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### 'Old Hens Make the Best Soup': Accounting for the Earning Process and the IASB/FASB Attempts to Reform Revenue Recognition Accounting Standards

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# ‘Old Hens Make the Best Soup’: Accounting for the Earning Process and the IASB/FASB Attempts to Reform Revenue Recognition Accounting Standards

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**ABSTRACT** By developing a synthesis of documents that have been released officially under the revenue recognition project jointly run by the International Accounting Standards Board and Financial Accounting Standards Board, this article points out that the earning generation and realization process over time (that is to say, the traditional accounting model) is in reality still playing an important role without losing its *raison d’être*. Although this model is supposed to have been consistently rejected since the outset on the premise of the adoption of the assets and liabilities approach amid the Boards’ attempt to establish a new revenue recognition model, this article aims to reconfirm the significance and validity of this earning process – that is, the corporate process of generating and realizing earnings over time – as the representational focus of accounting for revenue recognition. Through an internal critique, our article summarizes and discusses successive Boards’ proposals under the same asset–liability approach that they have been advocating for revenue recognition. Through a comprehensive comparative analysis (external critique), our article further criticizes the usefulness and feasibility of this approach, especially the transfer-of-control basis of revenue recognition which the Boards propose. It argues then for an alternative approach that combines asset–liability with revenue–expense accounting while re-establishing focus upon the earning process over time.

## 1. Introduction

The scheduled release date for final standards under the revenue recognition project, which the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) (hereafter the ‘Boards’) have been jointly conducting since 2002, is approaching. This project was one of the major joint projects agreed by the Boards under the Norwalk Agreement. It is timely and important to provide an academic analysis of the FASB–IASB’s joint project on revenue recognition, seizing upon the opportunity presented by the planned release

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of the final standards by the Boards. They have been tackling revenue recognition-related scandals over the years that have frequently occurred amid a changing economic environment for business entities and enterprise groups. According to the Boards, the objective of the project is to establish a framework that provides a comprehensive conceptual foundation for revenue recognition, with regard to multiple-element contractual arrangements and other complex forms of transactions that have emerged in recent years (Johnson, 2004).

This article purports to provide a two-step analysis of the Boards' proposal. Through an internal critique analysis of the three main documents that have been officially released under the project (IASB, 2008, 2010, 2011), our analysis shall point out that the earning process over time (that is to say, the traditional model) is in reality still playing an important role without losing its *raison d'être*, although it is supposed to have been consistently rejected since the beginning of the project on the premise that the Boards purport to establish a new revenue recognition model that adopts an assets and liabilities approach. This evidence does reconfirm the significance and validity of the earning process as the representational focus of accounting for revenue recognition. Drawing upon this matter of fact, we shall further develop a comparative analysis that situates the Boards' approach in a dualistic theoretical map that distinguishes asset–liability and revenue–expense approaches to revenue recognition. This broader analysis leads us to argue for an approach that combines asset–liability with revenue–expense accounting based upon the earning process over time.

The rest of the article is organized in two parts. The first part provides a critical overview of the Boards' joint project. This section discusses the significance of the assets and liabilities approach to revenue recognition, especially usefulness and feasibility of the transfer-of-control model of revenue recognition that the Boards proposed. Drawing upon the longstanding significance of the earning process for revenue recognition, the second part explores the revenue recognition approaches and shows the vicious circle of FASB–IASB's attempt to formulate a comprehensive model for revenue recognition exclusively based upon the asset–liability approach alone. We do therefore advocate a comprehensive approach that combines it with a revenue–expense approach while re-establishing a representational focus upon the earning process over time.

## **2. Part I – An Internal Critique of the Boards' Approach to Revenue Recognition**

### *2.1. The Ambiguous Evolution of the Boards' Approach: A Synthesis of Main Documents*

#### *2.1.1. A Failing Attempt to Base Revenue Recognition Exclusively on the Assets and Liabilities Approach*

As is well known, the global trend in accounting standards-setting in recent years has been experiencing a shift from the revenues and expenses approach to the assets and liabilities approach. Revenue recognition is no exception. Since the beginning, the Boards have been developing the revenue recognition project with an agreed-upon goal to derive comprehensive principles for revenue recognition based upon an assets and liabilities approach, which was explicitly linked to the fair-value model, in its early development. This approach was expected to replace the so-called revenue and expenses approach, which focuses on the earning process over time, although the latter had constituted the representational focus in day-to-day accounting practice for a long time.

In the lead-up to the launch of the revenue recognition project, there was already keen awareness inside the FASB that, despite revenue being defined as changes in assets and liabilities in the FASB Concepts Statement No. 6 (SFAC 6: FASB, 1985), the revenue recognition criteria

given in SFAC 5 (FASB, 1984) did not focus on changes in assets and liabilities; FASB's objective became to overcome this contradiction (Johnson, 2004):

Revenues are not recognized until earned. An entity's revenue-earning activities involve delivering or producing goods, rendering services or other activities that constitute its ongoing major or central operations, and revenues are considered to have been earned when the entity has substantially accomplished what it must do to be entitled to the benefits represented by the revenues. (SFAC 5, para. 83b, emphasis added: FASB, 1984)

In this context, it is not an overstatement to say that this agreed-upon goal has been the main cause of the confusion over revenue recognition that has prevailed in the deliberations throughout the last 13 years or so. The assets and liabilities approach was initially based upon the fair-value model. Although the Boards have later moved to the customer consideration model, the measurement targets still are the net position (discussion paper, DP) and the liabilities (exposure drafts, EDs), not the 'revenue inflow' (Table 1). The confusion ultimately derives from the lack of consensus on what constitutes a revenue recognition model exclusively based on the assets and liabilities approach. The assets and liabilities approach itself is prone to multiple interpretations (European Financial Reporting Advisory Group [EFRAG], 2013). Generally speaking, the assets and liabilities approach is said to be an approach from which all the other accounting elements (e.g. equity, revenues, expenses, gains and losses) can be and should be derived on the basis of the definitions of assets and liabilities. This seems to imply that income is derived from changes in assets and liabilities. However, if the issue of the recognition and measurement of assets and liabilities is taken into account, the concrete meaning and feasibility of the assets and liabilities approach are not that clear-cut. This is partly attributable to the differences of opinion over what constitutes 'changes in assets and liabilities'. Namely, the meaning of 'changes in assets and liabilities' differs greatly depending on whether they are simply understood as acquisition and disposal of the underlying resources, or also include accounting re-measurements of them. For this reason, differences of opinion over the assets and liabilities approach itself are sometimes greater than the main differences that are generally acknowledged between the revenue and expenses approach and the assets and liabilities approach.<sup>1</sup>

In our opinion, these fundamental problems with the asset–liability approach have been at the very origin of criticism and resistance experienced by the various Boards' proposals released under their joint project on revenue recognition. The Boards' initial emphasis was on a revenue recognition model based exclusively on the assets and liabilities approach, focusing on the 'entity's net position' as proposed in a DP titled 'Preliminary Views on Revenue Recognition in Contracts with Customers', released in December 2008 by the Boards (IASB, 2008, hereafter the 'DP'). Throughout the evolution of the project, this initial goal became unrecognizable in the two EDs released subsequently (IASB, 2010, 2011, hereafter the 'ED') in that the expression 'the entity's net position' itself has disappeared while the actual meaning given to the assets and liabilities approach has undergone significant changes (Table 1).

