## Articulation, profit or loss and OCI in the IASB Conceptual Framework: different shades of clean (or dirty) surplus

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### Abstract

The 2015 International Accounting Standards Board (IASB) Conceptual Framework Exposure Draft (2015 IASB CF ED) proposes a mixed valuation and transactions approach to income determination. Nevertheless, it does not clearly choose between single or dual concepts of profit, which renders the 2015 IASB CF ED's financial accounting model somewhat incoherent. The 2015 IASB CF ED proposes a rebuttable presumption that profit or loss should be all-inclusive. Only the IASB can rebut this presumption, but the 2015 IASB CF ED provides no clear conceptual basis on which to rebut this presumption. In spite of considering dual measurement, the IASB believes that it is neither possible, nor necessary, to distinguish between profit or loss and OCI on a conceptual basis. This paper suggests that the 2015 IASB CF ED's approach to measurement can be improved by introducing a deprival value measurement rule in cases where fair value and historical cost are not appropriate. Furthermore, it argues that, under dual measurement it is both necessary and possible to make a conceptual distinction between the realised items of income and expense in profit or loss and those recognised by accretion in OCI.

(188 words)

### **1. Introduction**

Barker (2010a) pointed out that there was no definition of profit in the 2001 International

Accounting Standards Board (IASB) Conceptual Framework<sup>1</sup>. He argued that this was partly a

consequence of the definitions of income and expenses as changes in assets and liabilities causing

changes in equity rather than the other way around (Barker, 2010a: 149-150), and partly because

there were two conflicting concepts of profit and equity in IFRS (Barker, 2010a: 151-156). In Barker's

words:

'On the one hand, it can be argued that there are not meaningful differences among

different elements of changes in equity (other than transactions with equity holders), in

which case capital maintenance adjustments and reclassification adjustments should be

removed from IFRS. On the other hand, profit can be viewed as fundamentally different

<sup>&</sup>lt;sup>1</sup> Barker actually referred to the 1989 International Accounting Standards Committee (IASC) Conceptual Framework which had been adopted without any amendment by the IASC's successor in 2001.

from either or both of capital maintenance adjustments and reclassification adjustments, in which case income less expenses should not be defined in IFRS to equal changes in net assets (excluding equity-holder transactions)' (Barker, 2010a: 155).

To rephrase Barker's point in accordance with our understanding and purpose, profit defined as the recognised changes in net assets can be conceptualised from either of two perspectives. On the one hand, the all-inclusive concept of profit camp argues that there are not meaningful differences among realised and unrealised elements of recognised changes in equity (other than transactions with equity holders). In this case, objectively measurable changes in assets and liabilities would be necessary and sufficient for the recognition as income and expenses. See, for example, the G4+1 position paper by Cearns et al (1999: 46 and 48). All-inclusive total profit determined in accordance with the valuation (asset-liability) approach closes to the retained earnings account, net assets consists only of shareholder capital and retained earnings (clean surplus), and other comprehensive income (OCI) and accumulated OCI should be removed from IFRS. As a consequence, both realised and unrealised gains and losses are included in the retained earnings account.

On the other hand, profit can be viewed as the recognised and realised change in the retained earnings account, which is fundamentally different from revaluation reserves and other capital maintenance adjustments. In this case, objectively measurable changes in assets and liabilities would be a necessary but not a sufficient condition for the recognition as revenues and expenses. Additional criteria, such as confirmation by a transaction and the completion of steps in the earnings process are necessary for the recognition of items in profit. See, for example, Horngren (1965).

As described by Biondi et al (2014) and Wagenhofer (2014), the joint FASB/IASB revenue recognition project (2002 to 2014) set out to devise revenue recognition criteria solely based on the valuation approach, but had to find a compromise between the valuation and the transactions approaches. This ultimately resulted in the five step approach in the International Financial Reporting Standard (IFRS) 15 *Revenue from Contracts with Customers*, which was issued in May 2014 (effective from 1 January 2018). As Wagenhofer (2014: 366) noted, it will be 'interesting to see how the revenue recognition standard influenced (rather than is influenced by) the development of the Conceptual Framework.'

The changes made in the 2010 IASB Conceptual Framework only dealt with the objective of financial reporting and the qualitative characteristics of useful information, and hence did not contain a definition of profit. In May of 2015, the IASB issued its Conceptual Framework Exposure Draft (2015 IASB CF ED) (IASB, 2015a) and the accompanying Basis for Conclusions (2015 IASB CF BfC) (IASB, 2015b). This time, the definition, recognition, measurement, presentation and disclosure of the elements of financial statements are the main focus of the 2015 IASB CF ED, but it still does not provide a definition of profit. Like IFRS 15, the 2015 IASB CF ED is based on the valuation approach to the determination of income, and seeks a compromise with the transactions approach. However, as this paper will demonstrate, it tries to do so in two ways that are conceptually irreconcilable. The IASB is expected to issue a revised version of its Conceptual Framework in late 2017 or early 2018.

This paper has three aims. First, to convince the IASB to review its approach to determining and disclosing financial performance in the IASB Conceptual Framework in order to make it more theoretically and conceptually coherent. Second, to help the IASB do so and contribute to the academic literature, by setting out relevant theoretical considerations in relation to compromises between the valuation and transactions approaches to income determination and dual concepts of financial performance. Third, to generate increased academic and professional interest in 'normative' financial accounting theory on income concepts and approaches to income determination, presentation and disclosure.

The remainder of this paper is organised as follows. Section 2 identifies and explains the two problems with financial performance in the 2015 IASB CF ED. Section 3 introduces normative accounting theoretical concepts that have a bearing on the determination of financial performance. Section 4 analyses the 2015 IASB CF ED's proposal against the theoretical considerations outlined in

Section 3. Section 5 offers our suggestions for improving the IASB Conceptual Framework. Section 6 concludes.

### 2. Ambiguity of financial performance in the 2015 IASB CF ED

In essence, the 2015 IASB CF ED proposes an articulated (IASB, 2015a: 5.4 – 5.6) mixed measurement (IASB, 2015a: 6.4, IASB, 2015b: BC6.7-BC6.8) accounting model. On the one hand, the 2015 IASB CF ED defines financial performance on an all-inclusive basis as 'reflected by changes in its economic resources and claims other than by obtaining additional resources directly from investors and creditors' (IASB, 2015a: 1.18), i.e., as comprehensive income. On the other hand, the 2015 IASB CF ED also requires the separate presentation and disclosure of profit or loss and other comprehensive income (OCI) (IASB, 2015a: 7.19), whereby the 'statement of profit or loss should be as inclusive as possible' (IASB, 2015b: BC7.42).

The IASB states that 'separate classification is appropriate when the components have such different characteristics that classifying them separately would enhance the relevance and understandability of information' (IASB, 2015b: BC7.48). At the same time, the IASB believes that it is neither possible nor necessary to make a conceptual distinction between income and expenses in profit or loss and income and expenses in OCI. The IASB believes that it is not possible because 'the IASB's previous work on presentation and disclosure, as well as its work in developing the Discussion Paper, has shown that no single characteristic can be used to separate items of income and expenses usefully into two clear-cut categories, with all items within one category sharing the same characteristic' (IASB, 2015b: BC7.34).<sup>2</sup> The IASB believes that it is not necessary because '(a)n in-depth understanding of performance requires an analysis of all recognised income and expenses (including income and expenses recognised in OCI), as well as other information included in the financial statements' (IASB, 2015b: BC7.40). 'All items of income and expense, excluding capital maintenance

<sup>&</sup>lt;sup>2</sup> Linsmeier (2014 and 2016) provides some insight in the criteria considered by the FASB and the IASB in December 2011. See for further discussion of those criteria Rees and Shane (2012).

adjustments (...) are included in total comprehensive income. (...) Taken together, the items included in total comprehensive income depict the return that an entity has made on its economic resources' (IASB, 2013: 8.9).

In a pragmatic attempt to deal with the problem of distinguishing items of income and expense in profit or loss from those in OCI, the 2015 IASB CF ED posits a rebuttable presumption that profit or loss must be determined on an all-inclusive basis (IASB, 2015a: 7.23). The IASB proposes that this rebuttable presumption can be rebutted 'by the IASB, and only by the IASB' (IASB, 2015b: BC7.44), when the IASB 'concludes that doing so would enhance the relevance of the information in the statement of profit or loss for the period' (IASB, 2015b: BC7.43). However, the 2015 IASB CF ED defines 'relevance' as 'capable of making a difference in the decision made by users (IASB, 2015a: 2.6) on the basis of having 'predictive value<sup>3</sup>, confirmatory value<sup>4</sup> or both' (IASB, 2015a: 2.7). Consequently, as we will illustrate in Section 4, the conceptual basis on which the IASB may conclude that items of income and expense increase or decrease the relevance of profit or loss, and therefore should be included in or excluded from profit or loss, is ambiguous.

