

COMMENTARY

**Response to the Financial Accounting  
Standards Board’s and the International  
Accounting Standards Board’s Joint  
Discussion Paper Entitled *Preliminary Views  
on Revenue Recognition in Contracts with  
Customers***

**American Accounting Association’s Financial Accounting Standards  
Committee (AAA FASC)**

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**SYNOPSIS:** The FASB and the IASB recently issued a joint discussion paper entitled, *Preliminary Views on Revenue Recognition in Contracts with Customers*. The boards requested comments on whether their proposed model for revenue recognition would improve the usefulness of the financial statement information for financial decision makers. This paper summarizes the AAA’s Financial Accounting Standards Committee’s responses to several of the boards’ specific questions. We support the boards’ proposed comprehensive revenue recognition standard based on the following options: (1) the customer consideration approach (based on initial contract price measurement); (2) no recognition of revenue at contract inception (by assigning the initial contract price to performance obligations); and (3) allocation of the transaction price to multiple performance obligations based on the relative stand-alone prices of each performance obligation. We also recommend that the boards carefully consider the following clarifications as they develop the final exposure draft. The formal definition should specify that the contract be an “enforceable” agreement. The measurement of a performance obligation must be verifiable. While the transfer of an asset to the customer or the acceptance of a service by the customer *normally* signals the recognition of revenue, we encourage the boards to carefully consider situations (like long-term construction or mining) when the completion of intermediate performance obligations could trigger rev-

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enue recognition prior to the transfer of title. Absent special consideration of these situations, companies may be influenced to write contracts in suboptimal ways in an effort to recognize revenue continuously throughout a long-term construction project or in the process of mining or farming. Finally, we highlight difficulties that may arise in allocating the initial transaction price to multiple performance obligation contracts when the individual performance obligations are not normally sold on a stand-alone basis.

**Keywords:** Financial Accounting Standards Board; International Accounting Standards Board; revenue recognition; contracts.

## INTRODUCTION

The Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB), hereafter the boards, recently issued a call for comment on a discussion paper entitled, *Preliminary Views on Revenue Recognition in Contracts with Customers*. The Financial Accounting Standards Committee (hereafter, the Committee) of the American Accounting Association<sup>1</sup> (AAA) is pleased to have an opportunity to express its views on the discussion paper. This comment was developed by the Financial Accounting Standards Committee of the American Accounting Association and does not represent an official position of the American Accounting Association.

The boards argue that when a company enters into a contract with a customer, the combination of rights and obligations associated with that contract result in a net contract position that can be (1) an asset, (2) a liability, or (3) neutral. The initial contract position is based on the agreed upon transaction price (the promised consideration).<sup>2</sup> The proposed standard indicates that revenue should be recognized based on increases in the entity's net position in the contract with the customer.<sup>3</sup> The entity's net position in the contract increases when the entity satisfies a performance obligation within the contract. From the perspective of the entity providing the good or service, a performance obligation is a promise to transfer an asset (which can be either a good or service) to the customer. The entity satisfies the performance obligation when it transfers the promised asset to the customer.<sup>4</sup> A key aspect of the proposed standard is that the entity cannot recognize revenue until title to the promised asset transfers to the customer.

<sup>1</sup> The American Accounting Association promotes worldwide excellence in accounting education, research, and practice. Founded in 1916 as the American Association of University Instructors in Accounting, its present name was adopted in 1936. The Association is a voluntary organization of persons interested in accounting education and research. Currently, the Association has about 6,000 members in the United States and 2,000 international members. The Committee is charged with commenting on regulatory proposals on financial reporting with an aim to provide a research-based perspective on financial reporting. The AAA's membership has a diverse set of views about financial reporting and the committee does not express views on behalf of all members. On the other hand, the Committee does provide a research-based perspective to develop insight into the questions raised in the discussion paper. The Committee hopes this comment will stimulate discussion among standard setters, AAA members, regulators, and accounting practitioners regarding this important step in developing a comprehensive standard on revenue recognition.

<sup>2</sup> If the contract contains more than one performance obligation, the entity should allocate the transaction price to the performance obligations based on the relative stand-alone selling prices of the goods and services underlying the performance obligations.

<sup>3</sup> Early discussions by the boards included two different approaches for measuring performance obligations. The first, which was ultimately adopted in the discussion paper, called the "customer consideration model," measures the contract obligations based on the agreed upon consideration negotiated at the inception of the contract. These obligations are not remeasured at subsequent reporting dates. The second approach, called the measurement model, measures contract obligations both at the inception and at all subsequent reporting dates at current exit prices. This approach was not adopted and does not appear in the discussion paper. Schipper et al. (2009) provide an excellent summary of the two models considered by the boards as well as the deliberation process that occurred in the development of the current discussion paper.

<sup>4</sup> The boards clarify that performing a service is equivalent to transferring an asset that the customer consumes immediately.

