Accounting for financial instruments with characteristics of debt and equity: Finding a way forward

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Abstract

Accounting for compound financial instruments, that is, those with characteristics of both debt and equity has challenged accounting standard setters for decades. The principles developed to distinguish liabilities and equity and the application of these principles in IAS 32 have been widely criticised. In 2016 the IASB was engaged in a project to improve IAS 32. Our paper presents research that is relevant to the issues faced by standard setters, related to improving the definitions and enhancing presentation and disclosure of liabilities and equity. We discuss studies investigating the effects of the accounting classification requirements on firms’ financing choices and on users’ decision making. We then explore various approaches that may be pursued by the standard setters to improve accounting in this area.

JEL codes:

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1. Introduction

Determining the distinction between the elements of liabilities and equity is a fundamental accounting issue, which affects classification, measurement and presentation of items in the financial statements. The IASB’s Framework for the Preparation and Presentation of Financial Statements (IASC, 1989) (hereafter Framework) provides definitions of these elements. However, with equity defined as a residual the Framework provides only limited guidance for the classification of a transaction or event as representing a liability or equity. In addition, developments in the nature and complexity of compound financial instruments have made the traditional dichotomous classification even more complicated.\(^1\)

The underlying problem is that compound financial instruments have the characteristics of both liabilities and equity. International Accounting Standard 32 Financial Instruments: Presentation (IAS 32) (IASC, 1995) requires a compound financial instrument to be classified into its liability, asset and equity components as at the date of issue and reported thereafter in these pre-determined historical components. The initial classification of a financial instrument as a liability or equity determines whether interest, dividends, or changes in value relating to that instrument are recognised as income or expense.

The principles and application of IAS 32 have been widely criticised. In 2008 the IASB stated that there were two broad classes of criticisms of the approach in IAS 32. First, how the principles in IAS 32 should be applied and second, whether application of those principles results in an appropriate distinction between equity instruments and non-equity instruments (IASB, 2008:15). Critics claimed that application of IAS 32 resulted in inconsistent accounting in some situations or provided information that was not relevant or understandable (IASB, 2008: paras 27, 29).

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\(^1\) The issue is fundamental and long standing. In a 1927 article in The Accounting Review Thom asked “what information should be shown on the balance sheet in connection with preferred stock?” (Thom 1927). The answer proposed revolved around dividends, convertibility, assets and voting power. Ford (1969) referred to accounting problems due to the “increasing usage of convertible securities” in the 1960’s.
Consequently, standard setters face several challenges. Some have argued that the principles of IAS 32 are clear, but do not result in useful information (IASB, 2014a). In this vein, Botosan et al. (2005) questioned whether one approach to distinguishing debt from equity can meet the purposes of all users, when users differ in their information needs (e.g., related to solvency risk compared to equity valuation). IASB (2014a) noted that some constituents question the principles used to distinguish between liabilities and equity and the resulting accounting. PAAinE (2008: para 1.3) stated that the distinction between equity and liability ‘may have become an artificial construct rather than a faithful representation of empirical capital structures’. Relating to the application of IAS 32, the IASB has received considerable feedback about several specific areas of difficulty in applying the standard.2

Plans to modify and improve IAS 32 give rise to a number of questions. They include: (1) Does the standard have a clearly articulated principle for distinguishing between debt and equity? (2) How is the existing principle (or other guidance) applied? (3) Does application of the principle result in an appropriate distinction between equity and non-equity instruments? (4) If not, how can the existing principle and application be improved?3

The aim of our paper is to provide an overview of academic literature relevant to the topic of the classification of equity and debt. We search for evidence from academic studies which may be relevant to answering the questions stated above because such evidence may assist standards setters as they revise IAS 32. We also review possible future approaches available to standard setters when modifying IAS 32, to promote discussion and evaluation of alternative courses of action.

The literature we describe investigates companies’ choices of particular types of finance and financing structures, thereby indicating the classification of instruments as debt or

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2 They include: Interpreting the ‘fixed-for-fixed’ condition; accounting for convertible debt; identifying a contractual obligation; contingent settlement conditions; reassessment of classification; and accounting for grossed up dividends (IASB, 2014a: paras 21-44).

3 When explaining the criticisms of IAS 32, the IASB’s 2008 Discussion Paper stated that concerns related to how the principles should be applied and whether the application of those principles results in an appropriate distinction between equity and non-equity instruments (IASB, 2008: para 15).
equity is important to companies. We also describe studies that investigate the effect of classification on users’ decision making and in capital markets more broadly. We conclude there is a lack of research that can directly assist the IASB’s decision making regarding the definitions of liabilities and equity and the classification of compound instruments. Therefore, we also seek to identify areas where further research would be beneficial.

We argue that the literature indicates that a straightforward solution to classification is illusory given the complexity of compound instruments being examined. While research suggests that instruments have features more like equity or more like debt under particular definitions, these lines of research do not support a particular approach to determining an effective way to define equity and liabilities. We examine several approaches to the issues currently being considered by the standard setters, which include improving the definition and enhancing presentation and disclosure. We also discuss the limitations of extending the components approach to classification. Finally we propose that further consideration could be given to using a mezzanine category in the financial statements.

The remainder of our paper is structured as follows. Section 2 outlines the principles in the Framework and IAS 32 for distinguishing liabilities and equity. The definitions in the literature are compared and differences are noted. Section 3 provides information about the extent of use of compound financial instruments. In Section 4 we provide an overview of the type of problems experienced in practice when IAS 32 is applied. We then consider research that provides insights into these problems or is informative for standard setters regarding the effects of classification of debt and equity. Section 5 evaluates the possible ways in which the IASB could advance the project on Financial Instruments with the Characteristics of Equity. Section 6 concludes.

2. Defining debt and equity

2.1 Guidance from the Framework

The Framework lists the five elements of financial statements: assets, liabilities, equity, income and expenses. All transactions in accounting are classified into one of these
elements; and the assumption is that the classification captures the economic characteristics of the transaction (Framework para 4.2). The Framework provides definitions of the elements. An asset is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity and a liability is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits (Framework paras 4.4(a) and (b)).

Equity is the residual interest in the assets of the entity after deducting all its liabilities (Framework para 4.4(c)). Therefore the classification of items as liabilities also affects what qualifies as equity.

The Framework offers little guidance for categorising items as equity because a ‘residual’ does not have particular characteristics. However, PAAinE (2008: 27) argued that equity does have distinct characteristics. First, for an instrument to be classified as equity, the instrument must foresee an entitlement of the holder to a residual interest in the net assets of the entity. Second, the instrument must not encompass a present obligation to deliver economic benefits of the holder of the instrument. The authors stated that the residual-type entitlement implies that ‘this entitlement is subordinated to all other classes of capital’ (PAAinE 2008:28). It is therefore a variable entitlement and the holder participates in the ongoing profit or loss of the entity. Further, the authors argued that the Framework (para 4.20) refers to ownership interests, thus suggesting a connection between equity and ownership interest, but does not further explain ownership interests.

Based on the analysis presented in PAAinE (2008) the key principles for defining equity are based on an item not being a liability; that is, there is no present obligation to deliver economic benefits. In addition, the item represents a right to participate in profit or loss and an ownership interest. However, this guidance is unlikely to be sufficient for classification in all cases because of the nature of the classification problem. When an instrument has attributes of both equity and debt, classification is not straightforward and judgements must be made about the characteristics on which classification is made.