The 2015 IASB CF ED proposes a compromise between the valuation approach and the transactions approach to the determination of financial performance that is intended to be consistent with IFRS 15. We will argue in Section 4 that the 2015 IASB CF ED mixes up the two fundamental ways of combining the valuation and transactions approaches. But first, in Section 3, we will look at the normative theoretical issues that the IASB Conceptual Framework needs to consider to establish a conceptually coherent way of combining the valuation and the transactions approach to income determination in one financial accounting model.

<sup>&</sup>lt;sup>3</sup> 'Financial information has predictive value if it can be used as an input to processes employed by users to predict future outcomes' (IASB, 2015a: 2.8).

<sup>&</sup>lt;sup>4</sup> 'Financial information has confirmatory value if it provides feedback about (confirms or changes) previous evaluations' (IASB, 2015a: 2.9).

# 3. Theoretical considerations in the determination of the financial performance of corporate entities

This section discusses the normative decisions would need to be considered together in order to form a theoretically coherent conceptual framework. Firstly, the decision on defining the objective of general purpose financial reporting. 'The objective of general purpose financial reporting forms the foundation of the *Conceptual Framework*. Other aspects of the *Conceptual Framework* flow logically from the objective' (IASB, 2015a: 1.1). However, in reality, the way in which the other aspects actually flow logically from the objective in the 2015 IASB CF ED is not clear.

Secondly, the accounting model based on its approach to income determination. An articulated financial accounting model comprises a financial performance concept and a corresponding concept of financial position intended to best achieve the objective(s) of financial reporting. Following Van Mourik and Katsuo (2015, p. 200), this paper uses the term 'financial performance concept' to refer to the logic and principles underlying the definition, recognition, measurement, presentation and disclosure of the elements of the statement of financial performance. Similarly, the term 'concept of financial position' refers to the logic and principles underlying the definitions underlying the definition, recognition, recognition, measurement, presentation and disclosure of the statement of financial performance. Similarly, the term 'concept of financial position' refers to the logic and principles underlying the definition, recognition, recognition, recognition, measurement, presentation and disclosure of the statement of financial performance. Similarly, the term 'concept of financial position' refers to the logic and principles underlying the definition, recognition, measurement, presentation and disclosure of the elements of the statement of financial position.

An accounting standard setter in a more or less democratic context will usually have to find a compromise between the valuation and transactions approaches to the determination of income. The reason is that neither approach in its ideal theoretical form would, in practice, lead to a full set of financial accounting standards that are acceptable to all constituents. By contrasting the two approaches in their theoretically ideal form (not as they are applied in practice) and discussing the theoretical considerations required to establish a compromise in one of the two basic ways, this section sets out the basis on which we will critique the 2015 IASB CF ED's ambiguous compromise in Section 4.

### 3.1 The objective of general purpose financial reporting

The 1989 IASC Conceptual Framework (IASC, 1989), the 1978 FASB Conceptual Framework (FASB, 1978), the 2010 IASB Conceptual Framework (IASB, 2010: OB2) and the 2015 IASB CF ED are premised on the idea that the main objective of general purpose financial reporting is to provide information that is useful for investors when making decisions about providing resources to the entity, or decisions to buy, hold or sell securities in secondary markets (IASB, 2015a: 1.2, 1.3). The assumption is that all investors make these decisions based on an assessment of the timing, risk and amount of the future cash flows they expect to receive either in the form of cash dividends, or in the form of realised or realisable capital gains, or a combination thereof (IASB, 2010: OB3; IASB, 2015a: 1.3).

Under pressure from commentators (e.g. FRC, 2014) and other advocates (e.g. Whittington, 2008), the 2015 IASB CF ED proposes to give more prominence to the stewardship objective than the 2010 IASB Conceptual Framework (IASB, 2015a: 1.2, 1.3, 1.22 and 1.23). Nevertheless, this increased prominence is in name only, as it has no impact on the actual financial accounting and reporting because the IASB subsumes stewardship under decision-usefulness.

One could legitimately question the IASB's decision usefulness objective of general purpose financial reporting for three reasons. Firstly, we know that 'the most useful measure of net income to inform investors – that is, to control adverse selection – need not be the same as the best measure to measure and motivate manager stewardship – that is, to control moral hazard' (Scott, 2015: 24). Secondly, Christensen (2010: 293) argues that 'we cannot expect that a separation of the user groups and their reports will lead to an accounting system for decision-making which is free from the bias introduced by the incentives of management.' The reason is that bad news in the decision-usefulness domain will spill over to bad news in the control of moral hazard domain. Thirdly, considering the diversity of institutional environments of countries where International Financial Reporting Standards (IFRS Standards) have been adopted, it is highly questionable that the implicit

environmental assumptions underpinning the decision-usefulness objective (most of which were made explicit in FASB (1978: Par. 9-16))<sup>5</sup> are valid across all, or even most, of these countries.

Nevertheless, the IASB subsumes the stewardship, accountability and contracting roles of financial accounting information under the decision usefulness objective. The IASB believes that information that is useful for the purpose of predicting an entity's future cash flows also serves the stewardship objective (IASB, 2015b: BC1.10 (a)), and that introducing a second primary objective would be confusing (IASB, 2015b: BC1.10 (b)). In spite of the literature pointing to the contrary, for example, Christensen (2010), Gjesdal (1981), Kuhner and Pelger (2015), and Wagenhofer (2009 and 2014), the IASB also appears to believe that the different information needs for controlling adverse selection and controlling moral hazard are exaggerated (IFRS Foundation and IASB, 2015; Hoogervorst and Prada, 2015; 4).

Although we have reservations about the IASB's subsuming the stewardship objective under the decision usefulness objective, in this paper we aim to critique the inconsistency of the concept of financial performance in the 2015 IASB CF ED and 2015 IASB CF BfC in respect of the stated objective of general purpose financial reporting. However, it is helpful to keep in mind that Scott (2015: 24) describes combining the decision-usefulness (i.e., the investor information) and the stewardship (i.e., the manager performance evaluating) roles as the fundamental problem of financial accounting theory in respect of general purpose financial statements. Furthermore, Scott (2015: 25) regards the reporting of OCI as a possible way of reconciling the decision-usefulness and stewardship roles.

### 3.2 The income concept that best achieves the objective

The other elements of a financial accounting model are linked through what Sunder (1997: 67) called the 'law of conservation of income'. The law of conservation of income means that,

<sup>&</sup>lt;sup>5</sup> These come down to developed capital markets, active individual and other investors, an active take-over market, competitive product, financial and human resource markets.

'The total lifetime income of a firm is invariant to the changes in accounting methods for the purpose of financial reporting. As long as these changes have no cash-flow effects (e.g., tax implications), changes in accounting methods shift income from one period to the next without altering the total that will be recognised over the lifetime of the firm' (Sunder, 1997: 67).

Sunder said that 'this law of conservation of income always holds as long as income is calculated using a clean surplus rule: All changes in owners' equity, except the transactions with the shareholders themselves, must pass through the income statement' (Sunder, 1997: 67). Furthermore, this law is 'easily modified to discounted form by subtracting the cost of the book value of the equity capital from accounting income to get the residual income.' (Sunder, 1997: 67).

An implication of the 'law of conservation of income' is that, in an articulated financial accounting model, over the total life of the enterprise the total net cash inflows, total accrual accounting profit and total economic income will ultimately have to be the same, irrespective of the changes in accounting method for the purpose of financial reporting.

 $\Sigma$  economic income =  $\Sigma$  accrual accounting profit =  $\Sigma$  cash profit

As will be discussed below, neither economic income nor cash profit are suitable for financial reporting purposes. Furthermore, there are basically two ways of determining accrual accounting profit leading to two ideal types of accrual accounting profit, neither of which is suitable in practice, either.