Clearly, revenue recognition is extremely important to investors. In fact, [Anderson and Yohn \(2002\)](#) conclude that when there are problems in a company's financial statements, investors are more concerned about revenue recognition problems than any other reporting issue. At the outset, we note that we agree with the boards that revenue recognition standards are extremely diverse and sometimes inconsistent in the United States and that current international revenue recognition standards are sometimes vague. Therefore, we are in favor of a new comprehensive standard that will remove inconsistencies and clarify ambiguity in existing standards. We applaud the boards' efforts and support the customer consideration method proposed in the discussion paper, subject to some caveats. Our purpose in commenting on the discussion paper is to provide a unique viewpoint based on existing academic research and our educational perspective. While the original response submitted to the boards was organized to respond to specific questions raised in the discussion paper, we organize our response here by topic in order to provide a more streamlined flow to our arguments. We also note that we respond to some, but not all, of the questions raised by the boards in the discussion paper.

## THE PROPOSED STANDARD

### A Comprehensive Revenue Recognition Principle

We agree with the boards' decision to develop a contract-based standard in which the rights and obligations of the entity's contract with a customer are summarized as a single asset or liability (depending on the "net position" of those rights and obligations). Given this fundamental definition, revenue is recognized when the asset (liability) increases (decreases). Moreover, we support a "transaction-based" definition of revenue recognition that is triggered by the actions of the entity in fulfilling the performance obligations of the contract. We agree with the boards' decision to use the "customer consideration" model as opposed to the "measurement" model. While the customer consideration model focuses on verifiable transactions (the agreed-upon contract price), the measurement model relies on fair value estimates of exit prices at the inception of the contract and at each succeeding financial statement date. In addition, the measurement model's allowance of revenue recognition at the contract's inception (based on estimated exit prices and not the entity's performance of contract obligations) could in many cases open the door for manipulation of estimates in determining these exit prices.<sup>5</sup>

### Contracts, Performance Obligations, and Measurement

We agree with the boards' definition of a contract as an agreement that creates performance obligations for the entity. Specifically, we would clarify that the definition of a contract should specifically state that the contract should be an enforceable agreement<sup>6</sup> that obligates the entity to fulfill specific performance obligations. As stated previously, we support a contract-based standard

<sup>5</sup> We note that the measurement model relies on fewer transaction-based measures than the customer consideration model. However, it is not always true that the customer consideration model is a strictly transaction-based model. For example, the customer consideration model often has to rely on estimates of stand-alone selling prices for which a company may have no transaction-based evidence. In these situations, the customer consideration model would be no more transaction based than the measurement model. It is also true that the measurement model is just as transaction based as the customer consideration model when it comes to identifying when a good or service is transferred to the customer. Both models require a company to identify when a net contract increases (either because the net asset increases or the net liability decreases) because a promised good or service is transferred to the customer. This transfer of a good or service is no more verifiable in one model than it would be in the other. We thank the anonymous reviewer for these insights.

<sup>6</sup> There are other means of enforcement that could also create a contract. In situations in which a court system cannot enforce a legal remedy, other means of enforcing an obligation have evolved. For example, in the diamond trading co-ops, the agreements are often noncontractual and would not be upheld by any jurisdiction. Instead, if anyone ever breaks an agreement, the co-op can expel that person from the trading organization. The proposed standard should account for contracts of this nature even though they are not legally enforceable.

that leads to a “transaction-based” definition of revenue recognition. The boards’ definition of a contract enables the use of the “customer consideration” model, which we fully support.<sup>7</sup>

We also generally agree with the boards’ definition of a performance obligation since the contract defines the obligations the entity incurs to provide goods or services to the customer. Performance obligations must be both enforceable and verifiable.<sup>8</sup> Moreover, as explained in the next subsection, there may be situations where the performance obligation is satisfied prior to actual delivery of the product or service.<sup>9</sup> We recommend that the boards consider situations where a contract may legally obligate the entity to perform a service or provide a good in ways that are nontraditional and may be fulfilled prior to the actual delivery of the good or service, such as the production of the mineral that might be considered fulfilled prior to delivery.<sup>10</sup>

Initial measurement at the transaction price is the most important feature of the proposed standard. We agree with the boards’ decision to adopt the customer consideration model, together with their additional resolution to prohibit revenue recognition at the inception of the contract by measuring the contract initially at the transaction price. The academic literature provides evidence consistent with the use of the customer consideration model. While no prior research has specifically investigated the measurement of revenue contracts, numerous studies find that fair value measurement may lead to less-than-optimal outcomes. For example, [Macve and Serafeim \(2006\)](#) find that using fair value as a measurement basis exacerbates conceptual conflicts between revenue recognition and liability recognition and measurement. [Dichev and Tang \(2008\)](#) find that fair value accounting has contributed to a decreasing trend in the correlation between contemporaneous revenues and expenses, increased earnings volatility, declining persistence of reported earnings, and an increased negative association in earnings changes.<sup>11</sup> [Dutta and Zhang \(2002\)](#) show that mark-to-market accounting does not provide adequately efficient aggregation of raw information in order to minimize agency problems. Finally, [Ramana and Watts \(2009\)](#) find evidence that managers are more likely to manage goodwill impairments under SFAS 142 because it is based on unverifiable fair value estimates. Specifically, they find that in their sample, the frequency of non-impairment is 71 percent and is increasing in financial characteristics predicted to be associated with greater unverifiable fair-value-based discretion.<sup>12</sup> In sum, while the evidence in the academic literature is sparse, we strongly support the boards’ choice of the customer consideration model (which focuses more on verifiable agreed-upon transaction prices rather than estimated exit prices) and concur that revenue should not be recognized at the inception of the sales contract.