As our analysis shall show, the revenue recognition project has eventually generated a vicious circle in its attempts to accommodate with the traditional focus on the earning process model that was claimed for by dissenting constituencies.

### *2.1.2. The Ambiguous Evolution of the Boards' Proposal: From the Fair-Value Model to the Customer Consideration Model*

Looking back to the evolution of views presented under the joint project, a shift from a fair-value model to a customer consideration model is observed with regard to the measurement method. Although the Boards maintain that both models belong to the same framework of the assets and

**Table 1.** Timeline of various Boards’ proposals for revenue recognition

Boards’ proposal	DP	ED	Revised and reissued ED
Issuance Date	2008	2010	2011
Claimed approach	Asset-liability	Asset-liability	Asset-liability
Allowed recognition and measurement models/options	Net Position Model	Customer Consideration Model	Customer Consideration Model
Measurement target	Net Position = Rights – Obligation	Liabilities	Liabilities
Measurement Amount	<ul style="list-style-type: none"> <li>⌈ Rights: Customer Consideration</li> <li>⌋ Obligations: Customer Consideration</li> <li>Fair value (*)</li> </ul>	Customer Consideration	Customer Consideration
Recognition	• Satisfaction of Performance Obligation	• Satisfaction of Performance Obligation	• Satisfaction of Performance Obligation
When Performance Obligation is Satisfied?	When a promised asset under the contract is transferred =When the customer obtains control of it.	When a promised asset under the contract is transferred =When the customer obtains control of it	Revenue can be recognised whether over time or at a point of time. In either cases, customer can obtain control of a promised asset under the contract.
Notion of transfer of control	Rigorous	Expanded exceptionally.	Ambiguous (unable to function)
Treatment of continuous transfer over time	The percentage of completion method is prohibited	Continuous transfer over time is treated as an exception (The percentage of completion method is permitted exceptionally.)	The percentage of completion method is permitted. Critical options left on: - customer consideration (expected value, or most likely payment).

<sup>a</sup>This model was not eventually retained, but we can observe the surviving trace of it, especially in the case of variable customer consideration, which can be estimated at either its estimated value or its most likely payment amount.

liabilities approach, this shift seems to involve an implicit move toward a hybrid approach somehow accommodating the revenues and expenses approach.

In the lead-up to the launch of the revenue recognition project, there was already keen awareness within the FASB that, despite revenue being defined as changes in assets and liabilities in the FASB Concepts Statement No. 6 (SFAC 6: FASB, 1985), the revenue recognition criteria provided by SFAC 5 (FASB, 1985) did not focus on changes in assets and liabilities (Johnson, 2004). This awareness was shared by the IASB which stated that the definition of revenue and its recognition criteria as provided by both the IASB conceptual framework (hereafter the ‘conceptual FW’) and IAS 18 were inconsistent with the definitions of assets and liabilities provided by its own conceptual framework (IASB, 2003). For this reason, the Boards have

been striving to develop a revenue recognition model based on ‘changes in assets and liabilities’ since the very launch of the joint project. As a result, at least until the joint meeting in October 2007, the following two models – both under the same assets and liabilities approach – were suggested as proposed options:

- (1) the fair-value (current exit price) model,<sup>2</sup>
- (2) the customer consideration (original transaction price) model.<sup>3</sup>

We can see the differences in these revenue recognition models through the following example.<sup>4</sup>

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Premise:	PainterCo is a contractor that provides painting services for commercial and private residences
June 25:	PainterCo contracts with a customer to paint the customer’s house for 3000 <sup>a</sup> . The price is inclusive of all paint, which PainterCo obtains at a cost of 800. PainterCo’s cost for labor and other painting materials is 1600. In this example, the customer is given the right to obtain its own paint, although the customer does not opt to do so and instead purchases the paint and painting services jointly
June 30:	All paint necessary to complete the contract is delivered to the customer’s house
July 1–3:	Painter Co. carries out the painting service
	<ul style="list-style-type: none"> <li>• In accordance with the contract terms, the customer pays in full upon completion of the house painting.</li> <li>• The time value of money is ignored for simplicity.</li> </ul>

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<sup>a</sup>Unit of currency is omitted.

*2.1.2.1. Current exit value model.* In order to apply the current exit price model to this example, the following additional information (PainterCo’s estimate) is necessary:

- The estimated market price for a subcontractor supplying the paint and the painting service at contract inception: 2800 (of which, 800 for the supply of paint and 2000 for the supply of painting service);
- The estimated cost of contract management and performance guarantee by a market participant: 100 at contract inception; 75 at the time of paint supply.

When revenue is recognized using the current exit price model on the basis of these premises, the revenue recognition amounts can be calculated as follows:

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Revenue at inception:	$100 = 3000 - (2000 + 800 + 100)$
Revenue on June 25:	$825 = 3000 - (2000 + 75) - 100$
Revenue on July 3:	$2075 = 3000 - (100 + 825)$

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First of all, PainterCo recognizes revenue of 100 at contract inception (June 25). At this point of time of the contract, since a claim of 3000 and a performance obligation estimated by market average of 2900 (the total market estimate of 800 for paint, 2000 for painting service, and 100 for management guarantee) occur as the difference between the two, a contract asset (i.e. net position) of 100 arises as the current exit price.

On June 25, PainterCo acquires paint for 800 and supplies them to the customer, thereby recognizing revenue of 825. This figure is calculated by subtracting the already recognized sum of 100 from the net position of 925, which is the difference between the claim of 3000 and the performance obligation estimated by market average of 2075 (the total market estimate of 2000 for painting service and 75 for management guarantee) at this point of time.

On July 3, PainterCo completes the house painting, so all the performance obligations relating to this service are satisfied. Since the entity is set free from the performance obligation remaining on June 25, its contract asset (net position) is 3000. Accordingly, it recognizes the change of 2075 from the contract asset of 925 on June 25 as revenue.

