firm's whole market capitalisation rather than just to the book value of the net assets. Furthermore, they argue that the application of cost of capital for financial firms is particularly challenging due to their different characteristics from those of other industries. They are optimistic about eliminating the biases in the cost of capital methods in the financial industry because of the ability to use replicating portfolios for financial firms' assets and liabilities. Finally, they suggest that there is a trade-off between the reduction in the risk of failure by holding capital and the frictional costs that accompany the lock-in of this capital.

Our overall comment:

This paper tries to make clear the biases that arise in performance measurement when franchise value is ignored. Therefore it is argued that the cost of capital of financial firms should take into account such a value. However, this finding is not new and is well documented in the accounting and finance literature. Moreover, the authors make claims that do not appear to be substantiated, e.g. that shareholder wealth is maximised by maximising franchise value and not market capitalization. This argument is flawed since the authors fail to recognize that considerable franchise value arises because of the conservatism of accounting in measuring recognised net assets and the accounting prohibition to capitalize internally generated goodwill. It would appear that, under the authors' approach, one could maximise shareholder wealth by maximising franchise value simply through adopting cash flow accounting, whereas in an 'efficient market' this accounting policy change should have no impact on market capitalisation. The authors appear to fail to recognize that dividends, franchise value and net assets are all interlinked.

Furthermore, we do not consider that the characteristics which it is suggested differentiate financial firms from other firms are really so important. For example significant franchise values can be observed in other industries as well and, with the adoption of IFRS, other balance sheet accounts apart from financial instruments can also be marked to market.

In summary, we would observe that several of the arguments in the paper seem to be familiar to the accounting literature. For example, there is a theorem about accounting that corresponds to Modigliani & Miller's famous theorem (which is, of course, not that dividends are irrelevant, but that—in the absence of taxes and other frictions—the *timing* of dividends is irrelevant to the firm's stockmarket value). This

¹⁶ It may be noted that a major assumption here is knowledge of the forward value of next period's franchise value.

well-known accounting theorem is, not that accounting is irrelevant, but that the *timing* of accounting profits is irrelevant. In other words, it does not really matter (at least formally, if not behaviourally) whether one recognises the profits now or later, at the end of the day one can only recognise the same amount: and the authors have captured this theorem very well. Unfortunately, it is not new. There has been a lot of work in the past 10 years or so, particularly by James Ohlson (starting with Ohlson, 1995), which has spawned a whole literature on this ‘accounting irrelevancy’ theorem, which it would be worthwhile the authors exploring further.

There is clearly a growing relationship between the actuarial literature and the financial economics literature, which is having an impact on practice. There is similarly a growing relationship between the accounting literature and the financial economics literature, which is likewise having an impact on practice. Clearly, what we need is a growing relationship between the actuarial literature and the accounting literature and then the triangle will have been completed.

g) Asher, A. 2006, Unfinished Accounting Issues: Incorporating Fair Value and Prudence in Accounting Theory

The paper argues that lack of progress on IASB’s Insurance Contracts project results primarily from conceptual confusion between three distinct purposes or ‘objectives’ of accounting: first, largely retrospective managerial accountability/stewardship for resources and performance; second, providing information about business prospects for the benefit of investors and others; and third, providing a prudent basis for regulatory supervision primarily on behalf of policyholders. Each purpose requires different approaches to recognition and measurement, the first largely being adequately served by traditional historical cost based accounting for ‘reliability’; the second by FV-oriented accounting of the kind found in actuarial EV and appraisal value (‘AV’) approaches for ‘comparability’; and the third requiring appropriately cautious approaches to valuation of assets and liabilities and to forward estimates for ‘prudence’. At present the standard setters are vainly attempting to reconcile ‘prudence’ and ‘neutrality’ within one framework: hence confusion over the appropriate nature and extent of ‘margins’ in liability provisions.

The ‘historical’ basis, necessarily incorporates arbitrary allocations, but if these are kept as simple as possible then this basis also provides a workable basis for taxation purposes.

While there are well known incentives to managers to attempt to bias prospective information, there is also enormous value in gaining greater insight into managements’ inside knowledge of the business and its operations, and a requirement for sensitivity analyses of the impact of assumptions and analysis of variances between expectations and outcomes, like conventional ‘actuarial analyses of surpluses’ can mitigate many of the dangers of inappropriate model/parameter assumptions. Valuing intangibles is as significant here as valuing other assets and liabilities.

For prudential purposes, including determination of distributable profits, adjustments to forward cash flow estimates to focus on the adverse tail rather than on mean expected outcomes will be more appropriate.

The author observes that the second approach allows for appropriate recognition of the profit on new business, which is important if rapidly growing companies’ results are not to appear less successful than those that are long established and have recovered acquisition costs. Some of the problems of resolving the IASB debate may

therefore relate to political phenomena such as protecting vested interests, and ‘regulatory capture’, as much as to genuine conceptual disagreements.

What is important is to have the different accountings that satisfy the three different purposes. The greater difficulty for less sophisticated investors may lie in realising that the volatility revealed by FV accounts for insurance companies and other financial institutions does not mean they are riskier investments (and therefore to be priced lower) than non-financial firms. But until FV can be extended to all businesses, there may be an argument for keeping the historical cost accounts as the primary financial statements and the FV accounts as supplementary—although provided both sets are available (and with a separate statement of required capital as estimated for solvency purposes) ‘it seems to matter little which is elevated to “official” status’.

Our overall comment: The idea that different kinds of accounting bases are required for different purposes has a long tradition in the academic accounting literature (as reviewed e.g. in Macve, 1997) and seems to be part of the reason for the support that has been expressed for the view that IASB and FASB should retain ‘stewardship’ (or ‘accountability’) as a separate objective of financial accounting and reporting alongside ‘decision usefulness’ in their revised and converged Conceptual Framework (e.g. ASB *et al.* 2007). Horton and Macve (1995) have however argued that, in the UK context, where matters of distributable profits and taxation remain primarily constrained by the ‘statutory solvency basis’ (as now subsequently supplemented by the FSA’s ‘twin peaks’ approach), the MSSB accounts have no clear purpose, and the objective for accounting reform of life insurance companies could focus solely on the second of Asher’s objectives, so that EV should be an acceptable basis for the main accounts. A different approach to investigating the role of FVs in accounts is that of Penman (2007) who explores in what respects of a company’s operations users (such as analysts) may learn more from FVs than from traditional ‘matching’ approaches to profit determination and vice versa—so that a ‘mixed model’ may indeed be the most useful. Indeed the key questions in accounting measurement generally are now seen to be a) what are ‘FVs’ i.e. are they solely ‘current exit values’ as defined in SFAS157 (e.g. Dealy and Singleton-Green (2007); and b) how far should accounts incorporate them for assets and liabilities other than ‘financial instruments’ (e.g. ICAEW, 2006).

h) Girard, 2000. Market Value of Insurance Liabilities: Reconciling the Actuarial Appraisal and Option Pricing Methods

The Abstract states: ‘With Statement of Financial Accounting Standards 115 (FASB 1993), insurers are now in the awkward situation that almost half of the balance sheet is marked to market. This has created a material inconsistency with the way liabilities are reported, thus diminishing the usefulness of financial reporting to shareholders and potential new investors. Discussion has emerged in the industry about the process of market valuing liabilities. The American Academy of Actuaries has formed a ‘Fair Valuation of Liabilities’ task force to compare and review various alternative methodologies. During 1995 the Society of Actuaries and New York University jointly sponsored a conference on ‘Fair Value of Insurance Liabilities.’ Motivated by the conference, this paper attempts to bridge the gap between option pricing and actuarial appraisal methodologies. The author suggests we refocus attention toward the assumption-setting process, which is the key driver of a fair valuation. In this

regard, this paper attempts to advance practice and methodology with respect to life insurance company valuation.'

Our overall comment:

We include this North American Society of Actuaries paper because it is the only literature (other than occasional statements from standard setting, or other professional or industry bodies) referred to in the DP (at para.108 (g)), where it is cited in respect of the comment, made in describing Embedded Value as an 'indirect method' of measuring insurance liabilities, that 'in principle, direct and indirect methods can produce the same results if the same assumptions are made in both methods (Girard, 2000). However, some question whether this theoretical equivalence is achievable in practice'. [No reference is given as to who 'some' are.] The theoretical result is well-known in the literature (being consistent with the wider finance literature on alternative specifications of valuation models: see e.g. the papers in Vanderhoof & Altman (1998)). The important issue is how far practical applications of alternative approaches in fact produce materially different results, on which the DP offers no evidence.

The main purpose of Girard's paper however is to emphasise the anomaly caused by the US requirement to 'fair value' most of insurers' investments, while their insurance liabilities are still reported under the 'locked-in assumptions' approach of current US GAAP. This has not generally been a problem for UK insurers, nor should it be under the DP's proposals, except insofar as they do not completely cover all assets held, together with the anomaly under current IAS of undiscounted deferred tax liabilities (cf. DP Appendix D).

(i) O'Brien 2007. Market Consistent Valuations of Life Insurance Business: the UK Experience

This actuarial UK academic paper, very recently prepared for the US Society of Actuaries, analyses the experience of UK companies in complying with the FSA's new rules for 'realistic' balance sheets. To obtain 'market consistent' valuation of life insurance liabilities companies start with policyholders' 'asset shares' and make adjustments *inter alia* for options and guarantees and for the effects of likely future management action. The paper looks at 2005 year-end figures and identifies the problematic areas, and in particular those where the use of companies' own assumptions, estimates and models results in considerable variation in their attempts to provide 'market consistent' valuations of all their assets and liabilities. It concludes with recommendations to the FSA for further clarification and specification of the requirements in a number of respects.

Our overall comment: We include this interesting paper as the FSA's requirements have had considerable influence on the current 'statutory' reporting by UK with-profit insurers, since they are also now required to use this approach for their MSSB accounts under FRS27 (ASB, 2004b—see Appendix IV. b) below) and thereby normally now under IFRS4. Unfortunately the author's survey does not extend to the complementary, supplementary EV reports of the UK life insurers surveyed. So the most interesting questions that remain with regard to future accounting development are therefore still: What are the remaining differences between these 'market consistent' insurance liability valuations now required by FSA and those increasingly adopted for the supplementary EV disclosures as 'MCEV'—and what further

differences, if any, would result from potential adoption of the DP's proposed CExitV (also intended to reflect market participants' pricing)?

III. The industry

a) CFO Forum 2004 *European Embedded Value Principles and Basis for Conclusions*

The *European Embedded Value Principles* (EEV) was published in May 2004 and sets out a voluntary set of principles for reporting supplementary EVs to be adopted for the 2005 financial year onward by European insurance companies. There have been criticisms of the traditional EVs (see below) and consequently the CFO Forum attempted to address these by ensuring their guidance is credible, robust and can be applied consistently. It requires the inclusion of a cost for financial options and guarantees; and prescribes a minimum level of disclosure including sensitivity analysis. However the document avoids radical change from the traditional EV methodology used by insurers and, in particular, the methodology retains the concept of risk premiums on assets and the use of a risk discount rate. The reason for this is that the CFO Forum believes that this approach '*best reflects insurance company management's views of value*'.

The document is fairly short and follows a principles-based, rather than a rules-based approach. There are 12 key Principles (Principles 1 to 6 cover issues primarily of definition, whilst 7 to 12 set out requirements for, and limitations on practice) and 65 related areas of Guidance. However, within their 'Basis for Conclusions' there are also 127 additional comments to support and clarify the EEV Framework. The key areas that the EEV addresses relate to the setting of the discount rate, the explicit recognition of financial guarantees and options, and the definition of 'required capital', as well as the standardisation of disclosure.

