

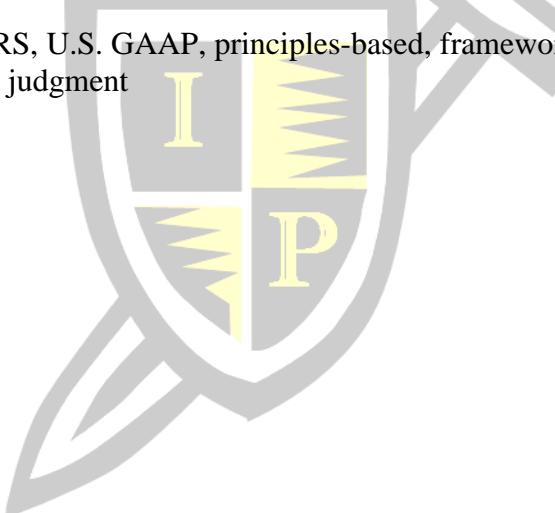
## A principles-based approach to teaching International Financial Reporting Standards (IFRS)

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### ABSTRACT

This article discusses the principles-based approach that emphasizes a “why” question by using the International Accounting Standards Board (IASB) *Conceptual Framework for Financial Reporting* to question and understand the basis for specific differences between IFRS and U.S. generally accepted accounting principles (U.S. GAAP) requirements, and to identify weaknesses of these requirements. It also provides detailed ready-for-use teaching notes of this approach concerning five accounting topics: inventories; property, plant, and equipment; intangibles; impairment of assets; and statement of cash flows. These principles-based/framework-based teaching notes, that are appropriate for an intermediate accounting class and an international accounting course, should help stimulate classroom discussion, sharpen student critical thinking skill and develop professional judgment among students.

Keywords: Teaching IFRS, U.S. GAAP, principles-based, framework-based, conceptual framework, professional judgment



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## INTRODUCTION

The most frequently used approach to teaching IFRS in the U.S. involves a discussion of key differences that currently exist between IFRS and U.S. GAAP, and how to apply IFRS from a technical standpoint (Munter and Reckers, 2010). Although it is worthwhile for students to know these technical differences, such an approach is not necessarily best in the long run because it has three weaknesses. First, this approach that focuses on “what” and “how” is similar to how U.S. GAAP is typically taught. It does not explain the underlying principles used by the IASB to promulgate IFRSs or by the Financial Accounting Standards Board (FASB) to develop U.S. GAAP, and does not discuss weaknesses of these standards. Therefore, it likely sends students a wrong signal that accounting standards are authoritative literature that is correct, flawless and not disputable. Such a signal could impede student critical thinking skill. Second, it does not reflect substantial professional judgments required for applying accounting standards especially IFRS, therefore, creating an impression among business students that accounting is highly technical and precise, and requires memorization of many rules and rote recording of past transactions. Such an impression could attract the wrong students to the accounting profession - those who may not well serve the needs of financial statements users. Third, this typical approach is not conducive to future improvement of accounting standards because accounting students, our future generation of the accounting profession, are not encouraged to develop their ability to critically evaluate merits of accounting standards.

The principles-based approach emphasizes the “why” question by using the IASB conceptual framework (IASB, 2010), which is essentially the same as the FASB conceptual framework in Statements of Financial Accounting Concepts No. 8 (FASB, 2010), to understand the basis for and to critically examine pros and cons of the standards. Students who understand the conceptual framework will have knowledge that is more enduring as they would be able to make more informed financial reporting judgments because they will understand what financial reporting is trying to accomplish and how to accomplish it (Barth, 2008). Students must understand that financial reporting is replete with judgments. Judgments are normally required to apply seemingly clear and precise rules. As Barth stated “The accounting profession needs persons who are well grounded in economic concepts and who want to make well-founded professional judgments.” Hodgdon et al. (2011) asserted that accounting educators can enhance the ability of students to apply the professional judgment by relating the concepts in the IASB Framework to specific IFRS requirements. Larson and Street (2011) also state that the IFRS Foundation emphasizes and promotes approaches to teaching IFRS that encourage students to develop a deeper understanding of the economic substance underlying accounting transactions and the IASB framework concepts upon which IFRS are based. They further state that teaching IFRS should go beyond simply memorizing current standards and requirements. Educators also observe that when financial reporting requirements are taught within the context of a conceptual framework, accounting students have a better understanding of the nature and purposes of financial reporting (McGregor and Street, 2007).

