Hicksian Income in the Conceptual Framework

ABSTRACT
In seeking to replace accounting ‘conventions’ by ‘concepts’ in the pursuit of principles-based standards, the FASB/IASB joint project on the conceptual framework grounds its approach on the famous definition of ‘income’ by Hicks. While we endorse the use of theories by accounting standard setters and practitioners, such theories need to be considered in their entirety. Parts of a theory cannot be ‘cherry picked’ to aid the objectives of standard setters without the risk of distorting the integrated theory as a whole. Incorrect understanding of the selected elements of a theory further increases the distortion. Here we argue that the Boards have treated selectively, misquoted, misunderstood, and misapplied the Hicksian income concept. We then explore some alternative approaches to ‘income’ suggested by Hicks and by other writers, and their relevance to current debates over the Boards’ conceptual framework and standards, and argue for an alternative view to that of FASB/IASB of how accounting concepts and conventions should be related. Executive stock options (ESOs) provide an illustrative case study.

Keywords: Income, assets, interest rates, conceptual framework, conventions, executive stock options
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1. Introduction
The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) are engaged in a joint project to converge and improve their respective conceptual frameworks for financial accounting and reporting. The overall approach was outlined in an early paper Revisiting the Concepts in May 2005 (FASB/IASB, 2005) which emphasises that ‘to be principles-based, standards cannot be a collection of conventions but rather must be rooted in fundamental concepts’. At the time of issue this was presented as an authoritative statement of how the two Boards intended to undertake the convergence and improvement of their existing conceptual frameworks, based on and building on their existing frameworks, even though there had not been any prior exposure to allow public comment as to whether some more radical approach would be appropriate (cf. Bromwich, 2001; Dean & Clarke, 2003; Wells, 2003; Potter, 2005; Dennis, 2006, 2008; Rayman, 2006; AAA, 2007, Penno, 2008).

Here we focus principally on what appears to be—and was predicted in that 2005 paper to continue to be—the bedrock of the Boards’ frameworks, namely the conceptual ‘primacy of assets’ (p.9) and especially the attempt to derive this primacy from Professor Sir John Hicks’s (1946) definition of ‘income’ (p.7; p.18). We endorse the use of accounting theory by standard setters and practitioners. However, our major concern is that, where standard setters use theory for their purposes, they must employ the full theory rather than just ‘cherry-pick’ those elements that are believed to further their objectives. Moreover, the elements of the theory that are utilised must be correctly understood both in themselves and within the overall integrated theory. Here we address these concerns in the context of measuring accounting income. The main objective of this article is to indicate the dangers of the inappropriate use of theory and thereby to assist accounting policy makers and others to use it more appropriately. Thus we provide here an analytical and critical case study of the use of income theory in accounting policy making.

http://www.fasb.org/project/communications_paper.pdf (accessed 16 June 2009). This FASB/IASB ‘communications’ paper was written by staff members Halsey G. Bullen and Kimberley Crook. Originally, it did not carry the usual disclaimer as to the status of staff opinions, although the disclaimer does now appear on p.16 of the version now available online, and the FASB website now refers to it as a ‘staff authored article’.

http://www.fasb.org/project/communications_paper.pdf
In the following sections (2 through 5) we explain in turn each of the significant differences between the Hicksian analysis of income and that of the FASB/IASB. As a result we argue that a fundamental reorientation of the conceptual framework project is needed: and in section 6 we tentatively explore how the Boards might begin to develop a more fruitful understanding of the respective roles of accounting conventions and concepts and of the interrelationships between them. Section 7 concludes and an Appendix illustrates the arguments with the example of the recent changes in accounting for executive stock options (‘ESOs’).

2. The foundations
What is regarded as relevant conceptual enquiry depends on the assumed objective(s) of financial accounting and reporting. Our analysis here falls within the perspective of the ‘value school’, where the accounting objective is seen to be that of reporting ‘wealth’ and ‘income’ (c.f. Van Cauwenberge & DeBeelde, 2007), as this is the objective embraced by FASB/IASB (2005). 2 Starting with the overriding objective of ensuring the usefulness of accounting figures in making economic decisions, and thus their utility in assessing cash flow prospects, the frameworks of the Boards focus on ‘enterprise resources, claims to those resources, and changes in them’ (p.3). This leads to definitions of the elements of financial statements, beginning with assets. It has been tentatively decided for the new joint framework that, as a working definition, ‘an asset of an entity is a present economic resource to which the entity has a right or other access that others do not have’. 3

The definition of assets, which is in substance similar to the definitions in the existing individual FASB and IASB frameworks, is offered in contrast to ‘earlier efforts that included deferred debits among assets’ (FASB/IASB 2005, p.6). It is then argued that

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2 It is also consistent with the approach adopted in empirical studies of ‘value relevance’, e.g. recently by Chambers et al. (2007) and Horton & Serafeim (2008). It is the conceptual issues arising therefrom that we explore here, and we do not directly consider the implications of adopting alternatives such as the ‘information content school’, based on an objective of measuring and disclosing informative events (see for example, Bromwich, 1992; Christiansen & Demski, 2003; Sundem, 2007 for further discussion); or the ‘contracting school’, including ‘stewardship’ issues (see e.g. Watts, 2003a; 2003b; Benston et al. 2006; Whittington, 2008 for further discussion). Nor do we extend the discussion to public sector and other not-for-profit organisations (see e.g. Speckbacher, 2003; Laughlin, 2008.) The history of how and why the FASB came to adopt this particular conceptual framework, and how the ‘inner circle’ in the ‘G4+1 group’ has influenced the IASB’s ideas, is also beyond this study (see e.g. Macve, 1997; Zeff, 1999; Nobes, 2006).

all other elements in financial statements can be derived from the definition of assets, which gives assets ‘conceptual primacy’ and leads to the ‘asset/liability’ view of income measurement, ‘in which income is a measure of the increase in the net resources of the enterprise during a period, defined primarily in terms of increases in assets and decreases in liabilities’ (p.7).[^1]

The Boards’ objection to ‘deferred debits’ (Sprouse’s ‘what-you-may-call-its’, Storey, 2003, p.44)) is that they are allegedly indefinable without circularity, being simply the result of the ‘revenue and expense’, or ‘matching’ approach to measuring income. However, at least in principle, this accusation that traditional accounting conventions allow into the balance sheet items that would not meet the FASB/IASB asset definition appears to be false. A traditional UK professional textbook such as Cropper (1930), for example, explains in relation to items of ‘deferred revenue expenditure’ that these ‘must be carefully reviewed, and… … may be “held up” as an asset legitimately, if written off over a reasonable period. It is assumed in such cases that benefits will accrue in succeeding years from the expenditure, and so these years should bear their proportion of the burden’ (p.94). So the ‘deferred debits’ resulting from ‘matching’, as traditionally understood, must also represent probable future economic benefits, i.e. enhanced future cash flows.[^5]

It is at this point that the Boards’ framework purports to be ‘grounded in a theory prevalent in economics: that an entity’s income can be objectively determined from the change in its wealth plus what it consumed during a period’ (FASB/IASB 2005, p.7). Here, Hicks (1946, pp. 178-9) is cited, using what Hicks called ‘Income No 1’. This he defined (1946, p.173) as ‘the maximum amount which can be spent during a period if there is to be an expectation of maintaining intact the capital value of prospective receipts (in money terms)’. The Boards’ assertions of the ‘conceptual primacy’ of assets, and the superiority of the ‘asset/liability’ view over the ‘revenue and expense’ perspective in measuring a business’s income, are based on this foundation (FASB/IASB, 2005, p.7).

[^1]: This formulation is clearly technically incomplete, as there can be an increase in the net resources of the enterprise during a period, comprising decreases in assets outweighed by decreases in liabilities; or increases in liabilities outweighed by increases in assets.

[^5]: Barth (2008, p.1166) emphasises this proper understanding of ‘matching’.
The Boards’ attempt to ground their converged framework of accounting theory and principles on a sound economics foundation is to be welcomed. Unfortunately, their chosen foundation will not support the particular structure that the Boards wish to erect. Although Hicks (1946) was here concerned only with an individual’s income, his definition of ‘Income No. 1’ can be reformulated for a company as equal to ‘the maximum amount that could be distributed to the equity shareholders in a period and leave intact the capital value of the company’s prospective receipts as at the beginning of the period’ (e.g. Solomons, 1961). *Ex ante* this will be based on what is expected about cash flows and interest rates at the beginning of the period, and *ex post* on what actually occurs during the period and on revised expectations about the future at the end of the period.