### 3.2.1 Accrual accounting profit

Accrual accounting requires a solution to what Thomas (1969) called 'the allocation problem in financial accounting'.<sup>6</sup> Under accrual accounting, the question becomes how to allocate items of

<sup>&</sup>lt;sup>6</sup> The Allocation problem in Financial Accounting, Studies in Accounting Research No. 3 (Thomas, 1969) 'was an attempt to demonstrate that financial accounting theory had no defensible theory of allocations (...) (and) to persuade theorists to abandon research into allocation in favour of more productive lines of inquiry' (Thomas, 1974, p. xiii). Thomas (1969) regarded the allocation problem as a problem solely associated with period

income and expense to a period in order to determine the accounting profit accruing to that period. In Dichev's (2017: 6) words, 'Income is first and above all 'adjusted net cash flows' rather than 'change in net assets.' This means that accrual accounting profit = cash flows + accruals. The task of accrual accounting is to determine accruals such that accrual accounting profit is more useful than both cash profit and economic income for the prediction of future cash flows.

There are two theoretical approaches to determining accrual accounting profit: the transactions (also called income statement, revenues-expenses, dynamic) approach and the valuation (also called balance sheet, assets-liabilities, static) approach. For descriptions see Wüstemann and Kierzek (2005: 76-78) and Wagenhofer (2014: 361-363). Under the same set of rules and standards, the valuation approach and the transactions approach should yield the same accounting profit. However, as theoretical starting points for a conceptual framework and the accounting standards based on it, the valuation approach and the transactions approach lead to different concepts of financial performance.

By making the definition, recognition and measurement of the other elements of the financial statements dependent on the definition, recognition and measurement of assets, the IASB, following the FASB, has explicitly chosen a valuation approach. Bullen and Crook (2005: 8) suggest that the FASB's choice may have been at the insistence of the US Securities and Exchange Commission (SEC) because the SEC thinks that the balance sheet approach better anchors the standard setting process in the underlying economic reality than the income statement approach does.<sup>7</sup> On the other hand, in

and/or product matching. Subsequently, Thomas (1974) attempted to eliminate any reasons for accounting theorists to continue to propose arbitrary allocations, claiming that allocation-free alternatives to accrual accounting did exist (Thomas, 1974, p. xiv). However, ultimately, he had to concede that financial reporting based on valuation at current entry values (e.g., Edwards and Bell, 1961) requires allocations (Thomas, 1974, p. 111) and that valuation at current exit values (e.g., Chambers, 1966, 1972 and Sterling, 1970) leads 'to aggregation difficulties that mirror the allocation problem' (Thomas, 1974, p. 112). By the way, these aggregation difficulties are not limited to an uncertain world with incomplete markets. The aggregation problems in respect of financial instruments are very clearly explained in Horton and Macve (2000). <sup>7</sup> Although not specifically mentioned under the references, their quotations appear to come from the 'Study

Pursuant to Section 108(d) of the Sarbanes-Oxley Act of 2002 on the Adoption by the United States Financial Reporting System of a Principles-Based Accounting System' prepared by the staff of the SEC (Available from <a href="https://www.sec.gov/news/studies/principlesbasedstand.htm#3b">https://www.sec.gov/news/studies/principlesbasedstand.htm#3b</a>, accessed on 30 September, 2017)

defence of the transactions approach, Sundem (2007), Saito (2011) and Dichev (2007 and 2017) argue that cash is a superior anchor for financial statements.

In practice, as the basis for standard setting, neither theoretical approach produces financial accounting standards that are acceptable to most constituents. The transactions approach was criticised for leading to 'what-you-may-call-its' in the net assets section of the balance sheet, which were feared to enable earnings manipulation (Sprouse, 1966). The valuation approach is criticised because it recognises income and expenses based on measurability of changes in assets and liabilities rather than with reference to the earning process (Dichev, 2007; Biondi et al, 2014). Furthermore, the valuation approach is criticised because unrealised gains and losses in the measure of financial performance introduce uncertainty into the ex-post measure of performance that is comprehensive income (Saito, 2011). This may lead to an increase in restatements and the adoption of clawback provisions.

### 3.2.2 Ideal income concepts

Phillips (1963: 16) described the characteristics of five income concepts in order of decreasing subjectivity: psychic income, economic present value income, accretion income, conventional accounting income and cash income. His aim was to argue for the accretion concept of income on the basis that it is closer to economic income than conventional accounting income, but is less subjective than economic income.<sup>8</sup> Below we will discuss these concepts in order to arrive at the conclusion that the accretion concept of income is not very well suited to the measurement of assets and liabilities in entities with a transformation or value adding business model. And conversely, that conventional (realised) accounting income is not very well suited to a more speculative business model.

<sup>&</sup>lt;sup>8</sup> Compare with Barker (2015) who uses a comparison with economic income to make the point that the accounting model in the IASB's Framework and IFRS is inherently conservative in that a neutral application of the IASB's definition of (net) assets leads to book value being less than economic value.

Psychic is purely subjective. Psychic income is what one thinks it is – it is based on utility and inseparable from consumption. It is personal and cannot be used for company financial reporting.

Economic present value income gains objectivity by omitting 'non-economic factors'. Economic present value income recognises income when expectations regarding future cash flows and/or interest rates change. Therefore, a financial accounting system that defines some form of economic income as its measure of financial performance and economic wealth as its measure of financial position would be almost entirely subjective. 'All of the firm's important economic events except cash flows and subjective interest rates are ignored in the income allocation process. (...) There is too much emphasis on the future. (...) In the "extreme" case of the going concern, cash flows indefinitely far into the future are capitalized. Such a realization rule is of doubtful validity' (Shwayder, 1967: 34-35). Because of its subjectivity, because it is indifferent as to the causes of expected future cash flows and changes in them, and because it assumes that discount rates are generally stable, an economic income concept is not useful as a basis for corporate financial accounting and reporting.

What Phillips (1963) called 'accretion income' is measured primarily using reasonably objectively verifiable (i.e., observable) market prices. Income and expenses are recognised on the basis of objectively measurable changes in the values of assets and liabilities. The accretion concept does not require a market transaction or the rendering of goods or services as a condition for the recognition of items of income or expense. It only requires reasonably objective measurement of a change in an asset or liability. 'Changes in the value of money are ignored in the accretion concept. (...) Accretion is an all-inclusive concept which makes no distinction between a gain which results from efficient management and one which is a "windfall"' (Phillips, 1963: 19).

The term 'accretion concept' is rarely used in the literature, but the G4+1 position paper by Cearns et al (1999) seems to advocate precisely that. Cearns et al (1999: 28) state that 'realisation has become an inadequate basis for determining where and how items of financial performance should

be reported.' They argue that this is because '(b)asing the reporting of items of performance on the realisation of assets (particularly assets that have a liquid market) permits the management of reported profits' (Cearns et al, 1999: 28-29). The scope for earnings management stems from the fact that managers have some discretion in timing the realisation of an unrealised gain or loss through timing the transaction. Furthermore, they argue that there is no difference in the essential nature of realised and unrealised gains and losses saying that 'it is simply that the timing and certainty of the recognition of the gains or losses is different' (Cearns et al, 1999: 46). A 'realised gain on a fixed asset reflects the same economic event, ie a rise in value, as an unrealised gain, albeit that the realised gain is confirmed by a transaction. Consequently, realised and unrealised gains and losses should be treated in the same way' (Cearns et al, 1999: 48).

As mentioned by Horngren (1965), the idea of recognising changes in assets and liabilities when they are objectively measurable stems from a desire to make accounting profit more like economic income<sup>9</sup>. Horngren (1965: 326) pointed out that 'Those theorists who favour economic concepts of income wish to abolish the traditional realization test.' 'The extreme position is that recognition and realization are indistinguishable concepts. (...) In other words, there is no such concept as unrealized revenue or unrealized income; it is an either/or world' (Horngren, 1965: 324).

In its ideal form, the accretion income approach is similar to the combination of the valuation approach with the full fair value model considered by the IASB and the FASB in their joint revenue recognition project, referred to as the 'measurement model' or 'current exit price approach'.

Under the FASB/IASB's current exit price approach, 'the critical event for the rise of contract assets and liabilities is the agreement to a contract with a customer. Both the contract asset and the liability are measured at fair value at contract inception and then are remeasured at each reporting date' (Wagenhofer, 2014: 363). In principle, this net position model could lead to profit at contract

<sup>&</sup>lt;sup>9</sup> Horngren (1965) did not literally use the term 'accretion concept' but that is the concept he was describing.

inception if the fair value of the consideration to be received in the future is greater than that of the performance obligation to be executed in the future. This would invite moral hazard because, as pointed out by Wagenhofer (2014: 364), the financial 'performance of a company is then tied to its ability to acquire customer contracts, not to its performance in producing the goods or services promised.' Furthermore, 'there are usually no market prices for customer contract, so fair values must be estimated using management's assumptions (level 3). This implies that revenue, and more importantly, income depend on the expected future performance as judged by management, whose performance is to be evaluated.'