The overall objective of these principles is to improve the consistency and transparency of European insurance reporting.

The 12 Principles are:

1. Embedded Value (EV) is a measure of the consolidated value of shareholders' interest in the covered business.
2. The business covered by the EV methodology (EVM) should be clearly identified and disclosed.
3. EV is the present value of shareholders' interest in the earnings distributable from assets allocated to the covered business after sufficient allowance for the aggregate risks in the covered business.
4. The free surplus is the market value of any capital and surplus allocated to, but not required to support, the inforce covered business at the valuation date.
5. Required capital should include any amount of assets attributed to the covered business over and above that required to back liabilities for covered business whose distribution to shareholders is restricted. The EV should allow for the cost of holding the required capital.
6. The value of future cash flows from inforce covered business is the present value of future shareholder cash flows projected to emerge from the assets backing the liabilities of the inforce covered business ('PVIF'). This value is reduced by the value of financial options and guarantees as defined in Principle 7.

7. Allowance must be made in the EV for the potential impact on future shareholder cash flows of all financial options and guarantees within the inforce covered business. This allowance must include the time value of financial options and guarantees based on stochastic techniques consistent with the methodology and assumptions used in the underlying EV
8. New business is defined as that arising from the sale of new contracts during the reporting period. The value of new business includes the value of expected renewals on those new contracts and expected future contractual alterations to those new contracts. The EV should only reflect inforce business, which excludes future new business
9. The assessment of appropriate assumptions for future experience should have regard to past, current and expected future experience and to any other relevant data. Changes in future experience should be allowed for in the value of inforce when sufficient evidence exists and the changes are reasonably certain. The assumptions should be actively reviewed.
10. Economic assumptions must be internally consistent and should be consistent with observable, reliable market data. No smoothing of market or account balance values, unrealised gains or investment return is permitted.
11. For participating business the method should make assumptions about future bonus rates and the determination of profit allocation between policyholders and shareholders. These assumptions should be made on a basis consistent with the projection assumptions, established company practice and local market practice.
12. EV results should be disclosed at consolidated group level using a business classification consistent with primary statements.

Our overall review comment

The EEV is similar in many respects to the ABI guidance on achieved profits e.g. in terms of terminology and continued focus on the present value of profit distributable to shareholders. Given its support by leading European insurers, many believe it is a significant step forward in developing financial reporting for life insurance business.

“Prudential plc believes that the EEV methodology represent an improvement over existing embedded value reporting methods across Europe and supports its introduction. Prudential re-iterates its belief that embedded value reporting provides investors with a truer measure of the underlying profitability of the Group’s long-term business and is a valuable supplement to statutory accounts” (Press Release, June 2, 2005)

It has been noted that this is the first time that there has been agreement on a common framework for European insurers and it could result in greater consistency in EV reporting. However there are still many areas within the Principles that leave companies with considerable freedom of choice.

For example the setting of the risk discount rate (RDR). The CFO Principles and Guidance do give a framework for how companies should derive the RDR: specifically “the RDR should be set equal to risk free rates plus a risk margin”

(G10.7), "...the risk margin should reflect any risk associated with the emergence of distributable earnings that is not allowed for elsewhere in the valuation" (G10.7) and the RDRs "may vary between product groups and territories" (G10.9). However, the principles and guidance are silent on the actual approach to be taken in attempting to determine the appropriate allowance for each risk, although the Basis for Conclusions suggests an active approach to setting discount rates is desirable. It does however explicitly address one of the methodological criticisms of traditional EV that changing the assumed asset mix can lead to a change in value of business written.

The Basis for Conclusions appears to favour the 'bottom-up approach' to setting risk margins e.g. setting a discount rate on a product by product basis, directly reflecting the product's risk profile. However, determining the appropriate discount rate is still problematic and subjective. It is not clear from the Basis for Conclusions that there is sufficient guidance to overcome this subjectivity nor indeed the 'herding' tendency that it criticises the traditional EV of displaying.

"The selection of risk discount rates in EV reporting has historically left significant room for judgement, which appears to have led in practice to a 'herding' tendency (i.e. the use of similar risk margins between companies) rather than an active differentiation on the basis of risks being run." (108, G10.7)

One of the main changes from traditional EV practice relates to Principles 6 and 7 which requires that the costs of all financial options and guarantees¹⁷ must be explicitly valued and deducted from the value of inforce. In particular Principle 7 requires that the present value calculation includes the time value of financial options and guarantees, using stochastic techniques consistent with methodology and assumptions used in the underlying EV. This effectively incorporates the expected cost of the option into the valuation, and is an important advance on traditional EV techniques and should help to address some of the past criticisms. In addition the EEV require the disclosure of 'the nature of, and techniques used to value, financial options and guarantees'. However, the methodology and assumptions used are not defined, or indeed confined to a set of choices, and therefore the Principles allow considerable scope and consequently comparability between companies will be unlikely, 'particularly where the approach chosen is not market consistent and the result is not benchmarked against a market-consistent calculation' (O'Keefe et al., 2005).

As Towers Perrin Tillinghast note:

"Companies are likely to interpret the Principles as meaning that the assumptions for future investment returns should be real world (i.e. include expected risk premia). However, it is not clear how companies will discount the emerging cash flows, and therefore what the cost of options and guarantees will represent. The approach may not be consistent with the market pricing of options, nor with the market consistent cost of options and guarantees which many European firms are

¹⁷ These options and guarantees are restricted to options that directly influence the benefits of the policyholder and whose potential value is impacted by the behaviour of financial variables. The definition includes the most common guarantees, such as those underlying traditional business (including the guaranteed surrender values), guaranteed annuity options and guarantees within unit-linked contracts, but excludes insurance based options such as those which increase or extend the term of cover.

already required to disclose as part of regulatory reporting.” (May 2004, Towers Perrin Tillinghast, Update, pp.1-8)

The EEV also requires companies to adopt a standard definition of ‘Required Capital’ (G5.1 –G5.2)

“The Required Capital should be at least the level of solvency capital at which the supervisor is empowered to take action, including any ‘encumbered’ amount which is restricted in distribution to shareholders. The Required Capital should include amounts required to meet internal objectives, such as those based on internal risk assessment or required to obtain a targeted credit rating”

This is an improvement on the traditional EV since there were wide variations between countries in the definition of capital on which the calculations were based. Although companies will now have to determine their definition and also choose an appropriate RDR it still leaves considerable scope for judgement and interpretation.

In summary the key areas that the EEV addresses relate to the setting of the discount rate, the explicit recognition of financial guarantees and options, and the definition of ‘required capital’, as well as the standardisation of disclosure. The effect of these changes have been reported by companies such as the Prudential plc who state in their June 2, 2005 press release:

“The adoption of the EEV methodology by Prudential results in a 1% reduction in the Group’s total shareholders’ funds to £8.5bn and an uplift of 8% in the value of new business for the year ending 31 December 2004 to £741m. The main impact on the results arises from the effect of changes to the assumed level of locked-in capital allocated to each business, the adoption of product-specific risk discount rates, and an explicit valuation of the time value of options and guarantees. The EEV results also include the value of future profits from service companies (including fund management operations) that support the Group’s long-term business and the UK defined benefit pensions scheme deficit.”

Aegon, Allianz, ING, Legal & General, Old Mutual, and Skandia also published their year-end 2004 EVs using methodologies and assumptions consistent with EEV Principles. Riunione Adriatica di Sicurtà S.p.A (RAS) became the first Italian group and the first non-CFO Forum company to publish its EV using EEV principles.

The CFO Forum has also issued additional guidance on minimum required disclosures of sensitivities and other items (CFO Forum, 2005) which are generally regarded as providing particularly useful information for understanding the significance of the EEV measures.

b) CFO Forum 2006. *Elaborated Principles for an IFRS Phase II Insurance Accounting Model*

This more recent publication complements CFO Forum (2004) (Appendix III. a) above—which focussed on supplementary EEV reporting) by addressing the principles the CFO Forum believes should underlie the accounting for insurance contracts to be required in the main financial statements. IASB’s DP notes its input (at its para. 7) but does not specifically refer elsewhere to agreement or disagreement with individual aspects of these principles.

Without reciting the whole document we note here areas where there seem either to be potential differences between the CFO Forum and IASB's preliminary conclusions in the DP; or where both adopt positions that appear to remain disputed elsewhere in the literature (Ebberts, 2007, also provides a review).

(i) Profit measurement: 'Since the main service under insurance contracts is the mitigation of risk, entities selling insurance contracts should recognise accounting profits from these contracts in line with the reduction of risk.'

(ii) Risk margins: 'Subject to a liability adequacy test, the appropriate measure of the total margins at outset are those incorporated into the premium basis...' [BC8)].

(iii) Best estimate of liability: Noting the 'IAS37 definition of best estimate [as] being the amount that an entity would rationally pay to settle the obligation at the balance sheet date or to transfer it to a third party at that time...[t]he CFO Forum believes that the best estimate should be equal to the mean estimate (probability weighted average) so that liability valuation should consider both the amount and likelihood of future cash flows' [BC12)]. 'Management's best estimate of the future should not include any margins for risk and uncertainty since an additional allowance for risk and uncertainty is included elsewhere in the liability valuation. Where a market rate is used, this would implicitly include margins for risk and uncertainty and no further margin is needed' [BC13)]. 'When quantifying the allowance for risk and uncertainty, various techniques are available, including cost of capital and confidence interval approaches...[I]ndividual facts and circumstances will determine the allowance for inherent risk and uncertainty for accounting purposes' [BC16)].

(iv) Discount rate: For 'the time value of money...[t]he appropriate discount rate is the risk free rate of return specific to the liabilities being measured' [EP10)]. 'Certain categories of insurance liabilities do not carry liquidity risks and should be discounted at a risk free rate of interest that is not reduced for liquidity risk. In practice, estimation techniques could permit adjusting corporate bond rates for the risk of default or adjusting risk free market rates to allow for the liquidity risk premium in corporate bonds' [BC17)].

(v) Linked products: 'Where the value of the insurance liability is linked, contractually or through other legal or regulatory terms, to the value of the associated assets, the value of the insurance liabilities is calculated with reference to the market value of the assets at the valuation date' [EP12)].

(vi) Unbundling: 'The...Principles require the insurer to recognise all obligations and rights arising from insurance contracts. Consequently, the unbundling of any individual component of insurance is not required' [EP13)].

(vii) 'Day 1': 'Any profit should be recognised in line with release from risk, and hence nil gains are reported on initial measurement' [EP14)]. 'Where an insurer has issued a contract that, at inception, is expected to ultimately yield an economic loss over the term of the contract, that loss should be recognised at inception' [EP17)].

(viii) Initial and subsequent liability adequacy tests: '...the liability adequacy test and hence the measurement of economic losses should include an allowance for risk and uncertainty. This approach is consistent with market behaviour for pricing transactions' [BC25)]. 'The liability in the liability adequacy test should be that required by another insurer to take over the obligations arising from the portfolio' [BC26)].

(ix) 'Deferred acquisition costs': 'An insurance customer intangible asset should be set up to reflect the initial investment made in the customer relationship provided that it can be recovered from future profits' (page 10: ii). 'The CFO Forum believes that it provides more relevant and useful information to present a separate customer intangible asset, instead of the alternative approach which reflects the recovery of acquisition costs {including both direct and indirect acquisition costs [BC31]} in calculating the insurance liability' [BC29)]. 'The best proxy for the value of the customer intangible asset at inception is the initial acquisition cost arising from the contract' [EP19)]. 'The customer intangible asset is realised over the term of the contract...' [EP21)].