These ideas can be made precise and usefully defined for later using symbols. Adapting the notation in Bromwich (1992, chapters 3 & 4): cash flow for period 1 as estimated at the beginning of period 1 (‘at time 0’) = \(C_{1t_0}\); and as realised during period 1 and known at time 1 = \(C_{1t_1}\). The value of prospective cash flows arising in periods 2 and following, as foreseen at time 0 = \(V_{1t_0}\); and as foreseen at time 1 in the light of new knowledge and revision of expectations during period 1 = \(V_{1t_1}\). Given an unchanged discount rate \(r\), the value of prospective cash flows in periods 1 and following, as foreseen at time 0 = \(V_{0t_0} = (C_{1t_0} + V_{1t_0}) (1+r)^{-1}\); and as re-estimated with hindsight at time 1 in the light of new knowledge and revision of expectations during period 1 = \(V_{0t_1} = (C_{1t_1} + V_{1t_1}) (1+r)^{-1}\). Income No.1 *ex ante* for period 1 = \((C_{1t_0} + V_{1t_0}) - V_{0t_0}\) and (Hicks’s) Income No.1 *ex post* for period 1 = \((C_{1t_1} + V_{1t_1}) - V_{0t_0}\). If the rate of interest \(r\) is expected to remain constant, and all income and only income is distributed/consumed, future periods’ income *ex ante* will also remain constant (at \(rV_{0t_0}\), i.e. it is ‘permanent income’ (e.g. Beaver, 1998).

FASB/IASB (2005, p.18) quotes Hicks’s observation that Income No. 1 *ex post* possesses ‘one supremely important property. . . . [That kind of income] *ex post* is not a subjective affair, like other kinds of income; it is almost completely objective.’ But the quoted words are taken out of context and omit the clause we italicise below. The

6 ‘Income’ or ‘profit’ has of course long been central in companies’ financial statements (e.g. Yamey, 1977). While Hicks (1946) concluded ‘income’ was a poor tool for economic analysis, he moderated this view in Hicks (1965) [see section 3 below].
relevant full sentence reads (Hicks, 1946, p.178-9, our emphasis added): 'So long as we confine our attention to income from property, and leave out of account any increment or decrement in the value of prospects due to changes in people's own earning power (accumulation or decumulation of “Human Capital”), Income No. 1 ex post is not a subjective affair, like other kinds of income; it is almost completely objective'.

We now explore what the omitted, but vitally important, qualifying clause 'so long as… …' implies. The concept of income as ‘current cash flow plus increase (decrease) in the net present value of the entity’s expected future cash flows’ (excluding transactions with owners) or ‘cash flow plus actual capital accumulation’, has long been advanced by many leading academic accounting authors in writing for practitioners (e.g. by Edwards (1938) in the UK). However, as is well known (Beaver and Demski, 1979), this concept of income is fully determinable and objective only where there are ‘complete and perfect markets’—where every resource and claim on future cash flows has been ‘commoditized’ into fully exchangeable assets and where everyone faces the same prices (including interest—the ‘price’ of future versus current commodities). Such fully exchangeable assets are what Hicks calls ‘property’ (referring presumably to land, stock-exchange investments, traded agricultural and mineral commodities, and the like), where ‘the capital value of the individual’s property at the beginning of the week is an assessable figure; so is the capital value of his property at the end of the week; thus, if we assume we can measure his consumption, his income ex post can be directly calculated’ (1946, p.109). In this situation, there is indeed no doubt about the magnitude of wealth and therefore about the magnitude of changes in it. But then the reporting of income is redundant as it provides no incremental information to knowing wealth.

In the real world, markets are neither complete nor perfect, so in the case of business enterprises, there will be a large element of the value of their future cash flow prospects that is not captured in the market value of their net assets, however good the

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7 Given also a known future universal interest rate (and how it will change over time), future ‘Income No.1’ ex ante is known as well as ex post income.
individual markets in which the value of those assets and liabilities may be measured. This ‘internal goodwill’ element of value (i.e. the value of super profits over and above the normal rate of return on net assets) depends *inter alia* on the skill with which management and the workforce can exploit an enterprise’s resources and its markets, and its business, social and political opportunities—what Hicks labels ‘Human Capital’.

In general therefore an ‘objective’ version of Hicks’s ‘No.1 *ex post*’ concept of the business income of a listed enterprise is more likely to be found in the measure of its ‘shareholder return’ used in financial economics (dividend plus/minus change in share price), i.e. the change in its ‘capital value’ on the stock market, than in the change in the enterprise’s net assets. As discussed further in the next section, this view was later articulated by Hicks himself (1979). But if firms are merely to report their stock price return (plus dividends) as their income, their accounts are again redundant, at least for valuation or investment decision purposes.

3. ‘Firm’ or ‘net assets’?

In the real world of incomplete and imperfect markets, there is no justification for the FASB/IASB (2005) paper’s rendering (at p.18) of Hicks’s ‘capital value’ as ‘in accounting terms, its assets and liabilities’. There is of course an extensive academic literature exploring how far concepts and measures of asset and liability value that are consistent with (while not generally capturing all of) Hicks’s underlying model of ‘capital value’ may be developed (including the literature on ‘deprival’ value, e.g. Baxter, 1984; Edey, 1974; on current exit value, e.g. Chambers, 1966; Clarke & Dean, 2007; and more recently on ‘fair value’ e.g. Benston *et al.* 2006; Bromwich, 2007; Hitz, 2007; Dean *et al.* 2009); and how changes in such net asset values may be

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8 The difference between net asset (‘book’) value and an enterprise’s market value is its ‘internal goodwill’ which is not recognised in financial statements, except where an enterprise is taken over by another enterprise so that ‘goodwill on acquisition’ has to be recorded in respect of the subsidiary. [Even then, the recognised goodwill may not equal what the previous management had estimated as ‘internal goodwill’, as the negotiated takeover price will reflect the interaction of the seller’s and the purchaser’s estimates and also their relative bargaining power.] Internal goodwill is modelled by Ohlson (1995) as ‘the present value of abnormal earnings’ so that firm value is likewise always the sum of this and accounting book values (also known as the ‘residual income’ model of firm valuation).

9 The authors of FASB/IASB 2005 may have been misled by previous academic literature which has similarly claimed (almost complete) objectivity for Hicks’s ‘No.1 *ex post*’ concept (e.g. Parker *et al.*, 1986, pp. 3, 8, 17—although this source is not in their references).

related to Hicks’s notion of ‘Income No.1’ (e.g. see ‘Introduction to First Edition’ in Parker et al., 1986: a classic treatment is Edwards & Bell, 1961). Any such links require further substantial restrictive assumptions to handle \textit{inter alia} what are identified in the FASB/IASB paper (2005, pp. 15-16) as the ‘cross-cutting issues’ of ‘uncertainty’, ‘unit of account’ and ‘management intentions’.

As we have said, in the 1946 work cited in FASB/IASB (2005), Hicks confines himself to the individual person who wishes to measure his or her income and he does not actually discuss firms at all. However, he does in Hicks (1979). Here he revisits his earlier analysis and begins by commenting that an early nineteenth-century mill-owner, in trying to estimate the profitability of his business, would be seeking to ascertain ‘the maximum that could be safely taken out of the business...without damaging the prospects of the business. But that, it is clear, would be a matter of judgement.’ He argues that, with the advent of the income tax, and of the joint-stock corporation, there are other parties now interested in knowing the business’s profitability and ‘at this point the accountant enters’.\textsuperscript{11}

Like Ijiri (1975), Hicks observes that the accountant’s approach needs to be as objective as possible to minimise disagreements; so it cannot measure profit in the way the mill-owner himself would think of it. According to Hicks, the accountant’s approach naturally draws on the ‘mercantile’ tradition with which accountancy was already long familiar, whereby the problem of sales and costs and inventory for each item of trade overlapping accounting period-ends can be relatively simply solved by carrying forward the inventory at ‘cost’.\textsuperscript{12} This, however, requires adaptation for industrialisation, as one has also to deal with plant and machinery and measure periodic cost of use, i.e. ‘depreciation’. To Hicks: ‘It is just the same problem as the allocation of overheads, and to that, as is well known, there is no firm \textit{economic} solution. Neither has the accountant found a solution—only a name and a set of, essentially arbitrary, rules...There is thus no reason why there should be any simple rule which would cause the profits that are calculated by its use to have any

\textsuperscript{11} This picture of the accountant’s role is consistent with the ‘contracting school’ (e.g. Watts, 2003a; 2003b; Benston et al. 2006; Whittington, 2008).

\textsuperscript{12} In fact, \textit{pace} Hicks, there were \textit{theoretically} intractable problems, and not just in allocating common overheads, even in the simple ‘mercantile’ practices for accounting for inventory and profit (e.g. Macve, 1997; Yamey, 2000).
correspondence with the income that would be assessed by the criterion with which we began—the *maximum* that can be *safely* taken out of the business*’ (pp.4-5).

