



Financial Measurement and Australian Accounting Standards

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Abstract

As a result of problems experienced in gaining general acceptance of the fourth instalment of the Australian conceptual framework for accounting, Statement of Accounting Concepts SAC 4 *Definition and Recognition of the Elements of Financial Statements*, it is anticipated that a forthcoming instalment, on measurement, will also be a controversial issue.

Part of the reason for lack of acceptance of SAC 4 was that it did not simply follow practice, but attempted to achieve improvements in recognition and reporting, based upon underpinning theory. As accounting is traditionally a practice-driven discipline, much of the resistance to change came from practitioners who believed that the cost of implementation of SAC 4 would outweigh the benefits.

Unless the SAC on measurement closely follows current practice, it is likely that similar resistance will occur, particularly in view of the US experience in which measurement concepts were a major stumbling block in the Financial Accounting Standards Board's conceptual framework development. Although the issue of measurement in financial reporting has been discussed in both professional and academic accounting forums for decades, there is little agreement on the approach which should be adopted. This is reflected in the Australian accounting standards, where a variety of measurement methods and guidelines for applicability results in the adoption of many

individual measures and combinations of measures in financial reports.

This paper summarises the measurement concepts and methods discussed in the accounting literature and identifies and classifies the individual measurements and combinations permitted by current Australian Accounting Standards. In conclusion, it discusses proposals for a measurement model which is gaining acceptance within the public sector and thus may be chosen as the least controversial option, but which will nevertheless conflict with the current requirements of many of our accounting standards.

The Measurement Debate

The rejection of the fourth instalment of the conceptual framework for general purpose financial reporting, SAC 4 *Definition and Recognition of the Elements of Financial Statements*, has begun to refocus attention upon the measurement problem in accounting. Part of the criticism of SAC 4 was that recognition of certain assets, particularly those of a more controversial nature, should not be mandated in the absence of guidance as to how they would be measured. The Australian Accounting Research Foundation (AARF) reported that they

"... received widespread comment that implementation of SAC 4 would present particular difficulties in the absence of an explicitly enunciated measurement model for financial reporting" (AARF 1994 p.7).

The response to this criticism in the revised version of SAC 4 is that the

"... Statement has been structured in as neutral a style as possible to allow for a range of existing and potential future

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approaches to the measurement and display of financial information.” (A56)

It is anticipated that the release of a Statement of Accounting Concepts on measurement, due after April 1997 (AARF 1994), will also be the subject of some controversy, particularly in the light of US experience, in which measurement was the concept which proved to be a major stumbling-block to the Financial Accounting Standards Board's conceptual framework project. However, this proposed measurement concept statement will be a vital component of the Australian conceptual framework because of the large proportion of accounting standards which specify or recommend measurement methods, and also as a result of the modified historical cost system currently in use, which encompasses a wide range of measurement practices. As AARF (1994) said:

“Measurement is one of the most significant contemporary issues in financial reporting” (p.13).

The development of a Measurement Concept Statement provides a unique opportunity to attempt the formulation or adoption of a measurement system for Australian accounting which is logical, consistent, soundly supported by theory and which defines the concept of capital appropriate for financial reporting in this country. Currently, the Accounting Standards permit an assortment of measures which are exceptions to the basic historical cost rule, and, as AARF (1994) said:

“... it is difficult to construct a theory which will provide a rationale for selective departure from the historical cost basis” (p.16).

Indeed, many accounting academics, such as Edwards & Bell (1961), Chambers (1966) and Sterling (1970) have described such attempts as futile, as selective departures from any theory will undermine its authority, dilute its impact, and cast doubt upon its efficacy. If a theory is suitable only for selective use, then perhaps a new paradigm is required which will be useful in all circumstances, and which will provide consistent, comparable, and relevant information. This is the challenge which is currently presented to AARF; to develop or adopt a logically consistent concept of measurement which is well supported by theory and relevant to all business sectors and industries. The intention of

AARF in developing the Conceptual Framework was that

“the proposed Statements of Accounting Concepts have the potential to significantly affect financial reporting requirements and practices in this country” (AARF 1987, p.1).

Following their inability to maintain the mandatory status of SACs 1-4 in the face of opposition from business, the danger is that the Measurement Concept Statement will be developed with current practice and the avoidance of controversy in mind. Often in such circumstances, the status quo becomes the starting point from which departures are then justified. The problem with the measurement status quo in Australia is that current accounting standards permit, through permutations, combinations and recommendations, many measurement methods which represent departures from historical cost, and have the capacity to affect reported income. AARF is clearly mindful of this situation, as Paragraph 58 of their Proposed Program (AARF 1994) discusses the fact that identification of a preferred concept of capital may meet many existing concerns, but goes on to say that:

“... it is not clear whether the Board's measurement project will result in the specification of a single concept of capital for all types of entity”.

Indeed the same paragraph indicates that the more difficult path of a proposed Statement of Accounting Concepts based upon a theoretically supported single concept of capital might not be taken, as it says in the last sentence that

“Conceptual frameworks in overseas jurisdictions ... generally have not specified a single concept of capital” (p.24).