(x) 'Unit of account': 'A portfolio is a group of contracts that are managed together when assessing risk...' [EP31)]. 'For measurement purposes, the portfolio should be the unit of account. The portfolio basis should reflect internal management strategy...' [EP33)]. 'The portfolio basis does not remove the risk of aggregate exposures nor the possibility of taking into account diversification benefits arising from different portfolios that are not affected by the same risks. The aggregation of allowances for inherent risk and uncertainty calculated for each portfolio *is subject to further consideration*' [BC43)--*emphasis added*].

(xi) Policyholder behaviour: Future premiums that form part of a contract are labelled 'recurring premiums' and level premium contracts provide increasing incentives to the insured to maintain cover [BC45) and BC48)]. 'Both renewal options and recurring premiums need to be reflected in the measurement of liabilities. However, renewal premiums for a new contract, which can be underwritten and re-priced, should not' [BC46)].

(xii) Surrenders: 'The likelihood of withdrawals should be included in the insurance liability measurement including a margin for risk and uncertainty. Therefore the use of further margins is unnecessary and hence no deposit floor should be applied' [EP38)].

(xiii) Options and guarantees: These 'should be included in the measurement of the liability reflecting both their time value and intrinsic value' [EP39)]. 'The valuation...should take account of expected policyholder behaviour' [EP41)]. 'The valuation model should consider options and guarantees as part of the overall valuation' [BC56)].

(xiv) Credit risk: 'The credit standing of an insurance contract should not be considered in the valuation of insurance liabilities' [F]. 'The CFO Forum sees informational advantages to investors and analysts in presenting the liabilities as risk free so that the full extent of the liabilities is transparent. Moreover, introducing credit standing would result in an accounting profit in the event of the downgrade of an insurer, which is considered misleading' [BC57)]. 'The insurance industry regulators require substantial safeguards to protect policyholders' rights...As a result of regulatory oversight, and basic accounting principles, it follows that treating the insurer on a going concern basis excludes consideration of the credit standing' [BC58)]. 'In many jurisdictions, any transfer of policies between insurers...will not be allowed if the transfer would be against the interests of the policyholders...This means that a company that is a going concern cannot realise a gain on own credit risk by transferring a portfolio of policies to a third party' [BC59)].

(xv) Participating contracts (+ Addendum). 'A principles based approach to participating contracts should be adopted reflecting the different models of discretionary participation in different territories...the same Principles outlined for

non-participating contracts should apply’ [G]. Of particular relevance to UK with-profits funds are: where there is a difference between the statutory IFRS accounts and the basis used for regulatory determination of policyholder benefits, the insurance liability in the IFRS accounts needs to include the ‘future additional benefits which would be expected to be attributable [to policyholders] when the assets were to be realised or the liabilities were to be settled...similar in some respect to the treatment of deferred taxes’ [Addendum: BC3)]. For contracts in a ring-fenced fund, ‘the best estimate liability of the insurer will reflect the amounts expected to be paid to policyholders by reference to the distribution basis of the fund. This would include the liability based on the income and expense in respect of the policies and an amount in respect of the distribution of assets in excess of such liabilities attributable to policyholders’ [Addendum EPP5)]. ‘[T]hese amounts, to the extent not allocated to shareholders through legal arrangement, are neither liabilities attributable to policyholders or surplus attributable to shareholders. Consistent with the basis of distribution and restrictions over access, these amounts should be recorded as a liability of the insurer and earned as shareholders distributions are made to shareholders’ [Addendum: BC5)] Apparently referring to actuarial techniques of allocation to participating policyholders such as ‘asset shares’, the Addendum states: ‘In some cases, there are appropriate proxies to determine the present value of future discretionary cash flows from the insurance contract. Where...reliable...these may be used. For example, a retrospective accumulation of policy cash flows may be used to assess the value of the liability’ [Addendum: EPP7)].

(xvi) Asset and liability consistency: ‘[W]here the value of the insurance liability is linked...to the value of associated assets, [it] is calculated with reference to the market value of the assets at the valuation date’ [EP44)]. ‘The impact of changes in financial assumptions should be recognised immediately and the impact of changes in non-financial assumptions should be recognised through the release over the future risk profile of the contract’ [EP45)].

(xvii) ‘Value based reporting’: ‘Value-based measures may be disclosed as supplementary information. The basis...should be disclosed’ [I]. (The EEV Principles are preferred but ‘other measures should be permitted as long as they are adequately explained’ [EP47]).) ‘Value-based measures are intended to provide relevant information to users of accounts on the expected value and drivers of change in value of a company’s existing business, as well as risks associated with the realisation of that value’ [BC70)]. ‘The future profit streams assumed confer useful information to the users, but are not appropriate as the primary accounting basis’ [BC74)].

The Principles do not address issues relating to ‘service margins’, reinsurance, tax, or presentation (apart from the rejection of unbundling).

Our overall review comment: Clearly the CFO Forum disagrees with the approach being taken in the IASB’s DP, in particular about ‘entry’ versus ‘exit’ value, ‘no Day 1 profit’, DAC. However, like the DP, it does not make clear what it regards the purpose of the IFRS ‘main’ accounts to be as compared with either the accounting required for solvency regulators or the supplementary EEVs that the CFO Forum (2004; 2005) also supports.

c) Geneva Association, 2004. *Impact of a Fair Value reporting System on Insurance Companies*

This is a survey (authored by Dickinson, G. and Liedtke, P.M.) of the attitudes of CEOs/CFOs/senior managers of forty international insurance companies worldwide to the likely impact that an international financial reporting standard based on a full FV methodology would have on a number of key corporate policy areas. It is a sequel to an earlier study (Dickinson, 2003) which recommended that insurance liabilities be treated as ‘held-to-maturity’ or ‘available for sale’ mirroring the respective treatments of assets under IAS39/SFAS115. The survey also builds on views expressed by a range of participants (including CEOs) in the session on ‘The Impact of Insurance Accounting on Business Reality and Financial Stability’ at the 30th General Assembly of the Geneva Association, June 2003.¹⁸ The Executive Summary indicates that generally companies do not support the introduction of a ‘full fair value’ standard and foresee a number of adverse consequences for both internal management and external strategies (e.g. pricing, product offering, raising capital) of such financial reporting, and if any disclosure is made it would be extremely subjective, of doubtful value in improving transparency, and should be in notes/supplementary disclosures not in the primary financial statements. A particular concern was the acceleration of profit emergence under FV models.

Our overall review comment: Unfortunately it is hard to interpret the significance of these survey results. In particular the authors refer (at p. 33) to the increasing number of European life insurers who are making use of EV based methodologies and to the improvements now agreed by the CFO Forum in the ‘EEV principles’ (as we discuss in Appendix III. a) above). No reconciliation/explanation is given of the companies’ apparently inconsistent attitudes (e.g. by explaining how FV is thought to differ from EEV).

d) Recent company disclosures

Interesting insights can be found in recent announcements of the 2005 and 2006 financial results of insurance firms under EEV. Perhaps the most straightforward comment against IASB’s IFRS4 was included in Prudential’s 2005 report, saying that:

“accounting under IFRS does not, in Prudential’s opinion, properly reflect the inherent value of these future profit streams.”

Risk and the Risk Discount Rate(s) (‘RDR’)

Allowing for risk is one of the key disclosures in the EEV sections of these reports. In Legal & General’s 2006 Annual Report and Accounts allowing for risk is described as following:

“Aggregate risks within the covered business are allowed for through the following principal mechanisms:

¹⁸Reported in *Geneva Papers on Risk and Insurance: Issues and Practice*, vol. 29:1 (January 2004).

- i. *Setting required capital levels with reference to both the Group's internal risk based capital models, and an assessment of the strength of regulatory reserves in the covered business;*
- ii. *Allowing explicitly for the time value of financial options and guarantees within the Group's products; and*
- iii. *Setting risk discount rates by deriving a Group level risk margin to be applied consistently to local risk free rates."* (p.120)

Aviva plc presents an extensive description of its underlying methodology in calculating the RDR (Annual Report and Accounts, 2006, p.226), which is defined as:

1. *The risk discount rate (RDR) is required to express a stream of expected future distributable profits as a single value at a particular date (the present value).*
2. *It is the interest rate that an investment equal to the present value would have to earn in order to be able to replicate exactly the stream of future profits.*

[We note that the first of these implies: *Knowing (RDR, Future CF) \Rightarrow PV*
The second implies: *Knowing (PV, Future CF) \Rightarrow RDR*. Thus the two definitions reveal circularity within the RDR concept.]

Aviva calculates RDR in three stages, which begins with the WACC of the group, 'calculated using a gross risk free interest rate, an equity risk margin, a market assessed risk factor (beta), and an allowance for the gearing impact of debt financing...on a market value basis'. Second is an adjustment for cost of holding required capital; and third is an adjustment for the time value of options and guarantees. For different countries there is further adjustment to the risk free rate and, as appropriate, to risk margins, to derive business specific local discount rates.

Prudential follows a somewhat different methodology by computing product specific instead of business specific discount rates.

'Cost of Capital'

In Aviva's report (Annual Report and Accounts, 2006, p.225) cost of holding required capital is defined as:

the difference between the required capital and the present value at the appropriate risk discount rate of the projected release of the required capital and investment earnings on the assets deemed to back the required capital. Where the required capital is covered by policyholder assets, for example in the UK with-profit funds, there is no impact of cost of capital on shareholder value. The assets regarded as covering the required capital are those that the operation deems appropriate.

Legal & General (annual Report and Accounts 2006, p.120) adds that:

For new business, the cost of capital is taken as the difference in the value of that capital assuming it was available for release immediately

and the present value of the future releases of that capital. As the investment return, net of tax, on that capital is less than the risk discount rate, there is a resulting cost of capital which is reflected in the value of new business.

Options & Guarantees

Under EEV Principles an allowance for time value of options and guarantees is required where a financial option exists which is exercisable at the discretion of the policyholder. Legal & General (Annual Report and Accounts, 2006, p.120) describes allowance for options and guarantees as such:

These types of option principally arise within the with-profits part of the fund and their time value is recognized within the with-profits burn-through cost described below. Additional financial options for non profit business exist only for a small amount of deferred annuity business where guaranteed early retirement and cash commutation terms apply when the policyholder chooses their actual retirement date.

and it proceeds to state that:

[U]nder stochastic modeling there may be some extreme economic scenarios when the total projected assets within the with-profits part of the fund are insufficient to pay all projected policyholder claims and associated costs. The average additional shareholder cost arising from this shortfall has been included in the time value cost of options and guarantees and is referred to as the with-profits burn-through cost.

[We note that there may be inconsistency between this notion of ‘burn-through cost’ and that of the value of the shareholder ‘put option’ under limited liability that appears in versions of MCEV. For further discussion of all the above elements of valuation see Horton, Macve, and Serafeim (2006b), which analyses the related algebraic formulations.]