Hicks then turns to exploring what the depreciation for a period would have to be to satisfy this criterion. He is only able to do so by postulating a purchase of the whole business at time 0 and a sale of the whole business at time 1, to obtain an objective measure of [using our notation] \( V_{0t0} \) and \( V_{1t1} \).

He notes (using our notation rather than his terms) that: ‘There can, I think, be little doubt that an accountant, who was asked to do the accounts of a business with this peculiar history, would refuse to do them in terms of \( V_{0t0} \) and \( V_{1t1} \); he would insist in doing them in terms of...the values which “stand in the books”. The economist, however, would find \( V_{0t0} \) and \( V_{1t1} \) much more interesting...it would be these *market values* which he would want to take as representing the initial and final capital’ (p.6). So we can see that what Hicks here recognised as an objective *ex post* measure of a firm’s income does not provide the foundation for a measure based on the change in a firm’s net assets that is being sought by FASB/IASB (2005).

Hicks’s (1979) argument and analysis finally lead him to regard as current profit that defined by Lindahl (1933): \( (C_{1t1} + V_{1t1}) - V_{0t1} = rV_{0t1} \). 13 ‘This is effectively what Friedman would call the *permanent income* derived from the business’ (Hicks, 1979, p.11). And although Hicks has been ‘looking for a definition of current profit which, so far as possible, should register the performance of the business within the year, excluding what has happened before and what is to come after... \( V_{1t1} \) ...would appear to have a large part, even, in many cases, the dominant part, in determining the

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13 As Kaldor (1955) explains, what Hicks (1946) called ‘Income No. 1 *ex post*’ is what American writers have generally called ‘*accrued income*—i.e. consumption plus *actual* capital accumulation’ (in our notation, \( C_{1t1} + (V_{1t1} - V_{0t0}) \)). *Ex post* more normally refers to income calculated by reference to a revised estimate of what the opening capital *would have been* (in our notation \( V_{0t0} \)), if the knowledge and changes in expectations becoming available during the period had been there at the beginning (i.e. income ‘with hindsight’ and ‘excluding windfalls’). This latter version (as expounded by Lindahl, 1933) is therefore, in our notation, \( (C_{1t1} + V_{1t1}) - V_{0t1} = rV_{0t1} \). Given constant \( r \), ‘permanent income’ is revised to \( rV_{0t1} \) (and will doubtless be revised again at the end of each subsequent period). It is this version of income, as given in Hicks (1979), that is emphasised by Jameson (2005) in his critique of FASB/IASB (2005). It is also the conceptual approach proposed by Solomons in his *Guidelines* (1989) for the UK’s ASB: cf. Macve, 1997. For further analysis see e.g. VanCauwenberge & DeBeelde (2007).
current profit’ (p.10).\(^\text{14}\) Moreover, it is the income of the proprietors, rather than of the business (p.11).\(^\text{15}\) [Emphases are in the original.] Thus Hicks accepts that his desired measure of income has to include major subjective elements.

In short, Hicks does not find a satisfactory, practical way of defining a business firm’s income that could be used in accounting, whether ex ante or ex post.

**4. How useful is ‘Income No.1 ex post’?**

There is however an even greater problem with the FASB/IASB (2005) paper’s reliance on Hicks’s concept as the bedrock of its approach to the conceptual framework. This applies whatever the relation between asset/liability measures in accounting statements and Hicks’s ‘capital value’, and whether or not ‘Income No. 1 ex post’ can be ‘objective’. In the next paragraph following the passage cited there from Hicks (1946), Hicks goes on to say about this concept: ‘Ex post calculations...have no significance for conduct........ On the general principle of “bygones are bygones”, it can have no relevance to present decisions.’ This, given the FASB’s/IASB’s ‘overriding objective’ of ‘decision usefulness’, undermines the whole structure that their paper attempts to build on ‘Hicksian income’. That structure is being built on sand, as it is only the overall wealth available at the end of each period, not the ex post income of the period, that is relevant for decision making, e.g. about future investment and consumption. So the only relevant decision orientated aggregated information that can be provided by financial reports is information about

\(^\text{14}\) A further decomposition of the terms into R (current receipts), E (current expenses), C (capital expenses) and D** (economic, not accounting, depreciation) gives Hicks (assuming C = D**) a reformulated expression for income as R-E-D** which ‘does look like a formulation which belongs to the current period, as rV\(_{0t}\), which we have seen to be equivalent, apparently does not’ (p.10). Professor W.T. Baxter wrote to Hicks on 8 June 1984 querying how an ‘equivalent’ reformulation could avoid ‘infection by the future’. Hicks replied on 5 July that ‘the passage on my p.10 was not well put’ and explaining that what he had really intended was to put the ‘focus on things that had happened during the period, including changes in expectation during the period, avoiding the emphasis on the capitalisation which looks so artificial. “Looks like” was meant to be taken literally; the avoidance is apparent. But I wish that I had put the point a bit differently.’ Hicks went on to agree with Baxter ‘that Permanent Income was what I was fishing for in Chapter XIV of Value and Capital’; and also pointed out that his negative conclusion there about the need for the concept of income for his purposes was overstated (referring to his Capital and Growth, 1965, Chapter VIII, especially the footnote on p. 86). So, unlike FASB/IASB (2005), Hicks accepted that the subjectivity of any useful notion of income is unavoidable.

\(^\text{15}\) We do not explore here what might be the possible implications of the substitution of an ‘entity’ concept for the traditional ‘proprietary’ concept in the FASB/IASB (2008a) Exposure Draft of the first stage of the Boards’ revised conceptual framework, as the Boards’ version of the ‘entity’ concept is not yet well defined (cf. Paton, 1922; Rosenfield, 2005).
the endowment of wealth available to the firm (e.g., Bromwich and Wells, 1983). That is, income figures cannot facilitate any decision-making incremental to that which could be made from knowing only the endowment at the end of the period—unless income can be shown to generate some information about the future that is not already contained in the endowment.

Hicks does concede some role for his ‘Income No. 1 ex post’: such calculations ‘have their place in economic and statistical history; they are a useful measuring rod for economic progress; but… they have no significance for conduct’ (1946, p. 109).

However, it may be argued that one cannot expect to be able to predict the future and income ex ante without some knowledge based in past experience (e.g. as hypothesised in Friedman, 1957). Hicks discussed further the role of accounting in this regard in a book review for the Economic Journal (Hicks, 1948). As explained by Brief (1982), supported by extensive quotations, Hicks here endorsed what he thought to be an important argument (buried in the compilation of miscellaneous articles, etc. constituting the book being reviewed), namely the importance of the underlying objectivity of the ‘statistics’ that the accounts record: hence the justification for historical cost and the dubious value of introducing subjective adjustments (e.g. to the ‘lower of historical cost and market value’). So, for example, the bias introduced by historical cost in inflationary times is a matter for correction by users in their interpretation of the accounting numbers.

However, Hicks added his own observation that ‘bare’ statistics are never sufficient: so what is to be done for external shareholders? The accountant ‘has thus some public obligation to pack into his figures the maximum of information even if he can only do this, within the limits prescribed, by some sacrifice of objectivity. How ought this difficulty to be got over? Should it be laid down that companies must publish an audited report as well as audited accounts? Or would this make the accountant, more than ever, master of the destinies of us all?’ (1948, p.564 [emphasis added]).

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16 This book review was written long before the advent of UK accounting standards, including ‘disclosure of accounting policies’, in the 1970s which began to provide additional context to assist users’ understanding of the ‘bare statistics’ (e.g. Macve, 1997).
So the main issue with Income *ex post* is ‘how much of the future is it useful to bring into accounts of the past if they are to be helpful in forming expectations about future Income *ex ante*?’ (cf. Barth, 2006). A considerable amount is inevitable, even in traditional accrual accounting that attempts to ‘match’ revenues and expenses (Edey, 1970). How much more is useful must be primarily an empirical question, to which the answer may vary according to how far ‘permanent’ and ‘transitory’ elements can be distinguished. This varies according to different types of business activity (e.g. Penman, 2007; Bezold, 2009); while also being subject to different users’ needs and trade-offs of ‘relevance’ and ‘reliability’ (cf. Sundem, 2007). There is no necessary merit in simply tracking Hicks’s ‘Income No. 1 *ex post*’ (Sunder, 1997, p. 79; cf. Schipper & Vincent, 2003) even if this were possible using accounting numbers—except perhaps for comparing with previous internal estimates of income *ex ante* in order to improve future estimations (e.g. Edwards and Bell, 1961; Bromwich, 1974; Goford, 1985).

In short our fundamental objection to the FASB/IASB (2005) paper as a statement of the conceptual foundation that should underpin its framework is that, on Hicks’s own assessment, *ex post* income, whether more or less subjective, is largely irrelevant to the Boards’ ‘decision usefulness’ objective for financial accounting and reporting.

