

Including Estimates of the Future in Today's Financial Statements

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SYNOPSIS: This paper explains why the question is how, not if, today's financial statements should include estimates of the future. Including such estimates is not new, but their use is increasing. This increase results primarily because standard-setters believe asset and liability measures that reflect current economic conditions and up-to-date expectations of the future will result in more useful information for making economic decisions, which is the objective of financial reporting. This is why standard-setters seem focused on fair value accounting. How estimates of the future are incorporated in financial statements depends on the asset and liability measurement attribute, and on financial reporting definitions of assets and liabilities. The present definitions depend on identifying past transactions or events that give rise to expected inflows or outflows of economic benefits and, for inflows, control over the expected benefits. Thus, not all expected inflows or outflows of economic benefits are recognized. Disclosures in the notes can help users understand recognized estimates and can provide information about unrecognized estimates. Including more estimates of the future in today's financial statements would result in an income measure that differs from today's income, but such a measure arguably provides better information for making economic decisions.

Keywords: financial statements; fair value; financial reporting.

INTRODUCTION

The purpose of this paper is to explain why the question is how, not if, today's financial statements should include estimates of the future. Many who oppose the use of fair value measurements in financial statements do so because they believe using fair value measurements introduces expectations of the future into today's financial statements. However, under current accounting standards, almost all amounts recognized in financial statements today reflect some estimates of the future. This is not surprising because, by definition, assets and liabilities embody expected future inflows and outflows of

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economic benefits. Thus, this paper seeks to move the debate forward by discussing different ways in which estimates of the future can be incorporated into today's financial statements, and identifying the resulting implications for the characteristics of accounting amounts, such as net income.¹

Regarding asset and liability measurement, International Financial Reporting Standards (IFRS) require many financial instruments to be measured at fair value and permit fair value measurement for most others.² Even though the use of fair values for measuring nonfinancial assets and liabilities is limited, the use of other measurement attributes that reflect estimates of the future is pervasive. A review of recent activities at the International Accounting Standards Board (IASB) reveals that the use of estimates is likely to increase. The sources of the increase are new requirements to use current information when applying modified historical cost and broader use of fair value. The IASB's deliberations often focus on which of these estimates should be included in financial statements. Some constituents express concerns about how including more estimates will affect financial statements.³

The IASB's apparent focus on measuring assets and liabilities using more estimates of the future stems from its commitment to achieving its stated objective of financial reporting. In particular, the IASB *Framework for the Preparation and Presentation of Financial Statements* (IASCB 1989) (hereafter, the *Framework*) states that the objective of financial reporting is to provide information useful to financial statement users in making economic decisions. It seems self-evident that financial statement amounts that reflect current economic conditions and up-to-date expectations of the future will be more useful in making those decisions, which are made in the current economic environment. However, it also seems self-evident that not all expectations of the future should be recognized in financial statements today, particularly those that do not arise from events or transactions that have occurred.

The definitions of assets and liabilities play a critical role in determining what types of expectations of the future are candidates for recognition in financial statements. One must identify precisely which asset or liability is being considered for recognition; different assets are associated with different expectations of the future. The present definitions depend critically on the identification of the past transaction or event that gives rise to the expected inflow or outflow of future economic benefits. The asset definition also requires that the entity control the resource. Thus, only estimates of future economic benefits associated with past transactions or events and, in the case of assets, under the control of the entity are to be considered under current definitions.

Income is the difference between net assets recognized at the beginning of the period and net assets recognized at the end of the period, other than changes arising from equity transactions. Thus, how estimates of the future are incorporated into financial statements today affects the characteristics of income and its interpretation. For example, with more estimates of the future incorporated into today's measures of assets and liabilities, income will be less predictable. However, predictability of income itself is not an objective of

¹ Throughout, the terms net income and income are used interchangeably. Under International Accounting Standards (IAS), net income is referred to as profit or loss. Although this paper's examples and discussion are framed in terms of the International Accounting Standards Board's (IASB) conceptual framework and standards, the discussion applies equally to the conceptual framework and standards of the Financial Accounting Standards Board (FASB).

² The IASB defines fair value as "the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction" (IAS No. 39, ¶ 9).

³ Including more estimates also will expand the challenges auditors face in auditing financial statements (see Martin et al. 2006 for a discussion).

financial reporting. Rather, income's ability to predict future cash flows is important. Including more current estimates of the future likely enhances income's predictive ability.