2.1.2.2 *Customer consideration (original transaction price) model.* Next, when revenue is recognized using the customer consideration model, the revenue recognition amounts can be calculated as follows:

Revenue at inception:	$0 = 3000 - 3000$
Revenue on June 25:	$0 = 3000 - 3000$
Revenue on July 3:	$3000 = 3000 - 0$

First of all, at the inception of the contract, PainterCo allocates the contract sum of 3000 to performance obligation. Accordingly, at that point of time, PainterCo’s rights and obligations under the contract are equal, so its net position is zero. On June 25, PainterCo’s performance obligation still remains and therefore there is no change in its net position. The acquired paint worth 800 is recorded as inventory. On July 3, PainterCo completes the house painting, upon which all its performance obligations are satisfied. The performance obligation therefore disappears, and its net position is 3000.

In this example, the performance obligations related to the delivery of the paint and the painting service are combined and treated as a single performance obligation. In other words, even though the paint is physically delivered to the customer, they are for use in painting of the walls of the customer’s residence. Since it is not considered that the paint alone has been transferred separately to the customer, the delivery of the paint is treated as part of the performance obligation to supply the painting service.

Even in the customer consideration model, however, if through the contract (or application of law), it is stated clearly that at the physical delivery of the paint, control of it is also transferred to the customer, then delivery of the paint will be treated as a separate performance obligation and will bring about revenue in itself. In this case, if consideration of this part is not stipulated separately in the contract, the need will arise to allocate customer consideration calculated from the estimated market price, etc. for this performance obligation to the proportion concerned.<sup>5</sup>

Since both models geared toward recognizing revenue as an increase in net assets (difference between assets and liabilities) related to a contract with a customer, both were considered to belong to the assets and liabilities approach. One of the main differences was that, while both assets and liabilities were to be measured at a fair value under the fair value (current exit price) model, liabilities were to be measured at customer consideration under the customer consideration model. The other difference is that, while performance obligation is only a naming of liabilities under the fair-value model, performance obligation satisfaction plays a critical function for revenue recognition (through allocation of customer consideration) under the customer consideration model. In this latter model, allocation depends on the underlying ‘satisfaction of performance obligation’, while the fair-value model makes allocation dependent on the measurement of ‘performance obligation’ alone and not empirical evidence of its satisfaction.

Subsequently, it became apparent that members of the Boards had fundamental differences of opinion over these two models. Therefore, a joint meeting held in October 2006 decided: (i) to have the two models developed by separate groups; (ii) to release a DP presenting both models side by side; and (iii) to seek comments from the public. According to this plan, they held joint meeting for the first time in 2007 (the previous example was presented at that

meeting). Despite this clarifying effort, it turned out that, in the DP released in 2008 by the Boards, only the customer consideration (and performance obligation satisfaction) model was eventually maintained, in a synthetic attempt that actually mingles them together. The following section considers their common background in an alleged asset–liability approach to revenue recognition.

## 2.2. *Assets and Liabilities Approach under the DP*

The proposal put forward under the DP purported to reshape the traditional earning process model with the purpose of developing a new revenue recognition model exclusively based on the assets and liabilities approach alone. Revenue was therefore renamed as performance obligations and the earning process as the satisfaction of those performance obligations. In this way, a peculiar model advocating revenue recognition on the basis of an increase in an entity's net position was proposed (Tsujiyama, 2009).

According to the DP, revenue must be recognized on the basis of an increase in an entity's net position in a contract with a customer. When an entity agrees to a contract with a customer, the combination of rights (claims) and obligations (performance obligations) in that contract give rise to a net contract position. Here, the net contract position means the difference in value between rights and obligations under the contract, which are called 'contract assets' and 'contract liabilities', respectively. The key notion here is that of the 'net position'. Contract assets and liabilities result from the measurement of an entity's net contract position. Therefore, the contract assets and liabilities do not fundamentally point to underlying rights and obligations that arise from the contract with a customer. Rather, the contract assets and liabilities represent the difference in value between the two opposed measurements that result from the accounting procedure of the 'net position' itself.<sup>6</sup> Whether such a net contract position becomes contract assets, contract liabilities, or nil depends on the measured values of the net position that remains under the contract at each measurement date.

As discussed above, the fair-value (current exit price) model was repeatedly proposed at the beginning of the Boards' revenue recognition project. Under the fair-value model, changes in assets and liabilities are first measured at a fair value, and this consequently determines the amount of revenue recognized at inception, so that there was no need to identify the timing of revenue recognition on the basis of the likely earning process throughout the duration of the contract. To be sure, the initial net position at a fair value can be re-measured at subsequent arbitrary instants of time, but the whole earning process over contract duration is neglected. The concept of revenue recognition based on an entity's net position under the DP has been derived exactly from this timeless interpretation of the assets and liabilities approach. Namely, the statement of 'the redevelopment of a revenue recognition model on the basis of changes in assets and liabilities' was certainly fitting there, as for the assets and liabilities approach was understood in the sense of deriving desirable measurement values based upon the definitions of assets and liabilities.

In fact, this assets and liabilities approach was further reshaped once the 'customer consideration model' was adopted in the DP in place of the current exit price model. For the customer consideration model proposed under the DP argues to measure performance obligations at customer consideration, with this consideration to be subsequently recognized as revenue according to the 'satisfaction' of those performance obligations. Customer consideration was ambiguously defined by the DP, as either expected value or most likely payment of the transacted price with the customer. In the latter case, there would be no substantial difference with the traditional earning process model, despite the fact that revenue is formally referred to as 'performance obligations' and the earning process as 'the satisfaction of performance obligations'. Nevertheless,

at least until the release of the DP, the Boards' announced goal was to build a model in which assets and liabilities were to be independently measured in the first place, and revenue recognized as a result of those independent prior measurements. According to Yamada (2004), the Boards at that time seemed to seek unconditional rights–obligations in an enforceable contract. These rights (assets) and obligations (liabilities) were considered to satisfy the definitions of assets and liabilities prior to the fulfillment of the contract by one of the parties. According to the Boards, the use of the fair value of assets and liabilities as benchmarks would make it possible to ascertain whether the entity has efficiently fulfilled its obligations through a comparison with those benchmarks (whether over-performed or underperformed relative to them).

This representational focus on assets and liabilities leads the Boards to develop a stock method of accounting that does point to 'transfer-of-control' to a customer. The next section analyzes this notion in further details.

### **3. A Flawed Basis of Accounting: the Transfer-of-Control Model of Revenue Recognition**

#### *3.1. Proposal of the Transfer-of-Control Model under DP*

The DP provides the concrete criterion for the satisfaction of performance obligations in the form of the transfer-of-control on the basis of a contract with a customer (DP, paras 4.4–4.8). This criterion was introduced to standardize revenue recognition, including multiple-element contract arrangements. Certain criteria for the designation of units for revenue recognition were also provided on the basis of this transfer-of-control. For this reason, the very nature of the DP's proposal can be understood as the representation of revenue recognition based upon the 'transfer-of-control' instead of revenue recognition based upon the transfer of risks and rewards as traditionally applied in Europe. This novel basis of accounting for revenue recognition raises two main issues: (i) Does it provide a revenue recognition model that can consistently be applied to various transactions? (ii) Has this transfer-of-control model succeeded in providing a consistent conceptual foundation for revenue recognition throughout the subsequently released two EDs and ongoing revision work on them?