This article is the first one to provide teaching notes that are based upon the principles-based/framework-based approach for teaching key differences between IFRS and U.S. GAAP regarding five accounting topics: inventories; property, plant and equipment; intangibles; impairment of assets; and statement of cash flows. The fact that these five topics are not on an active agenda of the IASB and the FASB (i.e., they are not subject to revisions) contributes positively to the useful life of these teaching notes. Given that the most frequently used

approach to teaching IFRS in the U.S. involves a discussion of key differences between IFRS and U.S. GAAP, educators can easily enrich the discussion of “what” these differences are by using these teaching notes to provide insight into the underlying conceptual basis of IFRS vs. U.S. GAAP requirements, and pros and cons of the requirements. These principles-based teaching notes are suitable for an intermediate accounting class, and an international accounting course at both undergraduate and graduate levels. These notes are organized into the following five sections in according to the five accounting topics.

## **INVENTORIES**

### **IFRS – Inventories**

Per IASB (2003b), IFRS prohibits LIFO (last-in, first-out) inventory accounting because the use of LIFO during a prolonged period of price rising could significantly understate the cost of ending inventories. Such understatement compromises faithful representation of inventory value on the balance sheet, and hinders the relevance of financial reporting as a tool for assessing liquidity and financial position of the firm. Kieso et al. (2012) also discussed two other disadvantages of LIFO. First, LIFO understates profit compared to other inventory cost flow assumptions. The understated profit does not faithfully represent the firm’s financial performance, and is not likely to be as relevant to capital providers as profit under other inventory cost flow assumptions. Second, profit can be greatly overstated upon LIFO liquidation when ‘preserved’ older ‘layers’ of inventory are presumed to have been used when inventories are substantially reduced. It is more likely in these circumstances that relatively new inventories will have been used to meet the increased demands on inventory. In sum, the IASB (2003b) decided to eliminate the LIFO method because of its lack of representational faithfulness of inventory flows. This decision does not rule out specific-cost methods that reflect inventory flows that are similar to LIFO.

According to IASB (2003b), IFRS allows standard cost and retail method because if management uses standard cost and retail method for making operational and strategic decisions that affect future cash flows, such information could also be relevant and useful for capital providers in predicting future cash flows. Another reason is that the benefit of allowing these two methods for external reporting could be greater than the costs that preparers must incur as a result of converting inventory cost from these two methods to conform to another allowable cost flow assumption.

In applying the lower of cost or market (LCM) to inventory valuation, IFRS defines “market” as the net realizable value (NRV) or the net selling price which is in line with the fair value definition in IFRS 13, *Fair Value Measurement* (IASB, 2011).<sup>1</sup> The original cost always remains as the cost basis, therefore enhancing comparability as the cost basis of inventory across all firms is always the original cost. Maintaining the original cost as the cost basis is easier to understand for investors. A consequence of maintaining the original cost as the cost basis is that when NRV increases up to the original cost, previous write-downs to NRV must be reversed. The pro of this required reversal is that inventory value under IFRS would more faithfully represent its fair value which is relevant to stock valuation. The con is an increased

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<sup>1</sup> IFRS 13, *Fair Value Measurement*, defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (i.e., an exit price).

recordkeeping cost because a firm must always keep track of both the original cost and NRV of inventories. Therefore, these higher recordkeeping costs must be weighed against the benefits.

### **U.S. GAAP – Inventories**

Per FASB (2004), U.S. GAAP allows LIFO because of the LIFO tax conformity rule. The Internal Revenue Code specifies that in order for a firm to use LIFO for tax filing, it must also use LIFO for financial reporting. During price rising, LIFO results in the lowest taxable income and tax liability because it yields the highest cost of goods sold as a result of assigning the more recent higher purchase cost to goods sold, and the older/lower cost to ending inventories. To reduce taxes and retain more cash for other more productive purposes, the majority of U.S. firms choose LIFO for tax filing, thereby complying with the LIFO conformity rule by also using LIFO for financial reporting (Kieso et al., 2012). The cash saving from reduce taxes has a positive impact on the firm's cash flows and stock price. From a preparer perspective, this benefit to shareholders from cash/tax saving must be weighed against the higher recordkeeping cost of LIFO inventory layers/purchase history, and additional data analysis cost incurred by investors in adjusting the understated LIFO inventory and net income to FIFO numbers (Bloom and Cenker, 2009).