IV. Accounting standards/projects

Our overall review comment: Despite a plethora of very lengthy discussion papers and exposure drafts, so little tangible progress has been made since the IASC launched its project in 1997 that the prospects for a timely completion of Phase II of the IASB’s project must still seem remote. The ASB has made some progress in FRS27, but in reality this only ‘tracks’ an initiative (‘realistic balance sheets’) that the FSA was already introducing under Solvency II. In our view the standard setters’ discussions have been largely empty of substance as they have been over-concerned with the conceptual niceties of the IASB’s *Framework* and paid insufficient attention to the evidence of users’ (e.g. analysts’) preferences for, and companies’ experience of, EV based reporting.¹⁹ These have been revealed to have had their own limitations (which the EEV principles, and the actuaries’ increasing focus on ‘MCEV’ are

¹⁹ This view is consistent with that now expressed by ASB (2005: 10.23): see its Appendix IV 4.b). For surveys of practice and analysts’ views see e.g. Deloitte, 2005; Ernst & Young, 2005; PricewaterhouseCoopers, 2005; KPMG, 2006.

attempting to overcome). But there is now an increasing danger that the main ‘GAAP’ accounts will be sidelined as largely irrelevant. There are signs that UK companies are beginning to perceive that their objective of communicating realistic and relevant information about their performance may in the long-run be lost if they surrender the flexibility that supplementary provision of EEV-based accounts allows, as they may become subject to a straight-jacket of IASB rules if the ‘realistic’ basis is incorporated into the main, formal financial statements. Moreover the difficulties, both technical and political, highlighted by the insurance project, in conjunction with those relating to ‘financial instruments’, have in turn cast more fundamental doubts on the standard setters’ overall approach to accounting standards and their current conceptual frameworks (e.g. Horton, Macve & Serafeim, 2006a)

a) IFRS4 Insurance Contracts (IASB, 2004a)

This standard represents the completion of ‘Phase I’ of the IASB’s project on insurance contracts. We focus here on those aspects that relate to life assurance. Here the standard imposes only limited requirements and by and large leaves existing practices—in all their variety—unchanged. Substantial revisions were made to the proposals put forward in the exposure draft ED5, following the comments submitted. In order to make even this limited progress the IASB has had to depart from its *Framework* of principles in several respects, and the standard was approved by only eight members of the fourteen-member Board. But the IASB has put down some markers for ‘Phase II’ of the project, which it is committed to completing ‘without delay’. However, although a discussion paper (‘DP’) has now been issued in 2007, with an Exposure Draft planned for late 2008, no deadline has as yet been set for issuing an IFRS, which is now envisaged as not being before late 2009/2010.²⁰

The standard focuses on insurance (including reinsurance) contracts rather than on the entities that conduct insurance business and an area of particular importance for these entities in implementation will be distinguishing which contracts contain ‘significant’ insurance risk and are therefore to be accounted for under IFRS4 and which fall to be accounted for as ‘financial instruments’ under IAS39 (IASB, 2004b)—itself still being amended. The IASB has (with one exception) reserved for Phase II discussion of whether there are circumstances in which contracts have to be ‘unbundled’ into insurance and investment/deposit elements. IFRS4 does not address accounting *by* policyholders (other than by insurers ceding to reinsurers or reinsurers themselves retroceding).

Its main features relating to life insurance include (see paras. IN3-IN12):

- Until Phase II is completed, insurers may generally continue their existing accounting policies for insurance contracts and are exempt from applying the criteria in IAS8 that entities normally have to apply for developing an accounting policy where no IFRS applies specifically to an item. Insurers who do not already do so must however make a ‘liability adequacy test’ (for the adequacy of recognised insurance liabilities) and an impairment test for reinsurance assets, with any deficiency to be recognised in profit and loss.
- An insurer may change its accounting policies for insurance contracts only if, as a result, the financial statements present information that is more relevant and no less reliable, or more reliable and no less relevant. In particular an insurer cannot introduce any of the following practices, although it may continue to use accounting policies that involve them:

²⁰ <http://www.iasb.org/Current+Projects/IASB+Projects/IASB+Work+Plan.htm> (consulted 16.09.07).

1. measuring insurance liabilities on an undiscounted basis.
 2. measuring contractual rights to future investment management fees at an amount that exceeds their FV as implied by a comparison with current fees charged by other market participants for similar services.
 3. using non-uniform accounting policies for the insurance liabilities of subsidiaries.
- An insurer may introduce an accounting policy that involves measuring only certain designated liabilities consistently in each period to reflect current market interest rates (and, if the insurer so elects, other current estimates and assumptions) without being required to apply the change in accounting policies consistently to all similar liabilities.
 - An insurer need not change its accounting policies for insurance contracts to eliminate excessive prudence. However, if it already measures them with sufficient prudence, it should not introduce additional prudence.
 - There is a rebuttable presumption that an insurer's financial statements will become less relevant and reliable if it introduces an accounting policy that reflects future investment margins in the measurement of insurance contracts.
 - Where an insurer changes its accounting policies for insurance liabilities, it may reclassify some or all financial assets as 'at fair value through profit and loss'.
 - An insurer need not account for an embedded derivative separately at FV if the embedded derivative meets the definition of an insurance contract.
 - Unbundling of the deposit component of an insurance contract is required if the insurer can measure the deposit component (including any embedded surrender options) separately (i.e. without considering the insurance component) and its accounting policies do not otherwise require it to recognise all obligations and rights arising from the deposit component. Where only the first of these conditions is met the insurer is permitted to unbundle the deposit component.
 - 'Shadow accounting', which seeks to match the accounting treatments in accounting models where investment gains and losses have consequent effects on the measurement of some or all insurance liabilities (including the related deferred acquisition costs and intangible assets), is permitted. An insurer is permitted, but not required, to change its accounting policies so that a recognised but unrealised gain or loss on an asset affects those measurements in the same way that a realised gain or loss does. The related adjustment to the insurance liability shall be recognised in equity if, and only if, the unrealised gains or losses are recognised directly in equity.
 - Where insurance contracts have discretionary participation features these may, but need not, be recognised separately from the guaranteed element. If they are not recognised separately, the whole contract shall be treated as a liability. If they are recognised separately the guaranteed element shall be classified as a liability, but the discretionary element may be classified as either a liability or a separate component of equity (or split into liability and equity components). The IFRS does not specify how this determination is to be made. The discretionary feature may not be classified as an intermediate category that is neither liability nor equity.²¹ All premiums received may be recognised as revenue without separating any portion that relates to the equity component,

²¹ In the UK this applies to the FFA or 'unallocated divisible surplus'.

although if part or all of the discretionary participation feature is classified in equity, a portion of profit or loss may be attributable to that feature (in the same way that a portion may be attributable to minority interests in conventional consolidated accounts) as an allocation of profit or loss.

- Where financial instruments have discretionary participation features the same rules apply, with additional requirements relating to the liability adequacy test and the impact of IAS39. Although these contracts are financial instruments, the issuer may continue to recognise the premiums for these contracts as revenue and recognise as an expense the resulting increase in the carrying amount of the liability.
- Certain disclosures about insurance contracts are required, but not their FV.

Among the most significant changes from ED5 in relation to life insurance, the standard (see para. BC227):

- deletes the ‘sunset’ clause that would have terminated the exemption from applying the criteria in IAS8—that entities normally have to apply for developing an accounting policy where no IFRS applies specifically to an item—in 2007 (in case Phase II is not completed by then).
- allows certain acquisition costs for contracts that involve the provision of investment management services to be treated as an asset.
- changes the prohibition on introducing asset-based discount rates into a rebuttable presumption against doing this.
- introduces an option for an insurer to change its accounting policies so that it remeasures *designated* insurance liabilities in each period for changes in interest rates (i.e. the election may apply to some liabilities but not to all similar liabilities as IAS8 would otherwise require).
- amends IAS40 to allow separate elections as to whether to use the FV model or the cost model for two classes of investment property held. One election is for investment property backing contracts that pay a return linked directly to the FV of, or returns from, that investment property. The other election is for all other investment property.
- deletes the proposed requirement to disclose the FV of insurance contracts from 2006.

Many of these changes were made so as not to require insurers to have to develop new accounting systems that might not then be required following Phase II, or that would require excessive effort to develop before adequate guidance is available in Phase II.

The Board made the following tentative decisions regarding Phase II that affect life insurance (see paras. BC6-9):

- The approach should be an ‘asset-and-liability’ approach directly identifying and measuring the contractual rights and obligations under insurance contracts, rather than creating deferrals of inflows and outflows.
- Assets and liabilities arising from insurance contracts should be measured at their FV,²² except that:

²² However, in *IASB Insight*, July 2004, the Chairman stated (p.7), with regard to the appointment of three new advisory groups (one for insurance, one for financial instruments, and one for performance reporting), that ‘I want to emphasise that we have not reached any decisions on these three projects. The advisory groups will therefore start with a clean slate. The IASB has made no commitment to a full fair value approach on insurance and financial instruments.’

1. recognising the lack of market transactions, an entity may use entity-specific assumptions and information when market-based information is not available without undue cost and effort.
 2. in the absence of market evidence to the contrary, the estimated FV of an insurance liability shall not be less, but may be more, than the entity would charge to accept new contracts with identical contractual terms and remaining maturity from new policyholders. It follows that an insurer would not recognise a net gain at inception of an insurance contract, unless such market evidence is available.
- As implied by the definition of FV:
 1. an undiscounted measure is inconsistent with FV.
 2. expectations about the performance of assets should not be incorporated into the measurement of an insurance contract, directly or indirectly (unless the amounts payable to a policyholder depend on the performance of specific assets).
 3. the measurement of FV should include an adjustment for the premium that marketplace participants would demand for risks and mark-up in addition to the expected cash flows.
 4. FV measurement of an insurance contract should reflect the credit characteristics of that contract, including the effect of policyholder protections and insurance provided by governmental bodies or other guarantors.
 - The measurement of contractual rights and obligations associated with the closed book of insurance contracts should include future premiums specified in the contracts (and claims, benefits, expenses, and other additional cash flows resulting from those premiums) if, and only if:
 1. policyholders hold non-cancellable continuation or renewal rights that significantly constrain the insurer's ability to reprice the contract to rates that would apply for new policyholders whose characteristics are similar to those of the existing policyholders; and
 2. those rights will lapse if policyholders stop paying premiums.
 - Acquisition costs should be recognised as an expense when incurred.
 - The Board will consider two more questions later in phase II:
 1. Should the measurement model unbundle the individual elements of an insurance contract and measure them individually?
 2. How should an insurer measure its liability to holders of participating contracts?

What are the implications of IFRS4 for UK life insurance accounting?

Generally, apart from additional disclosures, and the loss of the existing EU formats (which will be generally welcomed), no significant changes are required for life insurance (and reinsurance) contracts. In particular the Board's general permission to continue existing accounting policies (even where these are excessively prudent) will leave the calculation of policyholder liabilities unchanged. There is no requirement to change the accounting for deferred acquisition costs. The limited prescriptions in relation to participating contracts will mean that the FFA/'unallocated divisible surplus' can, if insurers wish, continue to be classified as a liability even though this

will no longer be required by UK law (for companies moving to EU-adopted IFRS) after 2004.²³

With regard to options and guarantees embedded in insurance contracts, the IASB accepts that ‘insurers need not, during Phase I, recognise some potentially large exposures to items such as guaranteed annuity options and guaranteed minimum death benefits. These items create risks that many regard as predominantly financial, but if the payout is contingent on an event that creates significant insurance risk, these embedded derivatives meet the definition of an insurance contract. The IFRS requires specific disclosures about these items...In addition, the liability adequacy test requires an entity to consider them’ (BC194). With regard to this test it is noted that because of the significance of these exposures the Board decided that the minimum requirements for an existing liability adequacy test should include considering cash flows resulting from embedded options and guarantees; and that this is also implied if the alternative IAS37 measurement is required. However, the Board did not specify how those cash flows should be considered and in particular the IFRS does not specify whether the liability adequacy test considers both the time value and the intrinsic value of embedded options and guarantees (BC99; BC101). Where the embedded options and guarantees do not meet the definition of an insurance contract they are required to be measured separately at FV (i.e. including both intrinsic and time value) unless they are ‘closely related’ to the insurance contract, i.e. they are so interdependent that an entity cannot measure the embedded derivative separately (i.e. without considering the host contract) (BC189-90; BC193).