Concepts of Capital and Income Measurement

The measurement of periodic accounting income and the concept of capital upon which it depends are inseparable and interdependent. As Irving Fisher said in 1930

“... income is the basis of the concept of capital value and is, in fact, the most fundamental concept in economic science... Capital value is income capitalized and nothing else”. (p.3)

Whilst income is a series of events, capital is the framework within which those events are translated into the accounting system and which subsumes those events, once they have occurred, in the form of retained earnings. For this reason, it is not possible to separate the concepts of "income" and "capital maintenance", and the measurement models described in the accounting literature ultimately have an effect upon both.

The accounting discipline has developed several measurement theories which might be appropriate for adoption in Australian financial reporting. There are two major capital maintenance concepts, financial capital and physical capital maintenance (Gynther, 1970), each of which may be consistent with different accounting models for the measurement of assets. For example, measuring assets at their selling price is consistent with the financial capital maintenance concept, as is the use of index-adjusted current value models, whilst physical capital maintenance or operating capability is more closely linked with replacement cost models.

The following section of this paper outlines the measurement models which have received most attention in the accounting literature (eg. Bell 1982; Staubus 1985), and summarises the Australian Accounting Standards in which each model is recommended for use.

Historical Cost

Historical cost is most commonly defined as the amount of cash or cash-equivalents paid to acquire an asset, or the amount of cash-equivalent liability (Martin, 1985; Belkaoui, 1992; Gaffikin, 1993)

The historical cost convention forms the basis of traditional generally accepted accounting principles, and has become so entrenched in the accounting ethos that it is often not realised that "only within the last 75 years did the historical cost doctrine crystallize and come to dominate the literature and practice of accounting" (Wells 1976 p.473).

It is a financial capital maintenance concept, based upon the maintenance of the original money capital contributed to the entity and increased through the retention of earnings. Under a pure historical cost regime the historic values, or past acquisition costs, of the net assets

of the entity form the basis for calculating income and capital, and no account is taken of any changes in the value of assets held.

To define historical cost, AAS 2 (1989) explained that

"in historical cost accounting, the principal basis for stating (assets) held at reporting date is cost" (para 10).

Thus, on a pure historical cost basis, the value of assets is ignored. Although AAS 26 (1990) uses the term "historical cost", it is in fact referring to a modification in describing the historical cost system as one in which

"... assets are measured at the amount of their original cost (less, where applicable, accumulated depreciation) or, if lower, at their *recoverable amount*" (para 88, emphasis added).

As Lee (1985) points out, accounting income calculated according to historic cost traditions "... appears to have the benefit of a sound, factual and objective transactions base." (p.52)

He reminds us, however, that whilst the recording of historical costs may be factual, the accompanying conventions of the realisation principle, the notion of conservatism, and the matching principle, introduce judgement into the recognition of revenue and the allocation of costs. This may lead to a reported income figure which is a "heterogeneous mixture of gains of the current and prior periods" (p.53), and not the straightforward, factual number which it is sometimes claimed to be.

This "hybridisation" is apparent within Australian accounting standards, as the notion of "recoverable amount" incorporated within the definition of historic cost in AAS 26 is itself defined in AAS 10 as

"... in relation to an asset, the net amount that is expected to be recovered through the cash inflows and outflows arising from its continued use and subsequent disposal" (para 12).

This means that the operating definition of historical cost for Australian financial reporting incorporates a choice between actual cost and the accumulation of future net cash flows. The description of historic cost in AAS 26 also implies that depreciation and downwards revaluation are implicit within this measurement method. Historical cost, as defined in the

accounting standards, is quite different from that defined in the literature.

It may also be worthy of note that the "cash flows" within the recoverable amount definition are not required to be discounted to their present value, which means that the result of applying recoverable amount as the lower of two measurements may still result in an inflated measure of the asset's current value as measured by net present value.

The use of historical cost is required predominantly for newly acquired assets. In the majority of cases, historical cost on acquisition is the same as fair value, and this is reinforced in that AAS 21 (1985) requires in paragraph 15 that cost be calculated with reference to the fair value of the consideration. The critical point about historical cost is that the measurement does not change as values change.

Where cost is specified as the basis of measurement, the cost is allocated over the life of the asset via depreciation and amortisation charges for non-current assets. Other allocations of cost are required to match costs to activities, including allocations to an area of interest and to contract activities. AAS 11 extends the cost allocation notion to include allocation of profit under the percentage of completion method.

Sometimes, items in the financial statements are carried at cost or allocated cost, net realisable value, recoverable amount or allocated recoverable amount. Land, one of the long-term assets¹ that are not subject to a cost allocation requirement, is caught by the revaluation provisions of AAS 10, and is perhaps unlikely to be reported at the cost of acquisition as recoverable amount is often greater than cost. This is the basis for its exclusion from the depreciation provisions of AAS 4. Tables 1a to 1d in the Appendix provide details of the standards in which cost, allocated cost, and conditional cost are specified, and include the directions provided for obtaining the cost amount.

