'Fair value' for financial instruments: how erasing theory is leading to unworkable global accounting standards for performance reporting

Joanne Horton and Richard Macve
(respectively Lecturer in Accounting and Professor of Accounting, London School of Economics)

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Contact address:
Department of Accounting & Finance
LSE, London WC2A 2AE, UK
Tel: +44 (0)20 7955 6138
Fax: +44 (0)20 7955 7420
e-mail: J.Horton@lse.ac.uk
R.Macve@lse.ac.uk

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ABSTRACT

The IASC is pursuing proposals for accounting for financial instruments that are conceptually flawed and unworkable in practice. 'Fair value' has been elevated to a 'catch-all' concept to resolve measurement issues 'objectively'. Adoption of 'fair value', as currently interpreted by standard setters (e.g. by the FASB in *Concepts Statement No.7*, issued in February 2000), threatens to drive out a long-understood, theory-based approach to the rationales for current value accounting—founded on 'deprival value'— that has recently been comprehensively restated in *Accounting Theory Monograph 10*, issued by the Australian Accounting Research Foundation ('AARF') in 1998, and reaffirmed in the UK Accounting Standards Board's *Statement of Principles for Financial Reporting*, issued in December 1999. Not only is 'fair value' conceptually inappropriate for many measurement issues (and the related recognition issues) concerning financial assets and liabilities, more importantly it is inadequate for addressing the measurement and recognition of 'financial performance'—as is demonstrated, for example, in current attempts to standardise accounting for life insurance.

Keywords: Current value, deprival value, fair value, financial instruments, life insurance, performance measurement

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1. Introduction

International accounting standard setting is currently in crisis. There is political argument over the appropriate structure necessary to establish the essential credibility with international stock exchanges for cross-border listings. (e.g. IASC, 1998a; FASB, 1999a; SEC, 2000). In parallel (e.g. Macve, 1997) there is technical dispute over the suitability of the FASB's 'conceptual framework', and its near-clones (e.g. ASB, 1999; IASC, 1989) for establishing robust, but acceptable, criteria for determining the form and content of financial statements.[1]

Both controversies are dramatically highlighted by the problem of accounting for financial instruments, a topic which has the potential to fundamentally undermine the conventional accounting model (e.g. Borger, 2000). The IASC, facing severe pressure to complete its suite of core standards under its agreement with IOSCO, finally had to issue an interim standard (IAS39) at the end of 1998, which is a barely disguised précis of the US SFAS115 (FASB, 1993), but with an additional *option* to report gains and losses on 'available for sale securities' by 'marking to market'[2] so as to allow greater movement towards the consistent preference of the international Joint Working Group on financial instruments ('JWG')[3] for comprehensive revaluation of all financial instruments and inclusion of the changes in current earnings.

So confident is the UK's ASB that such comprehensive 'marking to market' will be the finally agreed outcome of the JWG's project that it is has chosen not to implement IAS39 in the UK. This confidence has survived the fact that both the IASC's earlier (1997) discussion paper proposing this option, and the FASB's attempt

to require 'clean surplus' reporting (c.f. FASB, 1997b)—i.e. amalgamating those items currently reported in earnings and those (such as movements in the current value of 'available for sale' securities) currently reported in 'movements in equity'—met with resounding rejection by preparers of financial statements. IAS39 reflects that stand-off. So, if the ASB's confidence in further progress towards speedy international agreement on full 'marking to market' of financial instruments is misplaced, the 'interim' standard IAS39 may become permanent by default.[4]

The purpose of this paper is therefore to set out why we consider that the current IASC /JWG/ FASB approach to accounting for financial instruments based on their interpretation of 'fair value' is, conceptually, fundamentally flawed, and therefore unworkable in practice. We shall argue that the IASC (in company with other standard setters) needs to reintegrate its approach to financial instruments with the 'deprival value' theory set out in the AARF's *Accounting Theory Monograph 10* ('ATM10') if it is to produce proposals that will command international support. We shall therefore need to discuss, *inter alia*:

- basic principles of current value measurement in accounting, highlighting important differences in approach between standard setters (e.g. AARF, 1998; ASB,1999; FASB, 1999b, 2000).
- the implications of these principles for financial instruments.
- the alternative conceptual bases for reporting changes in current values of financial instruments in measuring performance.

In the following three sections of this paper we address each of these issues in turn. The final section presents our conclusions. In developing our arguments we make some reference to the IASC's current tentative proposals on standardising insurance

accounting, as the view being taken by the IASC's Steering Committee on Insurance ('SCI')—see IASC (1999)—is that insurance contracts are themselves financial instruments, so that nearly all of insurers' business—both investment and insurance—is concerned with financial instruments. FASB (1999d, Appendix B) has also recently set out the implications for insurance accounting of its (similar) approach to 'fair value' for financial instruments.[5]

2. Principles of current value measurement

> 'The measurement of liabilities at current values, for example at their value to the entity, has been the subject of far less comment and debate in the accounting literature than the measurement of assets at current values. This may reflect, at least in part, that determining the value to the entity of an asset involves fewer conceptual and practical difficulties.' (AARF, 1998, para. 4.39).

The ASB's recently finalised *Statement of Principles* (ASB, 1999, chapter 6) adopts 'deprival value' (with corresponding 'relief value' for liabilities) as the conceptual basis of current value measurement. This is in line with the discussion of 'the value to the entity of assets' in chapter 3, and of 'the value to the entity of liabilities' in chapter 4 of ATM10 (AARF, 1998). In some circumstances therefore deprival value of assets could be current market price, whether entry or exit (and will always be bounded by these: e.g. AARF, 1998, 3.52), while in others it could be a 'quasi-price' as determined in imperfect markets by the owner, given optimal decisions as to replacement timing over the planning horizon or as to remaining use before disposal.[6]

'Deprival value' has a long history. It is also known in the UK as 'value to the business' (ASB, 1999, 6.7) and is consistent with the basis that was adopted by FASB in SFAS33 (FASB, 1979)—see Macve (1997), pp.119-22; Zeff (1999), p.117.

However, in its recent concepts statement on present value measurements (FASB, 2000), FASB has now rejected 'entity-specific measurement' (which appears to correspond to the 'present value from use' / 'holding value' branch of the possible 'deprival values' in ATM10, and its equivalent in the ASB's *Statement of Principles*) in favour of only using 'fair value'. 'Fair value' appears generally to imply 'market value' (albeit often *hypothetical* market value), although FASB does not specifically address the 'deprival value' logic for recognising that, according to circumstances, any one of 'entry value', 'exit value', and 'entity-specific measurement' may provide the relevant 'deprival value' in different situations.[7]

Despite the international pedigree of the deprival value concept, there are, however, a number of well-known conceptual difficulties with valuing assets at deprival value, all of which are essentially related to the degree of imperfection or incompleteness of markets that is assumed to prevail. Indeed, one of the main arguments for revaluing assets such as marketable securities, commodities and many (other) financial instruments in accounts is that the depth of the active markets in which they are traded suggests that there will normally be no significant difference between 'buying' and 'selling' price, so that these unambiguously measure, almost precisely, the deprival value, whatever the subjective expectations and plans of the asset's owner (e.g. ASB, 1999, Appendix III, para.59). The four main problems of 'market imperfections' that are generally recognised to arise are:

a) even in deep markets like investment and commodity exchanges, some participants—such as financial institutions—may have large enough holdings that they are 'price makers' not 'price takers', so that any attempt to sell [replicate] their entire holding of securities (or even of a particular security) would drive the price down [up] against them. However, FASB (1999d, paras. 68-70) does not

propose to permit any adjustment to market prices for either 'blockage' or 'control' factors.