With regard to the potential mismatch between the ways in which an insurer accounts for its financial instruments under IAS39—often at FV—and the ways in which it accounts for its policy liabilities, the standard has addressed the problem, not by providing for special forms of financial asset accounting but by permitting the remeasurement of designated liabilities at current interest rates (and, if the insurer so elects, other current estimates and assumptions) and by clarifying the applicability of the practice known as ‘shadow accounting’. It has also allowed the choice of whether to use cost or FV under IAS40 to be made separately for investment properties that back contracts that pay a return linked directly to the fair value of, or returns from, specified assets including that investment property and for all other investment property (BC178). Additional flexibility is provided by the provision that, where an insurer changes its accounting policies for insurance liabilities, it may reclassify some or all financial assets as ‘at fair value through profit and loss’ (BC145).

Of potentially greater significance are the provisions that circumscribe the use of EVs in the main financial statements. Currently UK insurers are forbidden to do so by the ABI SORP (2005)—at the behest of the ASB—while other entities such as banking groups (and Irish insurers) do have freedom to include their insurance activities on this basis. IFRS4 does not require an entity that is currently using EV to abandon it or to change the methodology used: but it limits the extent to which companies can change to using EV in two ways. It prohibits a change of accounting policy for insurance contracts that involves measuring contractual rights to future investment management fees at an amount that exceeds their FV as implied by a comparison with current fees charged by other market participants for similar services. And it introduces a rebuttable presumption that an insurer’s financial statements will become less relevant and reliable (and therefore the change cannot be

²³ So, for example, Aviva plc classifies its ‘unallocated divisible surplus’ as a liability in its 31 December 2006 consolidated balance sheet (*Annual Report and Accounts 2006*, p.118).

made) if it introduces an accounting policy that reflects future investment margins in the measurement of insurance contracts. Some present EV methodologies include these features and therefore companies using them would not generally be able to start introducing EVs into their main accounts. However, the recent statement by the European CFO Forum (representing the chief financial officers of major European insurance companies (CFO, 2004)) addresses at least the second of these features in its revised *European Embedded Value Principles*, which member companies all agreed to adopt from no later than 2005.²⁴ Subject to clarification of the treatment of future investment management fees it would therefore be possible, at least during Phase I, for companies to incorporate EVs on this basis into their main accounts (BC138-144). However the IASB also indicated in IFRS4 that in Phase II it may not accept methods that give rise to a profit on the inception of a contract unless there is strong market-based evidence for this—and this issue remains one of the most controversial aspects of the current 2007 DP.

b) ED34, FRS27 *Life Assurance* and ASB's *Report to the Treasury on Financial Reporting for Life Assurance* (ASB, 2004a; 2004b; 2005)

ED34 was issued July 2004 in response to the Treasury's request (following publication of the Penrose report in March 2004) and proposed that the standard would require the liabilities of UK with-profits life funds falling within the scope of the FSA's 'realistic' capital regime to measure liabilities in accordance with the FSA's definition of 'realistic' value of liabilities, which includes provision for the constructive liability for terminal bonuses which arises from how an insurer's past pattern of bonus distribution and the statements in its policy marketing illustrations create policyholders' 'reasonable expectations'. However, for practical reasons, this requirement is not extended to smaller funds, UK non-participating businesses and overseas businesses. A consequence of adopting this approach to valuing liabilities (argued to be closer to the requirements of FRS12 for provision for constructive liabilities—from which insurers have been exempt) is that there should be no matching asset for 'deferred acquisition costs'. The assumptions used in determining this measurement of the liabilities are to be disclosed together with the effect of changes in these assumptions.

The standard would take account of certain differences between the valuation of assets for 'realistic' balance sheet purposes and accounting bases, and permit the recognition of an additional asset where the realistic value of liabilities has taken an additional asset value into account.

It would require the adjustments to restate liabilities from MSSB to a 'realistic' basis, together with the consequential adjustments to assets, to be made to the profit and loss account but offset by an equal and opposite transfer to the FFA (or 'unallocated divisible surplus'). For mutuals, this offsetting transfer is to be made to the FFA or retained surplus as a reserves movement.²⁵

²⁴ See Appendix III. a). In the UK Aviva plc announced (on 6/1/2005) the adoption of EEV from 2004 for its supplementary reporting, which apparently was associated with a favourable share price reaction for the sector on 7/1/2005 (*Independent* 7 Jan 2005:

<http://news.independent.co.uk/business/news/article26779.ece>) (accessed 06.07.07). On 9th March 2005 it released its preliminary results for 2004 incorporating the 'EEV' numbers:

<http://www.aviva.com/index.asp?PageID=55&year=&newsid=2029&filter> (accessed 06.07.07)

²⁵ Although FRS27 para 4 appears to refer only to a mutual's retained surplus it is clear from para 18 that where a mutual has an FFA (as for example did Standard Life when it was still a mutual) the offsetting transfer should be made to the FFA.

It would require disclosures relating to the assumptions used for the determination of the realistic value of liabilities and the effect of changes in assumptions; and would require separate presentation of the FFA/‘unallocated divisible surplus’ on the balance sheet.

The standard would permit entities that currently adopt EV methods, when including their interests in life assurance businesses in their financial statements, to continue this practice subject to restrictions (i.e. to exclude future investment risk margins and in respect of the value of future management fees), similar to those imposed on changes in accounting policies for insurance contracts by the IASB in IFRS 4.²⁶ However, entities that do not currently adopt EV methods would not be permitted to do so under UK standards.

The standard would require detailed disclosures relating to options and guarantees only if these are not measured on either a FV basis or at a value estimated using a stochastic modelling technique. Although the standard would require such valuation methods only in relation to with-profits funds falling within the scope of the FSA’s realistic capital regime, it encourages their use for options and guarantees of smaller funds, non-participating businesses and overseas businesses.

The standard would require entities to include a capital position statement, analysing the capital position of each main section of the life assurance business, and would require the proposed capital position statement to include disclosure of regulatory capital requirements.

It would also require a table of movements in total available capital and regulatory capital requirements, setting out the main changes in the period.

Subject to certain transitional provisions, it was originally intended that the proposed standard would be effective for accounting periods ending on or after 23 December 2004. FRED34 thereby sought to take advantage of a ‘window of opportunity’ in 2004, before IFRS4 came into effect, during which the ASB could itself require changes in UK accounting policies (subject to the legal requirements of the Companies Act which would also continue in force for 2004).²⁷

How do the ASB proposals differ from IFRS4?

With regard to options and guarantees, at least for the with-profits funds within its scope, the ASB requires them to be valued at FV (or failing that by an appropriate stochastic modelling technique), whereas IFRS4 only requires the related cash flows to ‘be considered’ as part of the liability adequacy test.

With regard to EVs, IFRS4 would allow those already incorporating EVs into their main accounts (including mainly UK banking groups but also Irish insurance groups) to continue to do so during ‘Phase I’, but would not normally allow those not already doing so (including UK insurance groups) to change to doing so unless restrictions were imposed to exclude investment risk margins and to avoid valuing future investment management fees at more than FV. The ASB would require these restrictions to be introduced by those already reporting on an EV basis,²⁸ and would

²⁶ FRS27 para.26 now only imposes the first of these restrictions—see Appendix IV para 7.19—which is itself stronger than IFRS4’s ‘rebuttable presumption’.

²⁷ For those UK entities not adopting EU-adopted IFRS from 2005 the present legal requirements relating to MSSB will continue. In the face of concern from commentators on ED34 (e.g. Macve, 2004b), FRS27 (at Appendix IV paras. 4.48ff.) indicates how the ASB has received legal advice and/or maintains that its own interpretation of these requirements is consistent with the accounting set out in the standard.

²⁸ As noted above, FRS27 para.26 now only imposes the first of these restrictions—see its Appendix IV para 7.19.

not allow others to begin doing so ahead of IFRS4. It remains unclear what substantive differences remain between the proposed 'realistic' valuation of policy liabilities and the valuation basis implicit in an EV approach, in particular with regard to any implied profit on inception of a contract if/when the 'realistic' basis is extended to include changing the basis of profit measurement.²⁹

IFRS4 is premised on superseding the legal requirements of the Companies Act when it becomes an EU requirement for listed companies in 2005. The ASB seeks to work within the Companies Act requirements.

The major paradox of the ASB's proposals is that, although it argues that an asset/liability model is needed to supplant the traditional deferral/matching model for life assurance accounting,³⁰ and although major changes to the basis of measurement of the main business liability are proposed, there is to be no overall effect on profit measurement. It must be recognized that, without any clear concept of life assurance profitability, the usefulness of the accounts to users (shareholders and policyholders) will remain extremely limited. The Companies Act requires a 'true and fair view' both of the year-end net assets and of the profit for the year. The ASB proposals alter the classification of elements of the liabilities as between the TPLB and the FFA but do not themselves alter liabilities overall,³¹ so there is no overall effect on the 'bottom line' of profit and net assets.³² The proposals cannot therefore assist users to understand the profitability of life insurers,³³ although the capital position statement may give some further insight into solvency and capital adequacy. Given the European industry's own efforts to develop appropriate performance measures (e.g. the *European Embedded Value Principles* issued by the European CFO Forum in May 2004 referred to at FRED34 Appendix IV paras. 2.19 and 7.8),³⁴ it therefore seems inappropriate for ASB not to have allowed those entities not already doing so to adopt EV for their mainstream reporting for 2004 if they wished to.

A further issue arises with regards to mutuals, where the ASB proposed (FRED34 paras. 5 and 16 and Appendix IV para.4.42)³⁵ that the adjustments be transferred to 'retained surplus'³⁶ as 'reserves movements'. This seems likely to cause unnecessary confusion. Leading mutuals (such as Standard Life before its demutualisation in 2006) do not show a retained surplus but do show an FFA (with the annual transfer to/from the FFA being the 'bottom line' of their technical (P&L) account): so for them the adjustment should be as for proprietary companies with the overall effect that total

²⁹ FRS27 Appendix IV para. 7.13 indicates areas where there may be differences between the approaches, although some of these appear to reflect possible misunderstandings in their current implementation. No quantification of the estimated magnitude of the possible differences is provided.

³⁰ A similar observation to that made in FRED34 is made in FRS27 at Appendix IV para. 11.3.

³¹ The Companies Act requires the FFA to be shown as a liability. FRS27 requires it to be continue to be shown separately from the 'realistic' TPLB after 2004 but (like IFRS4) does not itself require (although it permits) any part (or indeed all) of it to be shown as equity as the consequence would be 'a fundamental change to the profit recognition model' (its Appendix IV, para. 5.7(c)).

³² Provided the adjustment to TPLB does not exceed the available FFA (as it appears it would have done in the case of the Equitable (Penrose, 2004: tables 6.21 and 19.1)). Where the FFA becomes negative FRS27 para. 23 now requires that if that balance is not eliminated (presumably by write-off to P&L account) there must be explanation in the notes of the negative balance and why no action to eliminate it has been considered necessary. [cf. IFRS4's requirement for a 'liability adequacy test'.]