The relevance of historic prices to current economic decisions is questioned in the accounting literature (eg. Edwards & Bell 1961; Chambers 1966; MacNeal 1970 Reprint; Lee 1985), and the tendency in the Australian standards has been to modify the pure historical cost basis of measurement by permitting or

requiring revaluation to reflect "current values", a term used in this paper to signify values other than historical cost. It could be argued that, whilst Australian accounting practices are generally discussed in terms of a historical cost system, most financial reporting is, in compliance with accounting standards, on a "current value" basis, although it should be noted that more assets may be subject to AAS 2, AAS 4 and AAS 10 than any other standard. This raises some conceptual difficulties in the reporting of assets as, whilst the SAC 4 definition makes no distinction between those of a current and non-current nature, the accounting standards apply different measurement principles to non-current assets and to inventory, which is often a major component of the current asset category. A summary of the Australian Standards requirements for historical cost income measurement and the approved departures from these requirements are illustrated in the Appendix to this paper.

The following paragraphs discuss some of the traditional "current value" alternatives, and identify the Accounting Standards to which they relate.

Current Purchasing Power Accounting

An alternative financial capital maintenance model is that of Current Purchasing Power Accounting (CPP). This method, which is not mentioned in the Australian Accounting Standards, involves an index-based adjustment to the historical cost of assets in each accounting period. It may involve the use of indices specific to the types of assets held, or a general index, such as the Consumer Price Index, to represent the change over time in the general purchasing power of the money originally invested in those assets. The model has been severely criticised by writers such as Gynther (1974) as it perpetuates the lack of relevance of historical cost, and reflects neither the value of assets in use nor their value in exchange. Whilst pure CPP accounting has few advocates currently, support has been advanced for several index-adjusted models which aim to preserve financial capital by incorporating an adjustment for changes in the purchasing power of money together with specific adjustments for changes in asset prices. An example of this is the Current Cost

¹ Others include investments and self-generating and regenerating assets.

Accounting model advocated by the major Australian accounting bodies in SAP 1 (1976).

Current Cost Accounting

The term "current cost accounting" is both a financial and physical capital maintenance concept which values assets at

- replacement cost (entry prices),
- net realisable value (exit prices), or
- net present value,

all of which are discussed separately in the sections below. With regard to obtaining current costs in general terms, however, the Australian Accounting Standards refer users to

"SAP 1 ... which includes guidance regarding the determination of current cost" (AAS 10 para 27),

and further

"for guidance on the determination of the written-down current cost of an asset, preparers of financial reports should refer to SAP 1" (AAS 27, para 41).

Written down current cost is determined

"by reference to current market buying prices... or, where such prices are not available, an estimation thereof" (AAS 29 para 69),

and further, SAP 1

"may be of assistance in determining the written-down current cost of an asset where market buying prices are not available" (AAS 29 para 69).

In referring to "current market buying prices", the standard-setters are providing implicit support for the replacement cost accounting model at least for reporting of assets in the public sector and revaluation of assets in both public and private sectors. Current cost is referred to in three Accounting Standards either directly (AAS 27 & AAS 29 - written-down current cost is encouraged in the public sector) or indirectly (AAS 10 - instruction to follow SAP 1 when revaluing to buying prices). References to current cost are detailed in Table 2 of the Appendix.

Replacement Cost Accounting

The concept of physical capital maintenance is concerned with maintaining the operating capability of the firm, and includes the measurement model of Replacement Cost, a term which encompasses Current Cost and Current Entry Values (Lee, 1985). Replacement

Cost has been defined as

"the amount that would be paid now to acquire the best asset available to undertake the function of the asset owned (less depreciation, if appropriate)"

whilst current cost

"is equal to the replacement cost of the asset, but adjusted for the value of any operating advantages or disadvantages of the asset owned. Conceptually the main difference between the two is that current cost focuses on the cost of the service potential of the actual asset owned, whereas replacement cost focuses on the cost of a currently available asset that is expected to replace the existing asset." (Godfrey et al, 1994, p.406)

The Business Income Model of Edwards and Bell (1961) was the first systematic exposition of current cost accounting to utilise replacement costs. It incorporated the two components of current operating profit and holding gains into the income number. The current operating profit produced by this model is:

"the excess of the current value of the output sold over the current cost of the related inputs"

whilst holding gains are

"the increase in the current cost of the assets held by the firm in the current period" (Godfrey et al 1994 p.126).

Both realised and unrealised holding gains are included in current period's profit using this model, which is based upon a concept of physical capital maintenance.

No elements referred to in the Australian Accounting Standards are explicitly required to be reported using a replacement cost measurement. However, this method gains implicit support from the examples in Table 2 and is acceptable for items of inventory in cases where it is "lower than cost" and "represents a fair approximation of net realisable value" (AAS 2 para 28).

Net Realisable Value

Net realisable values, or current exit values, have been described as representing the 'opportunity cost' of assets, or the "value of a resource in its next best alternative form" (Lee 1985 p. 14). This measurement concept is concerned with the periodic change in the

realisable value of capital, and is thus directed toward the maintenance of financial capital. Advocated by MacNeal (1970 reprint) and developed by Chambers (1966) and Sterling (1970), it reports assets at their exit prices or realisable market values (cash or cash equivalents which would currently be obtained from sale), either when sold in the normal course of business (Chambers) or within a liquidation process (Sterling). The most well known form of this capital maintenance concept is Chambers' Continuously Contemporary Accounting (CoCoA) model, which also reports liabilities at the undiscounted amounts of cash or cash equivalents which the entity expects to pay to satisfy the liabilities in the normal course of business.