Under the DP, criteria for revenue recognition were progressively organized in the following sequence:

- (i) Revenue is recognized when a performance obligation based on a contract is satisfied;
- (ii) When a performance obligation is satisfied means when a promised asset under the contract is transferred;
- (iii) When a promised asset is transferred means when the customer obtains control of it;
- (iv) When the customer obtains control of a promised asset means when the customer acquires ownership of it in the case of a good (pointing to the passage of control rights between the entity and the customer) and receives it in the case of a service.

To this extent, the DP appeared to provide observable and objective criteria for revenue recognition compared to traditional standards. However, if this approach is strictly applied, then, in the case of a contract to construct an asset for a customer, for example,

an entity satisfies a performance obligation during construction only if assets are transferred to the customer throughout the construction process. That would be the case if the customer controls the partially constructed asset so that it is the customer's asset as it is being constructed. (IASB, 2008, S23)

This would lead to a rejection of revenue recognition based on the so-called percentage of the completion method for long-term construction contracts. Accordingly, the DP did unequivocally propose to prohibit the adoption of the percentage of the completion method.

This approach raised many dissenting opinions and criticism from the constituencies. For example, the main focus on transfer-of-control implies the needs to identify separate performance obligations in multiple-element contract arrangements. The Boards initially proposed to allocate customer consideration to separate performance obligations as identified on the basis of individual selling prices of goods or services included in the contract price. Dissenting comments pointed out that individual selling prices of services included in the contract price of a multiple-element arrangement were often unknown, forcing the Boards to concede room for further flexibility in interpretation.

In summary, confronted with these overwhelming critiques, the Boards were forced to minimize the impact on current practices, especially by stretching and relaxing the overarching notions of ‘transfer’ and ‘control,’ as well as by breaking down the performance obligation into smaller units. The following section analyzes this accommodation strategy by the Boards.

### 3.2. Transformation of the Transfer-of-Control Model under the ED

As a result of further discussions and deliberations to respond to criticism raised by the DP, an ED was released in June 2010 (IASB, 2010). The ED still maintained the goal of developing a more rigorous revenue recognition framework by overcoming the weaknesses of the current IAS 18 and IAS 11, as well as US standards ASC Topic 605. However, the expression ‘revenue recognition based on an increase in an entity’s net position’ disappeared from this document. Furthermore, despite retaining a transfer-of-control model similar to the one proposed in the DP, consideration is given to how the percentage of the completion method can continue to be tolerated under the new revenue recognition model. In particular, revenue allocation (step 4 in the ED) and recognition (step 5 in the ED) based on the transfer of (control over) an asset that occurs ‘over time’ or ‘at one point in time’ do coexist as available implicit options which are entirely left to preparers’ discretion on a contract-by-contract basis (Biondi, Tsujiyama *et al.*, 2012, p. 9).

The ED is identical with the DP in that revenue recognition criteria are organized in the following sequence: when a contractual performance obligation is satisfied → when a promised asset under the contract is transferred → when the customer obtains control of it. The ED does differ from the DP, however, in that customers obtain control of an asset when they obtain the ability to enjoy the benefits of a good or service by directly using it, rather than ownership (control rights) of the asset. In particular, when the goods and services included in the performance obligations are continuously transferred to the customer, the entity is required to apply ‘... one revenue recognition method that best depicts the transfer of goods or services to the customer’ (IASB, 2010, para. 32).

Under the DP, the transfer-of-control model was supposed to have provided more rigorous criteria unifying various accounting practices under a new framework. However, the ED has undergone a transformation in character: recognizing revenue was moved from the basis of a contractual observation in the form of the obtainment of control by the customer, toward the timing of revenue recognition on the basis of an interpretation as to when control is considered to have been transferred. This change led Biondi, Tsujiyama *et al.* (2012) to argue that ‘the ED does not introduce a single model of revenue recognition. It fails to design an understandable and feasible approach to revenue and income recognition. It even fails in providing clearly defined alternative options’.

At least at the IASB (2010) stage, the transfer-of-control to the customer was regarded as the crucial criterion for revenue recognition; under a revenue recognition model that identified the transfer of goods or provision of service as a concrete form of this criterion (IASB, 2010, para.

30). This concept was sought to improve on IAS 18, making it a more rigorous standard. However, as a result of the Boards' attempt to apply this same model to revenue recognition for construction contracts under IAS 11, a serious discrepancy occurred with the current practice of the percentage of the completion method. For this reason, for cases where goods or services underlying a separate performance obligation are continuously transferred to the customer, the scheme was modified to exceptionally permit methods such as the percentage of the completion method.<sup>7</sup> The recommended guidance was then to merely require the use of a method that best depicts the underlying arrangement (IASB, 2010, paras 32–33).

As a consequence, the following overall framework of this revenue recognition model began to unravel: identification of a contract → identification of performance obligations included in the contract → the satisfaction of identified separate performance obligations → transfer of promised assets → obtaining of control by the customer. Namely, the attempt to rebuild the revenue recognition model via a transfer-of-control model – that was deemed to be more rigorous than the traditional earning model – did end up entertaining serious contradictions within the model itself due to an attempt to comprehensively apply it to not only cases previously covered by IAS 18, but also cases previously covered by IAS 11.

These contradictions became even more serious with the revised ED released in November 2011 (IASB, 2011). According to this revised version, an entity first determines whether separate performance obligations are to be satisfied over time through the transfer-of-control of goods or services to the customer over time, and, if not, the entity is required to process revenue recognition on the basis that performance obligations are to be satisfied at a point in time (IASB, 2011, paras 35–37). Namely, both the continuous transfer-of-control – which was originally permitted under exceptional circumstances – and the transfer-of-control at a point in time are now at the same level as determination outcomes, with each of the criteria allowing substantial leeway with judgment in day-to-day practices.

Moreover, in the re-deliberation process currently underway to address various comments submitted on this revised ED, the purpose of introducing exceptions that accommodate current practices has snuck up as the main matter of discussion, so much so that the initial goal of the revenue recognition project to develop a more rigorous and comprehensive revenue recognition framework by overcoming the weaknesses of the current IAS 18 and IAS 11, as well as US standards ASC Topic 605, appears to have been forgotten. In turn, both this accommodation strategy and the existence of two alternative options (concerning timing that can be either over time, or at one point of time, as well as customer consideration that can be either at expected value, or most likely payment) that are not clearly stated as such may leave room for structuring opportunities to recognize and distribute profits earlier and earlier (Ijiri, 2005; Biondi, Tsujiyama *et al.*, 2012).