In sum, the accretion concept of income, which in its ideal form is based on fair value, is not suitable for a transformation business model where 'the firm adds value (for shareholders) by buying at (input) market prices and selling at (output) market prices (...) that is, the business model adds value to market prices' (Penman, 2007: 39). In contrast, 'Fair (market) values are a plus when value to the shareholders is determined solely by exposure to market price; that is, shareholder value is one-to-one with market prices' (Penman, 2007: 38).<sup>10</sup> The accretion concept of income based on fair value is suitable for a speculative business model, i.e., 'when value comes from property rights and obligations, and value is added or lost (solely) from fluctuations in the market values of those rights and obligations' (Penman, 2007: 39), provided that the market values are objectively measurable (observable) and the exit price of the asset or liability equals its entry price (because it is traded in a competitive market where the fair value reflects market expectations of a sufficiently large number of market participants who are all price takers).

For clarity of theoretical exposition, we propose here to alter Phillips' (1963) label of 'accretion income' to 'accretion accounting profit' because it is also a form of accrual accounting profit (rather than economic income or cash profit).

<sup>&</sup>lt;sup>10</sup> Penman (2007: 39) lists cases where the one-to-one condition for fair value applies, including investments in securities in a trading portfolio, among others.

What Phillips (1963) called 'conventional accounting income' or 'accrual accounting income' is more objective than accretion accounting income. In its ideal form, the transactions approach to determining accrual accounting profit is combined with the realisation basis of revenue recognition, the historical cost basis of measurement and the product and period matching bases of expense recognition. As mentioned by Horngren (1965: 323), 'The realization concept has been disdained by many writers.' For example, according to Sprouse and Moonitz (1962: 15), 'the concept lacks analytical precision.' The matching basis of expense recognition has been criticised as subjective or enabling earnings management, and the historical cost (and amortised cost) basis of measurement are problematic under inflation and have been criticised as untimely.

Horngren (1965: 325) proposed three conditions for realisation that must all be met before revenue can be recognised: (1) The change in an asset or liability must be objectively and verifiably measurable, (2) confirmed by a market transaction or an economic event, and (3) goods or services must have been rendered. The five step approach identifying critical events as revenue recognition criteria in IFRS 15 deal primarily with when goods or services can be considered rendered, whereby multiple-element contracts are particularly challenging. Usually, there will be a difference in the time at which each of these conditions is met. As Wagenhofer (2014: 368) points out, from 'an information-economics perspective, the overarching principle is that revenue-recognition requirements should follow the resolution of the most important risk in the earnings cycle. If the risks of customer products and services differ widely, then different recognition criteria result from the application of this principle.'

In sum, the triangular combination of transactions approach, historical cost and realisation concept is more suitable for transformation business models than for speculative business models as a basis for financial reporting. For clarity of theoretical exposition, we propose here to alter Phillips' (1963) label 'conventional accounting income' or 'accrual accounting income' to 'realised accounting profit'

as it is one of the two ideal forms of accrual accounting to which the law of conservation of income can refer.

Finally, a cash accounting system would be almost entirely objective. Although different forms of cash accounting are used in many public sector organisations, cash accounting is generally not deemed to be useful for business, and especially corporate, financial reporting. Firstly, because cash accounting is entirely concerned with the past. Secondly, because cash accounting only measures changes that are caused by cash transactions. This could make cash profit extremely volatile and limit its information value.

Returning to the law of conservation of income, in theory, as long as the income statement and the balance sheet articulate, transactions with shareholders are not included in profit and there are no tax implications, over the life of the entity the four ideal income concepts yield the same total income.

 $\Sigma$  economic income =  $\Sigma$  accretion accounting profit =  $\Sigma$  realised accounting profit =  $\Sigma$  cash profit

Figure 1 summarises this section.

#### [Insert Figure 1 here]

# **3.3 Articulation and dualistic approaches to the determination of accrual accounting profit**

Above we made the argument that in a democratic system, accounting standard setters will usually have to devise a compromise between the valuation and transaction approaches to the determination of profit. When we discuss mixed and dualistic approaches to the determination of accrual accounting profit, we will make a distinction between direct articulation, indirect articulation and non-articulation. Usually, the literature seems to imply that articulated financial statements are, by definition, directly articulated financial statements that obey the clean surplus condition (Edwards and Bell, 1961: 48-54 and 66-69; Lee, 1985: 122-123; Brief and Peasnell, 1996: xvii; Ohlson, 1996: 173; Christensen and Demski, 2003: 65; Penman, 2010: 40-41). Interestingly, Ohlson (1996:

173) expressed the clean-surplus relation in terms of realised earnings, Edwards and Bell (1961)
formulated the clean-surplus relation based on realisable profit, and Christensen and Demski (2003:
65) expressed the clean surplus relation in terms of recognised income. This is because as long as the clean surplus relation holds, the recognition and measurement bases according to which items are recognised in the financial statements do not really matter for valuation in accordance with the residual income valuation model

The idea behind the law of conservation of income and the clean surplus relation is that unrealised changes in the value of net assets which enter into the determination of economic income and current cost accounting income are realised over time and expectations with respect to future cash flows, discount rates and values are adjusted as time passes. However, the combination of the clean surplus relation with current values leads to the recognition of unrealised gains and losses in periodic accounting profit and consequently in retained earnings. For those who see retained earnings as a measure of distributable income, including unrealised gains and losses is undesirable.

In a non-articulated accounting model, the concepts of financial performance and financial position do not necessarily correspond with one another, and the stocks (assets and liabilities) and flows (income and expenses) do not necessarily articulate (e.g., AAA, 1966: 118; Black, 1993). To the extent that recognition and measurement is concerned, non-articulation occurs under dual recognition and measurement. That is, when an asset is measured and recognised at current value in the balance sheet but the associated changes in assets are recognised in the income statement at historical cost, whereby the difference bypasses the income statement straight into a revaluation account, creating a dirty surplus<sup>11</sup> in the equity section of the balance sheet.

<sup>&</sup>lt;sup>11</sup> Surplus = Net assets – shareholders' capital.

Clean surplus: Net assets = Shareholders' capital + retained earnings.

Dirty surplus: Net assets = Shareholders' capital + retained earnings + revaluation reserve.

The idea behind non-articulated balance sheets and income statements is that 'In a world of uncertainty, it is not possible to create an accounting system where book equity (a balance sheet approach) and earnings (an income statements approach) both give estimates of equity value' (Riahi-Belkaoui, 2004: 175). In the words of Penman (2007: 37), 'Ideal fair value reports a book value that is sufficient to value a firm but earnings that are useless for the purpose. Ideal historical cost accounting produces a balance sheet that does not report value, but earnings are sufficient to value a firm.'

The importance that many attach to the realisation of income is the reason for the practice of reclassification (or recycling) into profit or loss items of OCI upon their realisation required by the FASB's SFAS No. 130. Although some call this practice 'unprincipled' (e.g., Detzen, 2016: 10), it is based on the principle that profit transferred to retained earnings, which are distributable, must have the permanence and irreversibility associated with realisation (ASBJ, 2006).

In an indirectly articulated accounting model, there will be two concepts of financial performance and two concepts of financial position. This is because under a dualistic accounting model, changes in assets and liabilities are measured at current values and recognised on an accretion basis in the balance sheet, and the associated changes in assets and liabilities are measured at historical cost and recognised on a realisation basis in the income statement. When reporting OCI, profit or loss will not be the bottom line in the income statement. When reporting accumulated OCI, this creates a dirty surplus in net assets corresponding to the difference between the two.

Here we will categorise dualistic approaches to the determination of financial performance and financial position into those that are non-articulating, directly articulating and indirectly articulating. Dualistic approaches were advanced as early as the 1920s, often as a result of inflation problems.

3.3.1 Non-articulation (items bypass the income statement into dirty surplus equity)
Early approaches often were non-articulating. For example, Schmidt (1929) in Germany (Näsi et al,
2014: 84), and Limperg (1932 and 1950) in the Netherlands, advanced dualistic accounting through

the use of replacement cost, leading to net assets representing 'reproduction value', and the bypassing of the income statement of unrealised gains and losses (i.e., non-articulated dirty surplus accounting). Current entry price (replacement cost) accounting systems would usually lead to a distinction between operating profit and holding gains and losses. The above mentioned early theorists suggested that unrealised holding gains and losses bypass the income statement to be recorded in revaluation reserves in equity until they were realised.