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4 These definitions are under review as part of the project to revise the Framework (IASB, 2016a).
There are two characteristics of instruments which are commonly considered as a basis for a conceptual distinction between debt and equity. The first approach, referred to as the liquidity or solvency approach, considers whether the entity has an obligation to transfer cash or other assets of the entity. The second approach, referred to as the ownership, residual (or valuation) approach, considers whether the returns to the instrument holder are independent of the entity’s performance (Botosan et al., 2005). Standard setters have made use of both these approaches, as described in the next section.

2.2 Accounting standards guidance and definitions

IAS 32 states the requirements for presentation and classification of financial instruments into financial assets, financial liabilities and equity instruments and provides guidance about the classification of interest, dividends and gains or losses on these instruments. The definitions in IAS 32 for liabilities and equity are more specific than those in the Framework, naming financial liabilities and equity instruments (not ‘interests’ as in the Framework). As shown in Table 1, IAS 32 defines a financial liability with reference to a contractual obligation to deliver cash or another financial asset to another entity or to exchange financial assets or liabilities with another entity under potentially favourable terms. The definition also has specific requirements in relation to a contract that will be settled in an entity’s own equity instruments.

The Framework (and IFRS 2) applies the liquidity or solvency approach, described above. In contrast, IAS 32 begins with the solvency approach and then adds to the liability classification by incorporating some elements of the ownership or residual approach. Thus, there are several instances where application of the Framework compared to IAS 32 results in different accounting outcomes (see IASB 2008: paras 30-31).


6 Classification of instruments which may or will be settled with an entity’s own equity is more complicated. A non-derivative contract will qualify for classification as equity when there is no contractual obligation for the issuer to deliver a variable number of its own equity instruments (the so called ‘fixed-test’). A derivative only qualifies for equity classification when it is settled by the issuer exchanging a fixed amount of cash or another financial asset for a fixed number of its own equity instruments (the ‘fixed-for-fixed’ test).
The definition of equity in IAS 32 is similar to that in the Framework; it refers to a contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. As with the Framework, the definition of liability would be applied first in the classification hierarchy (PAAinE 2008:29).

The IASB’s 2008 Discussion Paper noted that the principle in IAS 32 was straightforward: if a financial instrument does not meet the definition in IAS 32 of a financial asset or liability, it is classified as an equity instrument. That is, only financial instruments that evidence a residual interest in the assets of an entity after deducting all of the entity’s liabilities are classified as equity (IASB 2008: para 16). In this regard, the principle is similar to the relevant concepts in the Framework, as discussed above. However, IASB (2008) stated that problems arose in the application of this principle, relating to (a) determining whether a contractual obligation exists; (b) applying the fixed-for-fixed principle; and (c) determining whether a contingent settlement provision exists (IASB 2008: para 17).

IAS 32 has been revised on many occasions and several of these revisions concern the debt-equity distinction. Changes have been made to the definition (in 1995 and 2003) and to incorporate interpretation guidance into the standard (2003). Amendments in 2008 related to puttable financial instruments and obligations arising only on liquidation. See Table 2 for more details. The various amendments suggest that the underlying principle in IAS 32 was not being applied in a satisfactory way, possibly because the principle alone was not sufficient to deal with the complexity of the instruments.7

Nevertheless, concerns have remained following these amendments. Consequently, at

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7 A joint attempt by the IASB and Financial Accounting Standards Board (FASB) to develop a new model in which classification of an instrument was based on whether the instrument would be settled with assets or with equity instruments of the issuer was suspended in October 2010. Feedback from external reviewers raised significant concerns including: (1) There was a lack of clear principles; (2) the model could produce inconsistent results when applied to broadly similar instruments; and (3) the ‘specified for specified’ criterion was unclear and would be subject to the same difficulties of interpretation as the ‘fixed-for-fixed’ criterion (EY 2016: 3232).
June 2016 the IASB work plan included a research project *Financial Instruments with Characteristics of Equity* (IASB, 2016c) to investigate potential improvements in two areas. The first relates to the classification of liabilities and equity in IAS 32, including investigating potential amendments to the definitions of liabilities and equity in the Framework. The second relates to the presentation and disclosure requirements for financial instruments with characteristics of equity, irrespective of whether they are classified as liabilities or equity (IASB, 2016a). Present work of the standards setters in this project is making greater use of presentation and disclosure, by using more categories and disaggregations in the presentation information about liabilities and equity.\(^8\)

In summary, this section has reported on principles used to distinguish equity from liabilities in the Framework and IAS 32 and has outlined variations between the standard and the Framework. The differences arose as standard setters sought to improve the outcomes of applying IAS 32 by making various amendments to the standard. However, many criticisms of IAS 32 remain, suggesting that the principle and its application continue to have problems. We explore this further in the Section 4 where we consider issues in practice arising from the application of IAS 32 and present related finding of academic research.

3. **What is the extent of use of compound instruments?**

Before proceeding to the discussion of problems in practice we examine the extent of use of compound financial instruments.\(^9\) We present this material because it is relevant to understanding the pervasiveness of the problem for which changes to standards are being considered.

\(^8\) See, for example, paragraph 2 of *Financial Instruments with Characteristics of Equity research project, IFRS Staff paper 5A September 2016* (IASB, 2016).

\(^9\) We use ‘compound instruments’ to refer broadly to instruments that possess characteristics of both equity and liability. IAS 32 requires that for compound instruments which are non-derivatives, the equity and liability components are to be separated on initial recognition. Similarly, ‘hybrid securities’ is a generic term (e.g. used by the ASX) to describe a security that contains elements of debt and equity securities, and can therefore include an embedded derivative.
The extent of use of financial instruments with features of liabilities and equity is difficult to assess. Dutordoir et al. (2014:3) noted that US corporations raised a total of US$510 billion with convertible debt issues over the period 2000 to 2011. This compares with US$1,146 billion raised with seasoned equity issues, and US$6,635 billion raised with straight bond issues. Western European firms raised US$189 billion in convertible bonds over the period 2000 to 2011, and Japanese firms were reported to have raised US$112 billion in convertible bonds over the same period. These measures are based on samples of security offerings retrieved from Thomson One Banker’s New Issues database. Dutordoir et al. (2014) also observed an increase in convertible bonds issued in the US to qualified investors under rule 144A, rather than issued through public markets, with evidence that these convertible bonds catered to the hedging needs of arbitrageurs such as hedge funds.

In Australia the use of compound financial instruments is small but growing. Figure 1 and Table 3 shows the increasing capitalisation of the hybrid security segment on the Australian Securities Exchange (ASX). The broad categories are convertible or converting debt securities, preference shares, and capital notes that include debt securities with equity-like features.

4. Classification problems in practice and insights from research

In this section we explain problems with the principles and application of IAS 32. We then review related research for insights relevant to standard setters. Classification as debt or equity is important for investors and other users of financial information. The classification will affect the initial and subsequent measurement of the instrument. For example, an instrument classified as a liability may be subsequently re-measured while an equity instrument is not re-measured. Classification will also affect the treatment of yield in the financial statements; for example, compare the treatment of dividends (equity) to interest expense (debt). Therefore classification will impact on earnings.
metrics, with consequential impact on various outcomes that reflect earnings numbers such as share prices, investment decisions and executive remuneration.