<sup>7</sup> While we are not aware of much research in this area, [Dobler \(2008\)](#) finds evidence that the measurement method results in inappropriate revenue patterns compared to the customer consideration model.

<sup>8</sup> Throughout this comment, we argue that performance obligations must be “verifiable.” This means that the measurement of the performance obligation must be verifiable.

<sup>9</sup> Under the boards’ proposed standard, by definition, a performance obligation is not satisfied until the promised asset is transferred to the customer. However, once the entity has done all that it can to complete the performance obligation except to await delivery, it may be possible to recognize revenue since the quantity can easily be measured without manipulation. Nevertheless, given the proposed standard, the only way revenue could be recognized would be to change the proposed model to recognize revenue at some point other than the satisfaction of the performance obligation.

<sup>10</sup> We recommend that the boards consider how the proposed standard would account for specific-performance contracts. In some situations a court could require an entity to fulfill its promises because any other remedy would leave the customer in an unfair position. The proposed standard should be expanded to consider these situations.

<sup>11</sup> Their extensive empirical analyses are based on a sample of the largest 1,000 U.S. firms over the last 40 years. Based on their empirical results, they conjecture that standard setters’ trend away from matching toward more fair value accounting will continue to accelerate the trends they document empirically.

<sup>12</sup> The only research that specifically addresses the boards’ conceptual models of which we are aware concludes that current transaction-based IFRS revenue recognition criteria are superior to the new models considered by the boards ([Wustemann and Kierzek 2005](#)).

### Problematic Types of Contracts

While the proposed standard will provide decision-useful information in most situations, there is one aspect of the proposed model that we find somewhat problematic. The new standard relies solely on the *transfer* of the asset from the entity to the customer in order for the entity to fulfill the performance obligation. In most instances, the transfer of the asset indicates that the good or service has been provided to the customer and recognized revenues reflect the economic substance of companies' operations to the extent they are verifiable. We foresee problems with this strict definition in some cases—for example, long-term construction projects. Throughout the discussion paper, the boards suggest that there are basically two possible scenarios for long-term construction projects. First, if ownership of the asset transfers continuously to the customer, revenue can be recognized throughout the construction project (Example 5). Second, if ownership is not transferred continuously, revenue recognition is deferred until the project is completed (Example 6). We believe the currently allowed percentage-of-completion revenue recognition could also be allowed under certain conditions. It does not appear to have been subject to significant abuse and it allows for more timely recognition than deferring until project completion.<sup>13</sup> In essence, it could be an efficient reporting method, making reporting more timely in many cases that would otherwise have to recognize revenue at project completion. As we argue subsequently, standard setting should be an evolutionary process, learning from past experience.

Given the proposed standard, we expect many construction companies to use contract structuring (i.e., designing contracts with their customers in order to allow for the continuous transfer of assets) in order to recognize revenue continuously throughout the process (Nelson et al. 2002).<sup>14</sup> In some construction industries this may be fairly easy. For example, if a customer contracts with a construction company to build a high-rise building, the entity will force the customer to purchase land and obtain legal title before construction begins so that as raw materials are delivered and work is completed on the building, the title to that “construction-in-process” transfers to the customer. This type of arrangement may not be possible for other long-term construction projects. For example, if a shipping company contracts with a shipbuilder to construct a cargo ship, it may not be possible for the customer to “continuously” take title of raw materials added to the ship since it will reside in the shipbuilder's shipyard during construction.

In sum, the proposed standard imposes strict requirements on companies that enter into long-term construction contracts. Under the guidelines of the proposed standard, it will be extremely difficult for some companies to recognize revenue prior to the completion of construction projects. Since companies desire to report revenues on a basis that reflects the verifiable economic substance<sup>15</sup> of their operations, they may deviate from traditional contractual forms in an attempt to recognize revenues “continuously.”<sup>16</sup> Moreover, for those that cannot, financial statements may not provide timely, decision-useful information.

<sup>13</sup> The proposed model focuses solely on the transfer of assets to the customer, and not activity pursuant to the contract. A model that focuses exclusively on the transfer of assets will provide less decision useful information to users of financial statements for construction companies because those users have become accustomed to treating revenue as a result of activity, not transfers of assets.

<sup>14</sup> Another possibility is that companies forced to delay revenue recognition on long-term construction projects may seek other means of disclosure to convey information about their underlying economic activities. If they feel their financial statements do not accurately portray their performance, they may seek unaudited and highly discretionary disclosure methods (e.g., see Hutton et al. 2003).