More generally speaking, Ohlson, Penman *et al.* (2011) cope with these issues by arguing for an alternative approach that stresses the overarching need for prudence in revenue and income recognition. This broader perspective is further considered in the next part, which analyzes the Boards' proposal from a dualistic perspective that disentangles asset–liability and revenue–expense approaches.

#### **4. Part II – A Comparative Analysis of Revenue Recognition Models Between Asset–Liability and Revenue–Expense Approaches**

##### *4.1. Introduction: Significance of the Earning Process in Revenue Recognition*

Why did the planned development of a new revenue recognition model end up being forced to compromise with the traditional model based on revenue allocation that focuses on the earning

process? In our opinion, the overarching reason lays beyond the hazardous result of accommodating pressures from various constituencies. Theoretically speaking, the revenue recognition models can be distinguished between two main approaches: On the one hand, models that adopt an asset–liability basis and, on the other hand, models that adopt a revenue–expense basis of accounting. The following paragraphs shall situate the Boards’ proposal in a theoretical map that draws upon this distinction.

In particular, the next paragraph shall introduce the European Financial Reporting Advisory Group (EFRAG, 2007) proposal that argues for combining asset–liability and revenue–expense approaches. The proposal released under the PAAinE (Proactive Accounting Activities in Europe) initiative by the EFRAG (2007) is said to have adopted an assets and liabilities approach that is combined with a revenue and expenses approach while focusing on the earning process over time.

Through a comparative analysis, the further sections situate EFRAG (2007) and various Boards’ proposals in that theoretical map, pointing to the earning process over time as the driving representational focus of accounting for revenue recognition.

#### *4.1.1. Assets and Liabilities Approach under the European Proposal*

EFRAG (2007), which preceded the release of the DP, purported to develop a revenue recognition model based on an assets and liabilities approach, while focusing on the progress of the revenue-earning process as a representational focus of accounting for revenue recognition.<sup>8</sup>

In this respect, EFRAG (2007) fundamentally differs from the DP in that it is focused on the timing of revenue recognition in terms of how to connect revenue to the satisfaction of performance obligations; its premise is that revenue is ‘a gross inflow’ whose measurement value depends on customer consideration. EFRAG (2007) argues that the amount of revenue recognized in the credit side is determined by the revenue-earning process in terms of the satisfaction of performance obligations or the entity’s activities at each period, while the change of assets in the debit side is determined as a result of it. In this way, the definitions of assets and liabilities are a necessary condition for recognition but not a sufficient condition. The sufficient condition for recognition is derived from the revenue-earning process (newly phrased as satisfaction of performance obligation). In other words, all assets and liabilities that are put on the balance sheet as a result of revenue recognition must satisfy the definition of an asset as ‘a future economic benefit’ and that of a liability as ‘a future sacrifice of an economic benefit’; but not all assets and liabilities satisfying these definitions are considered worthy of being on-balance (recognized). In particular, re-measurements of those assets and liabilities can be excluded if they do not result from changes in the underlying rights and obligations as agreed in the contract with a customer.

While EFRAG (2007) repeatedly emphasized to have developed an assets and liabilities approach, its model provides an alternative interpretation of the assets and liabilities approach. To be clear, one interpretation says that the definition of assets and liabilities is sufficient to derive the requirements for recognition/measurement, while the other one refers to definitions of assets and liabilities at the recognition stage on the premise that measurement values of assets and liabilities are cash inflows and outflows from the customer. Needless to say, EFRAG (2007) is based on the latter interpretation, while the Boards’ proposal has been claiming for, and standing upon the former interpretation. The Boards’ position is particularly evident in the case of variable customer consideration that they recommended to be estimated at either its expected value or its most likely payment. Following Biondi, Tsujiyama *et al.* (2012, p. 9), this option implicitly maintains two alternative understandings of revenue recognition: one pointing to a valuation model at an arbitrary instant of time; another one sustaining the tradition earning process throughout contract duration.

Ironically, it turned out that a revenue recognition model focusing on the earning process, exactly the type advocated by SFAC 5 (FASB, 1984), was eventually proposed in the ED. This makes it critical to further investigate and clarify the fundamental role and *raison d'être* of this representational focus in the revenue recognition model, as developed in the next section.

4.1.2. Accounting for Income Generation and Allocation

The IASB and FASB conceptual frameworks insist on accounting for present and future cash flows available for distribution to investors over time, including a distinctive focus on cash flows' future uncertain structure. A cash basis of accounting has been historically developed for and applied to governmental entities (Biondi, 2012). Its main difference with an accruals basis of accounting rests on how these cash flows are allocated through various periods of reference, making them accountable for and eventually distributable to various cohorts of investors over time (Tsujiyama, 2007; Biondi, 2005, 2011; Kusano, 2012). Theoretically speaking, two main accounting approaches exist for this allocation: a static accounting approach, applying an asset–liability method and purporting to measure the net value position of the business firm at an arbitrary point of time; and a dynamic accounting approach, applying a revenue–expense method and purporting to measure the business income generated during a specific period of time (Table 2).

Static and dynamic approaches lead to a distinctive understanding and alternative normative bases of accounting for assets and liabilities. On the one hand, a static accounting view defines assets as future monetary inflows to be measured through discounted present values, while liabilities are future monetary outflows that constitute claims against those inflows. On the other hand, a dynamic view defines capitalized assets as incurred monetary outflows that have been advanced through liabilities, which shall wait for future monetary inflows to be repaid and remunerated. From this latter perspective, both external funding and shareholders' equity constitute liabilities to the business firm (Table 3).

While the Boards tried to displace revenue recognition from a dynamic to a static accounting view, resistance from and debate with constituencies have forced them to accommodate the two. However, this accommodation was not clearly stated and developed, resulting in a fundamentally ambiguous accounting framework for revenue recognition.

4.1.3. Allocation Model in Revenue Recognition

Drawing upon the distinction and articulation between these two accounting views, Table 4 summarizes issues discussed in the preceding sections. Two assets and liabilities approaches are then

**Table 2.** Accounting views of the business activity

	Static view	Cash basis	Dynamic view
Orientation	Wealth	Cash flows	Accounting income
Focus	Net worth	Resources available	Resources mobilized (and utilized)
Basis of reference	Properties and claims	Cash outflows and inflows	Matching of expenses and revenues
Timing	Moment in time; changes between moments	Time period	Time period
Intended recovery of	Values conferred	Cash outflows	Costs absorbed
...			

**Table 3.** Assets and liabilities according to the static view and dynamic view

	Assets	Liabilities
Static view	Future monetary inflows (discounted present values)	Future monetary outflows (claims against)
Dynamic view	Capitalized monetary outflows (expenditures)	Advances against future monetary inflows (confronted with uncertainty and joint processes of production)

disentangled. Under the first approach (Approach I in Table 4), changes in assets and liabilities are determined first, with revenue recognized as a result. In this case, changes in assets and liabilities must be quantitatively recognized and measured in some way prior to revenue recognition. Measurement based on a fair value (current exit price) fits this scheme perfectly.<sup>9</sup> This is the revenue recognition model initially pursued by the Boards.