b) even where the entity owning the asset is a 'price-taker', there may be segmentation between the market for buying (e.g. 'wholesale') and the market for selling (e.g. 'retail'), so that 'replacement cost' and 'selling price' diverge. Of course, if markets are otherwise fully competitive and fully informed, the difference will represent no more than the 'cost' (including cost of capital, reward for risk-bearing etc., i.e. required 'profit') of the retailer's service to customers through holding, dividing, recording, insuring, distributing, pricing, displaying, marketing, delivering, invoicing etc. the goods. However, it will generally be necessary to identify the appropriate market as the reference point for obtaining relevant values for the assets.[8]

c) In accordance with the basic theorems of microeconomics, if markets were complete and perfect in equilibrium, and goods and services infinitely divisible, it would not be possible to earn more than the competitive rate of return on investment at the margin, and industry competition would force optimal economies of scale so that all investment projects just cover their cost (including cost of capital, reward for risk-bearing etc., i.e. required 'profit'). In other words projects would have an NPV of 0, so that there would, at least at time of initial purchase of assets, be no difference between 'recoverable amount' and 'replacement cost'. Deprival value has the advantage of providing a valuation framework that accommodates this special case but can also handle the real-world observable differences between these asset values, while it can still be reconciled to more fundamental propositions about the capital market valuation of firms as a whole.[9] Nevertheless for the measurement of such 'deprival values', and the recognition of

changes in them, to be meaningful (i.e. for 'realisation' to be irrelevant), there must remain an underlying assumption that the market setting is one where information is rapidly impounded in prices, and where asset values are 'objective' (i.e. inter-subjective) measures because all market participants have free access to a reasonably 'perfect' (arbitrage-free) capital market in which to finance asset acquisitions or reinvest asset proceeds at the going prices. In such a capital market finding similar significant differences between 'entry' and 'exit' values for traded *liabilities* is therefore unlikely: but yet they are observed, and thereby the underlying assumption becomes problematic, which in turn implies that the question of the appropriate level of discount rate or rates to use in valuing both assets and liabilities also becomes problematic (c.f. IASC, 1999; FASB, 2000).

d) The relevant aggregation of assets for determining relevant values may be problematic, as different combinations may offer different patterns of cost saving or revenue generation.[10] In the case of liabilities that have 'equity' features, e.g. many life insurance 'participating' policies such as UK 'with-profits' policies, there will also clearly be interdependencies between the liabilities and the portfolio of assets held, in respect of both values and returns. Moreover, as all corporate liabilities are subject to default risk, their value becomes ever more closely a function of the value of the assets and their earning power if these fall (i.e. so default risk increases), although financial institutions whose liabilities are 'guaranteed' under statutory regulation have special features (e.g. Babbel, 1998).

3. Current values and financial instruments

The definition of 'fair value' adopted for financial instruments by IASC (1997; 1999) is 'the amount for which an asset could be exchanged, or a liability settled, between

knowledgeable, willing parties in an arm's length transaction', which implies market value, at least where one is available.[11] Moreover, while the definition appears to accommodate the use, as appropriate, of both entry and exit market prices for assets, it appears to contemplate only 'exit' prices for liabilities—i.e. what is normally the highest of the theoretical range of 'relief values' (see e.g. AARF, 1998, 4.15-4.16). Which basis is most appropriate conceptually?—or is the issue immaterial as where market values are available for such instruments it is because they are traded in deep, efficient markets where buying and selling price are very close, so that—given that deprival/relief value must lie within their range—all three theoretically possible measures of deprival/relief value are, at least for practical purposes, essentially the same?[12] Whatever the answer, it will not help where liabilities (such as many of those arising under insurance policies), are not yet traded in such markets (or will ever be? e.g. Becker, 1998, pp.286-7), so that it remains problematic whether the attempt to value such liabilities should be focused on simulating what would be 'fair market prices' or rather on estimating their incremental (negative) impact on the value of the time/risk profile of the company's future cash flows—their 'relief value' (e.g. AARF, 1998, 4.3).[13]

The standard setters' strategy in relation to financial instruments that are liabilities—and financial instruments are now being defined widely so as to include, for example, insurance liabilities—therefore seems to be to rely heavily on the assumption that the capital market provides a ready benchmark for estimating the 'fair settlement' amount, thereby providing a unique value. Thus they may be hoping that the valuation of liabilities—at least where they include no 'equity' attributes—may actually be conceptually *simpler* than the valuation of many assets.

Nevertheless, even where market values of liabilities are readily available and unambiguous, liabilities have additional features which render accounting for them more conceptually complex than accounting for equivalent assets (e.g. traded securities and other financial instruments). Of these, the most important is usually argued to be creditworthiness—as it is by ATM10—which in turn implies that assessment not only of the value of recognised assets but also of 'organisational efficiency' (or 'goodwill') is a relevant factor in assessing the value of an entity's liabilities, thereby destroying the symmetry which sees 'relief value' for liabilities as the mirror image of 'deprival value' of assets (AARF, 1998, 4.2; 4.21-4.29).[14]

However, we would argue that an even more basic issue, which arises in respect of the valuation of default-free or riskless securities as much as in the case of 'risky' corporate liabilities, is how the impact of the 'gains' and 'losses' arising from changes in interest rates is to be dealt with in an entity's accounts. We therefore now focus our attention directly on the issues of performance measurement that we believe undermine the JWG's—and thereby the SCI's (IASC, 1999)—present approach to recognising the effect of changes in the current value of financial instruments.

4. The principles of performance measurement for financial instruments

In its Preliminary Views on *Reporting Financial Instruments and Certain Related Assets and Liabilities at Fair Value*, FASB (1999d) has determined that if all financial instruments are eventually recognised at fair value in financial statements, all changes in the fair value of financial instruments should be reported currently in earnings. We shall argue here that this approach is conceptually inappropriate. There are four main issues, all of which apply to holders/issuers of financial instruments generally, as well

as more particularly to specialist financial institutions such as banks and life insurers (c.f. IASC, 1999, sub-issue 11G).

- how to deal with changes in interest rates?
- how to deal with changes in creditworthiness?
- how to account for hedges of future cash flows?
- how to recognise the effects of inflation?

Changes in interest rates

It is commonly argued by supporters of current value accounting, as it is in ATM10 and in IASC (1997), that revaluation of a liability, such as a corporation's fixed rate, redeemable debenture issue, to reflect the impact of a change in the general level of interest rates—strictly, in the yield curve to maturity, making allowance for embedded options (e.g. Becker, 1998)—reveals the advantage [disadvantage] accruing to the corporation from having fixed its borrowing at a lower [higher] rate than that now prevailing. If rates have risen the corporation could, for example, now redeem its debenture early (or buy it in on the market) for less than its stated redemption value; or it could arrange swaps from fixed to floating rate borrowing—and if it wished again from floating rates to fixed payments at the new rate—that would achieve the same effect (e.g. AARF, 1998, 4.28).