<sup>15</sup> In other words, the fundamental underlying essence of their operations that can be confirmed based on valid evidence. We believe the “economic substance” contractors want to report as revenues is the activity pursuant to the contract rather than the transfer of constructed assets. In other words, they want to report their efforts in creating value that can be verified by the transaction price inherent in the construction contract. We thank the anonymous reviewer for this insight.

<sup>16</sup> An important counter argument would be that if a building or ship is not transferred to the customer (whether by title or the effective operation of law for certain specific performance contracts or highly customized goods) throughout the

In our view, accounting standards should ensure that financial statements provide decision-useful information without motivating preparers to deviate from otherwise optimal contract forms in order to achieve specific reporting goals. Academic research and the professional literature over the past 30 years document that accounting standards and regulations affect managers' decisions regarding (1) the choice of accounting methods (Watts and Zimmerman 1986; Fields et al. 2001) and (2) the structure of contracts and transactions in order to achieve desired reporting goals (see for example, Vogt [2001], on the how to contract to reduce the effect of SAB No. 101 and Weber [2004], on the effects of the restriction of pooling).

Despite prominent scandals, there is evidence that prior to regulation, on average, accounting and reporting practice as well as contracting practice evolved over time to produce efficient accounting, financial reporting, and contracting practices. See "What Has the Invisible Hand Achieved?" (Watts 2006) for the development of this point.<sup>17</sup> Efficiency changes over time as investment opportunities, technology, and other factors evolve. Best practices in financial reporting change in response to those factor changes, learning from experience—including misleading reporting. Evolved practice can instruct standards setting, particularly in revenue recognition. In most cases in Anglo-American countries, revenue recognition came with title passage, but in some cases it came at a different time, reflecting the economic substance of the situation. In some situations, revenue recognition came earlier than title passing (mining and construction industries). In other industries, it came later (highly uncertain collection of accounts receivable would generate cash-based accounting). Important factors in those exceptions are the ability to *verify* the existence and value of the asset and the existence of contracts for the output. We can learn from such extant reporting practices that stand the test of time.<sup>18</sup>

Watts and Zimmerman (1986, 207) report an example of an Australian mining firm using recognition of income at production in the 1960s. That firm had a contract that stipulated DuPont would buy the firm's entire output of its primary mineral product for a set number of years. The price was set at the mineral's closing price on the London Metal Exchange on the day the mineral was FOB the ship delivering the mineral to DuPont. That contract appears to meet the definition of a performance obligation. Note that while the price was uncertain at the time of the contract, the closing price was verifiable and outside the mining firm management's control.

The Australian mining example is not unique. Demers et al. (2005) find that a number of foreign mining firms filing with the SEC had to change their revenue recognition when SAB No. 101 was introduced. Those firms, like the Australian firm, recognized revenue earlier than when title passed and earlier than would be the case under the current proposal. Some of those firms were using U.K. GAAP, which allowed firms to recognize revenue when the mineral was "delivered to the ship for export to the customer" rather than when the ship reached the destination

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construction process, then the pattern of the transfer of goods or services cannot be said to take place over the entire construction period. However, as explained below, we believe the proposed model should allow the net contract position to be measured based on the creation of value (based on the customer's specifications in the contract), which could allow the continuance of percentage-of-completion recognition under the proposed standard. The net contract position could still be used to determine the recognition of revenue. The only modification would be to allow the net contract position to be measured based on the degree of completion of customer-designated requirements specified in the contract.

<sup>17</sup> Also, see Watts (1977) for an earlier exposition of this point.

<sup>18</sup> Verification also played an important role in the recognition of changes in asset values that did not pass through revenue or income. It has been well documented that despite claims that led to the SEC unofficially banning marking to market, the only assets that U.S. firms wrote up in the 1920s were verifiable increases in the market price of real estate and liquid securities (e.g., see Fabricant [1936] and Walker [1992]). Those increases did not pass through revenue or indeed income, but instead went to equity. The forces generating this phenomenon appear to still exist today. Christensen and Nikolaev (2009) investigate U.K. and German firms' choice of mark-to-market when converting to IFRS standards and find that the assets marked to market were almost exclusively real estate properties and liquid securities. Further, those value changes did not pass through revenue or income, suggesting that the income statement and balance sheet served different purposes.

specified by the customer and title passed (see, for example, the excerpt from Rio Tinto Ltd's annual report in the annual report notes in the Appendix). We expect the mineral's price was, like the Australian example, determined in a liquid market and outside the management's control. Other annual report notes (see the Appendix) reveal revenue recognition similar to the Australian example: earlier than delivery to the ship. For example, several gold and silver mining firms recognized revenue at production.

In many of these cases, income was recognized before the customer obtained legal ownership of the product. Some products might be construed to be under the customer's control if, for example, the Australian contract that required DuPont to purchase all of the output meant DuPont controlled the output even before it was FOB the ship. Unless companies can restructure their contracts to allow for the continuous transfer of assets, the current proposal seems likely to delay revenue recognition in cases where the evolution of accounting procedures in response to market forces would have resulted in earlier, verifiable, revenue recognition. It should also be noted that the change in timeliness of revenue recognition could be significant. In the DuPont example, one year a large shipment of the mineral was delayed beyond the year-end and would have cut the firm's profit approximately in half under the title-passing regime.