Based upon the conceptual framework, this intentional understatement of inventory and income under LIFO contradicts with faithful representation because the value of inventory and income is not neutral, i.e., it reflects management incentive to minimize tax liability (Bloom and Cenker, 2009). Financial analysts and investors normally adjust LIFO inventory to FIFO inventory using LIFO reserves provided in a note so that a firm's liquidity will not be understated, and return on assets and asset turnover will not be overstated (Kieso et al., 2012).

Without such adjustment, analysts and investors could make wrong conclusions when comparing the financial position and performance of a LIFO firm with a non-LIFO firm or an industry benchmark. This means that LIFO inventory and net income per se are not that useful for decision making.

According to FASB (2004), U.S. GAAP defines the term “market” in the LCM as the replacement cost (the purchase or reproduction cost) that is more objectively determined than the NRV, therefore supporting free from error and neutrality concepts as well as enhancing verifiability. The FASB realizes this significant understatement of ending inventories under LIFO, and mitigates this LIFO adverse impact by setting the floor (NRV less normal profit margin) for inventory valuation under LCM. To alleviate preparers' higher recordkeeping cost under LIFO, U.S. GAAP considers the lower market value as the new cost basis and prohibits a reversal of previous write-downs to market. This reversal prohibition may make it easier for investors to predict the firm's future profit and cash flows.

### **PROPERTY, PLANT AND EQUIPMENT (PPE)**

#### **IFRS – PPE**

IFRS allows the use of either the cost model or the revaluation (fair value) model for measurement of an entire class of PPE after initial recognition (IASB, 2003c). In other words, an entity is allowed to use the cost model for a class of PPE (e.g., machinery, motor vehicles) and the revaluation model for another PPE class (e.g., land, land and buildings).

An argument for the cost model is that it is more neutral and free-from-error, and faithfully represents the underlying purpose of PPE acquisition, i.e., for use in business operations. PPE is not acquired for resale, therefore the cost model is better at reflecting this economic reality of the intended use of PPE than the revaluation model. In addition, financial statements are prepared under a going concern assumption. Therefore, no consideration should be given to an alternative measurement such as the fair value that reflects a disposal which is more in line with a liquidating assumption than a going concern one. The cost model is also easier to verify and understand, and is less costly to implement than the revaluation model.

An argument for the revaluation model is that fair value is more relevant to capital providers in assessing the firm's valuation than the cost model because it provides better predictive value of a stock price as fair value more faithfully represents PPE's expected future economic benefits, i.e., cash flows to be derived from the PPE and uncertainties associated with cash flows. Paik (2009) documents that PPE revaluation reserves of common law countries including Australia, India and U.K. are value relevant. These relevance and faithful representation concepts are further enhanced by the IFRS requirement that the revalued amounts should not differ materially from fair value at the balance sheet date. Fair value of fixed assets is timely because it reflects changes in economic conditions when those conditions change (Aboody et al., 1999). Fair value is comparable because it is based on the current characteristics of the PPE being measured – not on when it was acquired (Barth 2008). Fair value also enhances consistency, a dimension of comparability, because it reflects the same type of information in every period (IASB, 2005; Barth, 2006). Fair value can be objective, neutral and verifiable if it is based on asset price observed in an active and efficient market, not on subjective management estimates or when market is not efficient (Biondi and Suzuki, 2007).

Because each model has its pros and cons, the principles-based IFRS allows preparers to choose between these two models based upon the materiality concept and the pervasive constraint of costs vs. benefits. However, allowing preparers to use a different model for a different class of PPE could provide preparers with an opportunity to massage accounting numbers. For example, if land's fair value appreciates whereas office equipment's fair value depreciates, preparers may choose the revaluation model for land in order to increase assets and stockholders' equity, and the cost model for office equipment to avoid a write-down that will adversely affect profit.