The next section explains why the question is how to incorporate estimates of the future in today's financial statements, not if. The third section explains why selection of the measurement attribute for assets and liabilities affects how estimates of the future are incorporated into recognized amounts. That section also explains why the IASB is focused on fair value as a measurement attribute. The fourth section describes how the *Framework* definitions of assets and liabilities circumscribe the expected inflows and outflows of economic benefits that are candidates for financial statement recognition. These definitions play a critical role in limiting the types of future expectations that are included in financial statements. The fifth section discusses the effects on income of incorporating more estimates of the future into today's financial statements. The final section offers some concluding remarks.

THE QUESTION IS HOW, NOT IF

Including estimates of the future in today's financial statements is not new. With few exceptions, such as cash in the entity's domestic currency, amounts in today's financial statements all reflect estimates of the future. Most understand that amounts recognized at fair value reflect estimates of the future. However, accountants use accruals to adjust cash flows to reflect expectations of the future. For example, loans receivable reflects the amount that a bank expects to receive from its borrowers. The amount is determined by aggregating the contractually promised amounts and adjusting them for the time value of money and any defaults expected based on current facts and circumstances. All of these estimates must be based on events that have occurred by the time the estimates are made. However, they all are estimates of the future arising from those events. Thus, the question is not whether today's financial statements should incorporate estimates of the future. The question is how they should do so.

MEASUREMENT ATTRIBUTE AND ESTIMATES OF THE FUTURE

How estimates of the future are incorporated in today's financial statements depends on the attribute selected for asset and liability measurement. Each measurement attribute requires incorporating expectations with different characteristics. For example, fair value requires including expectations of future cash flows that market participants would include, discounted at the rate that market participants would use to discount them.⁴ In contrast, entity-specific value requires including expectations of future cash flows that the entity expects to receive, discounted at a rate that reflects the entity's cost of capital, even if these differ from those of other entities.⁵ Thus, entity-specific value differs from fair value in that entity-specific value includes cash inflows or outflows expected by the entity that would not be expected by other market participants, such as expected inflows related to superior management talent.⁶

⁴ In the case of the entity's equity, the term "market participants" includes existing and prospective common shareholders, as well as existing and prospective holders of other types of shares, options, and other equity securities issued by the entity. In the case of individual assets and liabilities, "market participants" are those who do or could trade in a market relevant to that asset or liability.

⁵ The IASB defines entity-specific value as "the present value of the cash flows an entity expects to arise from the continuing use of an asset and from its disposal at the end of its useful life or expects to incur when settling a liability" (IASB Glossary of Terms, IASB 2006a).

⁶ See the FASB's Exposure Draft on *Fair Value Measurement* (FASB 2004) for further discussion.

Multiple Measurement Attributes

Presently, financial statement amounts are based on a variety of measurement attributes. In International Accounting Standards (IAS), these include historical cost (used for cash and held-to-maturity liabilities), modified historical cost (used for property, plant, and equipment, and loans receivable), fair value (used for derivatives and asset revaluations), and entity-specific value (used for impaired inventories and impaired property, plant, and equipment). These differences in measurement attribute do not result from differences specified in the *Framework*. Rather, they result from conventions and differences in practice that have evolved over time. Thus, when viewed in terms of the *Framework*, these differences generate financial statements that are internally inconsistent.

Use of multiple measurement attributes not only is conceptually unappealing, but also creates difficulties for financial statement users. The amounts recognized in financial statements are combinations of amounts measured in various ways. This complicates the interpretation of accounting summary amounts, such as net income. This difficulty is not limited to aggregated financial statement line item amounts. Some individual elements within a particular financial statement line item are recognized based on different measurement attributes, which are not disclosed. For example, an entity may state that it recognizes inventories at the lower of cost or net realizable value. However, it states this regardless of whether any inventory has been written down. Another example is an entity that recognizes an upward revaluation of property, plant, and equipment. Once the revaluation is recognized, determining which items of property, plant, and equipment and related depreciation are measured at cost and which are measured at fair value becomes difficult.

Using different measurement attributes also means that similar economic events could receive quite different accounting treatments. For example, contracts are presently recognized in financial statements differently, depending on the type of contract. If the contract is a lease, then either it is not recognized on the balance sheet, if it is classified as an operating lease, or is capitalized, if it is classified as a financing lease. If the contract is a forward contract, then it is not recognized unless it is classified as a derivative, in which case it is recognized at fair value. Yet, the economics of the two lease contracts or the two forward contracts are similar. Another example is if an entity asserts that it has the ability and intent to hold debt instruments to maturity, the instruments are recognized at historical cost. If the entity does not make the assertion, they are recognized at fair value. This, too, creates difficulties for users to understand financial statements that purport to reflect the economic activities of an entity.

Why the Increasing Focus on Fair Value?