The statement of profit or loss and other comprehensive income may have been modelled on the combined 'statement of income and earned surplus' offered as a compromise between the current operating concept of income and the all-inclusive concept of income in Accounting Research Bulletin No. 8 (ARB No. 8) in 1941. '(T)he combined income and earned surplus statement serves the purpose of showing in one statement both the earnings applicable to the particular period and modifications of earned surplus on a long-run basis. (...) In the combined statement, net income appears somewhere within the statement and not at the end' (AICPA, 1961: 18). At the time, the concern was that the reporting of current operating profit was easily abused because extraordinary credits were made to income and extraordinary charges were made directly to surplus.

### 3.3.2 Direct articulation (all-inclusive profit and clean surplus equity)

Direct articulation was advocated by later theorists, such as Edwards and Bell (1961). They

advocated abandoning the realisation concept but separately disclosing operating profit and holding gains and losses in the income statement (clean surplus accounting). Also supporting direct articulation, Barker (2004) who was a research fellow at the IASB at the time, proposed a matrix reporting format for the statement of financial performance. The matrix format was based on the idea that 'value-relevant information is provided by the disaggregation of earnings into its accrual and cash flow components' (Barker, 2004: 169). He proposed a comprehensive income statement by nature (rather than function) whereby a separate presentation of re-measurements would shed light on the comingling of income streams with capital gains and losses (Barker, 2004: 165).

Ohlson et al (2010 and 2011) argued for anchoring revenue recognition on the earnings process, but maintaining direct articulation. Furthermore, Ohlson et al (2010) advocate the classification of financial statement elements into those related to operating versus financing activities. See also Barker (2010b). Barker and Penman (2016) argue that the 2015 IASB CF ED does not sufficiently incorporate the concept of uncertainty in its approach to the determination of financial performance. Barker and Penman (2016) also represents a mixed balance sheet and income statement approach to the determination of financial performance, whereby the all-inclusive concept of financial performance and the clean-surplus concept of equity are maintained. In the case of Barker and Penman (2016) this leads to a presentation of the income statement that pays close attention to the matching characteristics of the items of income and expense in different sections. They distinguish product and period matching, mismatching (sunk costs) and ex-post matching (fair value gains and losses) (Barker and Penman, 2016: 23-26).

## 3.3.3 Indirect articulation (dual measurement, dual recognition, and recycling upon realisation)

Possibly the first to advance an indirectly articulated approach, Horngren (1965: 325) proposed a liberal recognition test and a strict realisation test, whereby value increases were recognised and realised and unrealised gains and losses disclosed separately. In an appendix Horngren (1965: 333) shows the disclosure of 'recognised and realised gains and losses' in the operating section of the income statement corresponding to 'recognised and realised retained income' in the equity section. Gains and losses recognised but not realised would be shown in a separate section of the income statement with a corresponding 'recognised by unrealised retained income' section in equity, and they would be 'recycled' upon realisation (i.e., articulated dirty surplus accounting).

The Accounting Standards Board of Japan (ASBJ)'s 2006 Conceptual Framework Discussion Paper (ASBJ, 2006 in Japanese, 2007 in English) proposes a dualistic concept of financial performance whereby the main concept is released-from-risk net income and the secondary concept is objectively measurable comprehensive income (i.e., articulated dirty surplus accounting). For a detailed

explanation of the 2006 ASBJ Conceptual Framework Discussion Paper and the released-from-risk net income concept of financial performance see Van Mourik and Katsuo (2015). Nishikawa (2013) and Nishikawa et al (2016) further develop and clarify the ASBJ's approach by setting out that, under dual measurement, OCI represents a linkage factor between net income and comprehensive income.

EFRAG (2007) advocates a combined approach basing the measurement of assets and liabilities on transaction prices (contract prices) and the recognition of revenues on some kind of critical event in the revenue earning process (i.e., as the entity carries out activities pursuant to a contract with a customer (EFRAG, 2007: para. 2.0). EFRAG's (2007) approach adopts recycling.

#### 3.3.4 Comprehensive approach

Ronen and Sorter (1972) proposed a system that they called 'relevant accounting'. They claimed that the 'basic elements of a relevant accounting system consist of the reporting of expectations about cash flows, the reporting of exit values, and the reporting of retrospective data' (Ronen and Sorter, 1972: 265). This system would provide information that is useful for predicting cash flows, assessing the risks of these cash flows, and the realisation of expectations (Ronen and Sorter, 1972: 260). The information in this system would be communicated through the balance sheet, a cost and benefits statement, an income statement and a realisation and derealisation statement (Ronen and Sorter, 1972: 265). See Ronen (2008) for a more recent explanation of this system. Ronen (2008) also talks about complementary institutions, such as a financial statement insurance mechanism (Ronen, 2008: 197-201), restructuring of compensation arrangements (Ronen, 2008: 201-204), and the establishment of market makers for insider trading (Ronen, 2008: 204-205) to address both information asymmetry and moral hazard issues.

## 3.4 Decision-usefulness and articulation: different shades of clean and dirty surplus

What might explain the idea that unrealised gains and losses should be treated in the same way as realised income and expenses?

Revsine (1970) examined what he called 'the indirect measurement hypothesis' which is the idea that replacement cost income represents a surrogate for economic income (Revsine, 1970: 513).<sup>12</sup> In a perfectly competitive economy, the current operating component of replacement cost income is equal to the expected income component of economic income (Revsine, 1970: 516), and that the price change element of replacement cost income corresponds to unexpected income (Revsine, 1970: 517). This is consistent with the residual income valuation (RIV) model (also called Feltham and Ohlson model (Ohlson, 1995, and Feltham and Ohlson, 1996)), according to which the market price of a firm's equity at a date = the net book value of the entity + the present value of its residual income (also called abnormal earnings or goodwill)<sup>13</sup>.

The early phase of the joint FASB/IASB revenue recognition project suggests that the Boards may have believed in a fair value version of 'the indirect measurement hypothesis' according to which fair value income represents a useful surrogate for economic income. Belief in the indirect measurement hypothesis in respect of fair value may provide an explanation for the above mentioned G4+1 Position paper's insistence that there is no difference between realised and unrealised gains and losses (Cearns et al, 1999: 46-48). On the other hand, under conditions of uncertainty and imperfect markets, theoretical confusion between realised and unrealised gains and losses corresponds to a practical confusion between capital and net income.<sup>14</sup>

To what extent is it a problem for decision-usefulness purposes that all-inclusive profit or loss and retained earnings include unrealised (and therefore risky) gains and losses? To what extent are dirty surplus net assets and indirect articulation via recycling upon realisation hindering the prediction of future cash flows?

<sup>&</sup>lt;sup>12</sup> Edwards and Bell (1966) proposed a measure of replacement cost income. Into the 1980s, replacement cost accounting theorists were also very concerned with inflation.

<sup>&</sup>lt;sup>13</sup> Goodwill = Actual income - Expected income.

<sup>&</sup>lt;sup>14</sup> We thank David Cairns for pointing out that, in financial accounting, practical confusion between income and capital also depends on the strength of the links with the determination of distributable income and taxable income under the law in a jurisdiction. Taxing and/or distributing unrealised gains and losses is not unheard of, but it is usually not considered prudent.

Van Cauwenberge and De Beelde (2007) made a case for dual income display and argued that dirty surplus accounting does not preclude using the residual income valuation model. According to Penman (2015: 247), valuation theory suggests that accounting should obey the clean surplus relation because it renders a valuation model consistent with dividend irrelevance. 'Dirty surplus accounting results in the basic residual income valuation model yielding an inaccurate estimate of equity value because the sum of current book value and future net incomes does not equal the sum of future net dividends' (Landsman et al, 2011: 239). Furthermore, Penman puts forward the cancelling error property of accounting under the clean surplus condition: 'earnings are unaffected by the accounting errors in the balance sheet provided the errors in the opening and closing balances cancel' (Penman, 2015: 248). 'Indeed, the earnings number includes earnings coming from assets not on the balance sheet at all, like brands, research and development, supply chains and distribution systems' (Penman, 2012: 165).

Lo and Lys (2000) made the point that 'RIV is attractive, because it links value to 'observable' accounting data. But does RIV really require accounting in the common sense of the word? As suggested above, the answer is no! Any accounting system satisfying CSR will do.' Furthermore, from an information perspective, items of OCI (i.e., dirty surplus items) are transitory and therefore using comprehensive income as the basis for prediction of future cash flows introduces noise (Skinner, 1999: 107). According to Stark (1997: 224), 'earnings measured on a clean surplus basis are valuation relevant when each separate component of clean surplus earnings has no predictive value for clean surplus earnings or, equivalently, cum dividend book value over and above knowing the sum of the components.' On the other hand,

'when the separate components have additional predictive ability over the sum of the components, knowledge of the individual clean surplus earnings components is important. Any reporting system that enables the separate identification of the components will suffice from an informational point of view. There is no compelling reason to report them in a clean surplus earnings statement, although such a statement might well achieve the desired informational end' (Stark, 1997: 224).