Net realisable value has been

"advocated as the most reasonable opportunity cost to use (as) it is an expression of the economic sacrifice being made by the entity when it invests in the resources it has rather than in alternatives. Such a sacrifice is therefore expressed in terms of the entity's ability to command alternative goods and services". (Lee 1985 p.92).

This income model has not attracted a great deal of support in the past, owing to a perception that it implies liquidation rather than the 'going concern' notion, and also to some suggestions that market values may be difficult to obtain. However, it has some advantages in that the idea of "money's worth" with regard to assets is intuitively understandable; it highlights the fact that businesses do have choice in relation to the assets they hold; and realisable values do provide a measure of such alternative choices together with the current sacrifices implied in holding the chosen resources. Further, the criticism that market prices are difficult to obtain has been rebutted by writers such as Wolnizer (1977). The concept of net realisable value, which is consistent with the maintenance of financial and physical capital, is presented in the current value debate as a measure which provides an indication of both adaptability and liquidity.

Net realisable value (NRV) is defined in the Accounting Standards as

"the estimated proceeds of sale less, where applicable, all further costs to the stage of completion and less all costs to be incurred

in marketing, selling and distribution to customers" (AAS 2 para 7).

Similarly, net market value (NMV) is described as

"the amount which could be expected to be received from the disposal of an asset in an orderly market after deduction of costs expected to be incurred in realising the proceeds of such a disposal" (AAS 25 para 10; AAS 26 para 15).

The nature of the market in which valuation will be made appears to be the difference between NRV and NMV. The former suggests that a "fire sale" basis is permissible whilst the latter does not. It could also be argued, however, that the difference between AAS 2 and AAS 25/AAS 26 is one of timing, and that if they had been written at the same time, they would be similar. AAS 2 para 26 supports this argument in identifying the risks to be taken into account in assessing net realisable value in situations where there is no "orderly market". This indicates that an orderly market is assumed by AAS 2 to be the normal situation.

Conservatism and the US tax legislation of the early twentieth century underlie the uncritical application of the lower of cost or market rule enshrined in AAS 2, and it is interesting that it is in this Standard, perhaps the most conservative of our present accounting standards, in which we find the definition of what is essentially a current exit value concept. AAS 2 also requires the use of net realisable value when reporting the costs of by-products which are not separable from those of the principal product (Appendix, Table 3a).

More controversial applications of net realisable value appear in AAS 25 and AAS 26. The requirement to report all superannuation plan assets and most general insurers' assets at net market value (with the inclusion of changes in the income statement) is seen by some to be part of

"... a secret agenda being pursued by the ... (AARF) to make market value accounting the norm ..." (Shanahan, 1991)

Current market buying and selling prices are permissible as the basis of revaluation in AAS 10 (paras 27 and 29).

Direction on the determination of net market value varies between the standards. For

inventory, AAS 2 specifies contract price for items being held for delivery and the use of a formula based on "age, past movements, expected future movements and estimated scrap values" (para. 23). It might be assumed that such a formula, which "may often" be used, would only be appropriate if there were no readily observable market value. For the assets of superannuation plans, gross market value is to be used when disposal costs are not material (para 38a). To report assets for which readily available prices do not exist, AAS 25 specifies "likely proceeds to be realised" (para 38b). When there is no market for long-term monetary assets, discounted present value is to be used to "calculate" net market value. No guidance is given in AAS 27 on the determination of market values for the investment assets and land and buildings of general insurers. Tables 3a to 3c of the Appendix provide a summary of the incidence of NRV in the Australian Accounting Standards.

Net Present Value

Assets which are valued according to the Net Present Value (NPV) principles are

"carried at the present discounted value of the future net cash inflows that the item is expected to generate in the normal course of business" (Alexander & Britton 1994 p. 165).

The valuation of capital on the basis of discounted future net cash flows is believed to be the measurement model which is closest to the economists' idea of "true" or "ideal" income (Lee 1985). Whilst accountants have traditionally been concerned with income calculations based upon market transactions and prices, this economic concept is based upon the prediction of future cash flows.

The net present value approach includes within the income calculation all cash flows, whereas traditional historical accounting measures include only those gains which have been realised. However, should the forecasted flows be accurate, the main difference between the economists' and the accountants' income measurement methods will simply be periodic differences, and these timing differences will be self-cancelling by the end of the asset's or entity's life.

Neither present value nor net present value are defined in the Standards although instructions

provided for calculation, discussed in the following paragraph, may provide a surrogate definition. Despite the absence of a stated definition, present value measurement is already prescribed for finance lease assets and liabilities, reinstated debt, defeased assets and liabilities, the outstanding amount of a liability partially extinguished, the accrued benefits of a defined benefit plan, liability for outstanding insurance claims, insurance claims recoveries receivable and employee entitlement liabilities. The AAS 10 requirement to disclose whether "the expected net cash flows ... have been discounted ..." (para. 54) implies that present value is an acceptable basis for the revaluation of non-current assets, whilst AAS 17 requires a lessor to record the investment in a direct financing lease at present value (para 82). This also applies to lessees by virtue of paragraph 50.