4.1 Practical problems – preparers and users
As explained in Section 2 there is a principle for debt-equity classification in IAS 32. However, EY (2016: 3236) states that application of the principle is ‘often far from straightforward’. The classification involves two steps. The entity must first consider whether the individual instrument or class of instruments issued by the entity is a financial liability or equity. Second, if the entity settles an obligation using instruments issued by itself that, when considered in isolation, could be classified as equity, IAS 32 requires the entity to consider if the instrument is a financial liability (IAS 32:16). The classification is made on initial recognition and is generally not changed subsequently.

The application of the definitions in IAS 32 (see Table 1) means that an instrument is an equity instrument only when it does not include a contractual obligation to deliver cash or another financial asset; or to exchange a financial liability or financial asset with another entity under conditions that are potentially unfavourable to the issuer. Thus, an instrument is equity under IAS 32 if the issuer has an unconditional right to avoid delivering cash or another financial instrument or (if it is settled through its own equity instruments) it is an exchange of a fixed amount of cash for a fixed number of the entity’s own equity instruments. In all other cases it would be classified as a financial liability.10

Thus the critical feature in differentiating a financial liability from an equity instrument is the contractual obligation of the issuer of the financial instrument to deliver cash or another financial instrument to the holder, or to exchange financial assets or financial liabilities with the holder under conditions that are potentially unfavourable to the

10We note that the approach of IAS 32 differs to that in International Financial Reporting Standard 2 Share-based Payment (IFRS 2) (IASB, 2004). IFRS 2 treats any transaction within its scope that can be settled only in shares or other equity instrument as an equity instrument (which is consistent with the Framework). Unlike in IAS 32, whether the number of shares to be delivered is fixed or variable is not a decision factor in IFRS 2. The inconsistency in approach between the two standards is a matter to be addressed in future work of the IASB. See Appendix 2 for a summary of the current rules in IAS 32 and IFRS 2.
issuer. IAS 32 focuses on contractual rights and obligations not on probabilities of outflows of cash and other resources associated with the those rights.\textsuperscript{11} Examples of classification issues in practice are shown in Table 4. The example of contingently convertible bonds illustrates classification hinging on seemingly minor terms with no consideration of likelihood.

IAS 32 requires the financial instrument to be classified based on substance over form (IAS 32:15). While they may be commonly the same, there are cases where items are equity in legal form but liabilities in substance (e.g. some preference shares and units in open ended funds or unit trusts. See the example in Table 4 – units issued by a limited life trust). The opposite can also occur – instruments which are in practical terms perpetual debt must be classified as equity instruments. Also, ‘substance’ is often determined by considering the legal rights of the holder of the financial instrument, thus pointing to the importance of legal conditions in dictating classification. See Table 4 example – long dated redeemable preference shares.

Securities with features of debt and equity can be designed with a wide range of complex features. For example, coupons can be linked to variable or fixed interest rate benchmarks, company earnings, earnings of a sub-set of company assets, or commodity prices. Principal repayments can be due over varying periods, typically from 12 months to 10 years, or never (for perpetual instruments). Conversion can be on a specific date, linked to an event (such as an initial public offering or asset beginning production), or dependent on a share price or index threshold. Conversion can be automatic or at the issuer’s or lender’s option. The number of shares issued on conversion can be fixed or may vary in response to changes in the share price. The conversion can also be subject to anti-dilution adjustments that compensate for share splits, large dividends, capital reductions or significant new share issues.

\textsuperscript{11} In determining whether to recognise a provision under International Accounting Standard 37 Provisions, Contingent Liabilities and Contingent Assets (IAS 37) (IASC, 1998) the probability of an outflow is considered. This is based on the liability definition and recognition criteria of the Framework. Prior versions of IAS 32 contained a probability hurdle in relation to liabilities, which was removed in the 2003 revisions.
Each feature of compound or hybrid instruments can be selected so as to create instruments that cover each point in the spectrum, from a simple debt instrument with fixed interest and principal repayments to an instrument that is effectively a traditional ordinary share. Each feature needs to be analysed under IAS 32 to determine whether it is a separate component, whether that component is liability, equity or derivative in nature, or whether the feature affects the classification of another component. Problems in the various practices may relate to difficulties in determining the value of components or determining the treatment of an unusual redemption premium. See the example in Table 4 – short term convertible notes.

[Insert Table 4]

The discussion in this section outlines problems faced by practitioners in applying the debt-equity distinction. In the next section we discuss research that has investigated the effects of debt-equity classification for practitioners. There is little research that is specific to IFRS companies and IAS 32. Most research has been conducted in the US and is based on companies and information users operating in US capital markets. On the one hand, the research is relevant because the classification issues are similar in US GAAP and IFRS. However, it should be noted that some research findings may be specific to particular aspects of US GAAP (applicable at certain times) and may be influenced by the US regulatory setting.

4.2 Insights from research

A number of academic papers present evidence related to the topic of compound financial instruments (see Appendix 3). There are several commentary papers, which provide an overview of issues related to US GAAP. Schmidt (2013) discussed issues related to IFRS (Panel A in Appendix 3). Empirical research provides insights about a number of issues, which are discussed in the following two sections. First, we review studies relevant to understanding the effect of accounting rules on what instruments are issued and how those instruments are structured (Panel B). Second, we explore evidence about how users interpret information about hybrid instruments and the market reaction to the hybrid security classification (Panels C, D and E). In some cases, we refer only briefly to the content of the studies. Additional details are available in Appendix 3.
4.2.1 Effect of accounting rules on what instruments are issued and how those instruments are structured

There is an extensive literature on how companies select between financing instruments. This literature suggests that classification according to accounting standards is an important issue which affects firms' behaviour. Companies seek financing instruments with classifications that suit their objectives regarding preferred capital structure.\(^\text{12}\) Overall, the literature concludes that companies appear to make their choice of financing instruments as if they have a target level of debt in mind. The target level of debt is a function of company size, bankruptcy risk, asset composition, interest expense, and tax savings. (e.g. Levi and Segal, 2015, Marsh, 1982).

In a recent review of research on convertible bond financing, Dutordoir et al. (2014) identified four motivations for issuing convertible bonds: backdoor-equity financing; risk shifting to reduce agency costs (shareholders share in cash flows from high-risk strategies with convertible bondholders); allaying uncertainty where there is an assumption of information asymmetry between managers and outside investors and the conversion option is valued to result in a fairly priced security; and sequential financing if the firm is unable to issue equity. The authors concluded that the research does not support any one particular model, suggesting that different motivations for convertibles apply to firms in different situations. Similarly, when considering the design of convertible securities Lewis and Verwijmeren (2011) found that fixed income claims are chosen to reduce tax, minimise refinancing costs, and help mitigate managerial discretion.