³³ There will be (unspecified) changes to some line items in the technical accounts/P&L (FRS27 para. 17).

³⁴ and now FRS27 at Appendix IV para.7.3.

³⁵ now FRS27 para. 8.

³⁶ The wording in para.5 of FRED34/ para. 4 of FRS27 does not make clear that this is 'FFA or retained surplus' although this is implied by FRS27 para.18.

liabilities and net assets are unchanged. If companies use an account described as 'retained surplus' (which has the appearance of equity, albeit policyholders' equity as members of the mutual (FRED34 para. 33(b)),³⁷ this will appear to frustrate the intention of the standard not to change the profit recognition model (FRED34 Appendix IV, para. 5.9c).³⁸

Finally the 'added value' of the ASB's proposals is limited given that the disclosures of 'realistic liabilities' will anyway be published in the returns to be made by life insurers to the FSA from 2004 under the 'twin peaks' regulatory regime.

Following the consultation on FRED34, FRS27 was issued in December 2004 (totalling 158 pages). In all major respects it follows FRED34's proposals except that its implementation has been deferred to 2005. While this means that listed insurers then moving to EU-adopted IFRS would no longer be subject to FRS27 with regard to making changes to their accounting policies, compliance has been secured through a Memorandum of Understanding ('MoU') negotiated between ASB and the industry's leaders (ASB, 2004c) which also includes an undertaking to disclose relevant information from 2004 (normally in the OFR (para.5(a))). The MoU's major exemption from FRS27 is that insurers have reserved the option to adopt EVs in their main statements from 2005 (MoU para. 5 (b) (i))³⁹—this would however necessarily be subject to the restrictions set out in IFRS4 with respect to investment risk margins and future management fees.⁴⁰ The SORP would also be revised to reflect the requirements of FRS27 (MoU para.7 and FRS27 Appendix IV, para.9.19; ABI, 2005).

ASB's Report to the Treasury on Financial Reporting for Life Assurance

In its further report to the Treasury in June 2005 (ASB, 2005)—on the second part of the work undertaken by ASB in response to the request from the Financial Secretary to the Treasury dated 8th March 2004, following the Penrose (2004) report on the Equitable débâcle—ASB begins by acknowledging the information needs of three principal groups of users of a life insurer's⁴¹ financial statements: investors, policyholders, and regulators. It is recognised that these users have many common needs and that they all require information to help them understand its overall financial position, including its regulatory capital position and its financial performance, and the related risks.

It is acknowledged that regulators usually require more detailed and specific information. However, wherever a specific kind of information is needed for regulatory purposes, it is suggested that it should be provided in supplementary statements, rather than by adopting a different financial reporting basis. The new approach of FSA for monitoring life insurers' solvency moves away from incorporating prudential margins in the measurement of liabilities and restrictions on the value of assets, and instead requires best estimates and market-based values. ASB supports this approach.

FRS 27 mainly improves reporting on financial position rather than on performance but ASB is not willing to build on and extend FRS 27 itself in this respect but prefers for now to support IASB in their insurance project.

³⁷ now FRS27 para.18.

³⁸ now FRS27 Appendix IV paras. 2.11 and 5.7(c).

³⁹ The MoU here refers to para.26 of FRS27: this should be para.28.

⁴⁰ The first of these restrictions, but not the second, remains covered by FRS27 para. 26.

⁴¹ The ASB refers to 'assurers/assurance' throughout. We use these terms and 'insurers/insurance' interchangeably throughout this report.

In the next section of the report ASB discusses some issues that need to be resolved by IASB. A fundamental difficulty is that many aspects of the determination and allocation of profits are at the discretion of management. The ASB discusses:

- First, the measurement of liabilities, which is very complex because of the long horizon of the business and because measurement is subject to managerial discretion. It is still an open question whether undeclared discretionary future bonuses on with-profits policies always fall within the definition of constructive obligations, consistent with other liability recognition principles. Furthermore, the subjectivity of liability valuation, whether based on prospective or retrospective approaches, and the fact that it takes account of future management intentions in relation to action that could be taken in certain circumstances to reduce liabilities to policyholders or reallocate benefits between different groups of policyholders, remains a major problem. A prospective valuation has a forward looking perspective by forecasting the expected future payments to policyholders and then adjusting for future events to arrive at a valuation at the balance sheet date. In contrast, a retrospective valuation is a backward looking method which builds up the amount of liability at the balance sheet date from the past events. It is argued that these two valuation methods are expected to converge to produce the same result as at an individual reporting date, but neither of them is wholly objective. Moreover the stochastic modelling approach to valuation of options and guarantees may not be consistent with a FV measurement principle.
- Second, profit recognition for these long-term contracts means that applying an ‘asset/liability’ approach to life insurance has some major difficulties. The process of determining profit appears to be circular: profit recognition is driven by the measurement of liabilities, but the measurement of liabilities depends on the choice of profit recognition profile. This problem leads ASB to propose a different approach where profit is seen as being earned as services are provided and risks borne (more like traditional ‘matching’). A retrospective approach seems to be more conceptually sound than the prospective one. The treatment of investment management fees and whether profit or loss should be recognized at inception are also considered and discussed.
- Third is the difficulty of applying the liability/equity distinction to the ownership of the surplus held within a life fund and not yet allocated. There is a conflict here with the current conceptual framework. Matters which remain unresolved are the allocation of the estate between policyholders and shareholders, between various classes of policyholders and between current and future policyholders. Traditional life insurance accounting for with-profits funds has used the FFA as a way of dealing with (or circumventing) the question as to who is the owner of the surplus in the fund. The ASB suggests that a possible treatment of this estate could be as similar to a minority interest. It is suggested that the estate does not meet the definition of liability and it would be expected to be treated as equity.
- The final issue is the usefulness of EV methodology and whether it is compatible with the IASB’s *Framework*. Potential conflicts arise in the areas of future premiums and management fees, as these do not seem to meet the *Framework*’s criteria for recognition of an asset. Another conflict arises with respect to taxation because the EV methodology takes into account tax when

this appears to be inconsistent with the usual principles that apply to the valuation of investments in subsidiaries on consolidation.

The report highlights some concerns that are specific to the EEV methodology as developed by the CFO forum.

1. EEVs are normally calculated by applying a single risk adjusted discount rate to all future cash flows. Although it is acknowledged that this is done for practical reasons, ASB would prefer an approach that permits analysing and attributing the movement in the EV, represented by the unwind of the discount rate, between various component elements such as expense, lapse, investment or mortality experience. (The ASB accepts [10.17] that it 'is inherent in the nature of a net present value of future cash flows approach that it is difficult to analyse the cause of movements in value over the period': as argued further in Macve & Serafeim, 2007, we do not agree that this is so, at least in principle.)
2. Another topic where there is no unanimity is whether the EV calculation should include investment risk margins. The argument to exclude the investment risk premium is based on the principle that such premiums represent margins for risk that should only be recognised as the experience occurs. On the other hand, the argument in favour of recognition of the investment risk premium in the EV is based on the precept that a fund that has the financial strength to invest in higher risk investments should be able to reflect the higher anticipated returns that such a policy is based on.
3. The last concern is related to the normal '90:10' arrangement, whereby shareholders are able to take up to 10% of the value of any distribution (i.e. bonus declaration) to with-profits policyholders. It is noted that for negative outcomes, and in cases where the estate is exhausted, the shortfall will be attributed only to shareholders. Moreover, the assumption that the estate will be distributed evenly over the run-off period of the inforce policies is clearly an artificial one and in reality it is very unlikely that ongoing life funds will follow this practice.

At the end of the report, ASB sends to IASB an important message that the conceptual framework of financial accounting and reporting is dynamic and can evolve, and that IASB should focus primarily on understanding what makes EV useful information. Finally, it is suggested that comparisons with other industries should be made and that EV disclosures should contain information on the timing of the future cash flows.

c) IASB's insurance project Phase II

IFRS4—based on 'Phase I' of its project (IASB 2004a)—while requiring extensive additional disclosure, leaves most of current practice for life insurance accounting unchanged (e.g. Altenburger, 2005). It passed on a majority vote of only 8 to 6 Board members. The major problematic issues have been further deferred to 'Phase II' of the project, on which FASB staff are observers and which, subject only to the constraint of the IASB's *Framework* (which as we have noted above is itself under re-consideration), is based on a 'fresh look' approach. A new working group, in which

FASB staff are also involved, was appointed in September 2004⁴² and Board discussions have also continued. The DP was issued in May 2007 and, subject to the comments to be received by 16th November 2007), an Exposure draft is planned for late 2008 and a standard by late 2009/early 2010. However no firm timetable has yet been set for completion of Phase II.⁴³ Anecdotal, the former Finance Director (CFO) of a major British insurance group, who has been closely involved in the debates in recent years, has said to us that ‘we won’t see a resolution of this in my lifetime’.

One of the major outstanding issues is ‘how far is life insurance (and therefore its accounting) different from other businesses’? Insurance, including life insurance, is normally excluded from most ‘GAAP guides’ as belonging to the ‘specialist industry’ category. Similarly accounting and valuation textbooks (like most theoretical and empirical research) focus on ‘ordinary’ companies and exclude financial institutions such as insurers, leaving them to advanced, specialist courses. But we would argue (e.g. Horton, Macve, and Serafeim, 2006a) that an understanding of the difficulties facing standard setters in resolving life insurance accounting and reporting issues can give important insights into the problems faced in resolving the ‘fundamental’ issues relating to ‘ordinary’ enterprises that are currently facing the standard-setting Boards. True there are specialist technical issues to be resolved: but in general these are not the issues that have stalled progress on the insurance project to date. At root, the problems of life insurance accounting and reporting are the same as those of any other industry. Moreover, managers have been involved in the restructuring and takeovers that have characterized the industry in recent years, whereby e.g. several large life insurers are now owned by banks—so that it is necessary for insurers’ accounts to be consolidated consistently with those of other group companies. And portfolio investors too hold shares in life insurance companies alongside shares in ‘ordinary’ companies and have similar information needs for comparative monitoring and valuation purposes. So the first step should be to explore how far insurers’ accounts can be made comparable to those of ‘ordinary’ companies.

Traditionally the ‘differences’ have been identified as including:

- the length of time involved in life insurance policy contracts
- the interrelationship between the insurance results and the insurer’s investment performance
- the cash flow pattern—often (but somewhat inaccurately) characterized as ‘in at the beginning (premiums) and out later (claims)’ and contrasted with that in ‘normal’ businesses where capital outlays are invested to earn future receipts
- the need for actuarial expertise in making the necessary appraisals of financial strength
- the oversight by statutory regulators who must grant licenses if insurers are to commence and to continue in business
- the mutual structure of many insurance enterprises and/or the participation of policyholders in the profits of proprietary (i.e. stockholder owned) companies

However, on closer analysis many (albeit not all) of these ‘differences’ become matters of degree rather than being absolute (Horton, Macve, and Serafeim, 2006a). Many of the fundamental problems of life insurance accounting are largely the same as those of ‘ordinary’ accounting, albeit in some respects more extreme. So if the ‘insider’ anecdotal prediction that they will not be resolved in the foreseeable future is

⁴² <http://www.iasb.org/About+Us/About+Working+Groups/Insurance.htm> (accessed 10.07.07).