5. A role for ‘Income *ex ante*’?

Some authors (e.g. Black, 1993) have argued that the primary focus of accounts (not just of their users) should be on estimating ‘standard stream income’. Given that stream and a (constant) discount rate one can directly derive the value of the firm by capitalisation (e.g. Whittington, 1983, p.33).17

The FASB/IASB 2005 paper says (on p.7) that a concept of income founded ultimately on the definition of ‘assets’ is necessary because, among the proponents of the alternative (the ‘revenue and expense’) view, ‘none could meet the challenge' of

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17 This approach underlies the common practice among UK listed companies of presenting supplementary ‘underlying’ or ‘core’ EPS numbers.
defining ‘income directly, without reference to assets or liabilities or recourse to highly subjective terminology like proper matching’ (emphasis in the original).\(^\text{18}\)

Hicks himself could ‘meet this challenge’. Dissatisfied with the adequacy of his ‘No. 1’ version when interest rates change, he offered ‘Income No.2’, defined as the amount that an entity can consume in a period and still expect to be able to consume the same amount in each ensuing period (1946, p.174). In the case of a joint stock company this translates as ‘the maximum dividend the company could pay this period to its current equity shareholders and expect to be able to pay them the same dividend in all future periods’, which is equivalent to what financial analysts call its ‘maintainable (or ‘permanent’) income’. That is, ‘Income No. 2’ is the sustainable perpetuity based on the existing information set. Within Hicks’s (1946) framework of analysis, ‘Income No. 2’ is, as he notes (p.174), the same thing as ‘Income No. 1’ only when there is no expected (or actual) change over time in the rate of interest at which future cash flows are discounted to obtain the ‘capital value’ (i.e. the yield-curve is flat).\(^\text{19}\)

If the company held only fixed interest irredeemable government securities, this maintainable income would be ‘objective’.\(^\text{20}\) Otherwise uncertainty about future

\(^{18}\) IASB Board member James Leisenring has frequently made the same assertion in his presentations on the conceptual framework; and it is reflected by Barth (2008, pp.1167-8). We do not pursue here the argument that the challenge itself is ‘rigged’. (For example, unless and until the Boards can find unambiguous valuation bases (e.g., by reference to current market prices) that are acceptable for all assets and liabilities, the ‘asset/liability’ approach itself will in practice continue to require the use of accounting procedures, such as inventory flow accounting and depreciation of non-financial fixed assets, which themselves include conventions for ‘proper matching of costs and revenues’ that are necessary in order to allow the measures of assets and liabilities needed for the construction of statements of financial position/balance sheets. That is, in imperfect and incomplete markets valuations of assets and liabilities inevitably require recourse to forms of ‘matching’ (for illustration see e.g. FASB/IASB, 2008b, Chapter 5.).)

\(^{19}\) When there is inflation, the expectation needs to be ‘in real terms’ (Hicks’s ‘Income No.3’ (1946, p.174)). Clearly (including \textit{ex ante} and both approaches to \textit{ex post} formulations) the number of potential income concepts under the ‘Hicksian’ umbrella is multiplying rapidly—e.g. Hendricksen, (1989). We have already reached a total of 9 (=3 *3) and correspondingly a ‘real version’ of ‘No. 1’ (call this ‘No. 4’) would measure the ‘real’ change in the value of wealth (bringing us to 4*3 = 12 potential concepts). However the two of most apparent relevance to business accounting are generally regarded as the version of ‘Income No. 1 \textit{ex post}’ that is the focus of FASB/IASB (2005) and that we have already discussed; and ‘Income No. 2 \textit{ex ante}’ that we are now discussing (but cf. Jameson, 2005).

\(^{20}\) An objective maintainable \textit{real} income would require index-linked securities to overcome uncertainties about future inflation rates. For redeemable fixed-interest securities, the maintainable income \textit{up to the date of redemption} would be ‘objective’ if the security was to be held to maturity, and there were no discount or premium to be amortised, but thereafter it would depend on interest rates available for reinvestment/borrowing. Where the ‘effective interest’ rate to maturity differs from the
changes in the yield-curve, and about risk premia required on corporate bonds, equities and real property, would mean that maintainable income, even from well-traded assets, would inevitably be subjective (Macve, 1984; Draper et al. 1993).

It was this ‘No.2’ concept of income that underlay the proposals in the UK’s Sandilands Report (1975) for ‘current cost accounting’. Sandilands (1975: p.47, para.166) said: 'no accounting system can predict a company's future prospects. However, an accounting system can at least ensure that the profit figure reported is such that, if the profit for the year were fully distributed, it would not prejudice the ability of the company to continue to generate the same profit in future years… …'

Scott (1984, p.205) argues for the importance of assisting users to estimate ‘(real) standard stream income’ (alongside ‘gain’, i.e. change in value) and, while critical of much of the methodology proposed by Sandilands, suggests ways in which accounts can be best adapted under changing prices to achieve this, many of which must inevitably be subjective. Scott concludes (drawing on his own experience as an investment trustee for a charity): ‘First,…there is a strong practical need for estimates of standard stream income and, second, …useful estimates can be provided—but not, so far, or perhaps ever, by accountants qua accountants’ (p.240). This conclusion appears close to Hicks’s (1948) view that adjustment to the basic historical cost accounting records should be made, as far as possible, by those using and interpreting the accounts, rather than within the accounts themselves.

Given ‘maintainable income’ one can, under further restrictive assumptions, also derive definitions and measures of ‘assets’ and ‘liabilities’ that would be consistent with this concept, but they are to be derived from income, not it from them. Thus, more recently, Ohlson (2006) argues that investors like to have a natural starting point in the income statement as they try to forecast subsequent periods’ sustainable earnings. 21 This concept of sustainable earnings is again consistent with Hicks’s (1946) ‘No. 2 Income’. 22 Ohlson therefore argues that reporting such maintainable

coupon rate, the need to estimate reinvestment/borrowing rates during that period in order to calculate the maintainable income renders it subjective too (cf. Horton & Macve, 1996; Bezold, 2009, Appendix).

21 We use here the terms ‘sustainable’, ‘maintainable’, and ‘persistent’ interchangeably.

22 With respect to the issue of changes in interest rates, Feltham & Ohlson (1999) have explored the effects of the generalisation of the residual earnings valuation model to risk, a non-flat yield curve, and stochastic interest rates, demonstrating that the ‘capital charge’ in calculating residual (or ‘abnormal’)
earnings would require that assets and liabilities be derived from income and not vice versa.23

Finally we may note that, given the conceptual tension between ‘Income No.1’ (expressed in terms of capital value) and ‘Income No.2’ (expressed in terms of maintainable income), there are also conceptual grounds for believing that the most relevant income concept for users and their economic decisions will often vary with their individual circumstances and conditions (Paish, 1940). Thus, someone facing a major expenditure (e.g. a family wedding or an unexpected, uninsured medical operation and hospitalization) would be concerned more about the effect of changes in the value of their wealth (‘No.1’); while someone facing retirement might be more concerned with how much maintainable pension they are entitled to or can obtain from their investments (‘No.2’).

This insight can go a long way towards explaining why the underlying motivations of those who identify with the ‘asset/liability’ approach to accounting income (more like ‘No 1’) and those who identify with the ‘revenue/expense’ (or ‘matching’) view (generally involving more smoothing and thereby more like ‘No 2’) are sometimes complementary—in the sense that they give different perspectives on the firm both of which may provide useful insights to investors—but are often seen as in opposition with regard to what is the most useful approach to measuring enterprise income in the context of individual accounting standards. Neither approach should therefore necessarily be preferred in principle over the other as the basis for accounting standard setting. In each case the relevant approach should be chosen on its merits in that context (consistent with the argument in Penman (2007); cf. Chisman in Jones & Slack (2008)). Moreover, as neither perspective can in practice perfectly measure either underlying income concept, it is important to recognise that in some cases

earnings requires multiplication of the start-of-period book value by the short-term riskless spot rate. But the ‘clean surplus’ income in this model is still parallel to Hicks’s ‘No. 1’ concept of income (i.e. change in value) and they did not explore here the calculation of a ‘No.2’ (or ‘permanent’) income, which Hicks regards as superior when interest rates are changing.