Using a single measurement attribute could alleviate many of the difficulties associated with the present use of multiple measurement attributes. Among the measurement attributes that have been considered for financial statements, the IASB seems focused on fair value. This is largely because fair value accounting is the only comprehensive and internally consistent approach the IASB has identified.⁷

Using fair values to measure assets and liabilities is attractive because it meets many of the *Framework's* qualitative characteristics of useful financial statement information. These criteria are to be applied in the context of the primary objective of financial reporting,

⁷ At the request of the IASB, the Canadian Accounting Standards Board (AcSB) analyzed the characteristics of alternative measurement attributes. The AcSB concluded that fair value should be the measurement attribute for initial recognition for all assets and liabilities (IASB 2006b).

which is to aid investors and other users of financial statements in making economic decisions. The criteria include relevance, comparability, consistency, and timeliness. Fair values are relevant because they reflect present economic conditions, i.e., the conditions under which the users will make their decisions.⁸ Fair values are comparable because the fair value of any particular asset or liability depends only on the characteristics of the asset or liability, not the characteristics of the entity that holds the asset or liability or when it was acquired. Fair values enhance consistency because they reflect the same type of information in every period. Fair values are timely because they reflect changes in economic conditions when those conditions change. In addition, fair values can be viewed as fulfilling a stewardship role for financial reporting because the financial statements reflect the values of assets at the entity's disposal. Such values are essential for determining performance ratios such as return on capital employed.⁹

The hierarchy for estimating fair value in International Accounting Standard No. 39, *Financial Instruments: Recognition and Measurement* (IAS No. 39, IASB 2004c), states that a market price for the identical asset or liability is the best estimate of fair value. This is because a market price meets the definition of fair value. That is, it is the price that would obtain in an arm's length transaction between willing buyers and sellers. A market price does not include any entity-specific value that differs from the amount that other entities can realize. However, one must ensure that the asset or liability traded in the market is the same asset or liability whose fair value one seeks to obtain. If it is not, then adjustments need to be made. For example, in the case of a portfolio of bank deposits, as discussed below, one needs to take into account that the price reflects two components—the deposit liability and the value of expected future transactions. If the objective is to determine the fair value of the deposit liability alone, then the observed price for a portfolio of deposit liabilities needs to be adjusted. Finally, if the market is reasonably deep and liquid, then the market price is a reliable measure.¹⁰

⁸ See Barth, Beaver, and Landsman (2001) and Landsman (2005) for summaries of the empirical research relating to the value relevance of fair values.

⁹ Paragraph 105 of Statement of Financial Accounting Standards (SFAS) No. 35, *Accounting and Reporting by Defined Benefit Pension Plans* (FASB 1980b), states:

The Board rejected using historical cost because prices in past exchange transactions do not provide the most relevant information about the present ability of the plan's assets to provide participants' benefits. Further, the Board does not believe that historical cost is the most appropriate measure for use in assessing how the stewardship responsibility for plan assets has been discharged. Plan administrators or other fiduciaries who manage plan assets are accountable not only for the custody and safekeeping of those assets, but also for their efficient and profitable use in producing additional assets for use in paying benefits. Investment performance is an essential element of stewardship responsibility. Measuring changes in fair value provides information necessary for assessing annual investment performance and stewardship responsibility. Historical cost provides that information only when investments are sold.

In addition, paragraph 50 of Statement of Financial Accounting Concepts (SFAC) No. 1, *Objectives of Financial Reporting by Business Enterprises* (FASB 1978), discusses management's discharge of its stewardship responsibility as:

not only for the custody and safekeeping of enterprise resources, but also for their efficient and profitable use and for protecting them to the extent possible from unfavorable economic impacts of factors in the economy such as inflation or deflation and technological and social changes.

¹⁰ Reliability is a prominent concern with using fair values, which the hierarchy in IAS No. 39 (IASB 2004c) attempts to address. As noted above, the hierarchy specifies that the best estimate of fair value is a market price for the identical asset or liability. It specifies that the next best estimate is obtained from valuation techniques that use market inputs. Estimates obtained from valuation techniques that use inputs that are not inconsistent with market characteristics can also be fair values, but they should be used as a last resort. All of these are estimates of fair value. As SFAC No. 7 points out (FASB 2000, ¶ 68), a market price reflects the market's assessment of the present value of expected future cash flows embodied in the asset or liability. It does not represent a fundamentally different approach to estimating value. The FASB's *Fair Value Measurement* Exposure Draft (FASB 2004) contains a similar hierarchy and specifies how to calculate fair values.

WHICH ESTIMATES BELONG IN FINANCIAL STATEMENTS?