However, as already noted, the IASC's 1997 Discussion Paper met with considerable opposition. The ASB's own Discussion Paper on *Derivatives and Other Financial Instruments* (ASB, 1996) had already acknowledged that preparers objected that revaluation of long-term fixed-rate borrowings would require future interest charges over the remaining term to be at the new rate (i.e. the new redemption yield to maturity), which would misleadingly give the impression that fixed rate debt was in fact the equivalent of floating rate debt. ASB proposed a compromise whereby the

revaluation gain [loss] would be fed back into profit and loss over the remaining term of the loan so as to leave the net interest cost the same as before the revaluation. However, the ASB itself viewed this treatment as 'conceptually incorrect', especially as it would require 'recycling' into Profit and Loss account of gains [losses] previously reported in the Statement of Total Recognised Gains and Losses ('STRGL') (ASB, 1996, Appendix B).

An advantage of continuous revaluation is that it removes from corporations any temptation to undertake refinancing transactions—possibly at considerable expense—purely in order to report a gain on redemption / repurchase at below book value (AARF, 1998, 7.13; 13.49-51). The JWG is pressing ahead on the basis that such revaluations will be made and the gains [losses] reported as 'income'. The supporting arguments have been set out by Willis (1998) and reproduced in FASB (1999d). However, although the case for revaluation itself is well made,[15] in our opinion the JWG has failed to understand fully the conceptual issues surrounding how to treat the 'gains' ['losses'] that arise.

Willis (1998) draws the conclusion that the gains and losses from remeasurement of financial liabilities at fair values should be included in the reported measure of financial performance. Here the two fundamental flaws in her argument are first to assume that adopting fair values for the balance sheet (a good idea where practicable and cost-effective) necessarily implies that the changes in values should be included in the measurement of performance (and in particular of 'income' or 'earnings'). Second, to assume that 'few are likely to disagree' that a realised gain or loss on repaying long-term fixed interest bondholders should be included in ordinary reported performance—we note that currently those that exhibit 'official' disagreement, to varying extents according to circumstances, include the FASB, the ASB, Canada and

the European Commission and, in our view, they are conceptually right to show this unease.[16]

Both flaws in the JWG's approach result from holding to the capital maintenance concept put forward in the March 1997 IASC Discussion Paper *Accounting for Financial Assets and Financial Liabilities*, without apparently having taken on board the comments that were made on the fundamental conceptual weaknesses of that paper. In Chapter 6 of that paper it was argued that the relevant concept of capital maintenance should be 'one that defines capital in terms of capacity to earn the current market rate of interest'. This is consistent with the 'No.I' approximation to the central concept of income analysed by Sir John Hicks (1946) but does not acknowledge the force of his argument that, when interest rates change, a more relevant approximation is 'No.II', which focuses on the capacity to maintain the level of cash flows in the future rather than on the maintenance of capital value. For fixed rate debt the No.II approach would imply that any gain or loss in value resulting from a change in the general level of interest rates—whether unrealized or realized—should *not* be regarded as income, thus contradicting the argument put forward in para. 6.2.9 of the IASC discussion paper (1997) and by Willis (1998).

Indeed, the great danger of 'hard-wiring' changes in value to performance/income reporting is that preparers will resist the adoption of fair values in their balance sheets because of the perceived implications for 'the bottom line'. This danger is clearly illustrated by the FASB's recent comment that it felt obliged to state a preliminary view on how any gains and losses from revaluation of financial instruments would be reported, even though it 'has not yet decided when, if ever, it will be feasible to require essentially all financial instruments to be stated at fair value in the basic financial statements……A number of constituents advised the Board to include a

tentative answer to that question…because they believed that respondents would have difficulty forming an opinion about measurement and scope issues without knowing how changes in fair value would be reported' (FASB, Status Report no.321, January 12, 2000, p.3—see also FASB, 1999d, paras.84-5). Insisting on a 'clean surplus' articulation between balance sheet changes and reported performance is, in our view, the most serious conceptual weakness in the 'balance sheet' oriented conceptual framework adopted by the FASB (which of course also now underlies the IASC's, ASB's and AARF's frameworks).

Willis does not directly address the issue of what kind of 'performance' reporting is appropriate for these gains and losses (i.e. in US terminology are they earnings or 'other comprehensive income'?) nor how interest cost is subsequently to be reported. In our view explicit consideration needs to be given to the conventions to be adopted for how such (book) gains and losses on long-term instruments should be reported[17], and how far managements could have discretion (subject to full explanation) as to how these, as well as any gains or losses on other instruments, should be presented—which, in respect of a fixed-interest borrowing /investment, would depend, *inter alia*, on how far it has been taken out as a hedge against future interest rate changes (see e.g. Horton & Macve, 1996). This issue relates equally both to unrealised gains and losses on revaluation and also to gains and losses that are 'realised' whether by repayment or by entering into various interest rate swaps of the kind that Willis discusses, which leave expected future cash flows unchanged.[18] A standard setting out conventions suitable for different circumstances, as well as allowing appropriate flexibility, would better provide information to evaluate the impact of management's investment strategy, while the requirement for current values in the balance sheet,

where feasible, would provide effective policing of the extent of management discretion.

In summary, we agree with Willis that, where practicable and cost effective, current values of liabilities should be reported. But her arguments as to the deficiencies of present-day GAAP, in reporting gains and losses on fixed-interest liabilities only when realized, do *not* lead to the conclusion that all revaluation gains and losses on financial instruments should be included in the reported measure of financial performance, but rather that only *some*—if *any*—of the gains and losses, whether realised or unrealised, should be so included. The issues here relating to fixed interest securities—whether assets or liablities—were clearly understood over a hundred years' ago by the English judge in the case of *Verner v. The General and Commercial Investment Trust* (63 Ch.D. 456) in 1894, who, mercifully untrammelled by any accounting standard setters' conceptual framework, realised that a fall in value of fixed-interest investments did not reduce a company's ability to continue to meet its interest obligations on its issued debentures and to pay dividends to its shareholders out of the unchanged cash-flows it was still receiving. The JWG and FASB would benefit from adopting accounting concepts that showed a similar understanding of economic and commercial reality.[19]

Creditworthiness

A longstanding concern with recognising gains from a fall in value of fixed interest liabilities has been that such falls could be the result, not of a change in the general level of interest rates, but of a change in the market's view of the default risk of the corporation. This issue is discussed fully in ATM10 (AARF, 1998, 4.21-4.38)—noting that opposing views on whether such changes are to be recognised have been expressed, e.g. by ASB (1996, 3.3.26) as against IASC (1997, Ch.5, para.6.2)[20]—

albeit without reaching a firm conclusion as to how changes in creditworthiness (an aspect of 'organisation efficiency') are to be dealt with.