23 Within such a system, one could perhaps retain balance sheet values that reflect actual current values and also preserve a ‘clean surplus’ accounting, if value changes were initially reported directly in equity (other ‘comprehensive income’) and only reclassified to ‘earnings’ according to some smoothing approach utilising the kind of ‘accounting rule’ proposed by Ohlson. We do not explore these issues further here (c.f. Horton & Macev, 1996; Chambers et al., 2007; VanCauwenberge & DeBeelde, 2007; cf. Bezold, 2009; Kothari et al., 2009).
‘stocks’ (e.g. of assets) are more readily measurable than ‘flows’ (of revenues and expenses) while in other cases the converse holds. So both approaches complement each other.24

In short, the FASB/IASB (2005), in focusing solely on Hicksian ‘Income No. 1 \emph{ex post}’, ignores the conceptual and practical importance of Hicksian ‘Income No. 2 \emph{ex ante}’ for decision making. [In the Appendix, in order to illustrate the differences between the two income approaches, we explore further how the distinction between ‘No.1’ and ‘No.2’, and related accounting conventions for ‘matching’ income and expense, might play out in the case of a controversial example like accounting for stock option ‘expense’.

Moreover, if—as alleged in FASB/IASB (2005, p.7)—‘income’ is not definable ‘directly, without reference to assets or liabilities or recourse to highly subjective terminology like proper matching’, then it follows that neither can be its components such as ‘revenue’ and ‘expense’. This has caused difficulties to the Boards in relation e.g. to ‘depreciation expense’ (IASB, 2009, Basis for Conclusions BC54); and to ‘revenue recognition’ (FASB/IASB, 2008b), where the Boards are stated (at para. 5.20) to be ‘uncomfortable’ with the potential implication of valuing contract assets and liabilities at inception in that it could lead to recognition of ‘Day 1’ revenue and income ‘before the entity transfers to the customer any of the goods and services that are promised in the contract’. This ‘discomfort’ nicely illustrates the inevitable

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24 Measurability of economic magnitudes varies by the nature of the resource and whether stock or flow is involved. Tons of rice in a warehouse or drilling machine capacity in a factory, both stock variables, are readily ascertainable. The flow of rice into and out of the warehouse is just as easily measured but this is not so for the depletion of the capacity of the drilling machines. In a third example, while the flow of oil or gas from an underground deposit is readily measured, measuring the stock that remains underground is not so easy. When neither stock nor flow is measurable with reasonable precision, we leave such resources—no matter how important—out of the books of account. ‘Human capital’ (see section 2 above) is a good example of such exclusion in practice. When both magnitudes are measurable, measurement of both stocks and flows supplies the requisite redundancy for a reliable system of control as well easy articulation between the stock (balance sheet) and flow (income) statements. The real problems arise when one magnitude is measurable with significantly more precision than the other. Our common sense suggests that we use the variable—whether stock or flow—which is amenable to more precise measurement, and derive the corresponding value of the other variable using the accounting identity. This method articulates the stock and flow statements but runs into trouble with the conceptual purists who insist that everything we do in accounting must be based either on the primacy of stock (asset-liability) or of flow (revenue and expense matching) variables, which is the accounting version of ‘squearing the circle’. So the pursuit that the Boards have restarted through their 2005 document is a fruitless one. (For further discussion see e.g. Sunder, 1997.)
continuing power of ‘conventions’—in this case ‘matching’—at the heart of conceptual debates, that we discuss further in the next section.

To summarise the arguments so far, Figure 1 indicates briefly the differences between what Hicks actually says about ‘income’ and what the Boards claim (in their 2005 paper) that he supports.

[Figure I about here]

Figure I: Implications of FASB/IASB’s vs. Hicks’s view of ‘income’:

<table>
<thead>
<tr>
<th>FASB/IASB</th>
<th>Hicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Objective’</td>
<td>Largely subjective</td>
</tr>
<tr>
<td>‘Net assets’</td>
<td>Firms</td>
</tr>
<tr>
<td>Income \text{ex post}</td>
<td>Income \text{ex ante}</td>
</tr>
<tr>
<td>Income ‘No. 1’</td>
<td>Income ‘No. 2’</td>
</tr>
</tbody>
</table>

These differences, and the above arguments based on them, indicate clearly the dangers of ‘cherry picking’ bits of theory, particularly when the selected bits are themselves misunderstood. The chosen fragments of theory simply cannot sustain the structure erected upon them when considered in the light of a more comprehensive, integrated view of the theory being employed.
6. ‘Conventions’ vs ‘Conceptual principles’?

As we noted in the Introduction, FASB/IASB (2005) sees the conceptual framework project as a crusade against conventions:25 ‘To be principles-based, standards cannot be a collection of conventions but rather must be rooted in fundamental concepts.’ Economists writing about accounting have generally been very respectful of accounting conventions. As noted above, Hicks argued that the accountant’s solution to the ‘depreciation’ problem was a natural development from merchandise accounting. He also credited the accountant’s view of capital as a ‘fund’ with a profound influence on English Classical economists;26 and noted that Marshall seemed content with the accountant’s approach to depreciation (Hicks, 1974, p.313). While 20th century inflationary pressures and tax policy changes put extant conventions under great strain (1974, p.312), as noted above Hicks appeared to believe that the necessary adjustments could best be made by those using and interpreting the accounts rather than by expecting reform of the accounts themselves. Indeed this could interfere with the underlying, objective statistical record (Hicks, 1948; Brief, 1982).27

Kaldor too (1955, p.123) noted that ‘The accountant is rightly in search therefore of a concept of income ex post which is as near a counterpart as can be found to the investor’s income ex ante. In the light of the foregoing analysis it is not surprising that the accountant’s definition of income ex post is based, as it can only be based, on a series of admittedly arbitrary conventions whose value depends, to a large extent, on their status as time-honoured conventions—i.e. on their steady and consistent application.’28

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25 Sunder (1997, Chapter 9) explores alternative meanings of ‘conventions’ and how they have been viewed in accounting literature.

26 As he explains it: ‘Even to this day, accountants are Fundists. It is not true, accountants will insist, that the plant and machinery of a firm are capital; they are not capital, they are assets. Capital, to the accountant, appears on the liabilities side of the balance sheet; plant and machinery appear on the assets side. Capital accordingly is a fund that is embodied in the assets’ (Hicks, 1974, p.310). This conceptualisation is also more consistent with both traditional public sector accounting and with Communist accounting theory and practice (e.g. Solas & Ayhan, 2008).

27 A related discussion between an accounting theorist (Chambers) and an economist (Shackle) is recounted in Dean (2008).

28 Kaldor adds a footnote (1955, pp.123-4): ‘The nature of these conventions cannot be discussed here, but their net result (in accordance with the general accounting principle that it is better to err on the conservative side) is to bring more of the gains and less of the losses into the windfall category than could properly be regarded as belonging there. Thus the conventions for writing down assets are far more liberal than for writing them up. Occasionally, however, the conventions have the opposite results—as for example, the depreciation of fixed assets on the basis of historical costs, in times of...’
There may of course also be value in ‘sticking to agreed rules’ for purposes of contractual and other ‘settling up’ such as taxation, bonuses, partners’ profit shares, loan covenants, etc., whereas Lindahl’s ‘restatement with hindsight’ (as adopted by Solomons (1989) in his Guidelines) would never allow closure between contractual parties.

That is not to say accounting conventions cannot be improved: the quoted economists had, perhaps, an overindulgent view of accounting’s achievements which may not be surprising given that they were generally writing before the advent of UK standards and the wider understanding of just how inconsistent many accounting practices are. But it is naïve of FASB/IASB to overlook the power of conventions, and their surrounding myths, in maintaining the ordinary fabric of social structure and interaction. The real question to be asked is ‘does analysis of how they operate suggest that the time has come to modify them? and if so how? And will the benefits outweigh the cost?’

It is well known that Solomons (1961) predicted the ‘twilight’ of income measurement within 25 years, yet in 1989 he was still writing his Guidelines for the UK’s Accounting Standards Board (‘ASB’) on how best to report income. Similarly, Ohlson (1987), in his commentary on Beaver & Demski (1979), argued that the reporting of income is too embedded in accounting tradition to be abandoned, despite the inescapable conceptual limitations.