Definitions of Assets and Liabilities

The extent to which today's financial statements incorporate estimates of the future also depends on which assets and liabilities are recognized. This issue is broader than identifying the measurement attribute—none of the attributes, including fair value, specifies what is being measured. The IASB relies on the definitions of financial statement elements in its *Framework* to determine the entity's assets and liabilities:

An asset is a resource controlled by the entity as a result of past transactions and events and from which future economic benefits are expected to flow to the entity.

A liability is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits.

These definitions require a past event or transaction that gives rise to a present right to future economic benefits controlled by the entity, or to a present obligation of the entity to transfer future economic benefits. Importantly, these definitions identify the assets and liabilities of the entity and, thus, what expected future inflows or outflows of economic benefits are potential candidates for recognition in the entity's financial statements. Determining whether an asset or a liability is recognized depends on other criteria.¹¹

The *Framework* definitions of assets and liabilities clearly state that assets and liabilities embody expectations of the future. Thus, sensible measures of assets and liabilities should include such expectations. However, whether the entity *has* assets or liabilities depends on whether the expected future flows arise from *present* rights or obligations. For assets, the definition also requires that the entity control the right. Thus, only estimates of future inflows of benefits that are associated with past transactions or events under the present control of the entity are recognized as assets. Perhaps standard-setters should change the definition.¹² However, even with the present definitions, identifying the past transaction or event can require judgment and is open to debate, as is whether the asset control criterion is met.

Past Transactions or Events

Although the asset and liability definitions seem clear, legitimate questions exist as to which past transactions or events are appropriate to consider when determining which expected future inflows or outflows of economic benefits are considered assets and liabilities. Consider expected loan losses. IAS No. 39 requires banks to evaluate evidence of whether their loan assets are impaired (see ¶ 58 through 62). IAS No. 39 states that there must be evidence that the event that affected the entity's expectations of future cash flows has occurred. Consistent with the asset and liability definitions, it also states that "losses expected as a result of future events, no matter how likely, are not recognized."

Identifying these events requires applying judgment and IAS No. 39 contains several paragraphs to aid in that judgment. However, it does not specify when, precisely, the past ends and the future begins. For example, paragraph 59(a) indicates that significant financial difficulty of the borrower is evidence of impairment. But, significant financial difficulty

¹¹ The *Framework* (¶ 83) states that items that meet the definitions of assets and liabilities should be recognized "if: (a) it is probable that any future economic benefit associated with the item will flow to or from the entity; and (b) the item has a cost or value that can be measured with reliability." Unless otherwise noted, for purposes of the discussion in this paper, I assume all assets and liabilities that meet the *Framework* definitions also meet the recognition criteria.

¹² The IASB currently has a joint project with the FASB to complete, converge, and improve their conceptual frameworks. The project will revisit the definitions of assets and liabilities.

could be established at different times. The borrower failing to make payments when due is evidence of impairment (see IAS No. 39, ¶ 59(b)). But, when did the financial difficulty begin? When the borrower's savings were depleted? When he lost his job, even though his savings account balance equaled several months of his income? When the factory at which he worked announced it planned to layoff a fraction of its workforce? When the demand for the factory's production declined? When the price of oil increased, thereby raising the sales price of the factory's output? This list is incomplete, and IAS No. 39 does not directly answer these questions. Although the example relates to the measurement of an asset, not whether the asset definition is met, it points out some of the difficulty in determining past transactions or events.¹³ IAS No. 39 simply requires objective evidence linking the past event to a reduction in present expectations of future cash inflows. That reduction in expected cash flows is a loss in the period because the expectation changed as a result of some event that occurred during the period.

Which Asset or Liability?

Identifying which asset or liability is being accounted for is often a source of misunderstanding between the IASB and its constituents. Often the discussion is framed as being about applying fair value accounting, when it is about identifying which asset or liability or, more precisely, which expected inflows or outflows are candidates for financial statement recognition. Some constituents seem to believe that if the entity has access to expected future net cash inflows, it has an asset that is a candidate for recognition. However, some expected inflows might derive from the entity's growth options or expected profitable future transactions. As standard-setters analyze the situation, these expected inflows do not derive from past transactions or events and are not a present right controlled by the entity. Thus, they would not meet the definition of an asset.¹⁴ Only expected inflows (outflows) that meet the asset (liability) definition can be considered for financial statement recognition. Thus, one must be clear about which expected inflows or outflows of economic benefits are being accounted for.

As an example of the implications of the "which asset or liability" question, consider a bank's deposit liability. Considerable controversy exists about the fair value of this liability. The liability in question is owed to depositors. Some argue that the fair value of the liability is the amount payable by the bank on demand by the depositor. This is the liability's fair value because it is the price that a knowledgeable, willing buyer, e.g. another potential depositor, would pay the depositor to sell his deposit, and the seller would willingly accept. Why would such a buyer pay any more or the seller accept any less? The deposit is effectively cash. This also is the price at which the transaction occurs between the bank and depositors.