On balance, the empirical literature using as reported data supports the idea that profit or loss is more useful and relevant than comprehensive income for the prediction of future net income (e.g., Kanagaretnam et al, 2009 and Mecelli and Cimini, 2014). In addition, incremental association studies provide evidence that the elements of OCI, such as the unrealised gains and losses on foreign currency translations and marketable securities adjustments, provide informational value in addition to the informational value of profit or loss (Chambers et al, 2007). For the EU, Mecelli and Cimini (2014) found that profit or loss is more value-relevant than comprehensive income on its own. However, they also found significant differences in the incremental value-relevance of OCI across different European countries, which seem to be caused by the different characteristics of the institutional environments.

In sum, supporting Stark's (1997) argument, the empirical literature suggests that profit or loss possesses a useful characteristic that would be lost if profit or loss were to be determined on an all-inclusive basis. Furthermore, the different elements in OCI provide incremental information value to investors. More research is needed to identify the useful characteristic. However, in our interpretation, these findings seem to suggest that there is a role for distinguishing realised and unrealised gains and losses.

Penman's (2016) arguments underscore the importance of separate disclosure of realised and unrealised gains and losses. However, in Barker and Penman (2016), this does not go as far as to lead to recycling upon realisation because they attach great importance to the clean surplus relation for valuation. Penman (2016: 127) raises the question whether the accounting for risky investments in business entities should communicate the risk *ex ante* or *ex post*. ASBJ (2006, 2007), Saito (2011) and Penman (2016) argue that, except for assets and liabilities where measurement at fair value is appropriate, historical cost accounting, which recognises income and expenses when realised, gives

information about the resolution of uncertainty in respect of the entity's risky investments. In doing so, historical cost accounting and the realisation principle provide investors with information that helps them to assess the amount, timing and uncertainty of future net cash flows.

### 4. Critiquing profit or loss and OCI in the 2015 IASB CF ED

In this section, we critique the income concept in the 2015 IASB CF ED. This is presumably the concept of which the IASB thinks it best serves the objective of general purpose financial reporting. As mentioned above, the IASB decided that decision-usefulness, rather than stewardship and efficient contracting, should be the objective of general purpose financial reporting (IASB, 2015a: 1.2, 1.3, 1.22 and 1.23). The concepts established in the 2015 IASB CF ED are its 'vision of ideal financial reporting' which is 'unlikely to be achieved in full, at least not in the short term, because it takes time to understand, accept and implement new ways of analysing transactions and other events' (IASB, 2015a: 1.11). Unfortunately, the IASB did not provide a brief explanation of this vision of ideal financial reporting or the underlying ideas about the concepts of financial performance and financial position that best fulfil the objective. So, in this section we put the pieces of this puzzle together and, not unlike Barker (2010a) found in respect of the 1989 IASC Conceptual Framework, we find that the 2015 IASB CF ED contains pieces of two different puzzles portraying two different visions of ideal financial reporting.

### 4.1 The income concept and articulation in the 2015 IASB CF ED

First, the IASB chose explicitly for accrual accounting rather than cash accounting (IASB, 2015a: 1.17) or economic income accounting. Second, the IASB decided on articulated financial statements through an all-inclusive concept of profit and a clean-surplus concept of equity (IASB, 2015a: 5.4-5.6). Of course, users need to be able to distinguish changes in resources and claims resulting from an entity's financial performance from changes in resources and claims resulting from equity and debt financing activities (IASB, 2015a: 1.15 and 1.21). Therefore, 'an entity's financial performance

during a period is reflected by changes in its economic resources and claims other than by obtaining additional resources directly from investors and creditors' (IASB, 2015a: 1.18).

Third, the 2015 IASB CF ED defines income and expenses in terms of changes in assets and liabilities (IASB, 2015a: 4.48-4.52) and defines equity as the residual interest in the assets of an entity after deducting all its liabilities (IASB, 2015a: 4.43). Furthermore, 'Information about a reporting entity's financial performance during a period may also indicate the extent to which events such as changes in market prices or interest rates have increased or decreased the entity's economic resources and claims, thereby affecting the entity's ability to generate net cash inflows' (IASB, 2015a: 1.19). This indicates that the 2015 IASB CF ED adopts a valuation approach to determining accounting profit together with the accretion concept of income and expense recognition.

So far, the 2015 IASB CF ED's concept of profit is in accordance with the all-inclusive concept of profit and the clean-surplus concept of equity according to which there are not meaningful differences between realised and unrealised items included in retained earnings (other than transactions with equity holders).

### 4.2 Recognition and measurement in the 2015 IASB CF ED

Although the above seems to indicate that the 2015 IASB CF ED adopts a valuation approach to the determination of profit and the accretion concept of income and expense recognition, the IASB had to give up the full fair value model. The 2013 IASB Conceptual Framework Discussion Paper set out the problems associated with measurement of all assets and liabilities at either historical cost or fair value. The IASB motivated its choice for a mixed measurement approach based on the argument that mixed measurements provide more relevant information (IASB, 2013: 6.13-6.14). However, this also meant that the IASB has had to adopt a mixed recognition approach.

In the 2015 IASB Conceptual Framework Exposure Draft (2015 IASB CF ED), the IASB proposes that '(r)ecognition is the process of capturing, for inclusion in the statement of financial position or the statement(s) of financial performance, an item that meets the definition of an element' (IASB,

2015a: 5.2). An entity recognises items that meet the definition of an element in the financial statements if three criteria are met: (a) recognition provides relevant information, (b) recognition provides a faithful representation of the element, and (c) the benefits of recognition exceed the cost (IASB, 2015a: 5.9).

Recognition of an element may not provide relevant information if there is:

- uncertainty whether or not an asset or liability exists (existence uncertainty) (IASB, 2015a:
   5.15-16);
- (2) whether or not an asset is separable from the business as a whole (i.e., is the asset distinct from the entity's goodwill?) (IASB, 2015a: 5.15);
- a high level of measurement uncertainty (e.g., estimation uncertainty, a wide range of possible outcomes, or an exceptionally high degree of subjectivity) (IASB, 2015a: 5.20-21);
- (4) and/or there is a low probability of an actual inflow or outflow of economic benefits (IASB, 2015a: 5.17-19).

Faithful representation requires a consideration of recognition, measurement, presentation and disclosure of the item (IASB, 2015a: 5.22), and the interrelationship of the element with corresponding elements in the financial statements (i.e., articulation) (IASB, 2015a: 5.23).

The 2015 IASB CF ED proposes categorisation of measurement bases into (a) historical cost and (b) current value (IASB, 2015a: 6.4). As historical cost the ED regards the recoverable cost of the unconsumed (or uncollected) part of an asset (including transaction costs) (IASB, 2015a: Table 6.1) or the net consideration for taking on the unfulfilled part of a liability, plus any excess of the present value of the estimated cash flows over the net consideration. Consideration is net of transaction costs (IASB, 2015a: Table 6.1). Under current value measures the ED only discusses fair value for both assets and liabilities, and value in use (for assets) and fulfilment value (for liabilities). The idea is that fair value reflects the aggregate of the assumptions and expectations of all market participants

(IASB, 2015a: 6.22). Value in use and fulfilment value are present values that reflect entity-specific assumptions and expectations and are therefore entity-specific values (IASB, 2015a: 6.34).

The 2015 IASB CF ED discusses factors to consider when selecting a measurement basis for an asset or liability and the related income and expenses. These factors are the qualitative characteristics of relevance, faithful representation, and as far as possible, comparability, verifiability, timeliness and understandability (IASB, 2015a: 6.49). Remember that relevant information is capable of making a difference in the decisions made by users by virtue of having 'predictive value, confirmatory value, or both' (IASB, 2015a: 2.7). In order to provide a faithful representation of an economic phenomenon, information would have to be 'complete, neutral and free from error' (IASB, 2015a: 2.15) and provide information about the substance of the economic phenomenon rather than its legal form (IASB, 2015a: 2.14).