In our view the underlying reason that resolution of the issues has not been obtained is that two different, and strictly incomparable, approaches to valuation have to be reconciled in the valuation of liabilities. Clearly, the terms on which a corporation can raise loan finance are a function of the perceived risk of its operations—not just its present assets and liabilities, but the likely future path of its investment and operating activities—which are also equally factors in the valuation of the equity interests of its shareholders. However, in traditional accounting, no direct attempt is made to recognise the current (e.g. market) value of the equity ownership interest, other than where it is necessary when there are direct transactions with equity owners (e.g. when new shares are subscribed, which may be at 'market value' requiring the recording of a corresponding 'share premium').

So there is a fundamental inconsistency of accounting treatment as between 'loan capital' and 'equity capital', which becomes more significant—and ever more incongruous—as the 'loans' incorporate more 'equity' features. In other words, many of the present anomalies—which might well be further accentuated if changes in the market value of loan capital were to be recognised—could only disappear if the accounts were able to record the changing valuation of *all* expected future cash flows, and therefore of equity, as recently argued by ICAEW (1999) in its discussion of the nature of 'financial performance'.[21]

Under that kind of approach, the particular problem of the changes in creditworthiness of borrowings would then disappear within the more general framework of changes in the value of the business as a whole. A downgrade in creditworthiness would indeed result in a 'gain' on borrowings (e.g. reflecting the

transfer of wealth from debtholders to equityholders in a limited liability company as default risk increases but equity holders face no additional liability).[22] But there would be an equal if not greater 'loss' to equity from the downgrading of the expected value, first of any 'goodwill', then of the value of assets, and finally of any expectation of receiving any residual payout, given the priority of debtholders. However, under the present accounting regime, which defines 'equity' as simply the difference between the measured values of recognised assets and liabilities, the anomalies will inevitably persist and some 'second best' solution is needed that cannot be arrived at by conceptual analysis of the nature of 'liabilities' alone.

Moreover, even if changes in creditworthiness are recognised in liability valuation, a parallel argument to that we advanced above for not recognising a 'gain' on borrowings due to general increases in the level of interest rates can also be applied to increases in perceived default risk. The value of the liability may have fallen: but if the entity now wished to settle this liability at this lower amount (e.g. by market repurchase) it would need to refinance. But any replacement loan to enable this transaction to be undertaken would be issued with the same allowance for default risk, i.e. effectively on the same terms. The entity's cash flow prospects would be unchanged,[23] and it is clear that the 'gains' (and equally any 'losses' from improvement in credit rating) should not be recognised. If this were granted, the issue of how the liabilities should be valued for balance sheet purposes would then become less contentious.

Hedges[24]

A fundamental problem in accounting for financial instruments is how and when to recognise gains and losses in the market value of instruments that are 'hedging' items

which are not themselves reported at market value in the accounts, or are not yet reported in the accounts at all. It was because of the first of these problems that US insurers objected to having to apply SFAS115 to their investments without any opportunity to revalue the policy liabilities that they were hedging (e.g. Wilkins, 1998). In principle therefore, categorizing insurance policy liabilities as 'financial instruments', as SCI has proposed (IASC, 1999) should remove this asymmetry and ensure matching treatment. In FASB's view (1999d, paras. 85-6) this would allow SFAS115 to be revised to require all positions to be marked to market.

It was because of the hedging strategies associated with many derivative positions that the ASB insisted on widening the scope of the discussion of accounting for derivatives to include all financial instruments (ASB, 1996). However, many financial instruments (e.g. long-term debt) are in turn hedging *operating* assets and activities (e.g. fixed assets, inventories etc.) which are themselves not necessarily reported at current value, even in the UK. An even more difficult problem relates to hedges of *future* transactions.[25] Traditional 'cash flow hedge accounting', currently still permitted in certain circumstances under SFAS133 (FASB, 1998) and IAS39 (IASC, 1998b), defers the recognition of any gain or loss until the period when the hedged, forecasted transaction appears in the accounts. But the difficulties of policing 'management intentions' in identifying such hedges, as well as in measuring the degree of 'hedge effectiveness', mean that standard setters are keen to minimise if not abolish the use of such 'hedge accounting' (e.g. FASB, 1999d, paras. 88-93; IASC, 1997, Chapter 6, paras. 4.8, 4.11-23). Once again the fundamental problem is that the accounting model does not incorporate the value of all expected future cash flows (c.f. ICAEW, 1999) and therefore serious anomalies arise if values and corresponding gains and losses are reported just on those assets and liabilities that are recognised,

and which determine the amount of equity and 'performance' reported in the accounts, but represent only a part of those overall cash flows that determine actual equity value and overall entity financial performance.[26]

Various stratagems have been suggested for avoiding this hedging problem. For example the Chairman of the ASB has suggested that, while the gains and losses on hedging instruments should be recognised in the accounts as financial performance as their market values change, management could include in its commentary[27] a *pro forma* account showing the results if the hedges had been 'matched' forward in accordance with management strategy (Tweedie, 1996, pp.56-7). This would appear to be a counsel of despair in terms of the fundamental objective of providing realistic financial reporting and realistic performance measurement in financial statements.

Moreover, it should be recognised that the problem is not due solely to recent developments in the sophisticated use of exotic financial instruments. Essentially the same problem would arise if a corporation issued traditional long-term debt as part of its financing of a major expansion, requiring heavy investment, say, in research. The market would value the debt by reference, *inter alia*, to the latest information and expectations about the company's likely future success—indeed, the debt issue itself might be regarded as signalling the company's confidence in the future payoffs from its research. However, the accounts (in which research expenditure would be written off under current international accounting standards) would not reflect any of the matching investment in asset values until, at the earliest, the 'development stage' was reached (when some expenditure might be capitalised under UK and IASC [but not FASB] standards) and more generally not until the expansion project began to generate positive cash flows (c.f. AARF, 1998, 15.2-15.3).

Inflation

Subject to the benefits of change exceeding the costs, ATM10 favours moving towards a 'Relative Current Value Accounting' model, incorporating adjustment for changes not only in current values but also in the purchasing power of money (AARF, 1998, 15.1; 15.5). In the case of liabilities this would allow, in addition to reporting current interest expense, the identification of current 'real' interest expense (AARF, 1998, 13.53-13.60 and Appendix A).

We do not pursue these issues here, given that standard setters, chastened by their experiences in the 1970-80s (e.g. AARF, Appendix C), are now reluctant to recommend 'inflation' adjustments except in hyperinflationary situations (e.g. ASB, 1999, 6.42 (a)). It may be noted however that movement towards current value accounts renders it that much simpler for users to make inflation adjustments for themselves, as all items in the accounts are stated in a common (i.e. current as of the date of the accounts) purchasing power of the monetary unit.

5. Conclusions

There are both 'balance sheet' and 'income statement' problems in moving towards the particular version of a 'current value' basis of accounting for financial instruments which is being developed by the JWG and endorsed by FASB. The 'balance sheet' problems have been the more prominent in the literature, and are clearly discussed in ATM10, which sets out clearly the 'deprival value' / 'relief value' logic and shows that the FASB's and IASC's equation of 'value' with 'fair value', and the further equation of fair value with 'exit value', has no theoretical basis in economic logic or capital market theory, except in the special circumstances of deep markets where all value measures converge. Whether by design or by default—or simply from desperation to be seen to

be making 'progress'—the theoretical grounding once taken for granted by academics and standard setters alike has been silently but effectively erased from standard setters' pronouncements on the measurement of financial instruments over recent years.