Others argue that if the bank were to settle the liability willingly with another knowledgeable, willing bank, then the acquiring bank would require less than the demand amount to assume the liability. Why is this? This is because depositors leave their funds on deposit for some period of time, and money has a time value. Determining the amount of the discount the acquiring bank would accept requires estimating how long the amount will be on deposit. This is where the implications of considering only past transactions come into

¹³ Note that the loan loss example is not about using fair value accounting. The issue of delineating the past and future arises whether the measurement attribute is fair value, entity-specific value, or any other attribute that requires assessing loan impairment—even the modified historical cost attribute, which is presently used for loan assets.

¹⁴ Growth options could arise from past transactions or events, such as a business combination. In that case, the fair value of the growth option is recognized as part of goodwill.

play. In particular, standard-setters view the past transaction to be the deposit of funds. Thus, the question is how long those funds will remain on deposit. This might not be a long period—perhaps a few weeks or months—which means that the discount would not be large. The depositor may deposit more funds to replace those he withdraws, and the depositor may have an account balance for a longer period—perhaps years. However, the new deposits are the result of future transactions, not past transactions. Thus, the present liability definition would not include them.¹⁵

Because the bank expects net cash inflows associated with its relationship with its depositor, the bank might have an asset. For example, the bank might expect the depositor to deposit replacement funds, resulting in a base level of a deposit liability that will not require cash outflows in the short-term.¹⁶ This possibility is validated when portfolios of deposits are traded between banks—the observed transaction price is less than the demand amount. However, the analysis implies that this benefit arises from future transactions with the depositor, not from past transactions. Even if one could identify a past transaction, any potential inflows of economic benefits associated with those future transactions are not controlled by the entity. Thus, this potential inflow of economic benefits does not seem to meet the asset definition. The question of whether and how to account for this expected net cash inflow is separate from that of how to account for the deposit liability. That is, the analysis reveals that the transaction price of a portfolio of demand deposits reflects at least two components, the current deposit and the prospects for future deposits.¹⁷ The former meets the liability definition, but the latter might not meet the asset definition.

Next consider insurance contracts. Standard-setters view the past transaction to be the execution of the insurance contract. Because the contract gives the insurer control over cash inflows associated with the contract, the expected net cash inflows associated with the contract meet the definition of an asset.¹⁸ However, insurers expect many policyholders to renew their contracts when the contracts expire. This expectation is based on experience that is likely to persist into the future. Thus, the question is whether the net asset associated with the initial insurance contract derives from the expected net cash inflows from the contractual terms of the initial contract alone, or does it include expected net cash inflows from expected subsequent contracts. As with the bank deposit liability example, the expected contract renewals could be considered expected future transactions, not past transactions, that are not controlled by the entity. Thus, they might not meet the definition of an asset.

Expected Future Transactions

The asset (liability) definition does not state that any source of value (negative value) assessed by willing buyers and sellers of the entity's equity is an asset (a liability) of the

¹⁵ For a more complete description of the IASB's reasoning, see the "Basis for Conclusions" for IAS No. 39, ¶ BC187 and BC188.

¹⁶ As ¶ BC187(b) of the "Basis for Conclusions" for IAS No. 39 notes, the argument that would result in demand deposits being recognized at less than the demand amount because the bank expects a base level of deposit liability would also result in recognizing trade payables at below their face amount. As yet, there are no advocates of doing so.

¹⁷ This discussion characterizes the difference as a "which asset" question. Others would characterize it as a "which market" question. That is, in estimating fair value, should one look to the bank-to-depositor market or bank-to-bank market? In most cases, as in the current example, changing the market effectively changes the asset or liability.

¹⁸ There also is a liability for the insurer's commitments under the contract, and the analysis should proceed separately for any contractual assets and liabilities. For the purpose of this discussion, I refer to the insurer as having a net asset.

entity. Thus, some of the value of the entity's equity probably does not derive from the entity's assets and liabilities as defined in the *Framework*. As a consequence, that value is not recognized in the entity's financial statements. Such value sources could include expected cash inflows or outflows from expected future transactions or expected cash inflows that the entity does not control.