The 2015 IASB CF ED considers three factors when choosing a measurement basis for an asset or liability. These factors are:

- how that asset or liability contributes to the entity's future cash flows (IASB, 2015a: 6.54a)
   (corresponds to the business model discussed by Penman (2007), see also Marshall and
   Lennard (2016)),
- (2) the riskiness of the asset or liability such as its cash flow variability and its sensitivity changes in market factors (IASB, 2015a: 6.54) (may correspond with the one-to-one condition discussed by Penman (2007)), and
- (3) the level of measurement uncertainty (IASB, 2015a: 6.55), which is not the same as, but is sometimes intensified by outcome uncertainty (IASB, 2015a: 6.56) (is consistent with the criterion of objective measurability of a change in an asset or liability in Horngren (1965)).

Unfortunately, the 2015 IASB CF ED does not clearly explain the theory underlying the three factors, the relation between these factors, or the order in which the factors must be applied. In practice,

when both factors (1) and (2) indicate that an asset or liability should be measured at historical cost the level of measurement uncertainty usually does not present a problem (Katsuo, 2015, p. 57). The problem of the relative weight of the three factors primarily arises when factors (1) and/or (2) indicate that measurement at current value is required, but the change in an asset or liability is not objectively measureable.

In respect of factor (3), in the case of fair value, measurement uncertainty depends on whether or not market prices are observable in an active market (IASB, 2015a: 6.32), the characteristics of the markets for the specific assets and liabilities (competitive to the extent that all participants are price takers), and the realisation of expected outcomes. In the case of value in use, measurement uncertainty depends on the correctness/validity of the estimation process regarding the cash flows an entity expects to derive from a specific asset or group of assets, the discount factor, and the verifiability of the inputs to the process. Conversely, for fulfilment value, measurement uncertainty depends on the correctness/validity or group of liabilities, the discount factor, and the verifiability of the inputs to the process (IASB, 2015a: 6.34).

If, for example, a certain asset has an observable market price in a liquid market (factor 2), but the business model in which this asset is used is one of adding value through transformation (factor 1), the question arises whether the IASB would judge that the asset should be valued at fair value or at historical cost? Should the business model criterion or the measurement uncertainty criterion receive priority when selecting the measurement basis? The 2015 IASB CF ED does not give a clear answer. Although the 2013 Discussion Paper looked at how the business model might be useful, the 2015 IASB CF ED actually says very little about the business model.

### 4.3 Profit or loss and OCI in the 2015 IASB CF ED

Although requiring the presentation of profit or loss separately from OCI (IASB, 2015a: 7.19), the 2015 IASB CF ED posits a rebuttable presumption that all income and expenses are included in profit

or loss (IASB, 2015a: 7.23). The 2015 IASB CF ED Basis for Conclusions states that the IASB, and only the IASB, can rebut this presumption (IASB, 2015b: BC7.44) when the IASB 'concludes that doing so would enhance the relevance of the information in the statement of profit or loss for the period' (IASB, 2015b: BC7.43). The 2015 IASB CF ED explains how this works as follows.

Income and expenses related to changes in assets and liabilities measured at historical cost will be included in the statement of profit or loss. Also included in profit or loss are 'components of income or expenses related to assets and liabilities measured at current values if the components are separately identified and are of the type that would arise if the related assets and liabilities were measured at historical cost' (IASB, 2015a: 7.23). Income and expense items related to assets and liabilities measured at current value are included in OCI:

- if the components are not separately identified;
- if they are not of the type that would arise if the related assets and liabilities were measured at historical cost; and
- if the IASB thinks that excluding the income and expense items are included in OCI enhances the relevance of the statement of profit or loss (IASB, 2015a: 7.24).

The 2015 IASB CF BfC mentions some types of income and expenses to be included in the statement of profit or loss (IASB, 2015b: BC7.45) and tentatively proposes that 'only income and expenses related to changes in current value measures of assets and liabilities (remeasurements), or components of such income and expenses, could be included in OCI' (IASB, 2015b: BC7.47). Furthermore, the 2015 IASB CF BfC states that the characteristics that enhance the relevance and understandability of items of income and expense within or outside profit or loss 'include, but are not limited to, the role (function) of the item within the business activities conducted by the entity and how it is measured' (IASB, 2015b: BC7.48). In sum, the 2015 IASB CF ED is ambiguous about the distinction between profit or loss and OCI in the statement(s) of financial performance, and ultimately proposes to leave it to the IASB to decide when including an item in profit or loss is more relevant than including it in OCI. The concept of relevance as providing predictive value, confirmation value or both is not very helpful for making that decision.

### 4.4 Dual measurement and dual financial performance concepts

Finally, possibly because of the influence of Nishikawa (2013: Chapter 3), who is the Chairman of the ASBJ, and the ASBJ's thinking, the 2015 IASB CF ED considers dual measurement (IASB, 2015a: 6.74-6.77). Nishikawa (2013) and Nishikawa et al (2016) argue that in respect of some assets or liabilities, information on the current value of the asset or liability is more relevant in the statement of financial position whereas information on the historical cost of the related income or expenses in the statement of profit or loss is more relevant than information using a single measurement basis. The 2015 IASB CF ED echoes this idea (IASB, 2015a: 6.76). This results in the change in current value of the asset or liability being split into the income or expense measured at historical cost in the statement of profit or loss and the remaining income or expense amount presented in OCI (IASB, 2015: 6.77). In other words, in spite of having chosen an all-inclusive concept of financial performance (IASB, 2015a: 1.18), the 2015 IASB CF ED appears to also be open to the use of dual measurement bases and dual concepts of financial performance and financial position.

This is inconsistent with seeing profit in accordance with the all-inclusive concept of profit and the clean-surplus concept of equity according to which there are not meaningful differences between realised and unrealised items included in retained earnings (other than transactions with equity holders), and which requires direct articulation. Dual measurement bases in the statement of financial position and the statement of financial performance come with dual recognition criteria. This is the perspective of profit as the recognised and realised change in the retained earnings account, which is fundamentally different from revaluation reserves and other capital maintenance adjustments. Dual measurement would require adoption of the accretion concept in the balance

sheet and the realisation concept in the income statement. Indirect articulation through the recycling of items of income and expense upon their realisation would prevent the mixing up of realised and unrealised gains and losses in the retained earnings account in the equity section of the balance sheet.

In respect of recycling income and expenses in OCI to profit or loss, the 2015 IASB CF ED states that there is a presumption that recycling will occur 'when it will enhance the relevance of the information in the statement of profit or loss for that future period' (IASB, 2015a: 7.26). This presumption can be rebutted 'if there is no clear basis for identifying the period in which reclassification would enhance the relevance of the information in the statement of profit or loss' (IASB, 2015a: 7.27). Again, it would be up to the IASB to decide in which cases recycling would increase the relevance of profit or loss.

The IASB erroneously thinks that recycling is about increasing decision-usefulness because of qualitative characteristics. However, recycling is about maintaining indirectly articulated financial statements in the presence of dual measurement and dual recognition leading to dual concepts of financial performance and financial position. One set of financial performance and financial position concepts is rooted in the transactions approach to income determination and the realisation concept of income and expense recognition. The other set is rooted in the valuation approach to income determination and the accretion concept of income and expense recognition. Recycling of accumulated OCI through profit or loss into retained earnings indirectly maintains articulation between the dualistic concepts of financial performance and financial performance and therefore also the law of conservation of income.

### 5. Improving the 2015 IASB CF ED

In this section we suggest what the IASB can do to improve the two problems identified with the 2015 IASB CF ED. The most fundamental problem is the concept of income. If this is not solved, the

Framework will be incoherent because it tries to put the pieces of two different puzzles together. The second problem is the approach to the selection of a measurement basis for an asset or liability.

### **5.1 Dual or single concepts of financial performance?**

The inconsistencies and ambiguities in the 2015 IASB CF ED clearly show that the IASB dithers on adopting a single or a dual concept of profit. On the one hand, the IASB's normative commitment to an all-inclusive concept of income would make recycling superfluous and, indeed, a form of double counting. On the other hand, a section of the IASB's constituents demand the preservation of profit or loss, and the IASB has tried to accommodate that through ambiguity. Some of the IASB's constituents demand the preservation of profit or loss because they attach importance to the realisation concept, in which case they will require recycling upon realisation of items of recognised income or expense. However, implicitly, the IASB committed to all-inclusive realisable income as its financial performance concept. This is probably because, historically, and particularly in the US, the term realisation is laden with difficulties. Hence, the terms realisation and matching is notably avoided in the IASB Conceptual Framework.

If the IASB chooses for the all-inclusive concept of profit, as mentioned by Barker (2010a: 155), 'capital maintenance adjustments and reclassification adjustments should be removed from IFRS'. The adoption of mixed measurements and the disclosure of realised income and expenses separately from unrealised gains and losses, and operations separately from financing can be accomplished in the way suggested by Barker and Penman (2016).