\(^{12}\) Two quotes illustrate motivations behind companies’ choices regarding financing structure. EY (EY 2016. International GAAP 2016, London, John Wiley & Sons Ltd) describes the ‘holy grail’ of financial instrument accounting as devising ‘an instrument regarded as a liability by the tax authorities (such that costs of servicing it are tax deductible) but treated as equity for accounting and/or regulatory purposes (so that the instrument is not considered as a component of net borrowing).’ World Accounting Report (1991) states: ‘The dream of every finance executive is a hybrid instrument, which is classified as equity when calculating gearing ratios, but does not dilute ordinary shares and share price, is as cheap as debt, and whose return ranks as interest for tax purposes.’ (Anonymous, World Accounting Report, May 1991, p. 11).
Prior research documents that one reason companies issue compound securities is to avoid classifying the new financing as a liability and increasing leverage. A series of papers from the US has documented the design of compound instruments to selectively classify the instruments as equity, to reduce reported debt for financial reporting purposes or to gain tax benefits from the deduction of coupon payments (e.g. Engel et al., 1999, King and Ortegren, 1988, Levi and Segal, 2015). Scott et al. (2011) presented evidence about the classification of convertible debt based on a components approach for Canadian firms in the period 1996-2003. The authors concluded that the classification discretion available allowed firms to structure their convertible debt to achieve debt minimisation on the balance sheet. There is also evidence suggesting US managers will structure convertible securities to gain favourable effects on diluted earnings per share (e.g. Marquardt and Wiedman (2007b), and Lewis and Verwijmeren (2014)). One conclusion based on this research is that, given incentives to strategically use compound securities to achieve particular classification outcomes, there is a need for a classification system that is less open to transaction structuring.

A limitation of these studies is that the evidence comes mainly from US firms and from periods of time when specific accounting standards allowed the examination of apparent structuring behaviour to be observed. Thus it may not be generalisable to other periods or to IFRS adopting firms. The evidence shows the effect of classification into the elements (liabilities, equity) on financing choices. However, it does not show how firms apply the classification principle and the extent to which applying the principle is a problem for them.

Studies also suggest that tax implications are a major factor in firms’ decisions to issue compound securities. For example, Seminogovas (2015) argued that differences in taxation and accounting between European Union (EU) member states created distortions in the treatment of compound financial instruments within cross-border groups and led to the amendment of the EU parent-subsidiary directive in 2014. Differences in tax law internationally introduce the possibility that the same financial instrument can be categorised as debt in one jurisdiction and equity in another, arguably providing tax planning opportunities for multinational firms (Johannesen,
The linkage between tax treatment and financial reporting are usually not relevant to standard setters. However, to the extent that management seeks to lower effective tax rates through the issue of compound securities that increase the use of debt in the financing mix, financial statements must adequately disclose the increased risk.

4.2.2 Impact for information users of accounting for compound securities

Few studies have investigated the effect of classification on the decision making of users of financial statement information. Hopkins (1996) investigated whether the balance sheet classification of financial instruments that include attributes of both debt and equity (i.e. mandatorily redeemable preferred stock) affected the stock price judgments of US buy-side financial analysts. The balance sheet classifications used in the experiment were liability, equity or mezzanine. The assumption of the study was that analysts do not have a ‘well-formed category of knowledge’ for hybrid securities (Hopkins, 1996: 36). The author found that analysts presented with the instrument classified as a liability predicted share prices that were higher those predicted by analysts presented with the instrument classified as equity and that the difference was linked to analysts’ understanding of debt and equity valuation effects. Further, the author showed that analysts’ judgements made more use of a category-based process when the instrument was classified as debt or equity and more use of an attribute-based decision process when the instrument was classified as mezzanine.

A working paper by Bispo et al. (2016) replicated the method of Hopkins (1996) in Brazil to evaluate the effect of balance sheet classification of a compound financial instrument on analysts’ judgements (estimation of target share prices). Fourteen analysts (twelve sell-side and two buy-side) took part in the experiment. The authors found that regardless of balance sheet classification of the compound financial instrument (based on IAS 32 and other approaches), analysts were likely to treat the instrument conservatively as a liability. Moreover, if the compound financial instrument was wholly classified as a liability and the company was highly leveraged, analysts marked down the share price.
There is a general lack of research about how analysts adjust forecasts of balance sheets, profit or loss and cash flows for compound securities. Clor-Proell et al. (2016) used an experiment to test how experienced US finance professionals incorporate disclosed features of compound financial instruments in credit-related judgements. The authors concluded that getting the classification right is not of primary importance for these experienced users, because they largely rely on the underlying features of the instrument to make their judgments. That is, the study showed that disclosing the features of the instrument is a key issue, of more importance than how the items are classified.

Clor-Proell et al. (2016) also examined the use of information on priority in liquidation, voting rights, settlement in cash versus stock, and dependence on profitability for payments to holders. They found that experienced users vary in their beliefs about which individual features are most important in distinguishing between liabilities and equity, pointing to the importance of disclosure. This type of research can highlight the relevance of specific disclosures but it does not address the practicality of mandating the disclosure of sufficient information for all instruments and for all entities.

Turning now from the effect of classification on individual analysts and considering the market as a whole, a few studies have investigated the relationship between hybrid securities and systematic risk. In the US Kimmel and Warfield (1995) reported that the market perception of a hybrid security was conditioned on attributes such as voting rights and conversion features. The authors concluded a dichotomous classification may not provide sufficient information about these securities. Similarly, Cheng et al (2003) concluded that a dichotomous classification was insufficient to provide representational faithfulness regarding reporting of hybrid securities (in their study, redeemable preference securities). Terando et al. (2007) studied cash and share-put warrants in the US. They found market participants differentially valued the two types of warrants, based on solvency characteristics. The authors concluded the instruments should be reported separately on the balance sheet.

An Australian study explored the effects of changes in classification and disclosure
about hybrid financial instruments on systematic risk. Using data from the pre-IAS 32 period, Godfrey et al. (2010) investigated the introduction of AASB 1033 which required the classification of hybrid securities according to their economic substance rather than their legal form. The authors reported that firms’ systematic risk was significantly lower after they adopted the new classification. The authors concluded that the new accounting classification rules provided more transparent information to investors and reduced information asymmetry, but only after investors had observed the impact of the change on firms’ financial statements. Cross-sectional tests showed that the variation in systematic risk was negatively associated with firm size and positively associated with firm performance and leverage.

Peasnell (2013) proposed that, if financial statement users are well informed, then whether a claim is classified as a liability or equity is of little consequence. If users can recast the items on a balance sheet to the desired category at relatively low cost then disclosure is the more important issue rather than classification. The key issue is whether there is currently sufficient disclosure for information users to adjust the classifications adopted by firms to arrive at a different classification. Accounting standards commonly include disclosure requirements, to provide information to assist in the decision making process.

Research has also pointed to the importance of disclosure about compound financial instruments. During a period when only general disclosure requirements were in effect under SFAS 129 prior to 2004, Marquardt and Wiedman (2007a) provided descriptive evidence of inconsistent and inadequate disclosure of contingent convertible securities by US firms. The FASB subsequently issued guidance requiring disclosure of the conversion features and potential impact on EPS (FASB staff position 129-a (FASB, 2004)). After the issue of specific guidance Marquardt and Wiedman (2007a) found higher levels of specific disclosures, but only 42 per cent of the sample reach the highest level of disclosure according to the researchers’ disclosure scale.

A standard setter should not expect a user, in general, to have the time or skills to reconstruct the financial statements. However, for some accounting matters, disclosure can provide information to assist users when potentially relevant transactions or other
events have not been recognised in the financial statements. In other cases, disclosure can permit users to adjust the financial statements to determine the effects of an alternative accounting classification.