⁴³ <http://www.iasb.org/Current+Projects/IASB+Projects/Insurance+Contracts/Insurance+Contracts.htm> (accessed 16.09.07).

correct, this also undermines the likelihood of standard setters' current strategies being able to resolve the fundamental issues in respect of accounting that they are currently re-examining for 'ordinary' companies as well (see Appendix IV. sections d) and e) below).

The IASB's insurance working group for Phase II has been looking at various 'models' and examples of life (and non-life) contracts, some of which have been submitted by actuarial consultants.⁴⁴ Many of these seem unnecessarily complex for the points at issue and more likely to confuse than clarify discussion (cf. Macve and Serafeim, 2007). The working party has focussed on two 'current value' models, based on 'entry' and 'exit' values. The DP proposes 'current exit value' ('CEExitV') and has so far not been able to identify any differences between this and FV. However, a minority of Board members believe that risk and service margins 'should be calibrated to the observed price for the transaction with the policyholder'. This means that, at least on inception, the CEExitV is set equal to the entry value and 'an insurer should not recognise a profit at inception' (DP, paras. 86 (d) and 117). Moreover, representatives of the Japanese industry have continued to argue for more traditional 'cost' based 'asset share' models, and the DP notes that the joint IASB/FASB project on Revenue Recognition is still considering both entry ('customer consideration') and exit value based approaches (DP, para. 113).

Following the issue of FRS27, ASB has also been working on the second part of its own insurance project and has now provided a further report to the Treasury (ASB, 2005). As discussed at Appendix IV. b) above it is proposing to take no further action pending the outcome of Phase II of the IASB's project.

d) Financial instruments and 'fair values' (FVs)

This is currently the most controversial issue for standard setters world-wide. The FASB issued an exposure draft (FASB, 2004; cf. Macve, 2004a) on how FV should be measured, which builds on FASB, 1999 and FASB, 2000. It issued the final statement SFAS157 on Fair Value Measurements in September 2006 (which has also been incorporated into an IASB Discussion Paper issued in November 2006). It remains controversial (e.g. Dealy and Singleton-Green, 2007).⁴⁵ More recently SFAS159 (FASB 2007) has extended the fair value option, which includes insurance liabilities. However, given the underlying conceptual inadequacy of the FASB's approach (Horton & Macve, 2000a), and the confusion likely to be caused by the insistence that FV is an *exit* value in the principal market for the asset or liability (or in the absence of a principal market, the most advantageous market), while at the same time asserting that in many cases (albeit not presumptively) the transaction price (i.e. the *entry* price) will represent the FV at initial recognition, several commentators are predicting that the FV project may sound the death-knell for the FASB, or at least that the concept can only have very restricted practical application (e.g. Benston *et al.*, 2003, 2006; Shin, 2004; Hitz, 2007; Rayman 2007; cf. Walton, 2007).

While a framework is being developed which can be applied to all assets and liabilities, a particular focus is FV for financial instruments. For them the IASB has now made further revisions to its recently revised statement, IAS 39 (IASB, 2004b),

⁴⁴ <http://www.iasb.org/NR/rdonlyres/BF1E5FBE-DABC-421A-B98A-8B7E586A09A0/0/SeptemberBoardbriefings.pdf> (accessed 10.7.07). Ebberts (2007) also provides a review of the development of Phase II prior to the issue of the DP, but does not discuss EV issues).
⁴⁵ <http://www.iasb.org/Current+Projects/IASB+Projects/Fair+Value+Measurements/Fair+Value+Measurements.htm> (accessed 17.09.07)

to deal with one of the objections which led to the 'EU carve-out' in late 2004 whereby the European Union has only adopted an amended version of IAS 39 for the mandatory implementation of 'EU adopted' IFRS by EU listed companies from 2005. It has also recently issued an exposure draft of additional guidance on hedge accounting.⁴⁶ The IASB has also formed a Financial Instruments Working Group (in which FASB staff are involved) to undertake a fundamental 'fresh start' reconsideration of accounting for financial instruments, which has been utilising FASB 2004 and latterly FASB 2006 as a starting point for its discussions on 'how' to measure FV.⁴⁷ However, the IASB itself has made no commitment to 'full FV accounting'.

All standard setters regard this as a priority area where international convergence must be sought.

e) **Other 'fundamental' projects**

As noted above, FV is currently the most controversial issue for standard setters world-wide. Labelling this '*Number 1*', other fundamental projects currently include:

2) *Revenue Recognition*

In June 2002 the FASB and IASB decided to undertake jointly a project on revenue recognition. The primary objective of this joint project, in which the FASB is taking the lead, is to develop a comprehensive set of principles for revenue recognition that will eliminate the inconsistencies in the existing authoritative literature and accepted practices. For its part, the IASB's plan is that the project will lead to a revision of the IASB *Framework* and IAS 18 *Revenue*. A particular problem is the treatment of liabilities arising from performance obligations (which is therefore relevant to insurance contracts) and the IASB's own title for the project is 'liabilities and revenue recognition' (cf. Macve and Serafeim, 2007). Currently two main approaches are under consideration: a 'customer consideration' (entry price) model and the FV (exit price) model.⁴⁸

3) *Reporting Performance*

FASB and IASB are undertaking a joint project on Performance Reporting⁴⁹ and have established a Joint International Group (JIG) which held its first meeting in January 2005. It focuses on the issues relating to providing a single 'statement of comprehensive income' and whether this should include a subtotal similar to the concept of 'net income from continuing operations' / 'profit and loss' (and relatedly 'earnings per share') and whether there should be 'recycling' between the subtotals, e.g. when previously revalued assets or liabilities are realized (Barker, 2004). Although IASB has now issued an interim revision to IAS1 (on 6th September 2007), so far the discussions have not generated a clear definition of either net income or performance. This reflects views expressed in earlier FASB interviews with analysts

⁴⁶: <http://www.iasb.org/News/Press+Releases/The+IASB+proposes+additional+guidance+on+hedge+accounting.htm>

⁴⁷: <http://www.iasb.org/Current+Projects/IASB+Projects/Financial+Instruments/Financial+instruments.htm> (accessed 17.09.07)

⁴⁸ See http://www.fasb.org/project/revenue_recognition.shtml; <http://www.iasb.org/Current+Projects/IASB+Projects/Revenue+Recognition/Revenue+Recognition.htm> (accessed 17.09.07).

⁴⁹ now redesignated as 'financial statement presentation': <http://www.iasb.org/Current+Projects/IASB+Projects/Financial+Statement+Presentation/Financial+Statement+Presentation.htm> (accessed 17.09.07)

that ‘financial performance cannot be reduced to a single financial metric or a single financial statement’⁵⁰. The work on this project is clearly relevant to, and potentially influenced by, consideration of how to present and explain ‘performance’ (both insurance and investment performance) under the EV-based approaches to life insurance accounting.

4) *Conceptual Framework*

In October 2004 FASB and IASB adopted a joint project to develop a common conceptual framework that both converges and improves upon their existing respective frameworks. The initial focus would be on objectives, qualitative characteristics, elements, recognition and measurement and would give priority to addressing cross-cutting issues that affect a number of their projects on individual standards.⁵¹ It was recognised that *measurement* is one of the most underdeveloped areas of the two frameworks (although, as discussed further, e.g. in Macve and Serafeim (2007), the project summary appears to ignore the greater degree of progress made in this regard by the UK’s ASB in utilising the concept of ‘deprival value’ or ‘value to the business’ to select the appropriate asset/liability valuation basis in different circumstances).⁵² A joint paper published in May 2005 entitled *Revisiting the Concepts*, prepared by staff from both the Boards, exhibits considerable and fundamental conceptual confusion (Bromwich, Macve & Sunder, 2005; Jameson, 2005).⁵³

This project too is closely related to the need to determine the appropriate FV basis for accounting for insurance contracts, as well as to underlying issues of ‘what is an asset?’ (e.g. with regard to future premiums) and ‘what are debt and equity?’ (e.g. in relation to the FFA / ‘estate’).

Our overall comment: Running through all these four projects is an underlying concern with how to reconcile the ‘asset-liability’ approach, that is fundamental to the Boards’ current conceptual frameworks, with the continuing attachment by practitioners and users to the ‘matching’ approach to revenue and income recognition in ensuring the ‘quality of earnings’.⁵⁴ Particularly contentious issues that have arisen under each project include:

- Under projects 1) and 2), whether accounting at FV can/should give rise to a ‘day one profit’ on inception of a contract, and whether the discount rate used in arriving at a present value for a liability should reflect rates expected to be earned on risky assets
- Under project 3), how the reporting and analysis of performance should be affected by revisions to original estimates and changes in credit rating
- Under project 4), the centrality of the ‘asset/liability’ model
- Under all these projects, the interrelation of accounting used for purposes of the ‘management control cycle’ (of planning, budgeting, evaluating

⁵⁰ <http://www.fasb.org/project/interviews.pdf> (accessed 06.07.07).

⁵¹ http://www.fasb.org/project/conceptual_framework.shtml (accessed 17.09.07).

⁵² e.g. http://www.frc.org.uk/asb/publications/it8_p62.html (accessed 06.07.07).

⁵³ http://www.fasb.org/project/communications_paper.pdf (accessed 06.07.07)

⁵⁴ ‘Quality of earnings’ may be assessed in various ways (Schipper & Vincent, 2003), including persistency (e.g. Christensen & Demski, 2003, p.175), or as reflecting the appropriateness of GAAP and/or non-manipulation in the application of appropriate GAAP (e.g. Penman, 2000).

performance and revising plans) and that used for providing information to owners (stockholders) and to the capital markets for company valuation

The nature of the Boards' agenda processes necessitates division of work into separately identified project areas just as individual standards tend to focus on particular aspects of income and financial position reporting. However, the ongoing project of the IASB on insurance requires consideration of *all* the aspects of accounting for a particular industry. Even though IASB has labelled its insurance project 'insurance *contracts*', in reality the focus of discussion and comment is on accounting for the insurance *industry*,⁵⁵ while the discussions about insurance assets and liabilities, revenue recognition and performance reporting/presentation of financial statements are inextricably linked to the more mainstream discussions about FV reporting of financial instruments. The insurance project's own progress (or lack of it) is revealing a need to require a re-evaluation of the adequacy of the Boards' conceptual frameworks, and in particular of the role of the 'asset/liability' model as well as of the analysis between 'liabilities' and 'equity', which is problematic in mutual insurance enterprises or in non-life insurance with respect to 'equalisation and catastrophe reserves', or where life policyholders participate in profits (as e.g. in UK 'with-profits' life business).

These issues are discussed in the main text of our report, in particular in Chapter 4.

⁵⁵ The DP's proposed CExitV therefore applies to both life and non-life insurance liabilities—at present it is only for life business that companies are applying MCEV techniques to produce supplementary 'achieved profits' reports. The IASB project does not address accounting by *policyholders*, except in so far as insurers and reinsurers themselves reinsure/retrocede.