Based upon the conceptual framework, the fact that land's fair value is appreciating whereas office equipment's fair value is depreciating is irrelevant because preparers should not choose an accounting treatment based upon a desire to inflate assets, profit and stockholders' equity. Instead, preparers should use the cost-benefit constraint to guide them toward an appropriate accounting choice. That is if costs of estimating fair value of so many office equipment items at several locations around the world outweighs its benefits, preparers may want to choose the cost model for valuation of office equipment. On the other hand, if it is not that costly and time-consuming to appraise land, management may want to use the revaluation model for land due to its fair-value benefits of higher relevance and faithful representation. The fact that the value of land is typically more material (as a percentage of total assets) than that of office equipment could also justify the use of revaluation model that is far costlier to apply than the cost model.

Allowing preparers to choose between the two models for each class of PPE could certainly compromise comparability and understandability of PPE information. In an attempt to improve the comparability and reduce investors' information analysis costs, entities that comply

with IFRS generally use the same model as their peers in the same industry. Such model tends to be the cost model due to its much lower implementation costs than the revaluation model.<sup>2</sup>

Another weakness of the revaluation model is its requirement to recognize a revaluation increase as an increase in equity and a revaluation decrease as an expense, i.e., a decrease in profit. Such requirement seems to be based upon conservatism, the principle that is not part of the conceptual framework. It is also inconsistent with the concept of physical capital maintenance that views all price changes affecting the assets as changes in the measurement of the physical productive capacity of the entity, hence treats these changes as capital maintenance adjustments that are part of equity, and not as profit or loss. To be consistent with the concept of physical capital maintenance, both revaluation increase and decrease should be recorded in stockholders' equity.

IFRS requires a separate depreciation for significant PPE parts for which different depreciation methods or useful lives are appropriate. This "component depreciation" provides capital providers with more detailed information on PPE components and management's stewardship over such assets. This could improve the relevance and the faithful representation of PPE depreciation because it portrays the pattern in which an entity expect to consume the asset's future economic benefits, and reflects a more accurate estimate of a decline in PPE service potential. However, in practice, many entities that use IFRS do not at all mention the component depreciation in a note on PPE. This raises an important question of whether these entities properly follow the component depreciation approach, or the higher implementation costs of this component approach lead these entities to make a biased judgment that it is not appropriate to depreciate each significant PPE part separately.

### **U.S. GAAP – PPE**

U.S. GAAP requires the cost model for valuation of all PPE because of its advantages discussed earlier. The revaluation model is not allowed because the relevance and the faithful representation of fair value may be negated by the fact that PPE fair values other than that of real property are generally at level 3 (unobservable inputs). Song et al. (2010) find that level 3 fair values are less relevant to firm valuation than level 1 and level 2 fair values, and that the value relevance of fair values depend on the firm's corporate governance, i.e., weaker corporate governance may reduce the relevance of these measures. Opponents of fair value accounting also argue that level-3 fair value measurements are less verifiable by investors, subject to greater estimation error by management, and prone to greater managerial manipulation. These weaknesses create information asymmetry between investors and managers that can be serious threat to the faithful representation of fair values (Landsman 2007; Penman 2007). Requiring only the cost model enhances comparability across companies and improves understandability of PPE information because investors can safely assume that all PPE are valued using the cost model.

About PPE depreciation, U.S. GAAP requires the use of only one method for depreciating the total cost of PPE, i.e., no separate depreciation for each significant PPE part. This U.S. GAAP "holistic view" of depreciation likely has higher comparability and verifiability than that of the IFRS "component" approach. This simple holistic view is also less costly to apply and easier to understand. However, it likely has lower relevance and faithful

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<sup>2</sup> A survey by KPMG and Keitz (2006) reports that fair value option is rarely used for PPE, i.e., only 2% of their sample firms from 16 countries used the revaluation model.

representation, therefore may be less useful for capital providers than the IFRS component approach.

## **INTANGIBLES WITH A LIMITED USEFUL LIFE**

### **IFRS – Intangibles**

IFRS allows the use of fair value only for intangibles with an active secondary market because the IASB realizes that fair value of many intangibles which do not have an active secondary market is too subjective to be “free from error” and value relevant as it is based upon unobservable, firm-generated inputs. Because intangibles such as patents, copyrights and computer software costs do not have an active secondary market, they are valued at cost – the same as under U.S. GAAP (KPMG and Keitz, 2006).