The more recent standards relating to financial instruments (e.g. IFRS 7 and IFRS 9) have extensive disclosure requirements. The extent to which investors find these disclosures helpful is the subject of discussion and debate (see for example, Bean and Irvine (2015)). However, it is unlikely that these disclosures provide sufficient information for financial statement users to attempt to reclassify a debt instrument as equity. The complexity of the features of the underlying instruments and the nature of the disclosures usually provided are unlikely to provide sufficient information to permit a reclassification by an investor or analyst.

Another approach in the literature is to determine whether the value associated with a security behaves more like debt or more like equity. For example, Barth, Hodder and Stubben (2013) determined empirically that employee stock options (ESOs) were more like warrants than options and are more equity-like in character. That is, the value of ESOs were negatively correlated with firm performance. However, Peasnell (2013) argued that there are many commitments that are recognised as liabilities where the value should vary positively with the performance of the firm. Another example, provided by Terando et al. (2007), showed that in the US in the pre-SFAS 150 period market participants differentially valued cash and share-put warrants based on their solvency characteristics regardless of the financial statement classification of the firm’s recorded assets and liabilities. The authors interpreted their results as evidence of the need for reporting complex financial instruments separately rather than in aggregate on a firm’s balance sheet.

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13 For example, some intangible assets and contingent liabilities are disclosed but not recognised.
14 Another example relates to the use of non-GAAP reporting to disclose additional information. National Australia Bank’s (NAB) non-GAAP cash earnings shows distributions on instruments classified as equity under IAS 32 as interest, thus signaling to investors the instrument should be treated as debt (NAB, 2016).
15 Financial analysts use models for the valuation of many types of compound securities. The input parameters to such models would necessarily rely on the disclosure of the contractual obligations for each particular instrument and may therefore require an excessive amount of disclosure.
4.3 Conclusion

This section has presented research that is relevant to understanding the effects of the debt-equity classification in accounting standards. However, current research goes only a small way to contributing evidence that would be useful for standard setters in their deliberations about changes to IAS 32. Botosan et al. (2005: 170) identified several areas where research could contribute and their calls for research are still timely. The authors stated that future research providing evidence relevant to determining classification principles and disclosure requirements that meet a variety of users’ needs would be useful, including evidence about the attributes of instruments that are used to distinguish debt and equity. They also called for more research about how classification affects users’ assessments of firms’ performance, risk and value. These questions are largely unaddressed in the academic literature for IFRS adopting firms.

Another issue of concern for researchers is the effect of the debt-equity classification on the financial statement data used in academic research. Most studies in accounting and finance use data from large-scale databases provided by commercial providers who in turn draw the data from companies’ published financial statements. The assumption of researchers is that the classifications of debt and equity can be relied upon in their various analyses. If researchers assume the classification captures the economic characteristics of elements (consistent with the assumption of the Framework) but classification does not do this, then inferences drawn from research may not be sound. The issue of accounting for compound securities may be of most concern in studies involving measurement of leverage, distance to default, or other aspects of risk.

5. Responses to the classification problem

In this section, we outline four ways standard setters could respond to the issues discussed above. They include: improving the definition of liability; revisiting the components approach; enhancing presentation and disclosure; and using a mezzanine category. Each of these is discussed in the following sections however they are not mutually exclusive.
5.1 Improve the definition of a liability

Standard setters often aim to write principle-based standards. This approach tries to accommodate varying commercial circumstances and to encourage financial statement preparers to take responsibility for making financial reporting decisions that reflect the underlying economic reality of their company’s position and performance.

However, the complexity of accounting for financial instruments has led to many rules in the relevant standards. As noted earlier, the distinction between liabilities and equity under IAS 32 is based on a principle but rules have been added over time to assist preparers when applying the standard. As more rules are added to a standard through modifications and interpretations, the ability to work around the rules to arrive at desired classification choices and financial reporting outcomes increases.17

Schmidt (2013) argued that standard setters appear reluctant to reconsider the use of a dichotomous classification based upon the existence of a contractual obligation. Standard setters have adjusted the dividing line between liabilities and equity, for example, by adding or removing exceptions but they have not reached agreement on approaches that challenge the basic debt-equity classification at a conceptual level.

Thus far, the standard setters’ experience of IAS 32 suggests that additional rules and guidance to make the liability-equity distinction clearer is unlikely to achieve consistency and comparability in the classification of compound instruments. Standard setters are unlikely to be able to arrive at definitions for assets, liabilities and equity that are broad enough to accommodate commercial variation yet tight enough to avoid transaction structuring.

Preparers may, at times, have incentives to pursue a form over substance approach to achieve a specific financial reporting outcome. In addition, the nature and variety of compound instruments on offer will continue to evolve, such that new instruments will be produced in response to any changes in rules regarding the classification of

compound instruments. It is not clear to us that modifying definitions of assets, liabilities and equity will on their own address the problems relating to the classification of compound instruments.

5.2 Improvements to the separation of components approach

In its present form IAS 32 requires the separation of compound financial instruments into their various constituent elements; liabilities, assets and equity instruments (IAS 32: 28). The component approach may solve some of the problems identified in our paper, because an instrument with mixed characteristics can be split into separate components that can be more readily identified as liabilities, assets and equity. However, the separate components approach will still require determining whether the different components meet the definition of liability, asset or equity. We thus revert back to the problems discussed in the preceding section. The components approach is predicated on a robust definition of the possible components and will not provide a solution if such definitions are not available or are easily circumvented.

Another problem is actually identifying the various components. In many cases there will be more than one way of dividing the instrument into different parts. For example, in January and May 2014 the IFRS Interpretations Committee discussed a compound instrument that could be divided in four different ways under the existing IAS 32 guidance (IASB, 2014b).\(^\text{18}\) It would be difficult to prescribe rules that dictate the division process so that all preparers end up with the same components. Another issue is that the different components will need to be measured for valuation purposes. Because the original instrument would have been issued in a single transaction, there is no exchange transaction that can be used as a reference point for the values of the different components. Thus the values will need to be calculated using appropriate models that are likely to require a number of estimated parameters. Typical examples of the parameters required include incremental borrowing cost, volatility, dividend yield and share price. There are often no similar or recent transactions to base these estimates on. In addition, the values are often highly sensitive to these parameters.

\(^{18}\) See IFRS Interpretations Committee Meeting May 2014 - Agenda Paper 10 (IASB, 2014), page 2, for more details of the four possible treatments.
Thus the valuation of components is a challenge and can result in a variety of estimates which may be non-comparable and unreliable.

Under the present standard the components are determined at the time of issue, and not revisited thereafter (IAS 32: 30). As the different components will be subject to different accounting rules, only some of these components will be revalued post initial recognition. For example, derivatives are remeasured to fair value, but liabilities are carried at amortised cost (using the effective interest rate method). Equity components are not remeasured at all. Thus the carrying value of some of the components will diverge from the underlying fair value over time. This relieves preparers from the task of repeating the complex valuation exercise for some components post issue, but any weaknesses in the original division will be carried forward for the life of the instrument and may be magnified over time.

In summary, we conclude that the solution lies in improving the components approach. The problems already discussed with the definitions of liability and equity are embedded in this approach. Practice shows the components approach has problems with regards to identifying and valuing the components that are not likely to be addressed by improvements to the rules and guidance in the existing standard.