However, mixing realised income and unrealised gains and losses in the retained earnings account in equity goes against the ideas of EFRAG, the ASBJ and other constituents. The distinction between realised and unrealised items is, ultimately, underlying the idea of the higher degree of relevance of dual measurement, dual recognition, dual concepts of financial performance and dual concepts of financial position. In this case, indirect articulation through recycling upon realisation reconciles the information on an accretion basis with that on a realisation basis, so that under dual income concepts, the law of conservation of income is maintained in a traceable manner.

### 5.2 The selection of a measurement basis

Irrespective of whether the IASB chooses a single a dual concept of profit, we think that the selection of a measurement basis in the 2015 IASB CF ED can be improved. Figure 2 sets out the decision tree for the selection of a measurement basis of an asset or liability combining ideas in Penman (2007), ASBJ (2006), Baxter (2003).

### [Insert Figure 2 here]

In respect of how to consider the relative weight of factors (1) and (2), Penman (2007) argues that fair value accounting is appropriate for assets that meet the following three conditions:

- which are used in a business model where 'value comes from property rights and obligations and where value is added or lost (solely) from fluctuations in the market values of those rights and obligations' (Penman, 2007: 39), and
- assets for which shareholder value moves one-to-one with the market price (Penman, 2011: 175), and
- where the fair values of assets can be matched with the fair values of the liabilities used jointly to create value for the shareholders (Penman, 2007: 40).

In respect of business models where shareholder value is created through a transformation process, Penman argues that historical cost accounting 'reports on progress that has been made in executing the business plan, recognising value added (earnings) from actual transactions in the input and output markets being arbitraged' (Penman, 2007: 36-37).<sup>15</sup>

Penman's (2007 and 2011) model is concerned with explaining when fair value (through profit or loss) is appropriate, but is not concerned with the application of other measurement bases. Penman

<sup>&</sup>lt;sup>15</sup> The same point is made in Saito (2011: 10).

(2007: 34) uses the term 'mixed attribute model' in the narrow sense of a model that predominantly uses historical cost accounting, but which applies fair value under certain conditions to establish historical cost, determine impairment, allocate the purchase price, or discipline estimates made under historical cost accounting.

However, these two cases do not exhaust all the possibilities. For example, in a speculative business model whereby shareholder value does not move one-to-one with the market price of the assets or liabilities, fair value through profit or loss does not give information about the resolution of uncertainty. This does not automatically mean that historical cost provides the most useful measurement basis to investors in such a business entity. There may also be situations where it is not so clear how an asset contributes to the entity's future cash flows, or where its use may vary depending on the conditions in the market.

In such cases, the concept of value-to-the business (or deprival value) could provide a decision rule for determining which current value measurement basis—replacement cost, net realisable value or value-in-use—may provide relevant information about risk exposure of assets. It was developed in the UK by Baxter (1971, 1975, and 2003) who adapted Bonbright's concept of value-to-the-owner dealing with judicial reparation of lost property (Lee, 1985: 106) for accounting measurement purposes.

Baxter developed the concept of deprival value for the measurement of assets arguing that there are satisfactory assets (those that a business would want to replace when deprived of them) and unsatisfactory assets (those that the business does not want to replace when deprived of them). In the case of an unsatisfactory asset (where its replacement cost is higher than its anticipated benefits), the business needs to decide whether to keep the asset or sell the asset. If the asset's value-in-use is higher than its net realizable value, it makes sense to use the asset. On the other hand, if the asset's net realizable value is higher than its value in use it makes sense to sell the asset (Baxter, 2003: 6-7). Hence, 'the upper limit to the value of an asset to the entity is its replacement

cost, for that is as much as the entity will lose should it be deprived of it' (Lee, 1985: 106). The decision rule is that an asset's value-to-the-business is the lower of its replacement cost and its recoverable amount, where recoverable amount is the higher of net realisable value and value-in-use (Baxter, 2003: 7).<sup>16</sup>

Although Baxter argued that, to some extent, the same logic can be applied to liabilities, in practice, he did not support the application of the decision rule to liabilities because replacement loans do not fit comfortably into the logic as loans are usually taken on to finance assets (Baxter,2003: 16-17). Others have argued that the logic behind deprival value can be applied to liabilities in which case it is called 'relief value'. For example, Horton et al (2011) argued that, in the case of contracts with customers, the entry price of a replacement liability is usually the relief value of an existing liability. Nobes (2003 and 2011), on the other hand, argues that the exit price (normally its performance value) is usually its relief value. Nobes (2011: 522) adjusts the decision tree approach for the measurement of liabilities by distinguishing between liabilities with and without an active market. Nobes suggests that those liabilities with active markets could be measured at fair value. Relief value for liabilities without active markets should be the cost of performance, unless the cost of release or the cost of transfer can be shown to be lower. In our understanding, performance value is the same as the IASB's concept of fulfillment value.

### 6. Summary and conclusion

This paper has demonstrated the existence of two incompatible concepts of profit in the 2015 IASB CF ED. Either retained earnings contains only realised items of income and expense (whereby there

<sup>&</sup>lt;sup>16</sup> In an attempt to reconcile deprival value with fair value Van Zijl and Whittington (2006) assumed that any instance where net realisable value was greater than replacement cost implied a redevelopment or redeployment opportunity. They argued that this should make net realisable value a more appropriate value of the asset than replacement cost (Van Zijl and Whittington, 2006). At the time, fair value had not yet been decisively defined as exit value. In addition, the assumption in this paper is that fair value as exit value is only appropriate when Penman's (2007) one-to-one condition and the speculative business model apply. Therefore, although the attempt at reconciliation between deprival value and fair value is understandable against the background in 2006, it is no longer necessary.

may be some room for interpretation of what realisation means), or retained earnings contains both realised and unrealised items of income and expense. In the case of dual measurement combined with the first concept of profit, dirty surplus arises in equity. In order to maintain articulation between retained earnings and profit and loss as well as between net assets and comprehensive income, recycling upon realisation is necessary. The second concept of profit goes with the allinclusive concept of income and the clean surplus concept of equity. Current measurement bases and mixed measurement lead to both realised and unrealised income and expenses in retained earnings.

The IASB erroneously seems to think that recycling is about increasing decision-usefulness because of qualitative characteristics. Recycling takes place in a system of dual financial performance concepts (and dual concepts of financial position) and it is actually about increasing decisionusefulness though the preservation of indirect articulation. Without recycling upon realisation a dual measurement accounting system would produce non-articulating concepts of financial position and financial performance, and retained earnings would mix up realised and unrealised items of income and expense.

One question that needs to be answered in order to make an informed decision is which concept of profit (and which concept of articulation) best achieves the decision-usefulness objective of general purpose financial reporting.

Second, we have suggested that, irrespective of its concept of profit, the 2015 IASB CF ED's approach to measurement can be improved by adopting a decision tree which starts from the business model, goes on to the concept of objective measurability, and Penman's (2007) one-to-one condition (exit price = entry price) for the appropriate use of fair value through profit or loss under uncertainty and in incomplete markets, and incorporates the deprival value decision rule for cases where neither historical cost nor fair value is appropriate.

Under Penman's (2007) and Barker and Penman's (2016) certain assets would not be recognised. This does not matter under the RIM valuation model because the income statement still includes income and expenses related to these unrecognised assets. However, they strongly support the clean surplus relation precisely because they assume that the RIM valuation model is useful for decision-usefulness purposes.

Finally, we pose three questions that need to be answered to help the IASB.

- To what extent is it a problem for decision-usefulness purposes that all-inclusive profit or loss and retained earnings include unrealised (and therefore risky) gains and losses?
- To what extent are dirty surplus net assets and indirect articulation via recycling upon realisation hindering or helping the prediction of future profits and cash flows?
- Could it be that under uncertainty and without making the non-arbitrage assumption underpinning Barker and Penman (2016), dirty surplus and recycling upon realisation is more important for stewardship purposes (i.e., controlling moral hazard) than for the prediction of future cash flows?

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## **Appendix: Figures**

Figure 1: Articulation and approaches to the determination of profit and concepts of income

recognition (Insert on p. 16)



Figure 2: Measurement bases decision tree (Insert on p. 34)

- **Transformation**: → Historical cost (in case of impairment: Deprival value)
- Speculation: → FV? Observable MP? No: DV

Yes: – 1-to-1 condition

(exit = entry price?) No: DV

Yes: FV

• **Unclear/both**: → DV = lower of RC and recoverable amount (ra)

(ra = the higher of net realisable value and value in use)