In an imperfect world the logic derived from a perfect world, while it frequently remains illuminating, cannot be applied without major adaptations, as indicated above. Thus an alternative approach to the FASB/IASB (2005) direction of seeking to replace ‘conventions’ with ‘concepts’ is to focus on deepening understandings of how and why accounting conventions—which as we have argued here, cannot fully report Hicksian income in any practical setting—have emerged and thereby of how best to inflation.’ Similarly Morgenstern (1963) observes how accountants weight the statistics in their accounts in order to give a trustworthy, usually prudent, estimate of the uncertain future. So in seeking to delete prudence or conservatism from the desirable characteristics of financial reporting in their pursuit of ‘neutrality’ (e.g. FASB/IASB 2008a, BC2.20-21), the Boards need first to show that they understand what might be the reasons for the conventional ‘conservatism’ in accounting (e.g., Watts, 2003a; 2003b) and then why they think that these are no longer useful.
adapt them, where necessary, to new situations and purposes in the light of relevant conceptual considerations.\textsuperscript{29} 

To argue (as FASB/IASB, 2005, does) that income based on accounting conventions cannot measure Hicksian income does not give superiority to income based on the concepts of ‘assets’ and ‘liabilities’ because, as has been said above, net asset values will not sum to equity value in incomplete and imperfect markets (the real world) and therefore income based on net asset values will also not equate to Hicksian income. Moreover the Boards’ related attempts to pin down the definitions of the ‘elements of financial statements’ in their conceptual framework project are unlikely to be helpful in this endeavour, or indeed achievable.\textsuperscript{30} 

While much of the conceptual discussion reviewed here, including the FASB/IASB (2005) paper itself, appears to recycle arguments from more than 50 years ago (e.g. Dean, 2008), there have been interesting recent practical developments in alternative ways of setting out ‘income’ and ‘value’ in accounting reports, given dissatisfaction with existing conventions. The most conspicuous of these at the present time is the developments in supplementary reporting of life insurance profitability according to a (Market Consistent) Embedded Value (‘MCEV’) model. MCEV is a form of ‘fair value’ accounting that was originally developed by actuaries for financial management and control of life insurance business and has increasingly been adopted worldwide for supplementary reporting to overcome the severe limitations of the traditional ‘solvency’ approach to life insurance accounting in a new world, where there has been extensive restructuring of financial institutions together with changes in both their market opportunities and in their regulation. It derives opening and closing ‘economic balance sheets’ for the ‘in-force’—that is, existing—business each period and analyses the changes between them in terms of predicted return and variances from expectations. It thus bears structural similarity to a ‘Hicks No.1 ex

\textsuperscript{29} This is consistent with a ‘Wittgensteinian’ approach to conceptual enquiry of the kind that is explored further by Dennis (2008, p. 264). We are not arguing for a naïve return to the view of the US APB in 1971 that labelled all generally accepted accounting principles as conventions because ‘they become generally accepted by agreement (often tacit agreement) rather than formal derivation from a set of postulates or basic concepts’ (see Sunder, 1997, Chapter 9) but rather for a new approach to how concepts and practices should be interrelated. 

\textsuperscript{30} For fundamental scepticism about the effectiveness of any such attempts at ‘necessary and sufficient’ definitions see, e.g., Kitchen, 1954; Dopuch & Sunder, 1980; Dennis, 2006, 2008; Sunder, 2007.
ante-ex post’ cycle. However, so far it has been rejected by IASB in their own project on insurance accounting. (For further discussion, see e.g. Goford, 1985; Horton et al., 2007.)

But, as ASB (2007) has recognised, this new approach has potentially major implications for performance measurement and reporting in other industries. So it is to such experiments in evaluating current concepts and practices and their consequences, and in suggesting more effective prescriptions where appropriate, that standard setters should be looking to find a basis for improvement in their conceptual framework, rather than to further attempted abstract definitional refinement of concepts such as ‘income’ or ‘assets’, at least where this is based on selected fragments of theory(ies) which, while appearing convenient to the objectives of the standard setters, are actually misunderstood and are not consistent with the theory (ies) as a whole.

We cannot do more here than suggest that a possible reorientation of the Boards’ approach in this direction is where fruitful future effort might lie. But as the example of executive stock option compensation, that we analyse further in the Appendix, illustrates, changes in practice and in standards do appear to come about driven more by widespread recognition that current conventions are ‘outmoded’ and ‘inadequate’ for new situations, than by arguments over what are the logical implications of any underlying ‘conceptual framework’.
7. Conclusions

Most of the paper has been about the concept of income. We have presented a number of reasons why Hicksian income cannot be used to support the use made of it by the standard setters in FASB/IASB (2005). Firstly (as discussed in section 2 above) firms do more than just earn a return on the identifiable net assets which they hold and which may or may not have a readily available market value: there is normally the element of what Hicks calls ‘human capital’ in how a firm exploits its opportunities and this creates ‘internal goodwill’. Measurement of this inevitably requires subjective estimation, so income cannot be ‘objective’, even ex post, as is claimed by FASB/IASB (2005).

Secondly (as discussed in section 3 above), Hicks has difficulty in arriving at a practical measure of business income that could be reflected in accounts, as he finds it necessary to conduct the analysis at the level of the change in the value of the firm itself, not of its net assets, and this income is that of the proprietors rather than of the business; moreover he finds that the measure of this income, even ex post, is largely driven by changes in expectations about the firm’s future cash flows, rather than by the realised cash flows of the period just passed.

Thirdly (as discussed in section 4 above) our fundamental objection to the FASB/IASB (2005) paper as a statement of the conceptual foundation that should underpin its framework is that Hicks’s own assessment of any ex post measure of income, whether more or less subjective, is that it is irrelevant to decision making—and therefore it must be largely irrelevant to the Boards’ ‘decision usefulness’ objective for financial accounting and reporting. At best it can provide relevant statistics for prediction—but that may imply that adjusting the factual record about past transactions for elements relating to expectations of the future is best left to decision makers as users (or to the assistance from competing information intermediaries such as analysts, the press and academic researchers), based on other sources of information from within and outwith the firm, rather than adjusting the financial statements themselves. This therefore remains an open question: it is up to accountants to demonstrate how far they have a comparative advantage in ‘adding

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31 representing the present value of ‘super-profits’ or ‘abnormal earnings’, as measured by reference to the value of identified net assets.
value’ by bringing ever more of management’s estimates of the future into audited financial statements and reports.

So fourthly (as discussed in section 5 above), if the focus should shift primarily to income \textit{ex ante}, it may be argued that an equally important perspective on what the future holds is to consider not just the likely changes in future value (or ‘gain’), as captured by Hicks’s ‘No. 1 \textit{ex ante}’ concept of income, but also the ‘standard stream’ (‘No. 2 \textit{ex ante}’) view of income, as useful in helping to triangulate the amount to be reported as a firm’s expected earnings. As Paish (1940) pointed out, there are legitimate economic motivations underlying interest in both views. Given the variety of shareholders’ preferences and objectives, any choice between them can itself only be an accounting ‘convention’, so measures to assist estimates along both dimensions may often need to be reflected in useful ‘general purpose’ financial reports (for example by reporting as far as practicable the current value of net assets and changes in them, but not necessarily requiring all the changes to be reported as ‘earnings’).

The ‘revised conceptual framework’ project of FASB and IASB will not itself be able to eliminate either income concept given the underlying economic motivation in favour of the other, as ‘consumer preferences’ (i.e. what users want) may require both approaches to be maintained. And as the ‘revenue/expense matching’ view of income/earnings in many situations seems closer to the ‘maintainable earnings’ concept than does the ‘asset/liability’ view (e.g. Bezold, 2009), it seems unlikely that the Boards’ attempt in its conceptual framework project to eliminate the ‘revenue/expense’ view of income/earnings in favour of the ‘asset/liability’ view can succeed—indeed we have argued that it is already clearly deconstructing in the ‘Revenue Recognition’ and ‘Fair Value’ projects (FASB/IASB, 2008b; IASB, 2009).

Having illustrated the dangers when standard-setters misapply only partially understood theories, in the final section we have shifted the focus to \textit{conventions} for measuring income, and have argued that it is truly important that the Boards’ conceptual framework project ‘revisits the concepts’ in a much more fundamental way, by giving more serious attention to the necessary interrelationship between ‘concepts’ and ‘conventions’ in practical affairs. Indeed, ‘revisiting the concepts’ in this way will help both the Boards and their constituents to understand why
accounting practice has to be made up of conventions and how those conventions, despite there being no clear framework for identifying what is ‘optimal’ (e.g. Demski 1973; Christensen & Demski, 2003) have become so powerful as calculations of ‘performance’, including business performance, in the modern world (e.g. Hoskin & Macve, 2000). So we rewrite the key sentence from p.1 of the FASB/IASB (2005) paper, that we quoted at the beginning, as: ‘To be principles-based, standards have to be a collection of (socially) useful conventions, rooted in fundamental concepts.’

In summary, Hicks’s (1946) analysis does not provide conceptual justification for the FASB/IASB’s exclusive focus on a ‘balance sheet’ approach to the accounting framework, or for its seeking to avoid the difficult problems of addressing directly how best to measure and report business performance in order to help users identify the drivers of value creation. We have argued that the Boards’ attention needs to be refocused on understanding the practical roles of existing accounting conventions and how far they might best be ‘modernised’ (e.g. by reducing apparent inconsistencies that no longer serve any purpose) so as to meet new challenges in the light of the legitimate needs of interested parties. However, whether it is Boards such as FASB and IASB that are best qualified to address such questions—given that they are ultimately political questions of ‘social welfare’—alongside the more technical accounting issues of how to construct useful, practicable financial statements and reports; and whether it is desirable for the Boards themselves to ‘converge’ towards becoming one, monopolistic standard setter; remain as open questions (e.g. Bromwich, 1992; Dye & Sunder, 2001). Clearly the Boards’ unsuccessful appeal in FASB/IASB (2005) to the claimed ‘objectivity’ of Hicksian income as an unambiguous foundation for financial accounting and reporting fails to resolve these issues.