Would it be possible to mix verifiable product prices with the current contracting proposal? It appears prior accounting practice was able to achieve that blend, at least to some extent. In the special case of firms producing standardized products sold in liquid markets, it would seem that verifiable revenue recognition at production with allowance for shipping costs is possible. And, the persistence of the percentage-of-completion method in construction suggests that earlier recognition is feasible. We advocate a model in which revenue is recognized in relation to the costs incurred to produce that revenue as long as there is a contract in place and the measurement of the revenue can be made with some threshold level of reliability. In situations where a contract does not exist or the revenue cannot be measured with sufficient reliability, then revenue would be based on the time at which an asset is transferred to the customer (at which point, it is usually much easier to measure the amount of revenue to be recognized).

While we do support the general notion of a single standard based on the customer consideration model, we believe that measuring the net contract position based on the transfer of title may be an overly conservative approach in some instances (like the cargo ship construction example). The customer consideration model can function very well across a wide variety of industries if the proposed standard's requirement that the net contract position always be measured based on the transfer of title could be relaxed. We believe that a simple modification of the proposed model to allow the net contract position to be measured based on the creation of value (based on the customer's specifications in the contract) could allow the continuance of percentage-of-completion recognition under the proposed standard. Again, the net contract position could still be used to determine the recognition of revenue. The only modification would be to allow the net contract position to be measured based on the degree of completion of customer-designated requirements specified in the contract.

In essence, we recommend that the proposed standard allow the net contract position to be measured based on the creation of value (based on the customer's specifications in the contract) instead of the legal transfer of the contract asset. In other words, the net contract position could still be used to determine the recognition of revenue, and it would still be based on the satisfaction of performance obligations. The only modification would be to allow the customer to specify particular benchmarks during the construction process in which they (the customer) could inspect the construction-in-process to verify their acceptance of intermediate performance obligations. Thus, while the title to the asset may not yet have passed, the customer could accept the completion of intermediate steps in the construction process as being acceptable progress toward the completion of the asset.

### Performance Obligations

We agree with the boards that in most instances the transfer of an asset to the customer or the receipt of a service by the customer satisfies the performance obligation and should result in the recognition of revenue at that point in time. But, as explained previously, we recommend that the boards carefully consider situations where the satisfaction of the contractual performance obligation may not coincide perfectly with the transfer of the title of the asset. The proposed standard focuses on the balance sheet. Given the contract-based approach of the customer consideration model, revenues are only recognized when the performance obligations specified in the contract are satisfied.<sup>19</sup>

To use language that seems to have passed “out of vogue,” it matches costs incurred during that period to complete the performance obligation with the revenues they help to earn. Recent research revisits the value of “matching” revenues and expenses. These studies generally conclude that matching leads to favorable income properties that help investors forecast future performance (e.g., see [Dichev and Tang 2008](#); [Su 2006](#); [Prakash and Sinha 2008](#); [Obinata 2002](#)).<sup>20</sup> Such arguments would favor consideration of something short of the “completed contract method” that would essentially be mandated by the proposed standard.<sup>21,22</sup>

We agree that when a contract requires the entity to provide goods or services at different times, the timing of revenue recognition should depend on when the different “components” of the contract are satisfied. We also support separating the contract’s promises into separate performance obligations only when the promised assets are transferred at different times. The boards note that their “objective” in identifying separate performance obligations is to faithfully represent the “pattern of the transfer of goods and services to the customer.” Again, there are instances when the “pattern of transfer” may not be captured by the transfer of the asset’s title.

### The Allocation of Transaction Price to Performance Obligations Based on Stand-Alone Selling Prices

As previously explained, we concur that (1) the contract’s transaction price should be used as the initial measurement of the contract and (2) this agreed upon amount should be allocated among

<sup>19</sup> However, the traditional percentage-of-completion approach suggests that if a company does half the work on a long-term construction project during the current period, they should recognize half of the revenue during that period. SOP 81-1 (paragraph 22) provides rationale for this pattern of revenue recognition: “Under most contracts for construction of facilities, production of goods, or provision of related services to a buyer’s specifications, both the buyer and the seller (contractor) obtain enforceable rights. The legal right of the buyer to require specific performance of the contract means that the contractor has, in effect, agreed to sell his rights to work-in-progress as the work progresses. This view is consistent with the contractor’s legal rights; he typically has no ownership claim to the work-in-progress but has lien rights. Furthermore, the contractor has the right to require the buyer, under most financing arrangements, to make progress payments to support his ownership investment and to approve the facilities constructed (or goods produced or services performed) to date if they meet the contract requirements. The buyer’s right to take over the work-in-progress at his option (usually with a penalty) provides additional evidence to support that view. Accordingly, the business activity taking place supports the concept that in an economic sense performance is, in effect, a continuous sale (transfer of ownership rights) that occurs as the work progresses.” We thank the anonymous reviewer for pointing this out.