If one wishes to conclude that these expected future transactions are assets or liabilities, then there are at least three possible alternatives. The first alternative is a fuller analysis that reveals that these expected transactions are, in effect, the result of past transactions. This would be the case, for example, if one concludes that the expected future deposits or insurance contract renewals resulted from establishing the initial depositor or policyholder relationship. The past event would not be the initial deposit or the execution of the contract. It would be the establishment of the customer relationship. Although this approach would include more expectations of the future in today's financial statements, it would not include them all. For example, it would not include expected net inflows from future depositors or policyholders. However, this line of reasoning could go beyond the establishment of the customer relationship. That is, for example, one could conclude that advertising that might result in a deposit or insurance contract is the past event. Recall, however, in the case of inflows of economic benefits, concluding that expected transactions are, in effect, the result of past transactions is not sufficient for meeting the asset definition. One would also need to conclude that the expected inflows are controlled by the entity.¹⁹

The second possible alternative is the development of new asset and liability definitions. If the notions of past transactions or events and control were eliminated from the definitions, then all sources of equity value could be recognized in financial statements, assuming they meet the recognition criteria including reliable measurement. These sources could include real options, as well as the expected value of management's future decisions.²⁰ One also could envision expected future sales to be recognized as assets, and what are presently considered business risks to be recognized as liabilities. This is a model for financial reporting very different from the one we have today. No standard-setter has crafted such definitions as part of a comprehensive framework for financial reporting. Nonetheless, this alternative would result in many more estimates of the future being included in financial statements than would be the case under the current asset and liability definitions, even with full fair value accounting.

The third, perhaps most likely, alternative is that expected net cash inflows associated with expected future transactions would remain unrecognized. However, the IASB will likely need to articulate more clearly what constitutes a past transaction or event, as well as control, and why.

Expected Future Transactions and Reliability

Where we draw the line on past transactions or events also can affect the reliability of their measurement, which is part of the criterion for recognition once the asset or liability

¹⁹ It would be difficult to argue that the entity controls the depositor's future deposits or the insured's future insurance contract renewals. However, one might sustain an argument that the entity controls the economic benefits associated with such expected future transactions because it can sell the underlying deposits or contracts for a price that includes the value of those expected future transactions. Typically, when an asset or liability is acquired in an exchange transaction, control is assumed.

²⁰ The control criterion has been interpreted as eliminating the value of an assembled workforce from the asset definition. The argument is that entities do not control the expected future inflows of economic benefits associated with the efforts of their at-will employees because such employees can leave the entity's employ at any time.

definition is met.²¹ Where we draw the line can affect reliability because estimating expected future cash flows associated with present rights and obligations is usually easier than estimating those associated with expected future rights or obligations.²² For example, estimating expected future cash flows from expected future contracts requires estimating cash flows further into the future, which is inherently more difficult than estimating cash flows in the nearer-term. It also requires estimating the probability that a new contract will be entered into and the terms of that contract. Although some entities have considerable experience on which to base such estimates, the estimates include an added level of estimation uncertainty. Also, these estimates necessarily rely more on management's plans, which also are inherently more subjective.

EFFECTS ON INCOME

Income Measurement and Interpretation

The interpretation of today's financial statements depends on the choice of which expected future cash flows result in assets and liabilities and how the assets and liabilities are measured. Asset and liability measurement affects income measurement. As the *Framework* makes clear, the focus on measuring assets and liabilities is not because the IASB believes that the balance sheet is more important than the income statement. Quite to the contrary, the focus reflects the importance of the income statement. The *Framework* adopts a Hicksian view of income (Hicks 1946), adapted to financial reporting. The Hicksian view is that income for a particular period equals the change in wealth for that period. Thus, in a financial reporting context, the key to measuring income is to measure changes in recognized assets and liabilities (FASB and IASB 2005). However, because not all expected future benefits are recognized in financial statements, financial reporting does not literally implement the Hicksian view. Accounting income is not the change in total wealth for the period; it is the change in recognized net assets, other than changes arising from equity transactions.

The direct link between asset and liability measurement and income measurement means that expectations of the future that are incorporated into measures of assets and liabilities today are recognized in income today, not in the future when the cash flows actually occur. Income in any given period includes the following:

- changes in expectations between the beginning and the end of the period,
- differences between expectations and realizations during the period, and
- the unwinding of the discount rate.²³

All realized cash flows are presented in the Statement of Cash Flows.

As discussed above, how estimates of the future are reflected in financial statements today depends on the choice of measurement attribute and the asset definition. Thus, both of these affect income and its interpretation. Generally stated, if done comprehensively,

²¹ Reliability of accounting amounts has several dimensions (FASB 1980a). One is verifiability, i.e., the extent to which different measurers would arrive at the same amount. This is the dimension most likely affected by where the line is drawn between past and future transactions or events. The other two dimensions are neutrality, i.e., the amount is an unbiased measure of the object being measured, and representational faithfulness, i.e., the extent to which the amount represents what it purports to represent.