APPENDIX: EXECUTIVE STOCK OPTIONS—A CASE STUDY IN INCOME CONCEPTS AND THE ROLE OF CONVENTIONS

In this Appendix we explore through a highly simplified example both how the arguments we have presented about the essential distinction between Hicks’s ‘No.1’ and ‘No.2’ versions of income might play out in the case of a controversial example like accounting for executive stock option (‘ESO’) ‘expense’; and also how changes
in the role of accounting conventions such as ‘matching’ appear to be more relevant in understanding how practice has changed than concepts grounded in the standard setters’ ‘asset/liability’ approach.\footnote{We are grateful to Ananda R. Ganguly for suggesting we use this issue for illustration.} We initially assume certainty (apart from the previously unannounced arrival of a new CEO) so that there is generally no difference between income \textit{ex ante} and income \textit{ex post}, or between different risk classes of investment. For simplicity we assume discrete compounding with cash flows arising at the end of each year throughout. Numbers are exaggerated to bring out the effects more clearly but it is assumed (unless otherwise stated) that all parties remain pricetakers in perfectly competitive markets.

Under IFRS2 (IASB, 2004), which is essentially similar to the revised SFAS123 [‘SFAS123R’] (FASB, 2004), when stock options are granted to executives, they may no longer be accounted for simply at any difference between the exercise price and the current market price of the related shares (which may be zero), but must be recognized at their ‘fair value’ on the date of issue. In a perfect market the Black-Scholes option pricing model shows how an option will have both an ‘intrinsic value’ and a ‘time value’ (the latter reflecting the risk of how far the option may move into and out of the money as the underlying share price changes stochastically before its exercise). However in our simplified ‘certainty’ world there will be no such risk from share price volatility and the options will only have intrinsic value (assuming they can be exercised at any time). This is sufficient for illustrating the point about ‘income’ at issue here.

Suppose Company A currently has 100 shareholders each owning an equal percentage of the 1100 shares, i.e. 11 shares each, which are traded on the stockmarket. Cash flow forecasts at time $t_0$ are $22000$ p.a. If the rate of interest is expected to remain at 10\% p.a. the value of the firm is $22000$, i.e. $20$ per share, with each shareholder having a holding of 11 shares worth $220$ and an expectation of receiving dividends of $2$ per share (equal to EPS) for the foreseeable future.\footnote{For simplicity, we assume here that the $22000$ value is also equal to the current value of Company A’s recognized net assets.} Hicksian income (both ‘No. 1’ and ‘No. 2’) totals $2200$ p.a. ($22$ per shareholder) and is ‘permanent income’. For simplicity, assume no dividend is paid between $t_0$ and $t_1$. 

\footnote{For simplicity, we assume here that the $22000$ value is also equal to the current value of Company A’s recognized net assets.}
Company A now (i.e. at time $t_0$) unexpectedly hires a new CEO from the beginning of the first year and incentivises her with stock options allowing her to purchase shares at any time at a strike price of $0. The stockmarket (including all current shareholders and the CEO) estimates that the effect of this CEO’s arrival will be to increase the value of all expected cash flows by $300 p.a. to $2500 p.a. (an increase worth $3000), but executive labour market conditions mean that the CEO cannot extract any quasi-rent and is only worth the ‘going rate’ of $2000. This raises the value of the firm to $25000. The option grant must therefore be $2000/25000 * 1100 = 88 shares.

Existing shareholders retain 1012 shares (and are better off by $1000 as the current share price rises to $25000/1100 = $22.73). The CEO receives 88 options worth $22.73 = $2000. Each share will receive an extra $300/1100 dividend each year = $0.273, to give a new total dividend of $2.273 per share, equal to the new EPS.

If no dividend is paid from the ‘windfall gain’ at $t_0$, Hicksian income ‘No.1’ and ‘No.2’ now totals $2500 pa (to existing and potential shareholders) but as far as existing shareholders are concerned it is $2300 p.a. (i.e. diluted by the effective transfer of 88 shares attracting a dividend of $2500/1100 = $2.273 p.a. each = $200 in total).

Under IFRS2 and SFAS123R however the additional ‘internal goodwill’ and increase in the stockmarket value of the proprietors’ shares will not be recognised; while the ‘cost’ of the option grant of $2000 will be treated as an expense, depressing year 1 reported income to $2500 - $2000 = $500. If analysts were then to project this as

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34 Deferring the successful impact on cash flows of the CEO’s arrival and efforts to some later ‘long-term’ date (one of the main economic reasons for utilising stock-option compensation as an incentive device) complicates the arithmetic but does not alter the fundamental position here, given that we are working with discounted present values in a ‘Modigliani-Miller’ world.

35 $1012 * $22.73 = $23000

36 This assumes existing shareholders will have effectively to surrender 88 existing shares (0.88 each) to the new CEO for $0 per share, thereby forfeiting $20 of value each, a total of $2000. [In order that she may maximise her return we assume she exercises the option immediately: the actual timing makes no difference to the main points at issue.] Alternatively, if the company will issue new shares to the CEO when the option is exercised, ceteris paribus the number of options granted will therefore have to be proportionally higher to counteract the dilution effect of the new share issue. As Ohlson has explained, such dilution causes problems with specifying the Ohlson (1995) ‘residual income’ valuation model (the consequences are set out in e.g. VanCauwenberge & DeBeelde, 2007)—so, as either scenario will illustrate the main points at issue here, we utilise the former throughout.

37 Under SFAS123R ‘cost will be recognized over the period during which an employee is required to provide service in exchange for the award—the requisite service period (usually the vesting period).’
Company A’s ‘permanent income’—and were believed—its stock market value would correspondingly fall from $22000 to $5000. While this would make the reported income ‘value relevant’ in the sense of association with stock-market prices, it is clearly not ‘value relevant’ in the sense of adequately informing stock-market prices (e.g. Macve, 1998). If the intangible asset were to be recognised then there would be a ‘windfall gain’ totalling $3000 (of which $1000 accrues to existing shareholders), so that Hicksian ‘Income No. 1’ for the firm becomes $2500 + 3000 = $5500 and for existing shareholders $2300 + 1000 = $3300.

Aboody et al. (2004a) and Landsman et al. (2006) document evidence that the stock market recognises both the expense of executive stock-option compensation and the intangible asset of the additional future earnings to be generated by the CEO’s arrival. So if the accounts were to be made fully ‘value relevant’ (i.e. tracked the Hicksian ‘No.1’ income of the firm) what would be the effect of interest rate changes? Expected changes will be sufficient to demonstrate the point.

Now suppose that interest rates were instead expected to be 10% pa during the first year and then to rise to 20% pa thereafter. At t₀ the value of Company A would have been $12000 before the unanticipated arrival of the new CEO and $13636

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Immediate expensing makes the example here simpler but does not alter the fundamental position that accounting recognition of the expense is asymmetrical with the delayed accounting recognition of the benefit, much of which may only be expected to come in the long-term.

38 The Summary of SFAS123R points out: ‘Employee services received in exchange for awards of share-based compensation qualify as assets, though only momentarily—as the entity receives and uses them—although their use may create or add value to other assets of the entity.’ http://www.fasb.org/jsp/FASB/Pronouncement_C/SummaryPage&cid=900000010235 (accessed 28.7.09). However, if the ‘other assets’ are ‘internal goodwill’ they will not be recognised, so the overall initial outcome is just the expensing of the fair value of the options (Macve, 1998).

39 Using our notation (with * indicating amounts attributable to/taken from existing shareholders): \[ V_0 = *$22000; \ V_1 = $25000 - *2000 = *$23000; \ C_1 = $2500 - *200 = *$2300. \] Income = \[ V_1 + C_1 - V_0 = \] in total for the firm \[ $(25000 + 2500 - 22000) = *5500; \] and for existing shareholders \[ *$(23000 + 2300 - 22000) = *3300. \] Note that because the overall effect of accounting for the ESO ‘expense’ of $2000 is by a debit to current earnings, offset by a credit to shareholders equity, the overall net assets of the firm change over the year only by the operating cash flow (now $2500) and, if recognised, by the value increase from the CEO’s arrival ($3000), i.e. by $5500 in total. The new CEO gets the value of the option grant ($2000) plus her share of the first year’s earnings ($200).