ATM10 also sets out clearly the conundrum that the market value of financial liabilities will necessarily reflect 'organisation efficiency', in particular through its impact on the market's assessment of the company's creditworthiness. This renders problematic the estimation of a suitable discount rate for valuing both assets and liabilities whenever 'deprival value' does not equal market value (whether 'entry' or 'exit' value).

More fundamental, we have argued, are the 'income' or 'performance' measurement problems as, even if satisfactory current valuations of assets and liabilities could be obtained, the IASC's / JWG's (and by inference the FASB's[28]) concept of capital maintenance is inadequate to resolve the paradoxical effects that 'book' gains [losses] appear when there is a reduction [increase] in market value of liabilities—whether resulting from general changes in interest rates or from company specific changes due to changes in its perceived creditworthiness—while the overall impact on the value of equity is as, if not more, likely to be negative [positive]. This dilemma cannot be resolved under the present accounting model which arrives at 'equity' and 'comprehensive income' by a 'bottom up' process that aggregates individual recognised asset and liability values and changes in them. This same accounting process also gives rise to the problem of apparently 'unmatched' hedges.

Given that the costs of moving wholesale from the present accounting model are likely to be seen as too great to contemplate,[29] any attempt to rationalise valuation bases and performance measurement rules for financial instruments can only be on a

‘second best’ basis by attempting to 'fix' the distortions that arise within the current model—an approach consistent with welfare economic theory (e.g. Lipsey, 1963, pp.297-8). This suggests that—while conceptual discussion aids clarity of thinking and debate—accounting concepts cannot in themselves demonstrate the appropriate solution to the ‘conceptual and measurement issues’ of accounting for financial instruments (c.f. IASC, 1997, Chapter 1, para.6.1). Conceptual tidiness cannot be the overriding goal. Indeed, as Einstein is reputed, famously, to have remarked with regard to the criteria for evaluation of competing conceptual models: ‘Elegance is for tailors’.

It is also unlikely that a single, necessarily pragmatic solution, will meet the objectives of all users, particularly in the case of financial institutions such as banks and insurance companies where depositors and policyholders—whose protection is the primary stated objective of prudential supervision by the responsible regulatory authorities—are at least as important, if not more important, potential users of financial statements as the shareholders.

In this respect, at least, the FASB seems wise to have stated in its Preliminary Views (1999d) that, despite what it sees as the conceptual advantages of measurement at fair value, there are still conceptual and measurement issues to be resolved, and it is not yet clear when, *if ever*, full fair value measurement (coupled with recognition of all changes in values in earnings) covering all financial instruments (let alone all other assets and liabilities) will be feasible. For example, enhanced note disclosure may be a preferred alternative. ATM10 shares this caution (AARF, 1999, 15.5). ASB however is more adventurous, at least in respect of those financial instruments for which reliable market prices are available, for which it anticipates both measurement at current value in the balance sheet and the reporting of all gains and losses in a

statement of performance (e.g. ASB, 1999, 6.37 (a) and its Appendix III, paras. 57-59; 28-34; c.f. 38). And so is the JWG.

In this paper we have reviewed the IASC's and FASB's current attempts to design a standard for accounting for financial instruments against the background of the JWG's current crusade to introduce comprehensive 'mark to market' accounting for all financial instruments. 'Fair value' appeals to standard setters as holding out the promise of an 'objective' way of resolving the problems of reporting financial position and performance in respect of financial instruments. However, 'fair value', as interpreted by FASB and IASC, is a cuckoo in accounting's conceptual nest, and threatens to drive out the more legitimate, theory-based tradition of current value, i.e. 'deprival / relief value', as reflected in both ATM10 and ASB's *Statement of Principles*. 'Fair value' is only a special case of current value.[30] We have argued that its threatened usurpation of 'current value' approaches is unlikely to succeed, given the JWG's failure to date to deal with the fundamental conceptual difficulties of current value measurement, many of which have been analysed clearly by AARF in ATM10.

Making positive recommendations on a way forward is much less easy than identifying the problems (e.g. Solomons, 1989). So if the JWG's current approach represents how *not* to develop an accounting standard for financial instruments, how should it proceed? While the attraction of comprehensive 'marking to market' can be easily stated in the case of those traded instruments for which 'objective' market values are readily available (and has long been argued to be the only 'truthful' method of accounting in these circumstances—e.g. MacNeal, 1939), as soon as one moves away from this particular situation and to much 'thinner' markets (such as for insurance liabilities) the problems of performance measurement have, necessarily, to

be tackled head on and cannot be 'eliminated' by focussing wholly on asset and liability measurement.[31]

It is our view that in many such cases it will be necessary to adopt 'special' rules (which might, for example, be industry specific). Even then, there are likely to be severe limitations on how far ranges of assumptions should and can be standardised without losing relevance to individual companies' particular situations. So, while 'benchmark' treatments may be recommended (as in several existing IASC standards—see e.g. SEC, 2000), it is likely often to be necessary to allow managements significant discretion to depart from these treatments to reflect their own companies' particular circumstances, subject to appropriate disclosure and as much 'policing' as can be imposed by requiring current values to be reported wherever feasible.

This is the lesson of the theory of 'deprival / relief value' as set out in ATM10. Values necessarily depend on circumstances (including, but not limited to, current market circumstances). Moreover, even where markets provide 'objective' values, performance reporting still depends, *inter alia*, on management intentions and decisions. There is no escape from this economic—and commercial—logic. What is needed is a clear understanding of the theory that embraces and explains the variety of commonly held 'presumptions' as to how relevant values vary according to 'context', and how far conceptually correct measures may be satisfactorily proxied in practice by 'conventional' surrogates (c.f. Upton, 1996).[32]

JWG's attention could therefore usefully be focused primarily on analysis of how, and how well, 'fair value' accounting for financial instruments actually works in those industries and countries (such as insurance in the UK) that have experimented with it, and on discussion of the very—if not more—important issues about disclosure.

Exploring the conceptual and practical issues in the light of practical experience to date, at both national and international levels, is therefore the priority for further research and, in our opinion, is a prerequisite if the JWG is now to make any appreciable progress in developing an international accounting standard for financial instruments. This in turn is also a prerequisite if IASC, and individual country standard setters, are to make any appreciable progress in developing other accounting standards that reflect the recommendations for 'Relative Current Value Accounting' that have been propounded in ATM10.

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NOTES

[1] The continuing delay in achieving consensus on completing the Australian 'conceptual framework' (Zeff, 1999, p.123) is of particular interest in this context, especially given the reputation of the AARF for independent thinking. Work began in the 1970s and the first statement (SAC1) was issued in 1990. As of November, 1998, the Australian Accounting Standards Board and the Public Sector Accounting Standards Board had issued Statements of Accounting Concepts covering 'Definition of the Reporting Entity' (SAC1), 'Objective of General Purpose Financial Reporting' (SAC2), 'Qualitative Characteristics of Financial Information' (SAC3), and 'Definition and Recognition of the Elements of Financial Statements' (SAC 4 [revised 1995]). These cover the levels of the AARF's building blocks of a conceptual framework, as it articulated them in 1995, as far as the 'fundamentals', together with the first block in the 'operational level'. 'Basis of measurement' and 'techniques of measurement' constitute the remaining blocks of that level and form the subject matter of *Accounting Theory Monograph 10* ['ATM10'] (AARF, 1998, 1.12-1.15). For an overview of international standard setting and conceptual frameworks see e.g. Ma, 1997.