IFRS requires capitalization of development costs when a firm can demonstrate technical and commercial feasibility of a research & development (R&D) project (IASB, 2008). These technical and commercial feasibility criteria serve to validate that future economic benefits could be expected to arise from the asset, consistent with the definition of an asset and the recognition criteria per the conceptual framework. Such capitalization improves the relevance of R&D information because recognizing development costs as an intangible asset signals to investors that an entity has potentially successful products that could enhance its future cash flows. This information could be useful for assessing the firm’s cash flow prospects and firm valuation. Miyazaki and Aman (2008) finding that R&D is value-relevant to both the R&D firms and their rivals supports the IFRS capitalization of development expenditures as an internally generated intangible asset.

In practice, European pharmaceutical companies generally capitalize internal development expenses when marketing approval from the regulatory authority is obtained in a relevant major market such as for the U.S. or the EU (Novatis Group, 2013). With an exception of the pharmaceutical industry where there is a specific and reliable point for starting the capitalization of development costs, the process of differentiating research expenses from development costs may require too much judgment to result in any accounting information that faithfully represents the underlying economic phenomenon of an R&D project. It also provides an opportunity for preparers to manipulate earnings and assets. Recognizing these weaknesses of development-cost capitalization, IASB (2008) requires that, if indistinguishable, all R&D must be classified as research expenditures and expensed as incurred. However, “indistinguishable” also requires judgment. In addition, these considerable judgments regarding when research ends and development begins as well as whether they are indistinguishable could vary across companies, therefore, decreasing the comparability of capitalized development costs. Cultural values such as conservatism vs. optimism could also affect judgment as to when to start capitalizing development costs. Another cultural value, secrecy, would likely influence how much an entity is willing to include in note disclosure information about a product’s developmental stage that may be used against it by its competitors (Douznik and Perera, 2012).

### **U.S. GAAP – Intangibles**

With an exception of computer software development costs, U.S. GAAP requires recognition of all R&D expenditures as expenses as incurred because of the high uncertainty

associated with R&D future economic benefits. This full expensing approach eliminates management judgments, possible opportunistic behaviors, and the cultural effects related to the capitalization of development costs. This enhances the verifiability of R&D number and its comparability across companies.

There are, however, two weaknesses to this U.S.-GAAP full expensing approach. First, it seems to be based upon conservatism, which is not part of the conceptual framework. Second, expensing all R&D costs could jeopardize the relevance and the faithful representation, the two fundamental characteristics of useful accounting information. Omission of intangibles from the balance sheet is a serious deficiency, particularly as value from modern businesses seems to come more from the intangible asset base (such as brands, distribution and supply chains, knowledge, human capital) than from physical or tangible assets (Penman, 2009). Financial statements of R&D intensive companies usually do not fully capture the economics of their R&D activities (Wyatt, 2008). Consequently, capital providers have to rely on other sources of information to assess the likelihood of successful product development of these companies, and its potential effect on future cash flows and firm value. This means higher information gathering and analysis costs of capital providers. Wyatt (2008) indicates in her review of research evidence on R&D that while R&D is generally value-relevant, R&D is not a reliable predictor of the timing and magnitude of future earnings and cash flows.

In sum, to capitalize or to expense R&D requires a thorough cost-benefit analysis. The value-relevance potential of capitalized R&D together with costs incurred by investors in gathering information not currently available in financial reports due to full expensing of R&D must be weighed against the relatively low reliability, comparability and verifiability of R&D capitalization.

## **IMPAIRMENT OF ASSETS**

### **IFRS - Impairment**

IFRS determines that an asset is impaired when its carrying amount exceeds its recoverable amount. The requirement that recoverable-amount measurement is the higher of net selling price and value in use faithfully represents the likely behavior of a rational management (IASB, 2004). If an asset's value in use is higher than its net selling price, management will likely retain the asset for use. An impairment loss will then be the excess of the carrying amount over the value in use. If an asset's net selling price is higher than its value in use, a rational management will sell the asset. In this situation, it is logical to base recoverable amount on the asset's net selling price to avoid recognizing an impairment loss that is unrelated to economic reality. However, if management decides to keep the asset, the extra loss (the difference between net selling price and value in use) properly falls in later periods because it results from management's decision in these later periods to keep the asset. To limit the risk of management's biased estimate of recoverable amount, IAS 36, *Intangible Assets*, requires a formal estimate of recoverable amount whenever there is an indication that an asset may be impaired, or an impairment loss may no longer exist or may have decreased. It also provides a relatively detailed (although not exhaustive) list of indicators that an asset may be impaired, and guidelines for the basis of management's projections of future cash flows to be used to estimate value in use.