In contrast, the EFRAG (2007)-PAAinE proposal (Approach II in Table 4) argues for a combined approach articulating static and dynamic accounting views. Here, revenue is measured according to the transaction price (customer consideration being then defined as gross cash inflow) while its amount is recognized on the basis of an event other than the receipt of cash payment; the valuations of assets – and therefore changes in them – are determined by that prior amount recognized as revenue. In this sense, the combined approach in Table 4 belongs to the same allocation approach as the revenue and expenses approach. On the contrary, the allocation (customer consideration) model (Approach II upper line in Table 4) as proposed under the DP belongs to an assets and liabilities approach based upon revenue recognition through the entity's net position. In summary, what is measured using customer consideration under the traditional model is gross 'revenue' itself; however, what is measured using customer consideration under the DP model are liabilities called 'performance obligations'. According to the DP, then, revenue is expected to be measured according to the entity's net position resulting from the combined whole of those liabilities and related rights (assets). This approach gives rise to a paradox of measuring liabilities on the basis of future cash inflows, mingling together assets and liabilities. This results in giving up the fundamental distinction between revenue flows and expense flows that used to be accepted by virtually all accounting models because of its central role in corporate accountability and maintenance of invested capital. Accounting as control over time (dynamic view) is therefore displaced in favor of accounting as valuation at an arbitrary point of time (static view).

For example, under the DP approach, in the case of an entity's net position decreasing as a result of the collection of an account receivable, revenue is not to be recognized. Namely, since revenue was to be recognized only when an entity's net position changed as a result of providing goods or services (satisfaction of performance obligation), a change in the entity's net position would not necessarily result in revenue recognition. Instead, the scheme was such that revenue would only be recognized when the entity's net position increased as a result of the satisfaction of performance obligations (a reduction in liabilities) (IASB, 2008, paras 2.29–2.34).

On the contrary, the proposal of EFRAG (2007), classified under the combined approach II in Table 4, is quite close to the traditional revenue and expenses approach as it argues that 'revenue is the gross inflow of economic benefits that arises as an entity carries out activities pursuant to a contract with a customer' (EFRAG, 2007, para. 2.0, emphasis added). On the premise of basing the measurement values of assets and liabilities primarily on actual transaction prices (contract prices), EFRAG (2007) adopts an approach geared toward determining the timing of recognition using the following practical definition of revenue<sup>10</sup>: 'Revenue is the gross inflow of economic

**Table 4.** Revenue recognition models

Approach	Revenue recognition model	Accounting model	Measurement attributes	Measurement target	Proposals
Assets and liabilities Approach I	Current exit value model	Measurement model	Fair value	Net position	Early stage agenda papers (IASB, 2003)
Assets and liabilities Approach II (combined approach <sup>a</sup> )	Performance obligation model	Allocation model	Customer consideration	Net position	DP
	Same as above	Same as above	Same as above	Either gross inflow (EFRAG/PAAinE and ED), or expected value in some circumstances (ED)	ED and EFRAG/PAAinE
Revenues and expenses approach	Realization/earning process model	Same as above	Same as above	Gross inflow	Current practice

<sup>a</sup>Combined with revenue–expense approach.

benefits that arises as an entity carries out activities pursuant to a contract with a customer' (EFRAG, 2007, para. 2.0).

In this context, the ED stands somewhere in-between the DP and the EFRAG positions, failing indeed to provide a clear, consistent and comprehensive approach to revenue recognition (Biondi, Tsujiyama *et al.*, 2012). Both the ED and the EFRAG proposals seem to imply a combined approach despite different interpretations of identification criteria for the satisfaction of performance obligations. Nevertheless, the ED does maintain an ambiguous definition of 'customer consideration' and 'contract asset', which does not clarify them as either account receivable, or as the net position. In particular, customer consideration is estimated at an expected value in some circumstances, according to the ED. This fundamental ambiguity does not clearly acknowledge that the earning process over time is the overarching representational focus of accounting for revenue recognition. The following section clarifies this focus from a theoretical perspective.

#### 4.1.4. Earning Process Model for Revenue Recognition

As far as revenue is concerned, the earning process has been the overarching backbone for revenue recognition in modern times, distinguishing revenue from gains. In the halcyon days of Paton and Littleton, the sources of revenue were identified as follows: 'Although an increase in an entity's assets may occur in various forms, not all of them necessarily reflect the accrual of revenue. [...] [Revenue] may increase from the supply of a product, namely the flow of a fruit of production. Of these [various forms], only the last one should be recognized as a major source of revenue.' (Paton and Littleton, 1940, p. 47). In addition, the IASB Conceptual Framework (IASB, 1989) explains the relationship between income and revenue as follows: 'The definition of income encompasses both revenue and gains. Revenue arises in the course of the ordinary activities of an enterprises and is referred to by variety of different names, including sales, fees, interests, dividends, royalties, and rent' (IASB, 1989, para. 74, emphasis added). Moreover, both the ED and EFRAG (2007) accept the accounting model provided by SFAC 6 (FASB, 1985) and IAS18. These latter standards do define revenue, respectively, as follows: 'Revenue are inflows or other enhancements of assets of an entity or settlements of its liabilities (or a combination of both) from the delivering or producing goods, rendering services, or other activities that constitutes the entity's ongoing major or central operations' (SFAC 6, para. 78); and 'Revenue is the gross inflow of economic benefits during the period arising in the course of the ordinary activities of an enterprises when those inflows result in increases in equity, other than increase relating to contributions from equity participants.' (IAS 18, para. 7) (emphasis added).

In sum, revenue is something that results from an entity's normal activities or central business operations, so that it fundamentally accompanies payment from customers as their outcomes. These payments are then recognized as cash receivables in the asset side of the balance sheet. Revenue recognition has meant the allocation of such asset inflows according to the earning process over time. For this reason, the concept of revenue recognition based on the entity's net position, which only makes sense when having derivatives and other financial instruments in mind, would not fit the recognition of a gross inflow as an outcome of economic production (earning) resulting from an entity's activities. Both Paton and Littleton were clear-cut in applying the earning generation process model to distinguish between financial and economic transactions (Littleton, 2011; Biondi, 2013). This is one fundamental reason to combine a balance sheet with an income statement approach, according to a dynamic view of accounting. Such being the case, there is no guarantee that a comprehensive revenue recognition model can be derived from the ED, which was definitely born-out from a static view of accounting, even if revisions have been made to accommodate day-to-day practices.