[2] rather than necessarily reporting them as a direct adjustment to equity, as is *required* by SFAS115, so that in the USA they are regarded as part of 'other comprehensive income', albeit that they do not have to be *labelled* as such, given SFAS130 (FASB, 1997b). ATM10 recommends that profit is measured under a 'comprehensive' concept, i.e. representing the total real change in the value of all recognised elements of owners' equity (AARF, 1998, 15.1). As argued in ATM 10, this measure needs to exclude transactions with owners, i.e. it represents 'clean surplus' (e.g. Ohlson, 1995). It is also argued in ATM10 to represent only the 'minimum' real improvement in owners' equity, because of the limitation that financial statements do not include the future economic benefits resulting from outlays which are expensed immediately rather than capitalised, so profits in some reporting periods will be overstated or understated as compared with the profits that would be reported if these benefits were capitalised and amortised (15.2). [Strictly, this means that the *balance* of equity is the 'minimum' balance: but not that any period's net profit represents the 'minimum' improvement in equity as it could equally well be overstated as understated, e.g. if there is a large loss in value of unrecorded intangible assets.]

[3] JWG comprises representatives of the 'G4+1' group of standard setters, and also of France, Germany, Japan and the Nordic countries (e.g. AARF, 1998, 14.69).

[4] The European Commission is currently debating proposals to amend the Fourth Directive to allow limited 'marking to market' along the lines of IAS39, but no further (Commission of the European Communities, 2000). For a critique of IAS39 see Macve, 1999.

[5] For a more extended discussion and critique of the implications of the IASC's and FASB's approach to seeking 'objectivity' in insurance accounting by adopting 'fair value' see Horton & Macve (2000).

[6] Bell and Peasnell (1997) have recently attempted to show how the practical advantages from using deprival value could be strengthened by utilising a pricing methodology for used-assets that they develop, dealing with only a single replacement cycle, and without the need for assumptions about all future replacement conditions that have generally been argued, in principle, to underlie the estimate of the incremental cash flow effect of deprival (e.g. Baxter, 1975, pp.157-63). However, their approach still requires calculation of the optimal life of the replacement asset, so in general this will, in principle, still require consideration of what will in turn replace it, and so on *ad infinitum* (Macve, 1998).

[7] In its 1997 exposure draft on present value measurement, FASB confuses 'value in use / entity specific measurement' with 'value to the entity' (FASB, 1997a, para.43) and therefore fails to consider the theory of 'deprival value' and the circumstances under which 'fair value' and 'entity-specific' value converge (c.f. para.46; Upton, 1996). In its revised exposure draft (FASB, 1999b, paras. 19, 24, c.f. 87-94) 'value to the entity' (i.e. deprival value) is not referred to at all and the Board had decided to reject 'entity specific measurement' (= 'value in use') and adopt 'fair value' as the only kind of present value measure to be considered. This approach has now carried through to the final Concepts Statement (FASB, 2000) but there is still no consideration of differences between 'entry' and 'exit' fair values. While one might, indeed, characterise business profit-making as turning 'entry values' of inputs into 'exit values' of outputs, FASB (2000) offers no criteria for deciding when, or by what stages, such a transformation occurs as it refers only to 'fair value' (which may be either). Further, both IASC (1997; 1999) and FASB (1999d; 2000 [paras.75-7, contradicting para. 24(a)]) equate fair value of liabilities with 'exit value': so the issue of profit recognition on this dimension of business activity is effectively bypassed. To ignore such basic issues of 'revenue recognition' seems to us to be a strange approach to setting accounting standards for reporting business performance (c.f. Macve, 1980) and is clearly inadequate for financial institutions, such as banks, insurers, investment trusts and pension funds,

whose economic function is to create portfolios of assets and liabilities that provide risk/reward characteristics that cannot be replicated by individual investors and thereby to provide a service as financial intermediaries (e.g. Merton, 1992, p.10).

[8] Standard setters' views on which market is relevant differ (c.f. FASB, 1999d, para.53; IASC, 1997, 7.7; 1998b, para.99 [= IASC, 1999, para.559]). For quoted securities' positions these issues are generally regarded as trivial, as turns are small and overshadowed by the much greater effects of market price movements (c.f. Macve and Jackson, 1991): but in the case of other financial instruments, such as insurance liabilities, where markets are much thinner, the difference between using 'entry' and 'exit' prices is much more significant (e.g. Horton & Macve, 2000).

[9] It is held that the value of the business equals the value of its net assets plus the 'NPVs', as formulated in Edey's (1957) 'superprofits', Edwards and Bell's (1961) 'subjective goodwill', Ohlson's (1995) 'present value of future abnormal (= 'residual') earnings' (see also Feltham & Ohlson, 1999), or ATM10's 'organisation efficiency' (AARF, 1998, 3.15-3.22). The difference between market value of recognised net assets and market value of the firm may be due not only to such 'goodwill' but also to the existence of valuable intangible assets (e.g. in process R&D; brands; skilled labour force, etc.) which are not separately recognised and included in the financial statements under present-day accounting conventions. However, their effect on value is essentially the same as the non-recording of undifferentiated 'goodwill'. So even when there are good markets for assets so that entry and exit values are close, there are still observable differences between the total fair value of the assets less liabilities of a firm, and the market capitalisation of its equity, as for example in the case of many investment trusts. Barth & Landsman (1995, p.101) define the value of 'management skill' (itself shorthand for a range of 'intangible assets [p. 99]) as 'the difference between value-in-use and *exit* value' but this approach is taken simply in order to be 'consistent with the FASB's definition of fair value which focuses on exit value'. Barth & Landsman themselves are clear that in imperfect markets a range of values exists: although they also fail to address the 'deprival value' logic for choosing between them, appearing to support the FASB's choice of exit value, observing (p. 99): 'Because the FASB is concerned with financial reporting of a firm's assets in place and not assets to be acquired, their definition of fair value should be interpreted from the perspective of a seller. Thus, their fair value concept is exit value'. This argument misses the basic logic of 'deprival value' which focuses on measurement of the value of *existing* assets by reference to the impact on the value of a firm's cash flows if they were, hypothetically, no longer in place (i.e. their strict 'insurable value', following Bonbright's argument in 1937 [reprinted as Bonbright, 1965: see e.g. Baxter, 1975, Chapter 12, Wright, 1964, and Hampton, 1999]).

[10] This difficulty is the more serious the more specialised are the assets and the more interdependent they are in use with other assets (e.g. Edey, 1974).