Abbreviations

A

ABI	Association of British Insurers
APB / APC	Auditing Practices Board / Committee
ASB / ASC	Accounting Standards Board / Committee
AV	Appraisal Value

B

BAS	Board for Actuarial Standards
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C

CA	Companies Act
CExitV	‘Current exit value’ measurement basis as proposed in DP ⁵⁶

D

DAC	Deferred Acquisition Costs
DP	Discussion Paper <i>Preliminary Views on Insurance Contracts</i> for comment by 16 November 2007 (IASB)
DSOP	Draft Statement of Principles (IASB/IASB)
DTI	Department of Trade and Industry

E

ED	Exposure Draft (ASC / IASB)
EEV	European Embedded Value
EV	Embedded Value

F

FASB	Financial Accounting Standards Board (US)
FFA	Fund for Future Appropriations (now referred to as ‘unallocated divisible surplus’ e.g. Aviva plc, <i>Annual Report and Accounts 2006</i> , Accounting policy ‘J’)
FRED	Financial Reporting Exposure Draft (ASB)
FRC	Financial Reporting Council
FRS	Financial Reporting Standard (ASB)
FSA	Financial Services Act 1986
FSA	Financial Services Authority
FSCS	Financial Services Compensation Scheme
FV	Fair Value

G

GAAP	Generally Accepted Accounting Principles/Practices
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H

HMRC	Her Majesty’s Revenue and Customs
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I

IAA	International Actuarial Association
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⁵⁶ We use ‘CExitV’ rather than ‘CEV’ to avoid confusion with variants of EV.

IAD	Insurance Accounts Directive (EU)
IAIS	International Association of Insurance Supervisors
IAS	International Accounting Standard
IASB	International Accounting Standards Board
IASC	International Accounting Standards Committee
ICA	Insurance Companies Act 1982
ICAEW	Institute of Chartered Accountants in England & Wales
IFRS	International Financial Reporting Standard
IOSCO	International Organisation of Securities Commissions

L

LAT	Liability adequacy test
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M

M&A	Mergers & Acquisitions
MCEV	Market Consistent Embedded Value
MoU	Memorandum of Understanding
MSSB	Modified Statutory Solvency Basis (of accounting)
MVLB	Market Value of (a) Life Business
MVM	Market Value Margin

O

OFR	Operating & Financial Review
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P

P&L	Profit and Loss account
PPFM	Principles & Practice of Financial Management
PRE	Policyholders' Reasonable Expectations
PVFP	Present Value of Future Profits
PVIF	Present Value of In Force business

R

RAD	Risk Adjusted Discount Rate
RDR	Risk Discount Rate

S

SEC	Securities and Exchange Commission (US)
SCexitV	'Synthetic' CExitV
SFAS	Statement of Financial Accounting Standards
SFV	'Synthetic' FV
SORP	Statement of Recommended Practice
SSAP	Statement of Standard Accounting Practice (ASC)
SSB	Statutory Solvency Basis (of accounting)
SV	Surrender Value

T

TPLL	Technical Provision for Linked Liabilities
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V

VFNB	Value of Future New Business
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Glossary

Other useful glossaries of insurance terms may be found on the websites of HM Revenue & Customs <http://www.hmrc.gov.uk/manuals/iptm/iptmgloss.htm> ; the FSA www.fsa.gov.uk ; and Irish Life & Permanent plc: <http://www.irishlifepermanent.ie/ipm/ir/finanalysis/glossary/> (accessed 06.07.07).

This glossary is not intended to be comprehensive; it deals only with certain technical terms used in this report.

ABI SORP. An Association of British Insurers' statement which sets out recommended accounting practice for the insurance industry.

Accruals method. Calculates profit arising to the shareholders by discounting, at the after tax investment rate of return on assets appropriate for each group, the shareholders' share of all transfers from the long-term fund in respect of contracts in force, together with the shareholders' share of residual undistributed surplus and investment reserves.

Achieved profits method. An approach to recognition of life insurance profit as earned over the term of policies written that is being developed by an ABI working party on behalf of the listed proprietary companies, bancassurers and conglomerates. The approach allows utilisation of methods drawn from both the 'embedded value' and 'accruals' approaches.

Acquisition costs. Costs incurred in the acquisition of new and renewal insurance contracts. Acquisition costs include those costs that vary with, and are primarily related to, the acquisition of insurance contracts (e.g. commissions, certain underwriting and policy issue costs and inspection fees). Under the IAD, they are defined in the Regulations in SI1993/3246 to 'comprise the costs arising from the conclusion of insurance contracts. They shall cover both direct costs, such as acquisition commissions or the cost of drawing up the insurance document or including the insurance contract in the portfolio, and indirect costs, such as advertising costs or the administrative expenses connected with the processing of proposals and the issuing of policies' (Profit and Loss Account format note 6).

Actuarial valuation. The valuation of the long-term insurance business liabilities determined from the actuarial investigation that a company transacting long-term insurance business is required to carry out once in every twelve month period under Section 18(1) of the Insurance Companies Act 1982.

Actuary. Expert specializing in the applications of probability and mathematics to life assurance. In the UK, a member of the Institute of Actuaries or the Faculty of Actuaries.

Appointed Actuary. The actuary who used to be appointed under Section 19 of the Insurance Companies Act 1982 to carry out the duties prescribed in Section 18 and 42 of that Act relating to long-term insurance business.

Appraisal value. The term generally used to describe the aggregate of the embedded value plus non-purchased goodwill.

Asset shares. The assets notionally hypothecated to the in-force with-profits policies, thus providing a guide to policyholder entitlements.

Bonus rates. The amount of the bonus payments allocated to with-profits policyholders by way of distribution of established surplus in a particular year.

Business in force. The group of policies for which the insurance company is currently on risk. They are policies which have been issued and have not ceased by death, maturity, expiry or discontinuance.

Cost of capital. The rate of return which an investor would require in the market, from a project or business of similar riskiness and future cash flow profile.

Cost of holding required (e.g. regulatory) capital. The difference between the required capital and the present value at the appropriate risk discount rate of the projected release of the required capital and investment earnings on the assets deemed to back the required capital.

Current Exit Value. Defined in IASB's DP (2007) as 'The amount the insurer would expect to pay at the reporting date to transfer its remaining contractual rights and obligations immediately to another entity'.

Distribution. The result of a determination of how the surplus arising in a period and disclosed as a result of an actuarial investigation is allocated to different classes of policyholders and to the proprietors. The distribution is determined by the directors, usually in accordance with the Memorandum and Articles of Association of the company and after receiving appropriate actuarial advice.

Economic Assumptions. When calculating the embedded value of the inforce life assurance business, assumptions are made as regards interest rates, future expense inflation and other economic factors which in turn determine the risk discount rate and investment return assumptions used. The effect of changes in these assumptions - which are outside management control - is reported separately below the operating profit line.

Embedded Value.

- (a) the discounted value of those present and future surpluses which are expected to be generated in respect of presently inforce business within the statutory long-term business fund and to be transferable (after allowing for all relevant taxes) to profit and loss account, and
- (b) the value of net assets held outside the long-term business fund which are available for the purposes of the company's long-term business

Embedded Value Profits.

The change in embedded value from year to year after adjustments for dividends paid or for capital injected.

Established surplus. The excess of admissible assets representing the whole or part of a long term fund over the liabilities, attributable to the related business, as determined by an actuarial investigation.

Estate. Reserves in a with-profit fund which may comprise undistributed profits on past policies, surplus arising on in-force policies not yet distributed, and also the difference between a realistic or 'best estimate' appraisal of assets and liabilities and that adopted for statutory solvency purposes. Now referred to as 'unallocated divisible surplus' (see also FFA).

Experience Variances. In computing the embedded value of the inforce book of life business it is necessary to make assumption as to operating items such as lapses or surrenders, expense levels, mortality experience, taxation etc. In any period the actual operating result for these items will differ from the assumed experience. The resultant positive or negative experience variance is reported in operating profit for the period.

Fair Value. Defined in SFAS157 (FASB, 2006) as 'The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.' [Note: IASB is currently consulting on whether to change to this definition from its current definition, which is: '*The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction*'.]

Free Surplus. Free surplus is the market value of assets in the covered business less statutory liabilities less required capital. Effectively these are the free assets available having provided for policyholder liabilities and the required capital to support them (equivalent to 'unallocated divisible surplus').

Investment contracts. Long-term contracts the main purpose of which is the accumulation of capital for the policyholder.

Investment return. The aggregate of investment income, realised and unrealised gains from a block of assets expressed as a percentage of the value of the block of assets.

Lapse rate. The rate at which insurance policies terminate through failure of the insured to continue making premium payments. It is usually expressed as a ratio of the number of policies on which the insurers failed to pay premiums during a given period, to the total number of policies at the beginning of the period from which those lapses occurred.

Modified Statutory Solvency Basis. The method of accounting set out in the ABI's December 1995 Guidance and subsequent revisions to the SORP.

Mutual company. A company in which the policyholders are the members and there are no shareholders.

Policyholder. Traditionally this is the person (or persons), whose risk of financial loss from an insured peril - loss of life, illness etc - is protected by a policy or contract of insurance. For investment and savings business, where the insurance component may

be minimal and the life assurance contract merely a wrapper, the investor or owner of the contract is also referred to as a policyholder.

Reinsurance. A contract or procedure by which the reinsurer (the first party) in consideration of a premium agrees to indemnify the reinsured (the second party) against all or part of a risk insured by the reinsured under a policy in favour of the insured (third party). The reinsured may be referred to as the original or primary insurer or the ceding company.

Reserves. In accountancy terminology, and under Companies Act definitions, the excess of assets over liabilities and provisions, excluding amounts attributable to share capital. In actuarial terminology, the amounts retained to meet future policy liabilities, expenses and contingencies and to fund a smooth distribution of surplus.

Retroceding / Retrocession. The ceding by a reinsurer of reinsurance to a further reinsurer.

Reversionary bonuses. These are normally a proportion of the sum assured (simple reversionary bonuses) or a proportion of the sum assured and previously declared bonuses (compound reversionary bonuses). They increase the policyholders' claim entitlement and are paid only when a claim arises.

Risk Discount Rate. The risk discount rate is the rate used in calculating the embedded value to obtain the present value of future cash flows accruing to the shareholders. It is made up of a combination of a base risk-free rate and a risk margin. In the EEV methodology the risk margin reflects the residual risks inherent in the business after taking into account the prudence of supervisory liabilities, the level of required capital and the allowance made for financial options and guarantees.

Solvency Margin. The minimum level that a regulated insurance company needs to cover with solvency capital to operate under normal conditions. The regulator prescribes the definition: the required minimum solvency margin is effectively a weighted average of the technical provisions. In general the solvency margin required for unit-linked products is significantly lower than that required for traditional life (non-linked) business.

Statutory Solvency Margin. The amount of capital and surplus required to be retained by an insurance company to meet legal requirements.

Statutory Surplus Arising. The amount by which the change in the amount of the life fund exceeds the change in statutory reserves prior to any distribution of surplus.

Surplus. See established surplus.

Terminal bonuses. Bonuses paid in addition to the ordinary reversionary bonuses and allocated only to policies becoming claims by death or maturity.

Unallocated divisible surplus': see 'estate' and FFA

Unit-linked policy. With unit-linked policies the policyholder buys units in a pooled investment fund and therefore participates directly in the investment performance of the underlying funds. Required reserves are smaller than for a with-profits policy because the policyholder takes all the investment risk.

With-profit. Term used to describe policies where the policyholders are eligible to participate in established surplus. Also a term used to describe the long-term fund established in respect of such business.

Sources: *inter alia* ABI 2001,2003,2005; ASB 2004b; IASB 2004a, 2007; APB 2004, 2007; Norwich Union prospectus, 1997; Aviva plc, *Annual Report and Accounts 2006*; Irish Life & Permanent plc website: <http://www.irishlifepermanent.ie/ipm/ir/finanalysis/glossary/> (accessed 06.07.07)

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For further stages of this review see

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