²² If contracts, such as bank deposit liabilities, are actively traded, observed contract prices can provide a basis for a reliable estimate of expected cash flows associated with the expected future contracts. However, reliability only affects whether a contract that meets the asset definition should be recognized. Thus, even if deposit liabilities are traded, concluding contracts can be recognized as assets rests on the asset definition.

²³ The IASB's joint project with the FASB on Financial Statement Presentation is considering the best way to display income statement components, including those resulting from the present mixed measurement model.

using fair value as the measurement attribute for assets and liabilities would result in income reflecting how the entity performed given the assets at its disposal relative to other market participants' expected performance. This is because fair value measures assets and liabilities based on what market participants expect an entity to achieve. Thus, if the entity makes better use of the assets, then income will be greater than the return expected based on the riskiness of its net assets; if it makes worse use of the assets, then income will be less than the expected return.

Using measurements other than fair value yields different interpretations of income. Using entity-specific value would reflect how the entity performed, given its own plans and special rights or skills. This is because entity-specific value measures assets and liabilities based on what the entity expects to accomplish with the assets. Thus, the value of the entity's special rights or skills are recognized when the assets are recognized, not when the entity realizes the benefits associated with those special rights or skills.²⁴ Using historical cost for all assets would reflect how the entity performed, given the cost of its assets. Using a mixed measurement model, as we do presently, reflects a mixed view of entity performance, with unclear interpretation.

The interpretation of income is also affected by which assets and liabilities are recognized. The balance sheet includes recognized amounts for individual assets and liabilities that, as explained above, do not necessarily reflect all sources of expected inflows or outflows of the entity's economic benefits. Thus, income in a given period also includes cash flows associated with unrecognized assets and liabilities, and unrecognized but expected future transactions. A major class of unrecognized assets is internally generated intangible assets, even if they are contractual or otherwise separable from other assets of the entity, e.g., rights to future revenue from licensing the entity's intellectual capital. Another major class of unrecognized assets is synergies between and among recognized assets.

The unit of account determines the extent to which synergies are recognized because any synergies within an asset's unit of account are recognized. For example, any synergies obtained from combining metal, screws, tires, and a motor into an automobile are reflected in the recognized amount for a purchased automobile. Also, balance sheets recognize individual assets and liabilities, which do not include synergies between and among those assets and liabilities. However, if balance sheets instead recognized cash-generating units, which comprise collections of assets and liabilities used together, the synergies at the unit level would be reflected in the recognized amount. Thus, although the benefits associated with synergies ultimately are recognized in income, the timing of recognition depends on when the synergies affect recognized assets and liabilities.

Predictability

One consequence of including more estimates of the future into today's financial statements is that accounting income is less predictable. This follows because more expectations of the future are recognized in today's financial statements, leaving fewer to be recognized in future financial statements. If an entity could reliably predict the future, then the predictions would be reflected in asset and liability measures today.

Some view lack of predictability of accounting income as a drawback to incorporating more estimates of the future in today's financial statements, e.g., through the increased use of fair value accounting. However, the role of financial reporting is to provide information that is useful to users in making economic decisions. If next period's income is predictable

²⁴ Differences between fair values and entity-specific values of financial instruments are unlikely. Larger differences could exist for nonfinancial assets and liabilities.

from current period's income, then current period's income is predictable from last period's income. This means that users already have some of the information included in current period earnings, raising questions about what information current period's earnings provides.²⁵ More importantly, the aim of financial reporting is to aid financial statement users in predicting future cash flows of the entity. Thus, what matters is whether accounting income has predictive ability with respect to future cash flows, not whether it is, itself, predictable.²⁶

As explained above, income in any particular period would include differences between expectations and realizations, which are—by definition—unpredictable. Income also would include changes in expectations. The predictable part of income would be the return on the entity's net assets as reflected in the discount rate used to determine the present value of those expectations.

Although less predictable, income derived from assets and liabilities that incorporate more estimates of the future can provide information useful to financial statement users in making their economic decisions. The differences between expectations and realizations in any particular period, as well as changes in expectations of the future, reveal changes in economic circumstances that occurred during the current period. Because income also would include the expected return on the entity's net assets, aggregate income would reflect the extent to which the entity earned more or less than expected based on the riskiness of its net assets.²⁷

Disclosure as a Substitute?

Estimates of the future can be recognized within assets and liabilities in today's financial statements. Alternatively, they may be disclosed in notes to the financial statements. The *Framework* states that disclosure is not a substitute for recognition, but it can be a complement.