Five standards provide instruction for obtaining present value. Each loosely identifies cash flows then specifies the discount rate to be applied. Leases and unextinguished debt are to be discounted at their implicit interest rates, i.e. the historical rate. The liabilities for accrued benefits of superannuation plans and expected future payments of general insurers are to be discounted at a "market-determined, risk-adjusted rate" (AAS 25 para 50; AAS 26 para 49). Employee entitlement liabilities are required to be based upon the "appropriate national government guaranteed securities rate" due to the "difficulty of determining" (AAS 30 para. 26) market rates for such liabilities. It is perhaps noteworthy that this current value model, which gains both explicit and implicit support within the accounting standards, is not one which Wells, writing in 1976, identified as a major "school of thought" within the measurement debate at that time. This is indicative of the fluidity of this debate, and the conceptual development which is still occurring within it. Specific standards and paragraph references to NPV appear in Tables 4a to 4c of the Appendix.

Deprival Value

The concept of deprival value has been promoted in many Australian Government policy documents (eg. Commonwealth of Australia 1994; Department of Finance, Victoria 1994) as the appropriate current value basis for valuation of publicly-held assets including those of

Government Trading Enterprises. Deprival value is either prescribed or proscribed by AAS 27 and AAS 29 depending upon whether it meets the definition of recoverable amount. An example of this is in AAS 27, para 37, which requires revaluations of non-current assets to be carried out in accordance with AAS 10. First described by Bonbright (1937), deprival value is based on the legal notion of compensation for loss, and this translates for accounting purposes into value to the owner, or entity. It represents the future economic benefits which would be foregone by the entity if it were deprived of the service potential or future economic benefit embodied in the asset. Where an entity would replace the asset if lost, the appropriate valuation base is replacement cost; where the entity would not replace the asset, deprival value would be represented by the greater of its net realisable value and net present value. Assets that are surplus to requirements are measured at net realisable value. A perceived disadvantage of this method is that different assets within the balance sheet are measured on different bases, and this can give rise to the "fallacy of mixed aggregation" described by Chambers (1966). However, its supporters suggest that all values reported represent the real value of specific assets to the entity, and therefore the aggregated amounts are in fact homogeneous.

Deprival value, in its use of entry and exit prices in addition to net present value calculations, is intended to incorporate all the advantages of these current value models in permitting the choice of the one most appropriate to the entity's current circumstances. The flexibility which it permits in the valuation of assets is one reason why deprival value has become part of current cost accounting practice in the United Kingdom (Lee 1985), and why it has gained the support of the Australian public sector.

Measurement Without Underpinning Theory

The following measures, specified in the Standards, are not able to be classified in terms of the models provided within the existing theories of accounting measurement.

Recoverable Amount (where below cost)

This is defined in terms of an asset as:
 "the net amount that is expected to be recovered through the cash inflows and outflows arising from its continued use and subsequent disposal" (AAS 10 para 13);

a definition which is extended in AAS 20 to include

"... or, through its sale" (para 3n).

Recoverable amount is prescribed in AAS 10 and AAS 11 for assets that have a carrying amount greater than recoverable amount, whilst AAS 20 requires capitalised exchange differences to be written down to recoverable amount. The requirement of AAS 9 that expenditure carried forward be equalled by "future revenue" or "net realisable value" (para. 5) would also meet the definition of recoverable amount, even though the term is not specifically used in that standard. In addition, the recoverable amount test appears to be analogous to the lower of cost and market rule in AAS 2. Recoverable amount can be determined by a market selling price or by future cash flows, whilst net realisable value can be a contract price or based on the formula discussed earlier. The 'recoverable amount' recommendation in five of the present Australian Accounting Standards (Table 5a) is indicative of wide current support by the standard-setters for this concept of measurement.

Fair Value

Fair value is defined in the Standards as:
 "the amount for which an asset could be exchanged between a knowledgeable, willing buyer and a knowledgeable, willing seller in an arm's length transaction".²

At the date of acquisition, this is effectively historical cost in the majority of cases. Items required to be reflected in financial statements at fair value include the identifiable net assets of an acquired entity, determination of a purchase consideration for non-monetary assets, and assets of government departments acquired at nominal or no cost, or in the form of contributions.

² (AAS 14 para 3f; AAS 17 para 5g; AAS 18 para 2c; AAS 21 para 3d; AAS 22 para 13; AAS 27 para 12; AAS 29 para 8).

Instructions for determining fair value of shares or securities are provided in AAS 18 (para 11) and AAS 21 (para 16), which suggest that it will be indicated by the price at which listed securities could be placed in the market. Valuations may be necessary in the case of unlisted securities, and we are told that par value cannot be assumed to reflect fair value, "as this would rarely be the case". For other assets, reference to a "market" or "exchange" value does not indicate whether replacement cost or net realisable value is preferred, and this may lead to some uncertainty in the valuation of assets in at least four of the present Australian Accounting Standards (Table 5b).