A con of requiring an enterprise to determine both net selling price and value in use is an

increase in the implementation costs as preparers have to obtain both of these estimated amounts. Another weakness is a compromise to comparability across entities because impairment loss may be determined based on either net selling price or value in use, whichever is greater.

A reversal of impairment loss, if done properly, could be relevant to capital providers in assessing future cash flows of an entity because the reversal serves as a signal about an increase in expected future benefits of these assets. On the other hand, the requirement that impairment loss shall be reversed if, and only if, there has been a change in the *estimates* used to determine the asset's recoverable amount since the last impairment loss was recognized is quite judgmental, and may be abusively used by preparers to inflate earnings. Such potential abusive use violates "free-from-error" and neutrality, two important elements of faithful representation of accounting information. Massaged numbers would also lose their predictive and confirmatory value, and would not be relevant and useful for decision making. Reversals of impairment losses coupled with the use of discounted cash flows (value in use) in determining whether an asset is impaired could introduce a volatile element into the income statement, therefore making it harder for investors to understand the performance of an enterprise and to predict its future profit.

For goodwill, IFRS requires an annual impairment test at either a cash generating unit (CGU) or a group of CGUs.<sup>3</sup> The use of CGU faithfully represents the notion that goodwill acquired in a business combination represents a payment made by an acquirer in anticipation of future cash flows from assets. Goodwill impairment reflects a decline in cash-generating capability of these assets, and therefore, should be tested at a CGU level. IAS 36 provides guidance and examples for identifying cash-generating units and for determining the carrying amount of cash-generating units. Empirical results of AbuGhazaleh et al. (2012) reveal a significant negative association between reported goodwill impairment losses and market value of U.K. firms, suggesting that these impairments are perceived by investors to reliably measure a decline in the value of goodwill and incorporated in their firm valuation assessments.

### **U.S. GAAP – Impairment**

According to FASB (2001), impairment loss determination per U.S. GAAP involves two steps. First, an asset is impaired when its carrying amount exceeds its undiscounted future cash flows expected to arise from its continued use and disposal. Second, impairment loss is computed as the excess of carrying amount over its fair value. The use of undiscounted cash flows, which is consistent with the historical cost framework, decreases the number of impairment losses recognized relative to IFRS requirement because it avoids recognizing temporary impairment losses, therefore lessening earnings volatility and making it easier to predict future earnings given that impairment-loss reversal is also prohibited. It is also less costly to apply because there is no need to estimate an appropriate discount rate. However, using undiscounted cash flows is inappropriate because it does not faithfully represent the economic value of assets that is based upon time value of money, a crucial element of a sound investment decision (IASB, 2004). It is also inconsistent with how stock price is valued as the present value of future cash flows expected to be generated by an entity.

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<sup>3</sup> Cash generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. An example of a CGU is each store of a retailing company.

Per the discussion in IASB (2004), this two-step process also seems disconnected and biased against recognizing impairment loss for an asset with long useful life because the bases for recognition and measurement of an impairment loss are different. For example, even if the fair value of an asset is lower than its carrying amount, no impairment loss will be recognized if the sum of undiscounted cash flows is greater than the asset's carrying amount. This might occur, especially if an asset has a long useful life. This makes U.S. GAAP impairment accounting less understandable and less neutral than that of IFRS. Another weakness is that the use of fair value (net selling price) to compute impairment loss does not faithfully reflects the likely behavior of a rational management especially for assets that have no secondary market, i.e., they were developed specifically for an entity and are of no value to other entities. These assets' fair value would likely be smaller than its value in use, and a rational management may not want to sell it even when its undiscounted future cash flows are below its carrying amount. In this situation, the use of fair value in measuring impairment loss does not faithfully represent economic benefits that the entity expects to derive from continual use of these assets, and the impairment loss will be overstated, making earnings and reported asset value less relevant to investors in assessing cash flow prospects of the entity (IASB, 2004).