<sup>20</sup> While matching leads to favorable income properties, we note that neither the balance sheet nor the income statement should be given preeminence. The evolutionary approach seems to imply that neither the income nor the balance sheet statement is dominant.

<sup>21</sup> In contrast, [Kohlbeck and Warfield \(2008\)](#) conclude that the FASB’s adherence to a balance sheet focus may be justified based on evidence of increased value relevance of balance sheet accounts over time as more and more assets have been changed to fair value measurements.

<sup>22</sup> Some would argue that both the customer consideration and measurement models, since they are based on the transfer of goods and services to customers, tend to match revenues to costs incurred. The measurement model simply matches some revenue to the costs of obtaining a new customer and the rest of the revenue to the costs incurred to fulfill the contract, while the customer consideration model matches the revenues only to the costs incurred to fulfill a contract. We concur with this argument, but feel the customer consideration model is superior because revenue is verifiable based on the agreed-upon contract price rather than fair value estimates.



the various performance obligations specified in the contract. While there are a number of possible ways to allocate the contract price, the most logical method for allocating the transaction price among multiple performance obligations is based on the stand-alone selling prices of the goods or services provided to satisfy the performance obligations. Having said this, one of the reasons for the vast number of pronouncements in current U.S. GAAP on revenue recognition relates to the difficulty in determining when to recognize revenues when a contract includes multiple elements or deliverables (e.g., EITF 00-21, SAB No. 101, and SAB No. 104).

A vast stream of academic literature during the past two decades addresses managers' attempts to manipulate reported profits in order to obtain opportunistic benefits (e.g., [Fields et al. 2001](#); [Cohen et al. 2009](#)). Some of these studies have focused specifically on revenue recognition issues. For example, since firms have a natural tendency to try to recognize revenues earlier whenever possible, [Zhang \(2005\)](#) investigates firms' flexibility in adopting SOP 91-1 and finds that early revenue recognition makes reported revenue less reliable and less predictable. Moreover, [Bowen et al. \(2002\)](#) find evidence that Internet firms are more likely to use aggressive revenue-reporting practices. On balance, at least two studies find evidence suggesting that firms sometimes use flexibility in revenue recognition rules to better portray their financial performance as opposed to misleading investors. For example, [Srivastava \(2008\)](#) finds that firms use flexibility in revenue recognition rules in SOP 97-2 to convey value-relevant information to investors as opposed to managing earnings. [Altamuro et al. \(2005\)](#) investigate firms affected by the tighter revenue recognition requirements of SAB No. 101. They find that firms whose revenue recognition changed because of SAB No. 101 have weaker corporate governance and financial covenants that provide them with incentives for earnings management, but that these firms actually had more informative financial statements in the pre-adoption period than did firms not affected by SAB No. 101.<sup>23</sup>

While the evidence from the academic literature is mixed, the allocation of the initial transaction price among multiple performance obligations based on the stand-alone selling prices of the goods or services provided to satisfy the performance obligations can be problematic. If, for example, these goods or services are not normally sold on a stand-alone basis, managers will have to estimate their stand-alone selling prices. Given the likely incentives to accelerate revenue recognition, these estimates are subject to manipulation. Given this risk, auditors may need to do extensive testing when multiple performance obligations are present in sales contracts. Unfortunately, the allocation calculations become arbitrary when joint costs and benefits are associated with multiple performance obligations or services. These complexities make it much more difficult for companies and auditors to deal with multiple performance-obligation contracts. For example, if manufacturers' warranties are routinely provided for goods (either required by governmental agencies or as an inducement for the purchase of durable goods), we see little reason for making an arbitrary allocation of customer consideration between the goods sold and a "performance obligation" for a service contract that is never sold separately from the product itself.<sup>24</sup> If, instead

<sup>23</sup> We note that at the time of SAB No. 101's implementation, the types of firms most affected were dot-com firms, which often had never reported a profit. As a result, investors often focused on revenue as the only reliable performance measure. It is therefore not surprising that these firms' stock prices were more responsive to revenue disclosures in financial statements than were prices of non-SAB-101 firms prior to the implementation of the new rule. Therefore, this result does not necessarily occur because revenue before SAB No. 101 was actually more "informative." In a vacuum, people tend to rely on whatever information is available, and for the SAB No. 101 firms, in many situations there was no other information available for measuring firm performance in this time period.

<sup>24</sup> For example, we would not expect to observe an auto manufacturer trying to sell an automobile without at least some kind of a manufacturer's warranty, express or implied. Rather than viewing a manufacturer's warranty as something akin to a service contract, which is how the customer consideration model would categorize it, think of it instead as simply a way for manufacturers to provide a performance bond for the quality of their products (a point made more salient by the current administration's finding it necessary to have the U.S. government stand behind auto warranties for GM and Chrysler as part of a plan to have some parts of those companies emerge as viable entities in the future). The warranty

of a strict asset and liability view, the boards would simply focus on the income measurement, consistency in revenue and expense recognition becomes the key. If expenses are appropriately matched with revenues, successive income statements reliably reveal the results of 12 months of activity consistently measured, albeit at the expense of possibly recording assets and liabilities on the balance sheet for accruals and deferrals related to costs yet to be incurred for revenues that have already been recognized.