Other Unclassifiable Measures

Table 5c in the Appendix includes measures identified in the Australian Accounting Standards which are unable to be included within any traditional measurement classification. These include cost adjusted for share of profit, allocated present value, cost minus fair value, cost estimated via formula, undiscounted cash flow and transferor amount.

Some components of financial statements have a measurement base prescribed in the standards which is largely a function of management choice. Revaluation to any amount not exceeding recoverable amount (AAS 10 para. 24) allows latitude in the selection of a carrying amount (and subsequent effects on the income statements). Government departments are also permitted to choose any basis for the initial recognition of previously acquired assets, although they are encouraged to use "written-down current cost" (AAS 29 para 61). Any use of estimation techniques allowed by the standards gives management considerable discretion in the selection of values reported, and whilst this may be applauded for permitting the exercise of professional judgement in obtaining a 'true and fair' result, such perceived uncertainty in five of the accounting standards (Table 6) may expose the accounting profession to criticism for potential creativity.

Conclusion

This paper has described the major concepts currently under discussion as a basis for asset valuation and income determination, and has identified the measurement methods prescribed

or permitted by the Australian Accounting Standards. Although generally accepted accounting principles and the Accounting Standards are nominally based upon historical cost accounting, "valuation practices for financial reporting in general have developed with emphasis on market prices as a basis for valuation" (IFAC 1994). The extent of departure from the historical cost basis of accounting in the Australian Standards has been demonstrated in this paper, and each of the above-mentioned departures has implications for the calculation of the income numbers presented in the operating statements of Australian reporting entities. The identification of measures anomalous to historic cost (in the definitional sense rather than the system currently being practised) are indicative of the pervasive presence of "current value" accounting in the Australian Accounting Standards.

This means that, whilst no established "current value" concept has yet been adopted in its entirety for financial reporting purposes, standard-setters have increasingly permitted and supported the use of a variety of valuation methods based upon current costs.

It would appear, therefore, that if the forthcoming Concept Statement on Measurement is to gain ready acceptance by practitioners and the business community, and avoid the controversy experienced with SAC 4, its optimal prescription would be to permit the continued use of judgement in the choice of an appropriate measure for reporting the assets of individual entities. This might suggest support for the use of deprival value, or value to the entity. However, that may not be the straightforward solution which it appears, as the majority of measurements under the deprival value model are effectively based on replacement cost, a method which is not well represented in the current Accounting Standards. The present Standards in fact indicate more support for net realisable value and net present value as alternatives to historic cost than they do for the use of replacement cost. Should deprival value be adopted, therefore, it would be contrary to a greater number of current Accounting Standards than it would support, and this may require changes in the interpretation of accounting reports Australia-wide. Perhaps at this stage in the development of the Conceptual Framework, AARF would be better to choose

the measurement option which in their opinion has the most sound theoretical and conceptual underpinnings. Given that it will be impossible to placate every practitioner AARF could then let "best practice" be the response to any resulting controversy. The unpalatable alternative is to abandon the Conceptual Framework and return to the research methodology of the early twentieth century which was characterised by the codification of current accounting methods. This methodology has been criticised as

"... a practice-theory-practice cycle ... (that) tended to retard the progress of accounting, because there was no value judgement exercised in respect of the practices which were observed. In other words, there was no opportunity to critically examine what was being practised before the next generation of accountants were developed in the same manner." (Mathews and Perera, 1991: 23)

Appendix

Table 1a
Elements required to be reflected at cost

STANDARD	PARA.	MEASURED COMPONENT
AAS 4	34	Land (until revalued)
AAS 14	14a	Investment in associate (initially)
AAS 20	48	Cost in domestic currency when element is initially recognised
AAS 21	24	Acquisition of assets
AAS 26	94	Operating assets of insurers
AAS 27	39	Newly acquired assets of Local Government
AAS 29	56	Newly acquired assets of Government Departments
AAS 30	21	Nominal amounts for employee entitlements due within 1 year, and wages & salaries, annual & sick leave regardless of settlement date
AAS 30	34	Non-monetary benefits at net marginal cost

Table 1b
Elements required to be reflected at allocated cost

STANDARD	PARA.	MEASURED COMPONENT
AAS 4	10	Depreciable asset
AAS 4	34	Depreciable buildings
AAS 4	38	Depreciate spares as part of the HC of the assets
AAS 7	12	Depreciable assets in extractive industries
AAS 7	19	Allocate costs to area of interest
AAS 7	28	Exploration, evaluation and development costs carried forward
AAS 11	5	Allocate profit to a period in proportion to work completed
AAS 11	14b	Allocate costs of contract activity
AAS 13	13	Allocate depreciation on assets to the extent they are related to research and development activities
AAS 13	25	Amortise deferred R & D costs
AAS 17	41	Interest cost of lease
AAS 17	44	Profit/loss on sale and leaseback
AAS 17	51	The lease asset; amortise rights to leased property against revenue ie. allocate the present value at the inception of the lease over the lease life
AAS 17	78	Defer and amortise initial indirect costs of operating lease
AAS 17	86	Lessor to depreciate asset in accordance with AAS 4
AAS 18	25	Goodwill amortisation period not more than 20 years
AAS 18	40	Purchased goodwill
AAS 20	31	Defer and amortise arrangement costs for debt swaps
AAS 26	82	Amortise deferred acquisition costs
AAS 27	42	Non-current assets with limited useful lives
AAS 29	70	All depreciable assets