5.3 Improve accounting through enhancing disclosure

If improving the definitions of liabilities and equity are unlikely to solve the classification problem, can accounting be improved by mandating additional disclosures? Although the disclosure requirements of IAS 32, IAS 39, IFRS 7 and IFRS 9 are already extensive, limited disclosure is required for compound financial instruments. Standard setters are sensitive to the costs and benefits of disclosure. Is it practical to mandate sufficient quality disclosures so that users are able to accurately assess the financial effects of these instruments?

Prior commentary points out that the dichotomous debt-equity classification provides information by focusing on only one characteristic related to the nature of the claim (e.g. solvency risk). However, the inherent complexity of the instruments cannot be addressed by a singular relevant characteristic such as ownership or subordination.
(Hopkins et al., 2009). Kimmel and Warfield (1993, 1995), Terando et al. (2007) and Schmidt (2013) concluded that a dichotomous classification approach cannot reflect the economic substance of compound instruments because the focus on a particular valuation characteristic is unlikely to meet the needs of information users in all cases.

Presently, the process of ordinary equity valuation benefits the least from existing disclosure requirements. IFRS 7 requires disclosure of an entity's exposure to risk arising from financial instruments (IFRS 7:IN5). The disclosure is to be based on information provided internally to key management personnel (IFRS 7:IN5 and 34). These disclosures are generally given at an aggregate level reflecting the exposures and risks of all financial instruments. No disclosure is required for instruments classified as equity. Consequently, a user would be challenged to accurately assess the value shifts between compound instrument holders and existing ordinary shareholders under the existing disclosure requirements. This omission emphasises the need for improvements in disclosure in this area.

Part of the solution may lie in the calculation of diluted EPS. A significant review of the existing International Accounting Standard 33 *Earnings per Share* (IASC, 1997) (IAS 33) is long overdue. Many of the methods in the existing standard were formulated in the 1960s. The requirements in the standard do not accommodate the significant developments in finance and accounting with regards to complex financial instruments since then. A robust set of principles and rules for dealing with compound instruments in diluted EPS is needed. An improvement would be to adopt a strict existing ordinary shareholders valuation approach and use fair value measurements and changes in fair value to calculate the impact on existing shareholders. Thus any changes in fair value that affect current shareholders that have not already been captured in the income statement should be used to adjust the earnings used in the diluted EPS calculation. This would build on the existing guidance in International Financial Reporting Standard 13 *Fair Value Measurement* (IASB, 2011) and create a more flexible approach better able to capture changes in market conditions. Fair value measurement is a broader concept and is more dependent on principles than the current rules-based and mechanical approach used in IAS 33.
While these additional disclosures may improve the current position, research highlights the difficulty of developing general guidelines that will result in adequate disclosure (Marquardt and Wiedman, 2007a). Further, research on the valuation of compound instruments suggests that the disclosure of a large number of parameters would be needed to adequately illustrate the valuation models presently used in financial analysis. Financial statement users would need to be provided with disclosures on the nature of claims including the voting rights associated with the claim, the claim’s maturity or perpetual nature, performance-related or fixed payments made to service the claim, conditions of settlement, means for settlement in cash or equity, obligations for forfeiture, and the level of subordination amongst other things (see Schmidt (2013)). Entities with multiple compound instruments, in particular, may find it difficult to provide all the necessary information.

Therefore we conclude that while additional disclosure would be helpful and is warranted, disclosure alone cannot rectify problems arising from the underlying classification and presentation of the instruments. Thus additional disclosures will not resolve the problems relating to classification of compound instruments.

5.4 Reconsidering the mezzanine approach
The limitations of the current responses to the debt-equity classification problem have been outlined in the previous sections. Our discussion highlights the difficulties of finding a satisfactory accounting solution through the approaches currently under consideration. Therefore we now present another possible approach, featuring a mezzanine category. While many different approaches have been considered by the standard setters, little attempt has been made to develop definitions that allow for a combination of liabilities and equity or a ‘mezzanine’ category between liabilities and equity. In the sections below, we discuss the presentation and disclosure in a mezzanine category and the related income statement effects.

5.4.1 Presentation and disclosure in a mezzanine category
Because of the difficulties in distinguishing between liabilities and equity, we believe it is timely to reconsider adopting a mezzanine category for compound instruments. An
instrument that has characteristics of both equity and liability could be included in the mezzanine section of the balance sheet, thus avoiding some of the judgements and complexity currently faced when trying to classify compound instruments. Using a mezzanine category would avoid the binary and sometimes arbitrary allocation into liabilities or equity and improve the quality of information available from the financial statements because the underlying nature of the compound instrument is recognised (i.e. the instrument has features of both debt and equity) rather than being forced into one category or the other.

The disclosure of compound instruments in a separate category would highlight any unusual characteristics and allow for a contrast with common debt or equity. The mezzanine presentation will respond to research that suggests that analysts only properly examine the attributes of instruments when they are classified in the mezzanine, but make certain assumptions or take certain attributes for granted when they are classified as either liabilities or equity (Hopkins, 1996). Showing compound instruments in a separate category highlights their complexity and helps increase users' awareness of their unusual features.

Definitions of liabilities and equity would still be required and they would apply to those instruments on the extreme ends of the scale. However, defining the instruments at each end of the spectrum is a simpler task than fitting compound instruments with their various conditions to current definitions of liabilities and equity. Under the mezzanine approach, equity would consist only of those instruments that currently represent a stake in the residual value of the entity and impose no obligation to transfer cash or other assets, generally ordinary shares and reserves directly related thereto. Debt would consist of instruments that do impose an obligation to transfer cash and must be settled by a fixed or determinable amount. Coupons payable against this debt only reflect the credit risk of the entity and the time value of money (i.e. instruments that would meet the current description of solely payments of principal and interest as specified in IFRS 9). Any other more complex instruments would be relegated to the mezzanine category.
The mezzanine category would include convertible bonds, preference shares, derivatives indexed to the entities’ own stock and contingently convertible bonds. While many instruments could fall into the mezzanine category, most companies would probably only have one or two of these instruments. Companies with more than one instrument in the mezzanine category could disclose them in an ordered way, for example, based on the contractual specificity of the instruments’ payoffs (Wahlen et al., 1999). Under this approach instruments whose payoffs depend on the entity’s performance may be ranked closer to equity, and those with a payoff specified in detail and linked to metrics independent of the business (such as LIBOR, BBSW or ASX S&P 500)\(^\text{19}\) would be ranked higher (or closer to debt). Another, simpler approach, may be to list the instruments in order of priority on liquidation.

The mezzanine category should be supported by disclosures to help users understand the impact of the instruments on solvency risk and potential dilution of, or constraints on, ordinary shareholders’ returns. A further suggestion in Ryan et al. (2001) is that the mezzanine be split into those claims that are:

1. Liabilities from a solvency perspective, and equity from a valuation perspective (such as obligations to transfer the cash equal to the fair value of a fixed number of shares); and

2. Equity from a solvency perspective and liabilities from a valuation perspective (such as an obligation to transfer a variable number of shares equal to a fixed dollar amount).\(^\text{20}\)

One of the key benefits of the mezzanine category is that it would remove the need to split compound instruments into components. Instruments with characteristics of both equity and debt would simply be included in the mezzanine category, with no need to split into components. This would significantly reduce the complexity of accounting for

\(^{19}\)LIBOR = London Interbank Offered Rate; BBSW = Bank Bill Swap Rate; ASX S&P 500 = The ASX S&P 500 share index.