40 While repeated interest rate changes in both directions are ‘normal’, one change is sufficient to illustrate the main point at issue here. A simple numerical illustration of ‘No.1’ vs. ‘No.2’ in respect of a fixed interest security is given in Appendix XIII to Horton & Macve (1995), following Paish (1940); while the case of fixed interest liabilities is discussed in Horton & Macve (2000). See also Rayman, 2007; Bezold, 2009.
afterwards.\textsuperscript{41} At $t_0$ the corresponding values (of all future cash flows) would be expected to be $11000$ and $12500$ respectively.\textsuperscript{42} This gives ‘No.1’ incomes for year 1 of $1200$ and $1364$ respectively (both equal to interest at 10\% on the revised opening value).\textsuperscript{43} Under IFRS2 and SFAS123R (expensing the stock options but not recognising the intangible asset, i.e. the value of the anticipated future increase in annual earnings) income would fall by $1091$, together presumably with the impairment to the book value of existing net assets of $10000$ caused by the rise in interest rates.\textsuperscript{44}

Under Hicksian ‘Income No.2’, the only economic change is the expectation of the increase in annual cash flows of $300$ following the CEO’s arrival, so income rises from $2200$ p.a. to $2500$ p.a. (of which existing shareholders will get $1012 \times 2.273$ p.a. = $2300$ p.a. (a net increase of $100$ p.a.), and the new CEO $88 \times 2.273$ p.a. = $200$ p.a. as before).\textsuperscript{45}

\textsuperscript{41} At $t_0$: before new CEO: $(2200 + (2200/.2))/1.1 = 12000$—and, assuming perfect asset markets, the current values of Company A’s net assets, consistent with fn.33 above, would also have been correspondingly lower; after new CEO: $(2500 + (2500/.2))/1.1 = 13636$ (= $12.40$ per share).

\textsuperscript{42} At $t_1$: before new CEO: $2200/.2 = 11000$; after new CEO: $2500/.2 = 12500$.

\textsuperscript{43} If the windfall gain of $1636$ at $t_0$ from the CEO’s arrival had been immediately distributed as dividend, $t_1$ value would have been ‘maintained’ at the original $12000$, and ‘No 1’ income for this period would have been maintained at $1200$ (10\% of $12000$)—but would now be expected to be $2400$ p.a. in future following the interest rate rise to 20\%. Alternatively if all the windfall gains, including also the impairment to valuation resulting from the interest rate change, were to be regarded as part of the Year 1 income, the ‘No.1’ income this period would be $15000-2200=5700$ (which might be analysed as a fall in opening value due to the interest rate change of $[22000-12000]=10000$, offset by the increase in internal goodwill of $1636$, plus ‘normal’ income for the year at 10\% = $1364$ [i.e. net total = $5700$]). In terms of our notation, original $V_{d_0}$ was $22000$; $V_{t_1}=12500$; $C_{t_1}=2500$; so ‘Income No.1’ = $12500 + 2500 – 22000 = -7000$. If this is ‘made good’ to restore the initial capital value of $22000$ (i.e. before any of the changes in circumstances were known about), future expected income rises to $4400$ (i.e. $rV_{t_1}= .2 \times 22000$). The ‘signals’ here to investors seem more confusing than those given by Hicks ‘Income No.2’ below—although management interpretation and explanation in ‘notes’ will clearly be needed in any case (e.g. Macve, 1997).

\textsuperscript{44} Assuming that the CEO’s market hiring price still reflects general executive market conditions (i.e. based on rewarding assumed ‘normal’ CEO ability to increase earnings by $200$ p.a.) it would likewise now be $S((200 + (200/.2))/1.1 = 1091$, satisfied by the issue as before of options on 88 shares, now worth $12.40$ per share at $t_0$. Unrecorded internal goodwill at $t_0$ is now valued at $S((300 + (300/.2))/1.1 = 1636$; as in fn. 33 and 41 above, book value is $12000$, which together with unrecorded internal goodwill gives the stockmarket value of $13636$, consistent with Ohlson (1995). Although the stock option compensation of $1091$ will be expensed, the overall accounting book value of the firm at $t_0$ is unchanged at $12000$, since no net assets leave the company, and the grant is recorded by both reducing the retained earnings element of equity and increasing the paid-in capital element by $1091$.

\textsuperscript{45} If the cash flows are not regular perpetuities, changes in interest rates will have effects on ‘No. 2’ income calculations as well, as the opportunities for smoothing out the income over time to ‘permanent’ income by utilising the capital markets to borrow and lend will also alter.
Which is the more useful measure of income? There are two interrelated problems here: the unrecorded ‘internal goodwill’ and the effect of changing interest rates. Given the FASB/IASB favoured ‘asset/liability’ approach, recognising only the impact of the latter on values (‘Hicks No.1’) increases the accounting asymmetry here. And even without this, the only partial recognition of the ESO impact (i.e. the expense without the intangible for the benefit) means that evaluation of any accounting choice, or of change in accounting standard, already faces the economic problem of ‘the second best’ (Lipsy & Lancaster, 1956), i.e. that ‘fixing’ only one element of the problem may make the overall situation worse (e.g. Landsman et al., 2006).

Moreover, as noted above, paradoxically there is actually no overall change in recognised net assets under IFRS2/SFAS123R as option ‘expense’ is offset by increase in ‘paid-in capital’. So there appears to be some much more conventional notion of ‘proper matching’ providing the justification for this treatment. As Warren Buffet famously said (see e.g. Macve, 1998):

‘If options aren’t a form of compensation, what are they? If compensation isn’t an expense, what is it? And, if expenses shouldn’t go into the calculation of earnings, where in the world should they go?’.

It is clear that for any practical answer (e.g. in an accounting standard) as to what is the most useful approach, fundamental definitions of ‘income’, ‘assets’ etc. can be no more than signposts to relevant questions that need to be addressed rather than providing solutions. Thus the opportunity for IASB and FASB finally to succeed in 2004 in requiring expensing of stock options probably had more to do with changes in

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46 Note that if there had instead been a fall in interest rate, e.g. to 5% p.a., the accounting asymmetries would be even greater as the total value of the firm at t₀ after the arrival of the CEO at t₀ would rise to $(2500 + (2500/0.05))1.1 = $47727 (= $43.39 per share). 88 share options granted would now be worth 88 * $43.39= $3818, representing the new marketwide price of CEOs (i.e. only generally expected to add value of $(200+ (200/0.05))/1.1 = $3818). In addition to not recognising the internal goodwill of $((300 + (300/0.05))1.1 = $5727, the accounting rules would not generally recognise the rise in the market value of the company’s net assets to $((22000 + (22000/0.05))1.1 = $42000. (If they are not financial instruments, revaluation might be allowed under IFRS, but would not currently be allowed under US GAAP.) All that would be recognised would be the now higher option ‘expense’ of $3818, further reducing the overall ‘value relevance’ of the accounts. Of course, Hicks ‘No. 2’ income remains unchanged at its new increased level of $2500 as before.

47 Landsman et al. (2006, pp.211-12) helpfully illustrate the alternative bookkeepings for different possible accounting methods. Although it has been argued that there is a creation of an asset accompanied by its instantaneous simultaneous expensing, thereby constituting a change in net assets (e.g. FASB SFAS123R BC88 fn.14), this is essentially a metaphysical assertion from the perspective of the accounting process, as at no time is this asset visible in the accounts themselves.
attitudes to business transparency following Enron etc. (e.g. Gwilliam & Jackson, 2008). As the summary of SFAS 123R noted:

‘Over the last few years, approximately 750 public companies have voluntarily adopted or announced their intention to adopt Statement 123’s fair-value-based method of accounting for share-based payment transactions with employees’.

The ‘cost’ (in lower reported earnings) to companies of adopting option-expensing could thus be interpreted as a ‘signal’ that companies’ accounting numbers were more credible overall (e.g. Morris, 1987)—although this also created new incentives to different kinds of firms to underreport that expense either as ‘free-riders’ or because the immediate crisis of public confidence had abated (cf. Aboody et al. 2004b; 2006).

In the terms of our own conclusions, there would appear to have been perceived changes in societal expectations of business legitimacy that made the new convention now more ‘socially useful’, and the resulting political forces⁴⁸ were probably more important than the conceptual niceties, which had been insufficient to resolve the controversy during the period leading to the issue of FASB’s previous version of SFAS123 in 1998 (e.g. Zeff, 1997). That is not to say that the conceptual considerations are irrelevant: clearly the anomaly of the asymmetrical recognition of the ‘cost’ of the grant vs its anticipated future benefits (Macve, 1998) has added yet another factor (alongside other cases such as Research & Development) that undermines the consistency of the Boards’ Conceptual Framework as ‘asset/liability’ based.

This example of ESOs helps to illustrate why an important first step towards reorienting the Boards’ fundamental approach to revising their Conceptual Framework is therefore to recognise that, as we have argued here, the currently proposed approach cannot be claimed—as it is in FASB/IASB (2005)—to be supported by Hicks’s own analysis of ‘income’.

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