## 5. Concluding Remarks

The recent move toward a new revenue recognition model has involved a shift from the revenue and expenses approach to the assets and liabilities approach. In fact, the essence of this shift is better understood as a challenge thrown down by the fair-value model (coupled with a static accounting view) against the allocation model (coupled or combined with a dynamic accounting view).<sup>11</sup> The Boards, however, have not been able to achieve its initial goal; instead, it has been forced to accommodate with the allocation model leading to a fundamentally ambiguous position. In our opinion, revenue is something that does result from an entity's normal activities or central business operations, so that it fundamentally accompanies payments from customers as outcomes. This premise leads to the allocation model that is based upon the earning process model, which has been developed with the purpose to identify the period in which such inflows should be recognized as business results. Two main reasons invite to maintain this model as the main representational focus under current business conditions. On the one hand, financial transactions have been massively developed through innovation, deregulation, and securitization. On the other hand, enterprise groups are fundamental to production processes that do provide satisfaction of needs in the economy and society. For these reasons, income generation should focus on this main production purpose while providing a clue to distinguish between financial and economic transactions involved in it. This representational focus may then assist corporate decision-makers to control for the earning process that involves remuneration of stakeholders, including shareholders, for their contribution to the overarching production process. Revenue recognition should then be based upon cash inflow allocation derived from, and dependent upon the earning process. The concept of revenue recognition based on the entity's net position only makes sense when having derivatives and other financial instruments in mind: it is not consistent with the recognition of a gross inflow associated with earnings resulting from the ongoing entity's activities over time.

The DP had the potential to contribute to an improvement in current practices in that it attempted to derive more rigorous revenue recognition criteria through control-focused identification of the timing of the satisfaction of performance obligations. However, its improvement on the traditional model is becoming increasingly obscure as a result of its attempts to extend the application of this model from IAS 18 to IAS 11, involving confusion and ambiguity in the concrete criteria for identifying the satisfaction of performance obligations. These criteria should rest on the following logical construction: observation of the earning process → emphasis on contracts with customers → transfer of goods/services to customers → focus on transfer-of-control to customers.

Despite spending more than 10 years developing a comprehensive revenue recognition model exclusively based on the assets and liabilities approach (initially the fair-value model), the Boards have been forced to accommodate with the traditional revenue recognition model, whose representational focus is the overarching earning process over time. This actual failure seems to be a logical consequence of a hasty effort to develop a new model without fully understanding the socio-economic functions of control and accountability that this representational focus has provided in revenue recognition, making it as one of the most fundamental aspects of accounting.<sup>12</sup>

In conclusion, the old-fashioned focus on the earning process through a revenue–expense approach is preferable, while the Boards' attempt to move away from it has failed and should be abandoned in an explicit way. At present, the revised ED does not provide but a compromised version that does not explicitly renounce to that hazardous move, bearing the risk to confuse and mislead preparers and users on this fundamental issue of accounting. Suitable improvements on current accounting standards can be developed based upon the old-fashioned focus, as shown by the EFRAG (2007) proposal. These improvements do not necessarily require issuance of new standards and may be certainly provided through clarifying guidance and official interpretations.

## 6. Comment by Yuri Biondi

The Boards' proposal argues for recognizing revenue from every contract with a customer, that is, from each contract separately from all the other contracts. Accordingly, income recognition and measurement no longer result from the whole income statement period-by-period (and cumulatively), but from the estimations made by management on contract-by-contract basis. This basis neglects two fundamental dimensions of business income (profit): its generation by the whole firm and its temporality (Biondi, 2010, 2011).

A contract-by-contract basis of revenue recognition seems problematic especially when applied to the 'Enron world' (Healy and Palepu, 2003; Baker and Hayes, 2004; Benston, 2006) where long-distant future profits were recognized on the basis of their discounted present values. Clever preparers could structure non-cancellable long-term contracts to front-load revenue recognition, and further argue for negligible uncertainty in order to also front-load the profit recognition. Manipulation opportunities would especially occur when revenues precede related expenditures.

Ohlson, Penman *et al.* (2011) have elaborated a thoughtful approach to revenue recognition based upon conservatism, historical cost, and flow accounting method. Their perspective is in line with the dynamic accounting view that bases revenue recognition upon a financial basis, that is, on the (gross) revenue that is (financially) *accrued* to the business firm from clients through cash receivable inflows. This approach connects gross revenues with cash inflows, and conservatively excludes being-held gains derived from fair-value estimations of net worth.

However, a problem still arises with income recognition, that is, the recognition of net revenue that has been (economically) *earned* to the enterprise entity. Ohlson, Penman *et al.* (2011) do still follow the Boards' proposal in recognizing revenue from every contract, that is, from each contract separately from all the others. Their method introduces a subjective time allocation of income based on estimations of contractual profit margins and contract-related expenses, although Ohlson, Penman *et al.* (2011) submit it to a conservative check against cumulated cash surplus. Their method does then take the risk of recognizing undiscounted values of those future profits as (earned) revenue.

To overcome this problem, a further step is required that integrates the balance sheet with the income statement, in line with the approach D by EFRAG (2007). On the one hand, *accrued* revenue is recognized in the balance sheet; on the other hand, *earned* revenue is recognized in the income statement. The balance sheet represents the financial dimension, while the income statement represents the economic dimension of the overall earning process that generates business income through time and hazard. Accordingly, financially accrued revenues (recognized in the balance sheet) are allocated over the contract lifetime according to some accounting conventions based on the business enterprise process, in order to progressively transform accrued (gross) revenues into earned (gross) revenues through the income statement. Only the income statement may constitute a gross basis for remuneration and dividend distribution.

This approach provides a synthesis of two main flow methods of accounting for revenue recognition, focusing, respectively, on financial inflows (receipts of cash and cash-equivalents), and economic (productive) outflows (outflows of goods and services). The former method stresses the cash realization of revenues, while the latter method connects the timing of revenue realization to critical events and the overall earning process.

From this perspective, income recognition and measurement involves a further dimension concerned with the progressive recycling between expenditures and expenses. The overall accounting recognition and measurement involves two distinct allocations through periods: on the one hand, the allocation of revenue(s); on the other hand, the allocation of expense(s). The criteria for these allocations depend on the earning process and the time flow. In this context, it is possible to replicate for revenues the allocation method that is familiar for determining the depreciation pattern

that converts expenditures into expenses period after period. The depreciation pattern through periods can be established either according to the consumption path of the underlying resource (whose cost is capitalized in the balance sheet), or by conventionally splitting the invested cost over the useful duration of that resource. When applied to revenue, this allocation pattern can be based either on the earning process path of the underlying resource (whose deferred revenue is financially recognized in the balance sheet), or the useful duration of that resource.