According to FASB (2001), U.S. GAAP prohibits the reversal of previously recognized impairment loss because it used a higher threshold of undiscounted cash flows for recognizing impairment losses. This higher threshold likely triggers "permanent" as opposed to "temporary" impairment recognition, hence there is no need for a reversal of "permanent" impairment loss. Although prohibiting the reversal of previously recognized impairment loss may decrease earning volatility and increase predictive value of earnings, it could make the accounting numbers less relevant for assessing cash flow prospects of an entity. Prohibiting reversals of impairment losses may also lead to abuses such as recording a significant loss one year with the resulting lower amortization/depreciation charge and higher profits in subsequent years (IASB, 2004). On the other hand, prohibiting the reversal could help with verifiability because auditors would not have to verify whether the reversal is appropriate. It is also less costly to implement for preparers because they do not need to formally estimate undiscounted future cash flows even when there is an indication that an impairment loss may no longer exist or may have decreased.

U.S. GAAP requires an annual goodwill-impairment test at the reporting unit level that may be higher in an organizational hierarchy than a CGU level used in IFRS. The test at the reporting unit level could be more relevant to managers and capital providers because this level is typically where strategic and operational decisions and material performance evaluation are made. Strategic and operational decisions of management likely affect the entity's future cash flows that capital providers want to assess. The concept of reporting unit level that reflects the way an entity manages its operations also seems to have higher understandability for capital providers than the concept of CGU that normally requires more detailed explanation. However, the use of a reporting unit level which may be higher than a CGU level may prevent a recognition of a goodwill impairment loss that management knows exists at a CGU, but which 'disappears' once this lower level unit was aggregated with other units containing sufficient 'cushions' to offset the impairment loss (IASB, 2004). This could compromise the relevance and the faithful representation of financial reporting.

## STATEMENT OF CASH FLOWS

U.S. GAAP specification that, when using the indirect method, the reconciliation to cash flows must start with net income likely enhances comparability than IFRS permission to reconcile any measure of income to cash flows (Doupnik and Perera, 2012). Regarding the direct method, U.S. GAAP requirement for reconciliation from net income to operating cash flows provides more complete information than IFRS that does not have the requirement. This U.S. GAAP requirement also enhances comparability of cash flow statements of entities that use the direct method with those that use the indirect method (Kieso et al., 2012). U.S. GAAP classification of bank overdraft as a financing activity is more relevant and more faithfully represents this bank borrowing than IFRS permission to include bank overdraft as a reduction in cash equivalents.

Regarding the classification of dividends and interest paid or received, neither IFRS nor U.S. GAAP seems to be in full compliance with relevance and faithful representation. IFRS approach of allowing preparers to choose may be abused by unethical preparers who want to overstate operating cash flows by reporting dividends and interest received under operating activities, and dividends and interest paid under financing activities. This potential abuse does not only violate the relevance and the faithful representation of operating cash flows but also jeopardize the comparability of cash flow statements across companies. U.S. GAAP also has a flaw because dividends and interest received are more related to investing activities than operating activities of selling goods/services and incurring related expenses. Similarly, interest paid is more related to financing activities than operating activities. According to the proposed presentation of cash flow statements per the joint convergence project, *Financial Statement Presentation* (IASB, 2008), dividends and interest received would be classified as investing activities, and dividend and interest paid would be classified as financing activities.

## CONCLUSIONS AND CONTRIBUTIONS

This article aims to promote the use of principles-based approach to teaching IFRS by providing detailed teaching notes concerning five topics commonly covered in intermediate accounting and international accounting courses. The article makes four major contributions to an accounting-education profession. First, it answers the call of many academicians and the IFRS Foundation for using the conceptual framework to teach accounting. Second, its detailed teaching notes serve as valuable resources for educators who would like to use the framework-based teaching approach, but are not familiar with such approach because they were not taught this way and no accounting textbooks provide such detailed framework-based teaching notes. Third, educators who want to use this approach to teach other accounting topics could thoroughly study the conceptual framework and use this article's teaching notes as examples for how to apply framework concepts to other topics. Fourth, it benefits students because the principles-based/framework-based teaching approach helps enhance their critical thinking ability and improves their profession judgment that is so crucial for their career success and for a future generation of an accounting profession that desires to affect improvement in financial reporting.

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