Table 1c
Elements at conditional cost

STANDARD	PARA.	MEASURED COMPONENT
AAS 2	8	Lower of cost and NRV for inventory
AAS 2	33	Materials and consumables at not less than cost if cost is greater than NRV of the finished goods
AAS 7	11	Development costs
AAS 9	5	Carry forward expenditure resulting in a saleable asset to be at least net realisable value
AAS 10	29	Revalue assets downward if recoverable amount is less than cost
AAS 13	32	Research and development costs if future benefits expected
AAS 20	13	Include exchange gains and losses in cost of qualifying asset but do not carry in excess of recoverable amount
AAS 20	55	Lower of cost and recoverable amount for translated non-monetary assets
AAS 26	80	Lower of cost and recoverable amount for insurance company assets other than investments
AAS 26	82	Deferred acquisition costs at recoverable amount when the present value of revenues and expenses is greater than related unearned premiums

Table 1d
Instructions for obtaining cost

STANDARD	PARA.	MEASURED COMPONENT
AAS 2	13	Standard cost permitted for inventory
AAS 2	18	Absorption costing is required
AAS 2	29	Specific identification, weighted average cost, FIFO and standard cost
AAS 2	34	Deduct cost of by-products from cost of principal product
AAS 7	30	Amortisation charges to be included in the cost of production
AAS 7	37a,b	Restoration costs prior to production included on occurrence; include restoration costs in costs of production
AAS 7	44	Estimated cost of product sold to be deducted from accumulated costs
AAS 13	12	Include directly attributable costs in cost of R & D activities
AAS 17	41	Interest cost to be determined by the difference between undiscounted MLP and the initial liability
AAS 20	61	Include gains and costs on hedges that match intended purchases or sales in measurement of purchase or sale
AAS 21	18	Apportion acquisition costs to acquired assets except for acquisition of business
AAS 21	19	Measure cost of assets when acquired as a business entity by reference to assets' fair values
AAS 21	24	Cost of acquisition to be the purchase consideration at date of acquisition plus incidental costs

Table 2
Elements allowed at current cost

STANDARD	PARA.	MEASURED COMPONENT
AAS 10	27	Follow SAP 1 when buying prices are used for revaluation
AAS 27	39	Written-down current cost for assets not previously recorded
AAS 27	41	Written-down current cost an acceptable basis for revaluation of non current assets
AAS 29	61	Recognition of assets not previously recognised is encouraged at written-down current cost
AAS 29	65	Revaluation of infrastructure, heritage and community assets to written down current cost is encouraged

Table 3a
Elements required at NRV

STANDARD	PARA.	MEASURED COMPONENT
AAS 2	8	Inventories where NRV is less than cost
AAS 2	34	By-products when costs are not separable from the cost of the principal products
AAS 9	5	Carry forward expenditure resulting in a saleable asset to be at least net realisable value
AAS 25	37	Assets of superannuation plans at net market value at reporting date
AAS 26	78	Investments of general insurers at NMV
AAS 26	79	Land and buildings of general insurers at NMV

Table 3b
Elements allowed at NRV

STANDARD	PARA.	MEASURED COMPONENT
AAS 10	55	Implies revaluation to current net market selling price
AAS 29	61	Assets not previously recorded in Government Departments - allowable; not prescribed

Table 3c
Instructions for obtaining NRV

STANDARD	PARA.	MEASUREMENT INSTRUCTION
AAS 2	15	Based on contract price where firm sales contract exists
AAS 2	23	Use formula based on predetermined criteria including age, past movements, expected future movements and estimated scrap value of the inventories
AAS 25	38	When no market for long-term monetary assets, calculate net market value as discounted present value
AAS 25	38a	Use gross market value where expected costs of disposal are not material. Expected disposal costs may be estimated by the application of an average rate
AAS 25	38b	Likely proceeds when there is no readily available market price
AAS 25	38c	Use judgement to determine the appropriate discount factor to be applied to long-term monetary assets

Table 4a
Elements required to be reflected at present value

STANDARD	PARA.	MEASURED COMPONENT
AAS 17	36	Lease asset and liability to be capitalised at the present value of MLPs for finance leases
AAS 17	66,82	Lessor's investment in direct financing lease
AAS 23	14	Any outstanding liability after partial extinguishment
AAS 23	24	Reinstated debt
AAS 23	33	Carrying amount of defeased assets and liabilities
AAS 25	50	Accrued benefits of defined benefit plan
AAS 26	34	Liability for outstanding claims for direct business and inwards reinsurance
AAS 26	83	Claims recoveries receivable
AAS 30	22	Employee entitlement liabilities other than wages, salaries, annual leave and sick leave settled at any time, other entitlements settled within one year

Table 4b
Elements allowed at present value

STANDARD	PARA.	MEASURED COMPONENT
AAS 10	54	Implies revaluation to present value
AAS 29	61	Permitted for assets not previously recorded in Government Departments