[11] Both IASC papers (1997, 1999, para 567) confusingly refer to fair value as the 'objective' of present value measurements. This confuses means and ends: the objective of all financial accounting and reporting choices, as set out in the standard setters' own conceptual frameworks, should be how best to assist investors and others in their appraisals of businesses, and in particular in estimating their future cash flows. FASB (1999d, para.47) is even more restrictive: fair value is defined as 'an estimate of the price an entity would have realized if it had sold an asset or paid if it had been relieved of a liability on the reporting date in an arm's-length exchange motivated by normal business considerations', so for all financial instruments, both assets and liabilities, fair value is realization value in the 'best' market. This approach is justified both as consistent with FASB (1999b) which excludes 'entity-specific' measurement (see now also FASB, 2000) and by a specious argument that, as exit price reflects the present value of future cash flows, it is directly related to the objectives of financial reporting, and while in some instances entry value may be useful in estimating an exit value, it is exit value that is the 'objective' (paras.47-49). This both confuses means and ends, and also fails to understand the economic logic of 'deprival value', which, as argued above, focuses on measurement of the value of *existing* assets by reference to the impact on the value of a firm's cash flows if they were, hypothetically, no longer in place (see e.g. Baxter, 1975, Chapter 12). It is well known that 'exit values' (i.e. current NRVs) for companies' operating assets do not achieve satisfactory reporting of performance (e.g. Solomons, 1989), but the FASB has never had to grapple with (re)valuations of such assets in the primary financial statements and with the corresponding need to develop a valuation model for primary financial statements that encompasses not merely the special case of financial instruments, but potentially all assets and liabilities. When it has had to address these issues for supplementary disclosures (as in SFAS33—FASB, 1979) FASB has in the past pursued a more conceptually coherent path: but in its present drive to resolve the pressing problems of derivatives and other financial instruments through 'objective' measurements, it now appears to have lost sight of the

more compelling and more embracing conceptualisation of value set forward in the literature from which ATM10 has been developed (c.f. FASB, 1997a, 1999b; Upton, 1996).

[12] ASB (1999) at 6.9 and 6.32, in discussing 'relief values' for liabilities refers to 'the lowest amount at which the liability could, hypothetically, be settled'. While this may imply an amount lower than the lowest required for *immediate* settlement (e.g. if it is more advantageous to continue the original schedule of payments to maturity), it appears that for 'financial liabilities' (and financial assets)—i.e. those representing 'rights to specific future cash flows'—the ASB, like IASC and FASB, considers that current market price gives the relevant value (ASB, 1999, App.III, para. 57). Following the logic of 'relief value' as set out in ATM10, i.e. 'the increment in total entity value which would occur if that liability were excluded' (AARF, 1998, 4.3), instances may occur (e.g. where loans are available on 'special terms' cheaper than the 'market rate') where relief value may be the higher proceeds obtainable from raising a replacement loan of this kind by continuing to incur the currently contracted loan payments. Such refinements are not pursued here, although any practical model needs to be able to deal with them (e.g. Macve, 1984, p.102). However, as Baxter observes (1999, p.75; c.f. 1994), other than in the case of the simplest liabilities, 'the [relief value] formula is elusive' (c.f. Kulkarni, 1980; Kerr, 1980).

[13] As already noted, deprival/relief values must lie within the range of available market values. However, in deciding where within that range they lie, asset valuation for existing assets can generally be calculated without reference to 'organisation efficiency' (or 'goodwill') (e.g. Baxter, 1975, p.131). So, presumably, for accounting purposes the value of liabilities could ideally also be measurable only by reference to their impact on the value of the existing body of assets, rather than on the value of the company as an entity. However, if creditworthiness is included, this will be affected not only by the value of existing business but, *inter alia*, by the prospects for writing profitable new business—an element of what ATM10 calls 'organisational efficiency' (e.g. AARF, 1998, 4.2).

[14] While ASB (1999, 6.34: see also 1997a) appears to disagree, FASB (1999b and 2000) has also concluded that 'the most relevant measure of a liability should always incorporate the entity's credit standing'. It should be noted that, if there is not enough reliable information to enable external assessment of the entity's own 'true' creditworthiness, the value of its liabilities will reflect not just its own 'organisational efficiency' but that of all entities with which external lenders, investors etc. classify it as comparable (i.e. it may suffer unduly adverse selection, or alternatively benefit from being undeservedly included in a better class of entities) (e.g. Dye, 1985).

[15] it follows the line of argument in Macve (1984) and Horton & Macve (1996). However, the comparative costs and benefits of note disclosure and financial statement remeasurement are not discussed (c.f. FASB, 1999d).

[16] For example, under FRS4 (ASB, 1993) such realized gains are currently reported as earnings in the Profit & Loss account, although it had earlier been ruled in UITF8 that where a loan was demonstrably refinanced by a new loan on substantially the same terms, any gain [loss] should be 'spread forward' over the remaining term of the original loan, thereby effectively reducing [increasing] the interest cost of the replacement loan to the level that was being incurred on the previous loan for that period—and it is possible that FRS5 (ASB, 1994) would still require that treatment where refinancings are 'linked transactions' (ASB, 1993, Appendix 3, para.40). Under SFAS4 (FASB, 1975), US corporations are also required to report most gains and losses from early retirement/repurchase of their own borrowings as earnings, but classified as 'extraordinary' items. The effect on earnings per share is shown separately. Clearly such transactions are not 'extraordinary' under normal US GAAP. For other examples, see Horton & Macve, 1995, p.78, p.205; 1996, pp.130-1.

[17] They could for example be reported as movements in equity outside *any* income/performance statement, as unrealised gains and losses on 'available for sale' securities have been under SFAS115 (FASB, 1993). Paish (1940) argued that the effect of a change in interest rates on a fixed interest security (and by extension on any financial instrument where the rate of return is not equal to the (variable) current rate of interest) is indeterminate and depends on the situation and preferences of the investor / lender. Determining how a company's gains or losses should be measured can therefore only be resolved by adopting some convention. For, example, in the case of UK listed insurers, the ABI SORP (1999) recommends that, while all investment gains and losses are included in each year's profit and loss account, they are presented as split between the 'longer term rate of return', which is included in operating results, and the remainder. For further discussion see e.g. Horton & Macve, 1997, pp.143-69; IASC, 1999, para.826; Macve & Jackson, 1991; c.f. Beaver & Wolfson, 1995.

[18] Willis does not discuss the problem of how to treat value changes resulting from changes in the bond issuer's own credit risk, but it is clear in FASB 1999d that—as valuation of liabilities is to include estimation of credit risk (para.83) (consistent with FASB, 2000) and all changes in values are to be

reported as earnings (para.84)—the effects of changes in credit risk would be reported in earnings (see further below).