Disclosures of expectations of the future can be of different types.²⁸ One type is the disclosure of an alternative asset or liability measure that is based on types of estimates of the future that differ from the recognized amount. The present requirement in IAS No. 32 (IASB 2004b) to disclose fair values of financial instruments that are recognized using another measurement attribute is an example. This type of disclosure provides measures of

²⁵ Financial statements provide a confirmatory role as well as a predictive role. Current period's income may provide confirmatory information even if it is predictable from last period's income. However, the criticisms of incorporating more estimates of the future into today's financial statements typically focus on income's lack of predictability, not its lack of confirmatory ability.

²⁶ The model and empirical results in Barth, Cram, and Nelson (2001) demonstrate the significant relation between accounting income, and its components, and future cash flows. There is little direct evidence demonstrating that fair values aid in predicting future cash flows. One example, relating to nonfinancial assets, is Aboody et al. (1999), which shows that fixed asset revaluations are significantly positively associated with changes in future operating performance, including future operating cash flows and future operating income. A second example, relating to financial assets, is Barth et al. (1995), which shows that bank regulatory capital calculated based on fair values is a better predictor of future violations of actual regulatory capital than is past actual regulatory capital.

²⁷ If the measurement attribute is fair value, income reflects differences between what the entity earned from its net assets relative to what other market participants would have earned. Thus, any special management skill or other competitive advantages of the entity will be reflected in income as they manifest.

²⁸ See Barth and Murphy (1994) for an analysis of the different types of disclosures in U.S. accounting standards.

assets and liabilities that are useful to financial statement users, but for some reason not recognized.²⁹

A second type is the disclosure of inputs to the estimation process. For example, International Financial Reporting Standard (IFRS) No. 2, *Share-Based Payment* (IASB 2004d), requires the disclosure of expected volatility and other inputs to option-pricing models used to estimate the value of share options. The inputs are estimates of the future. This type of disclosure provides information about how entities incorporate estimates of the future in determining the asset and liability measures, and what those estimates are. This permits financial statement users to obtain a deeper understanding of the entity's expectations of the future by relating the entity's estimates to other available benchmarks. This also helps users assess the reliability of the estimates.³⁰

A third type is the disclosure of risk assessments. The present requirements in IFRS No. 7 (IASB 2005) to disclose estimates of credit risk, liquidity risk, and market risk are examples. This type of disclosure provides financial statement users with information about the variance of the future benefits. Recognized amounts and the first two types of disclosures primarily help users assess the mean of future benefits. Information about the variance of estimates of the future can be important to users in assessing the riskiness of expected benefits.³¹

CONCLUDING REMARKS

Including estimates of the future in today's financial statements is not new—almost all asset and liability amounts today reflect some estimates of the future. However, the use of such estimates is increasing. This increase results primarily from standard-setters' attempts to achieve the objective of financial reporting, which is to provide information useful to financial statement users in making economic decisions. Asset and liability measures that reflect current economic conditions and up-to-date expectations of the future should result in more useful information for making these decisions.

How estimates of the future are incorporated in today's financial statements depends in large part on the attribute selected for asset and liability measurement. Different measurement attributes result in different types of estimates being incorporated. It also depends on the definitions of assets and liabilities that are used for financial reporting. The present definitions depend critically on the identification of the past transaction or event that gives rise to expected inflows or outflows of future economic benefits. The asset definition also requires that the entity control those expected benefits. Thus, some expected inflows and outflows of economic benefits are not recognized.

Although recognized financial statement amounts may increasingly depend on estimates of the future, no one anticipates that financial statements will reflect all such estimates. Thus, note disclosures play a role in explaining the estimates that are included in recognized amounts, and they provide information about estimates that are unrecognized.

How estimates of the future are incorporated into financial statements today affects the characteristics of income and, thus, its interpretation. Including more estimates of the future

²⁹ Some reasons for this could be concerns over the reliability of the measures, unresolved interactions between the disclosed amounts and other recognized amounts, or a desire to increase preparers' and users' familiarity with the measures before requiring recognition. Barth et al. (1996, BBL), Eccher et al. (1996), and Nelson (1996) provide evidence that analogous disclosures required by SFAS No. 107 (FASB 1995) are value-relevant to investors for publicly traded U.S. banks. BBL's evidence includes fair values of banks' loan assets.

³⁰ For example, see Amir and Gordon (1996), which investigates firms' choices of estimation parameters associated with postretirement benefits other than pensions, and Aboody et al. (2006), which investigates the disclosed inputs to option pricing models used to measure stock-based compensation expense under SFAS No. 123.

³¹ See Barth (2004) for a discussion of the potential usefulness of such disclosures.

in today's financial statements would result in income that is somewhat different from income today. Arguably, the new income measure can provide better information to financial statement users in making their economic decisions.

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