Table 4c
Instructions for obtaining present value

STANDARD	PARA.	MEASUREMENT INSTRUCTION
AAS 17	36	For lessee's asset and liability, discount MLP at the interest rate implicit in the lease (or estimate)
AAS 17	37	Present value equals fair value when fully guaranteed residual exists
AAS 17	66	For lessor's asset, total present value of the MLP receivable and the present value of the unguaranteed residual using the interest rate implicit in the lease
AAS 23	14	Discount remaining debt servicing requirements at the rate of interest implicit in original contract
AAS 25	50	Discount the gross benefit payments at a current, market-determined, risk-adjusted discount rate appropriate to the plan
AAS 25	53	Discount at the rate of return that the plan anticipates it could achieve, if sufficient funds were available at reporting date
AAS 26	36	For present value of expected future payments the discount rate to be the rate of return that the insurer anticipates it could earn if sufficient funds were available to meet claims. Rate to be determined by reference to market-determined risk-adjusted rates of return appropriate to the insurer
AAS 26	49	Rates earned on existing assets may be indicative of anticipated rate
AAS 30	23	Discount particular employee entitlement liabilities at the appropriate national government guaranteed securities rate
AAS 30	24	Include estimated future cost increases in cash flows
AAS 30	27	Determine government security rates as those current in primary or secondary markets
AAS 30	28	For overseas subsidiaries, use the rate attaching to that country's national government securities

Table 5a
Elements required to be reflected at recoverable amount

STANDARD	PARA.	MEASURED COMPONENT
AAS 7	11	Carry forward only those costs expected to be recouped through successful exploitation or sale
AAS 9	5	Carry forward amount to be equalled by future revenue or realisable value for an asset
AAS 10	29	Where carrying amount of non-current assets is greater than recoverable amount; Revalue assets downward if recoverable amount is less than cost
AAS 11	20	Where the carrying amount of an asset under construction is greater than recoverable amount
AAS 13	34	Unamortised balance of deferred costs
AAS 20	13	Asset not to be carried at amount in excess of recoverable amount in capitalising exchange differences
AAS 20	55	Where lower than cost for translated non-monetary assets
AAS 26	80	Where lower than cost for insurance company assets other than investments
AAS 26	82	Deferred acquisition costs when the present value of revenues and expenses is greater than related unearned premiums

Table 5b
Elements required to be reflected at fair value

STANDARD	PARA.	MEASURED COMPONENT
AAS 18	37	Purchased identifiable net assets
AAS 18	38	Goodwill equals purchase consideration minus the fair value of tangible assets acquired, ie. fair value
AAS 21	15	Where a purchase consideration comprises non-monetary assets, except discount on acquisition
AAS 24	58	Net assets acquired by parent company to be recognised at fair value or fair value less any discount on acquisition
AAS 27	64	Assets transferred from another local government at no cost
AAS 29	57	Assets acquired at no or nominal cost by government departments
AAS 29	116	Contributions to government departments

Table 5c
Other unclassifiable measures

STANDARD	PARA.	MEASURED COMPONENT
AAS 14	14b	Carrying amount of investment in associated company at cost adjusted to recognise investor's share of profit
AAS 14	35	Investment at cost to be adjusted to the amount that would have been the carrying amount had it been an associate since acquisition
AAS 18	25	Goodwill amortisation period may be arbitrary (not more than twenty years)
AAS 18	38	Goodwill equals purchase consideration minus the fair value of the tangible assets acquired
AAS 18	43	Discount to be offset against the fair value of the non-monetary assets proportionately - departure from cost for assets recorded at fair value but assets written back to cost when the discount is included each year
AAS 26	43	Estimated settlement costs on the basis of a formula including past period information adjusted for recent events - estimated cost
AAS 26	101	Recoveries receivable at expected future receipts if not materially different from present value
AAS 27	64	Assets acquired at nominal or no cost via transfer from another local government at allocated cost of previous owner
AAS 29	58	Assets acquired at nominal or no cost under a restructuring of administrative arrangements, recognised at fair value or allocated cost of previous owner

Table 6
Management's preferred measurement basis

STANDARD	PARA.	MEASURED COMPONENT
AAS 4	34	Apportion historic cost or other revalued amount (not exceeding recoverable amount) substituted for historic cost
AAS 10	24	Revalue to any amount not exceeding recoverable amount
AAS 10	26	Remaining service potential of assets of not-for-profit entities (not used to generate cash flows) measured at an amount consistent with the measurement model adopted
AAS 10	34	Remaining service potential of assets of not-for-profit entities (used to generate cash flows) measured at any amount not in excess of future net cash inflows
AAS 10	55	Current market buying or selling price
AAS 10	57	Independent valuation At management's valuation
AAS 27	39	Initial recognition of previously acquired assets
AAS 27	64	Assets acquired at nominal or no cost at transferor amount or fair value
AAS 29	61	Initial recognition of previously acquired assets encouraged at written down current cost but amounts based on initial acquisition cost or another basis assessed by management or an independent valuer are not precluded
AAS 30	30	Use of estimation techniques in measuring expenses, liabilities, assets and revenues is acceptable

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