\(^{20}\)The problem with Ryan’s (2001) approach is that it adds another dimension to the contractual specificity or bankruptcy order approaches mentioned earlier, and it is not obvious which dimension is better. Thus, it may be preferable for preparers to determine the approach used and order of the instruments, with sufficient disclosure provided to assist users to assess the contractual specificity, bankruptcy priority, solvency risk and ordinary equity valuation effects.
compound instruments. It would also help align the requirements of IFRS with US GAAP, because under US GAAP compound instruments are generally accounted for as debt or equity in their entirety, and not split into separate debt and equity components. The additional recommended disclosures, particularly around solvency risk and valuation of ordinary shareholders’ equity, will replace any information currently provided by split accounting.

5.4.2 Income statement effects of accounting for compound instruments

Under the current accounting rules changes in the value of some compound instruments are included in profit or loss. For example, when the compound instrument is classified as a derivative under IAS 32, IAS 39 and IFRS 9 the derivative would then be carried at fair value through profit or loss and thus the transfer of value from ordinary shareholders to other investors would be reflected in profit or loss. Similarly, the transfer of value may be captured if the compound instrument contains a derivative component under IAS 32. In this scenario, the standard effectively takes a narrow ordinary equity valuation perspective and indicates the value shifts between existing equity holders and other claimants.

In contrast, if the instrument is classified as equity, or results in an equity component, the subsequent accounting ignores changes in value or value shifts between these instrument holders and ordinary shareholders. The only information given in this case is the EPS or diluted EPS figures, both based on old calculation methods and determined in the absence of robust guidance reflecting today’s complex compound instruments. Thus more useful information on the impact of these instruments on ordinary equity valuation would be helpful to users.

A related issue is the treatment of these instruments’ yield in profit or loss. The current approach is to follow the balance sheet classification and reflect yields on debt instruments in profit or loss and equity yields within the statement of changes in equity.

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21 With the exception of certain convertible debt instruments that may be cash settled and bifurcated derivatives.

In addition, debt yields are adjusted to reflect the actual economic yield using the effective interest rate method, while only the cash flow to equity instrument holders is shown in the statement of changes in equity. This gives rise to questions about the best treatment for yields on mezzanine instruments and whether a mezzanine category is required for the income statement as well.

There is effectively a mezzanine category in the profit or loss statement already, that is, other comprehensive income (OCI). The OCI section presently includes items that can be broadly considered part of profit or loss for the period but their inclusion in profit or loss could undermine the relevance of that figure. Because the yields or restatement of mezzanine instruments may compromise the relevance of profit or loss, using OCI to also record these amounts would be appropriate. To maintain the simplicity of the approach, these amounts should include a full remeasurement to fair value of the mezzanine instruments each reporting period.

Schmidt (2013) suggested another approach for the income statement that would parallel the sequencing in the balance sheet suggested earlier in our paper. Earnings before interest and tax could be emphasised as a subtotal, followed by the yields on the various compound instruments in a specific order. The order would be based, as in the balance sheet, on the contractual specificity of the instruments yield, i.e. first instruments with a yield linked to a benchmark independent of the business (interest), then instruments with yields linked in varying degrees to the performance of the business and finally instruments with a yield solely linked to the performance of the business and payable at the discretion of the entity (dividends). Again, it may be preferable to leave the exact method to the discretion of the preparers with sufficient disclosure prescribed to allow for sequencing using other criteria and forecasting future yields.

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24 See Detzen (2016), Black (2016) and Bradbury (2016) for reviews of the development of the other comprehensive income section of the profit or loss statement.
25 This approach may not be consistent with the IASB’s current thinking on OCI (see ED: 7.23-24) and may require a reconsideration of the role of OCI as well.
26 Recycling would not be permitted because these gains and losses will have little relevance to future periods.
5.4.3 Criticisms of the mezzanine approach

The use of the mezzanine approach is, however, not without attendant difficulties. The category still requires robust definitions of liabilities and equity, to ensure the ‘dividing line’ between liability and mezzanine (and equity and mezzanine) results in meaningful differences between the instruments in each category. The application of the definitions will still be debatable and subject to judgement (as in the present environment) as companies seek to obtain particular classifications. Further, if the mezzanine category becomes too broad it will contain a large, heterogeneous class of instruments with a mix of features between the extremes of liabilities and equity.

The mezzanine category also creates issues for the structure of the profit or loss statement, in order to present in a suitable way items which may represent both interest expense and distributions to owners. In addition, using a mezzanine category does not alleviate difficulties associated with valuing and remeasuring financial instruments. Some items in the mezzanine that were previously in equity would be required to be remeasured, however it is unlikely there will be an active market for such instruments.

5.4.4 Prior use of a mezzanine category

The use of a mezzanine category in the balance sheet is not a new idea. SEC registrants have been required to use a mezzanine category (or temporary equity) since the release of Accounting Series Release No. 268, *Presentation in Financial Statements of “Redeemable Preferred Stocks”* (SEC, 1979) (ASR 268) in 1979. ASR 268 requires preferred securities that are redeemable for cash or other assets to be classified outside permanent equity if they are redeemable (1) at a fixed or determinable price on a fixed or determinable date, (2) at the option of the holder, or (3) upon the occurrence of an event that is not solely within the control of the issuer. With the introduction of SFAS 150 in 2003 some of these instruments were reclassified as liabilities, but ASR 268 is still applicable to securities not affected by SFAS 150 (primarily puttable or contingently redeemable equity securities). In the United Kingdom prior to the adoption of IFRS shareholders’ funds were split into equity and non-equity interests.

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27 These rules are now codified as ASC 480-10-S99.
under Financial Reporting Standard 4 – *Capital Instruments* (ASB, 1993). Non-equity interests were shares that had cash flows that were not linked to the company’s assets or profits or were redeemable at the option of the holder. Thus these non-equity interests were shares with some characteristics of debt.

Hopkins (1996) showed that the use of debt, equity or mezzanine classification affected analysts’ judgements about share prices. Removing the mezzanine category was one of the issues raised by Ryan et al. (2001) when commenting on the proposed SFAS 150. Constituents were concerned that SFAS 150 would move most compound instruments into the liability category, resulting in a diverse set of instruments in that category which would impair financial analysis. Similar comments were made by Wahlen et al. (1999:307) who stated ‘no single decision criterion can completely capture all purposes for distinguishing liabilities and equity... we believe that financial statement users will be best served by an orderly sequence of sufficient disaggregation of balance sheet and income statement elements’.

In issuing SFAS 150 the FASB did not seem to give much consideration to the use of a mezzanine category. The FASB recognised that introducing a new element would require changes to the conceptual framework, and they were reluctant to go down this route (SFAS 150 : B56). The FASB was concerned that “adding another element would set an undesirable precedent of adding elements whenever new instruments are created that are difficult to classify.” Similar reasoning was given for rejecting a mezzanine approach in the FASB’s Preliminary Views on Financial Instruments with Characteristics of Equity in 2007 (FASB, 2007:E10).