### SUMMARY AND CONCLUSION

In summary, we support the boards' proposed comprehensive revenue recognition standard based on the following options:

- The customer consideration approach (based on initial contract price measurement)
- No recognition of revenue at contract inception (by assigning the initial contract price to performance obligations)
- Allocation of the transaction price to multiple performance obligations based on the relative stand-alone prices of each performance obligation

We urge the boards to carefully consider the following clarifications as they develop the final exposure draft:

- A contract should be an enforceable agreement that obligates the seller.
- The measurement of a performance obligation must be verifiable.
- While the transfer of an asset to the customer or the acceptance of a service by the customer *normally* signals the recognition of revenue, we encourage the boards to carefully consider situations (like long-term construction or mining) when the completion of intermediate performance obligations could trigger revenue recognition prior to the transfer of title.<sup>25</sup> Absent special consideration of these situations, companies may be forced to rewrite contracts in suboptimal ways in an effort to recognize revenue continuously throughout a long-term construction project or in the process of mining or farming.
- Consider the difficulties that may arise in allocating the initial transaction price to multiple performance obligation contracts when the individual performance obligations are not normally sold on a stand-alone basis.

### APPENDIX

#### Examples of Foreign Mining Firms' Revenue Recognition Prior to SAB No. 101

Note that the 1960s Australian example recognized revenues at production and title passed when the mineral was FOB the ship (rutile-titanium dioxide). Price based on London Metal Exchange closing price on that day.

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is inseparable from the product itself rather than being a "service contract." Of course, accruing the proper amount for warranty expense is a nontrivial problem. We would expect, for example, to see increased accruals for warranty expense when the warranty period increases from three to seven years, or when the coverage increases from just the drive train to bumper-to-bumper coverage. Likewise, we would expect to see adjustments to accruals in periods subsequent to the initial recognition of revenue when experience with the cost of settling warranties claims indicates that balance sheet warranty accruals are too high or too low. Overall, we believe it may be misleading to account for a warranty as if it is a separate deliverable or "performance obligation" because if sales of the product cease the future warranty stream would cease as well. Product warranties are not a stand-alone deliverable. To account for a stream of warranty revenues as if they were a stand-alone deliverable is to pretend they are separable when they are not. This just shifts the accounting problem to be an allocation problem in the recognition of revenues from what is properly an estimation problem in expense recognition for future costs associated with revenues already recognized. We recognize that there is an inconsistency here with efforts to prevent the "front ending" of income but we also think that verifiability dictates that the boards deal with actual, rather than hypothetical transactions. Thus, we believe that automakers and their auditors are in no position to allocate part of the total revenue received from vehicle sales to service contracts that are not sold separately and could never, realistically, be laid off to another party.

<sup>25</sup> While we use the term "transfer of title," we recognize that control of an asset may occur at a time other than at the passage of legal title. We recommend that the boards consider the possibility of recognizing revenue even in situations when the promised asset has not yet become an asset to the customer.

### Agnico Eagle Mines Ltd

From the 2003 20-F: Revenues from mining operations consist of gold and by-product zinc, silver, and copper revenues, net of smelting, refining, and transportation costs. Effective 2000, the Company changed its accounting policy with respect to revenue recognition. As a result of the change, revenue from concentrates is recognized when legal title passes to custom smelters and is valued on an estimated net realizable value basis. Periodic adjustments on the final settlement of concentrates previously sold to smelters are included in revenue as soon as the amount can be reasonably determined. Revenue from gold and silver in the form of dore bars is recorded when the refined gold and silver are sold and also included in revenues from mining operations. Prior to this change, the Company recognized revenues from concentrates on a **production basis**. Under this basis of accounting, **revenue was recognized once the ore was extracted and processed at the on-site mill facilities**. The accounting change was accounted for as a cumulative catch-up adjustment and resulted in a loss of \$1.8 million or \$0.03 per share in 2000.