[19] It should be noted that the argument here is related to, but not exactly the same as, the argument which points out that where investment type assets are already revalued (as under SFAS115 and IAS39), it is only consistent that liabilities be revalued too, else an unrealistic volatility in equity (and, if gains and losses in value are included in income, in financial performance too) is induced. Clearly if a 20 year fixed interest investment in Government bonds is financed by issuing a bond of identical term and payment structure, any 'loss' in the asset's value due to a rise in interest rates during the term is offset by an equivalent 'gain' on the value of the liability, so overall there is no net gain or loss. As far as the reported income and equity is concerned this is equivalent to the result obtained if both securities are accounted for at amortized cost. However, once the situation is not one of perfect matching of asset and liabilities (as it cannot be if there is any equity interest), the argument becomes a little more subtle and one has to investigate the nature of the 'gains' / 'losses' on each side by reference to the consequences for future cash flows. In general, a rise in interest rates is 'bad news' for the capital value of fixed-interest assets (and the worse the longer their term) but is 'good news' for the prospect of future cash flows given the opportunity now to reinvest at a higher rate on maturity (but again the less good the news the longer their term, as the owner remains locked in to the old cash flows for longer). *Vice versa*, for fixed-interest liabilities, a rise in interest rates is 'good news' for their capital value (and the better the longer their term) but is 'bad news' for the prospect of future cash flows given the necessity to refinance at a higher rate on maturity (but again the less bad the news the longer their term, as the borrower remains locked in to the old cash flows for longer). Whether overall there is a gain or loss to equity therefore depends, *inter alia*, on whether, and when, there is planned to be net reinvestment or net disinvestment. The implications of these 'duration' effects for financial management of a life insurance business are, of course, no more than elementary principles of actuarial thinking. A classic treatment is Pegler (1948), as discussed in Horton & Macve, 1996, pp.138-40. For their ready adaptation to the theorems of modern finance theory see e.g. Mehta (1992) and Becker (1998). For further discussion, based on the analysis of the effect of changing interest rates provided by Paish (1940), see e.g. Macve (1984) and Horton & Macve (1996). However, potential second order macroeconomic causes and consequences of interest rate changes are not considered here (c.f. Kaldor, 1955).

[20] The FASB (1999b, 1999d)—following Barth & Landsman (1995)—has also now given conditional assent to such recognition.

[21] However, although the discussion paper (ICAEW, 1999) refers to the problem of changes in interest rates and their sometimes paradoxical effects on values, it is not clear how it thinks its own favoured measure of performance (i.e. change in the present value of future cash flows as set out in Edwards, 1938) would overcome this difficulty, as it is also essentially a 'Hicks No.I' measure of capital and income. The paper also considers reporting the change in market capitalisation of equity. It is generally held that, as this metric would provide no new information to shareholders, it cannot be the focus of corporate financial reporting. But liability holders also need to appraise the value and risk of their investments: how does reporting by the borrower of the market 'fair value' of their interests (i.e. adjusted for default risk rather than showing the borrower's stated obligation) assist them?

[22] FASB (2000) argues that such a 'gain' will normally only arise in the context of losses: but this skates over the crucial point that these losses will often remain unreported in the accounts, i.e. insofar as they are losses of unrecorded goodwill rather than operating losses or impairments of asset values. Indeed a more telling case is the 'loss' on borrowings from an improvement in creditworthiness, where the corresponding gain is even more likely to be reflected in an increase in unrecorded goodwill rather than in any recognised assets (c.f. AARF, 1998, 4.21 (c)).

[23] As in the case of a general rise in interest rates, it can be realistically argued that cash flow prospects would in fact have worsened. If and when the entity manages to meet all interest obligations and repay the loan on the due date, it will face refinancing on the new, more unfavourable terms. (It cannot be argued that the fact of repayment in full would remove the market's perception of default risk: most established companies reliably meet their interest and repayment obligations on debt but they are still rated at varying levels below 'risk-free' Government stocks.)

[24] As far as we can determine, ATM10 does not directly address this issue.

[25] For example, where a manufacturing company buys currency or commodity futures to hedge against currency or market risk and 'lock in' the cost of next year's expected raw material purchases or the value of its expected revenue from next year's production. Until the hedge is closed out next year it seems meaningless to report gains and losses on the derivative in this year's results, and current standards (e.g. SFAS133 [FASB, 1998]) allow the gains and losses on such hedges, in so far as they

can be demonstrated to be effective, to be reported only as movements on equity until they are transferred to earnings at the time the underlying transaction is recognised (i.e. in this example, next year). Implementation of SFAS133 has now been deferred for a year by SFAS137 (FASB, 1999c).

[26] IASC (1997, Chapter 6, para. 4.19) argues: 'Deferring a gain or loss on a financial instrument used to hedge an anticipated uncommitted position is, therefore, not defensible in a financial accounting model whose purpose it is to represent existing assets and liabilities and income earned as a result of past events and transactions.' This confuses ends and means: under the standard setters' frameworks, the fundamental objective of financial statements is to assist investors and others in forming expectations of future cash flows. Amount and risk of expected future cash flows is the relevant characteristic for investors of all of an entity's business activity, assets, and liabilities, not just of its financial instruments. Reporting the 'elements of financial statements' (as defined) is regarded by standard setters as the most appropriate means to fulfil the fundamental objective. However, when this model clearly fails, due to its inherent limitations, to correctly signal future cash flow consequences, at the very least it needs modification (as for example by hedge accounting), and in extreme cases may need abandoning altogether, in order to better fulfil the fundamental objective. FASB (e.g. 1999d, 2000) similarly confuses ends and means in referring to 'measurement objectives'.

[27] In the UK, this would be in the 'Operating and Financial Review', which, although similar to the US 'Management Disclosure and Analysis' required by the SEC, is only a recommended but not a mandatory statement, and is not a component of the audited financial statements.

[28] FASB (1999d; 2000) does not explicitly discuss 'capital maintenance' concepts: but as it proposes full marking to market of financial instruments its implicit concept must be the same as IASC's. Indeed, FASB (1999b) asserted (in para.119) that the 'gains' ('losses') on liabilities from a worsening (improving) credit rating 'are neither confusing nor counterintuitive'.

[29] whether on a rational economic evaluation of impact on social welfare, on assessment of 'economic consequences' by powerful parties with vested interests in the *status quo*, or due to more fundamental organisational and social forces favouring institutional inertia.

[30] At its recent meeting in New Zealand in April 2000, the G4+1 group has agreed that further consideration of 'deprival value' might be needed for measurement of *non*-financial assets and liabilities (e.g. see the communiqué at the ASB's website: *www.asb.org.uk* under ASB PN 163).

[31] ASB (1999, Appendix III, para. 29), however, continues to argue that 'accounting standard-setters around the world have carried out an exhaustive search for robust definitions of performance statement elements and have concluded that such definitions do not exist. On the other hand, robust definitions of balance sheet elements do exist.' In our view, asset and liability values, where available, may provide some additional discipline, but issues of performance measurement still require direct resolution.

[32] For example, major US oil companies such as Exxon have long argued that, because standardised reserve values are mandated by the SEC, their Reserve Recognition Accounting ('RRA') disclosures are 'not meaningful and may be misleading' (Scott, 1997, p.25; c.f. Macve, 1983). For further discussion of the concept of '2-tier' standards, combining a 'benchmark /default' treatment with conditional flexibility, see e.g. Horton & Macve, 1997, pp.177, 181-90. However, the FASB seems unlikely now to be persuaded that 'objective' fair value measurement is only possible in limited circumstances or to embrace any approach to current value based reporting that allows 'subjective management judgement', unless the SEC itself begins to take a different approach to standardisation (SEC, 2000; c.f. Macve, 1997). Hence the necessity of good theory.