This representation shall be illustrated through the same numerical example as Ohlson, Penman *et al.* (2011). A four-year contract with a customer has the following time schedule for billings and expenditures:

Years:	1	2	3	4	Total
Customer billings	100	130	160	155	545
Expenditures	(120)	(110)	(100)	(145)	(475)
'Cash' profit	(20)	20	60	10	70
Cumulative 'cash' profit	(20)	0	60	70	70

In the simplest situation, we can assume that both revenues (related to customer billings) and expenditures are financially accrued and incurred immediately, involving underlying mutual non-cancellable contractual commitments which parties are obliged to honor when the obligating event has occurred and payment becomes due. The balance sheet may then represent both commitments at inception in the following way:

Assets		Liabilities	
Invested costs	475	Expenditures to be paid	475
Credits from customers	545	Deferred revenue	545
		Net equity	(no change)

This balance sheet basis represents the financial accretion of both invested cost (related to expenditures to be paid) and deferred revenue (related to credits from customers) regarding the contract with the customer. Drawing upon this basis, the income statement further captures the income recognition and measurement, period after period. Indeed, specific patterns should be defined for passing both deferred revenue (credits from customers) and invested cost (incurred expenditures) through the income statement, period after period. Following Ohlson, Penman *et al.* (2011), the revenue pattern can follow the billing pattern, while the expense pattern is scheduled here according to straight-line depreciation as follows:

End of year:	1	2	3	4	Total
Earned revenue (A)	100	130	160	155	545
Expenses (B)	118.75	118.75	118.75	118.75	475
Income (A-B)	<b>(18.75)</b>	<b>11.25</b>	<b>41.25</b>	<b>36.25</b>	<b>70</b>
<i>For memory:</i>					
Remaining deferred revenue (and customer credits)	445	315	155	0	
Remaining invested costs	356.25	237.50	118.75	0	
Cumulated income	<b>(18.75)</b>	<b>(7.50)</b>	<b>33.75</b>	<b>70</b>	
Remaining expenditures to be paid <sup>a</sup>	355	245	145	0	

<sup>a</sup>Based on the disbursement pattern

In conclusion, business income representation is the main purpose and scope of the accounting system; it cannot be primarily left to managerial estimations open to structuring opportunities.

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The Boards' proposal recognizes revenue from every contract, that is, from each contract separately from all the others. This contract-by-contract basis does neglect two fundamental dimensions of business profit (income): its generation by the whole firm and its temporality. An alternative approach may exclusively devote the income statement to represent business income generated by the whole business enterprise through time; this approach replaces a contract-by-contract basis with a period-by-period basis for revenue recognition. Accordingly, income representation is obtained by contrasting two distinct flows of revenues and expenses, having their specific and distinct allocation patterns through time and hazard. These patterns do connect, respectively, deferred with earned revenues, and incurred expenditures with current expenses, period after period.

## 7. Comment by Richard Macve

I support the conclusion by Biondi, Tsujiyama *et al.* (2012) that:

the ED, in its current form, would not represent an effective improvement over existing IAS 11 and IAS 18 which did not raise major difficulties and shortcomings in the large majority of cases. Instead of issuing a new standard, well-targeted guidance may fix the issues related to business models characterized by sophisticated long-term agreements and continuous service provision.

Given the conceptual twists and turns that the comment letter documents as having been taken during the life of this project, it is important that alternative conceptual perspectives are offered, as the committee did in that comment letter. However, I consider that the exclusion from this project (and correspondingly from that comment letter) of insurance – which features contracts ranging from the very short term (e.g. trip insurance) to the very long term (e.g. life insurance) and raises the same issues of principle – undermines the Boards' objective of providing a comprehensive basis for recognition of revenue across industries. The two projects should be considered and re-exposed together.

This article advances an argument for a revenue recognition basis that is consistent with this Committee's previous comments that it refers to. However, I believe that equal consideration should be given by the Boards to alternative conceptual approaches that may enable reconciliation between the 'asset/liability' approach and the 'matching costs and revenues' approach and may also be extended to contracts such as insurance contracts. Initial exploration of this can be found in Horton, Macve, and Serafeim (2011), supplemented by the analysis now in Macve (*forthcoming*) and Wagenhofer (2013).

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## Notes

<sup>1</sup>Part II and Table 3 shall consider these differences in further details.

<sup>2</sup>The name of this model has been changed several times: 'asset-liability: fair value model' → 'measurement model' → 'current exit price model.'

<sup>3</sup>The name of this model has been changed several times: ‘asset–liability: performance value model’ → ‘allocation model’ → ‘original transaction price.’

<sup>4</sup>This example is excerpted from the ‘Observer Notes Agenda Paper 5E’ at the IASB/FASB Joint Board Meeting in October 2007 (IASB, 2009).

<sup>5</sup>As an example of one specific method, Appendix A of the DP (A10–A18) provides a multiple components contract involving software and support services. This example depicts a method in which the total estimates of labor costs and margin are calculated separately, and the actual customer consideration is divided proportionally using their ratio.

<sup>6</sup>Here, net position = rights (claim) – obligations (performance obligations).

<sup>7</sup>For example, if the promised assets in a contract are not suitable for physical transfer to the customer, continuous revenue recognition is still allowed on the basis of the transfer of control to the customer.

<sup>8</sup>EFRAG (2007) describes four possible models of revenue recognition. Three approaches gear toward recognizing revenue on the basis of the satisfaction of performance obligations (A to C – these three approaches are put together and called the ‘critical event approach’), while a fourth approach involves recognizing revenue on a continuous basis by focusing on the entity’s ‘activities’ (D). Under approach A, revenue is recognized at a point in time when all performance obligations incorporated into the contract with the customer are satisfied. Under approach B, focus is placed on contractual payment claims, and a contract is divided into as many parts as performance obligations, each giving rise to a payment claim, with revenue recognized according to the satisfaction of such obligations. Under approach C, the contract is divided into as many parts as outputs, each being of value to the customer, with revenue recognized according to the satisfaction of such contractual parts. Finally, under approach D, revenue is recognized according to the progress of ‘activities’ that the supplier must engage in to fulfill the contract.

<sup>9</sup>From a purely procedural point of view, pure cash-based accounting does also fit the scheme perfectly. This is because all assets and liabilities held, if recorded on the basis of cash payment and receipt at the time of acquisition and left unchanged until exchange with other assets, meet the criterion that the amount of revenue recognized is determined by the valuations of assets and liabilities.

<sup>10</sup>By the way, EFRAG (2007, p. 7) focuses its argument on revenue as the top-line of financial statements, rather than incomes including gains. Although the relationship between income, revenue and gains is an important element of an examination of the assets and liabilities approach, it is not discussed here for sake of brevity.

<sup>11</sup>At the early stage of the DP, the Boards planned to label the fair value model as the ‘measurement model’, and the customer consideration model as the ‘allocation model’.

<sup>12</sup>From this perspective, the ultimate issue here is not so much that the Boards’ project resulted to be not feasible or encountered political resistance from constituencies, as that this very effort was inconsistent with these driving socio-economic functions of the accounting representation.

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