**Recognition at production**—after ore processing at on-site mill facilities. Gold, zinc, silver and copper

### Rio Tinto Ltd

Revenue recognition Staff Accounting Bulletin No. 101 (SAB No. 101) “Revenue Recognition in Financial Statements” has the result that, in some cases, sales recorded as revenue under U.K. GAAP are deferred and are not recognized as revenue under U.S. GAAP until a future accounting period. Occasionally, sales of goods recorded as revenue for U.K. GAAP purposes may be kept in store by Rio Tinto at the request of the buyer. Under U.S. GAAP, such transactions cannot be recognized as revenue unless the goods are physically segregated from the supplier’s other inventory and certain additional criteria are met. Also, under U.K. GAAP, certain **sales contracts are recognized as revenue when the goods are delivered to the ship for export** to the customer; but **do not qualify for recognition under U.S. GAAP until they have reached the destination specified by the customer in the sales contract and title has passed**. In 2002, such timing differences resulted in an adjustment, included in “Other,” that increased U.S. GAAP pre-tax earnings of the Rio Tinto Group by U.S.\$4 million, Rio Tinto plc’s pre-tax earnings by U.S.\$2 million and Rio Tinto Limited’s pre-tax earnings by U.S.\$4 million (2001: increased U.S. GAAP pre-tax earnings of the Rio Tinto Group by U.S.\$5 million, Rio Tinto plc U.S.\$4 million, Rio Tinto Limited U.S.\$1 million), (2000: reduced U.S. GAAP pretax earnings of the Rio Tinto Group by U.S.\$16 million, Rio Tinto plc U.S.\$11 million, Rio Tinto Limited U.S.\$9 million).

**Recognition at delivery to ship**—title passed when ship reached customer’s specified destination. Goods (ore)

### Ashanti Goldfields Ltd

Such financial statements have been prepared in accordance with the accounting policies set out in note 1 to the financial statements and with U.K. GAAP which differs in significant respects from U.S. GAAP. For a discussion of the significant differences between U.K. and U.S. GAAP as they relate to the Company, see Note 31 to the consolidated financial statements. (a) Revenue Recognition: The Company **recognizes revenue when gold is produced in the form of dore in the gold room, and is based on the quantity and spot price at that date**. Gold is a **liquid commodity that is dealt with on the international stock exchanges, and the Company has refining and purchase agreements with several international banks. These provide that the actual sale price is the spot price on the first working day after the date of delivery to the refiner and the actual quantity invoiced is the quantity after the gold is refined usually within one day**. Consequently Ashanti processes an adjustment on completion of the refining process to adjust revenues recognized at the time of producing dore to actual revenues. While this adjustment

has historically been *de minimis* any significant reduction in the spot price or reduction in quantity of gold before and after refining may have a material adverse impact on the Company's operating results.

**Recognition at delivery to ship.** Gold. Sales agreements with international banks specify sale price is the spot price on first working day after the date of delivery to refinery.

#### **Richmont Mines Inc**

From 12/31/01 20-F: During the year 2001, the Company adopted a new accounting policy related to revenue recognition in order to harmonize its policy with the accounting policy utilized by the North American precious metals industry. Prior to this change, **precious metals revenues were recorded when gold bullion was produced. Revenues are now recognized when rights and obligations related to ownership pass to the purchaser.** Accordingly, the financial statements for the years ended December 31, 2000, and 1999 were restated following this change in accounting policy. Therefore, the balance of retained earnings as at December 31, 1998, has been decreased by \$363,138 and the net losses for the years ended December 31, 2000, and 1999, have been increased (decreased) by \$73,468 and (\$12,051), respectively.

#### **Newmont Mining Corp**

From 12/31/00 10 K: The Company changed its accounting method for revenue recognition in accordance with the U.S. Securities and Exchange Commission Staff Accounting Bulletin No. 101, such that revenue is recognized upon delivery of third-party refined gold to the customer. **Previously, revenue was recognized when the production process was complete or when gold was poured in dore form at the mine** (See Note 18). NOTE 18 ACCOUNTING CHANGES As described in Note 2, the Company changed its method of accounting for revenue recognition in the fourth quarter of 2000, effective January 1, 2000, to **record sales upon delivery of third-party refined gold to the customer.** Previously, revenue was recognized upon the completion of the production process, or when gold was poured into dore at the mine site. The cumulative effect of the change in accounting principle as of January 1, 2000, was \$12.6 million, net of tax and minority interest.

**Recognition at production.** Gold

#### **Stillwater Mining Co**

Effective January 1, 2000, the company changed its method of accounting for revenue recognition. Pursuant to the guidance in Staff Accounting Bulletin (SAB) No. 101, Revenue Recognition for Financial Statements, the company now recognizes revenue as title passes to the customer. In accordance with accepted industry practice, the company previously **recognized revenue when product was shipped from the company's base metals refinery to an external refiner.** The implementation of SAB No. 101 was treated as a change in accounting principle with the cumulative effect of the change on retained earnings at the beginning of 2000 included in restated net income of the first interim period of 2000. The effect of the accounting change on 2000 was to decrease net income by approximately \$10.3 million (\$0.26 per basic and diluted share), which includes the cumulative effect of \$6.4 million (\$0.16 per basic and diluted share). The \$6.4 million cumulative effect adjustment includes \$26 million of revenue previously recognized in 1999, which is reflected as revenue in 2000 under the company's new method of accounting. Assuming the accounting change had been applied retroactively, the unaudited pro forma effect would have been a decrease in net income of \$2.2 million (\$0.06 per basic and \$0.05 per diluted share) in 1999 and a decrease in net income of \$4.0 million (\$0.13 per basic and \$0.11 per diluted share) in 1998.

**Recognition at shipping to an external refiner.** Palladium, platinum, and associated metals.

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