In their conceptual framework project, the IASB also came to the conclusion that the introduction of another element between liabilities and equity was not appropriate (Exposure Draft ED/2015/3 *Conceptual Framework for Financial Reporting* (ED) (IASB, 2015): BC4.96 and BC4.97). They stated that adding another element would make the classification and resulting accounting (and profit or loss treatment) even more complex than is the case currently (ED: BC4.97). The IASB’s conclusion was criticised by some of the respondents to the ED. Notably, the Accounting Standards Board of Japan thought that use of a mezzanine category remained the best way to deal with the
complexities associated with compound instruments (ASBJ, 2015:52). The Asian-Oceanian Standard-Setters Group also believed that the ‘three-category approach’ had been dismissed prematurely (AOSSG, 2015:23).

In summary, the mezzanine approach has been previously applied and is supported by some key interest groups. The use of a mezzanine category has not been fully considered by the IASB and FASB. A mezzanine category has some support in the literature and may present a simpler solution than that currently prescribed under IFRS. Schmidt (2013) concluded with: ‘After many decades of debating how to present claims to the entity’s assets, it seems fair to claim that new thinking may be required.’

6. Conclusion

Accounting for compound financial instruments, that is, those with characteristics of both debt and equity presents challenges for standard setters and practitioners. Our paper outlined the definitions of liabilities and equity in the Framework and IAS 32 and discussed problems arising in practice from the definitions and the principles for classification of equity and non-equity financial instruments. We also searched for relevant academic research on this topic. Most studies are based on US firms and their findings may not be transferable to IFRS adopting firms. Some studies suggest the requirements of accounting standards influence firms’ choices regarding financing structure and instruments. Other studies consider the impact of classification on investors’ decision making. However, we did not find studies investigating how firms apply the classification rules in accounting standards, which would be useful to standard setters for their deliberations on this topic. We discussed four approaches the standard setters could use in further work on the topic and highlighted various limitations in the current approaches. We conclude that further discussion of a mezzanine category for the classification of compound and hybrid instruments is warranted.


HOPKINS, P. E., BOTOSAN, C. A., BRADSHAW, M. T., CALLAHAN, C. M., CIESIELSKI, J., FARBER, D. B., KOHLBECK, M., HODDER, L., LAUX, R. J., STOBER, T. L., STOCKEN,


<table>
<thead>
<tr>
<th>Paragraph 11</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A financial liability</strong> is any liability that is:</td>
</tr>
<tr>
<td>. (a) a contractual obligation:</td>
</tr>
<tr>
<td>(i) to deliver cash or another financial asset to another entity; or</td>
</tr>
<tr>
<td>(ii) to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the entity; or</td>
</tr>
<tr>
<td>. (b) a contract that will or may be settled in the entity’s own equity instruments and is:</td>
</tr>
<tr>
<td>(i) a non-derivative for which the entity is or may be obliged to deliver a variable number of the entity’s own equity instruments; or</td>
</tr>
<tr>
<td>(ii) a derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity’s own equity instruments. For this purpose, rights, options or warrants to acquire a fixed number of the entity’s own equity instruments for a fixed amount of any currency are equity instruments if the entity offers the rights, options or warrants pro rata to all of its existing owners of the same class of its own non-derivative equity instruments. Also, for these purposes the entity’s own equity instruments do not include puttable financial instruments that are classified as equity instruments in accordance with paragraphs 16A and 16B, instruments that impose on the entity an obligation to deliver to another party a pro rata share of the net assets of the entity only on liquidation and are classified as equity instruments in accordance with paragraphs 16C and 16D, or instruments that are contracts for the future receipt or delivery of the entity’s own equity instruments.</td>
</tr>
</tbody>
</table>

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities.
Table 2 Relevant amendments to IAS 32

<table>
<thead>
<tr>
<th>Date</th>
<th>Amendment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>The definition of liability was extended to include an instrument that would be settled with a variable number of shares.</td>
</tr>
<tr>
<td>2003</td>
<td>The definition was further extended and the ‘fixed-for-fixed’ principle was introduced. Other changes related to settlement options and measuring components of a compound financial instrument (IAS32: IN12, IN13). In addition, guidance from interpretation committee decisions were added to the standard (IAS 32: IN 10, IN11).</td>
</tr>
<tr>
<td>2008</td>
<td>Relating to puttable financial instruments and obligations arising only on liquidation. As a result, some financial instruments that would have met the definition of financial liability will be classified as equity because they represent a residual interest in the net asset of an entity (IAS 32 16A-D).</td>
</tr>
</tbody>
</table>


Figure 1 Trend in market capitalisation of hybrids on the ASX

Source: Australian Securities Exchange (ASX) Hybrids Monthly Update
### Table 3 Market capitalisation of hybrids on the ASX

<table>
<thead>
<tr>
<th>As at July</th>
<th>Preference shares, capital notes(^{(a)}) (AUD billion)</th>
<th>Convertible bonds (AUD billion)</th>
<th>Total hybrids (AUD billion)</th>
<th>ASX Total market capitalisation (AUD billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>33.4</td>
<td>1.1</td>
<td>34.5</td>
<td>1,728</td>
</tr>
<tr>
<td>2015</td>
<td>28.8</td>
<td>1.2</td>
<td>30.0</td>
<td>1,686</td>
</tr>
<tr>
<td>2014</td>
<td>26.6</td>
<td>1.9</td>
<td>28.5</td>
<td>1,627</td>
</tr>
<tr>
<td>2013</td>
<td>21.6</td>
<td>1.9</td>
<td>23.5</td>
<td>1,421</td>
</tr>
<tr>
<td>2012</td>
<td>16.8</td>
<td>1.3</td>
<td>18.1</td>
<td>1,229</td>
</tr>
<tr>
<td>2011</td>
<td>15.5</td>
<td>1.3</td>
<td>16.8</td>
<td>1,307</td>
</tr>
<tr>
<td>2010</td>
<td>15.7</td>
<td>1.2</td>
<td>16.9</td>
<td>1,309</td>
</tr>
<tr>
<td>2009</td>
<td>12.7</td>
<td>2.1</td>
<td>14.8</td>
<td>1,193</td>
</tr>
<tr>
<td>2008</td>
<td>18.0</td>
<td>2.8</td>
<td>20.8</td>
<td>1,291</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Includes convertible preference shares.

Source: Australian Securities Exchange (ASX) Hybrids Monthly Update
<table>
<thead>
<tr>
<th>Compound instrument</th>
<th>Key terms / features</th>
<th>Classification under IAS 32</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short term convertible notes</td>
<td>Duration – 12 to 24 months&lt;br&gt;Converts into fixed number of shares, but subject to anti-dilution clauses&lt;br&gt;No coupon&lt;br&gt;Large redemption premium – 20 to 50 per cent of issue value</td>
<td>Liability with embedded equity component.&lt;br&gt;High volatility in underlying shares can lead to significant value allocated to the equity component.&lt;br&gt;The large redemption premium can result in a high effective interest rate charge in the income statement.</td>
<td>The split accounting required by IAS 32 results in complex accounting for this instrument. For small entities it can be difficult to value the two components. If the notes convert into shares based on the share price at the time of conversion (a variable number of shares) the entire instrument would be classified as debt. Some practitioners suggest that the redemption premium should be accrued almost immediately, resulting in a significant expense around the time of issue of the instrument.</td>
</tr>
<tr>
<td>Long-dated redeemable preference shares</td>
<td>Duration – 10 to 20 years&lt;br&gt;Pays dividend based on fixed interest rate or based on typical interest rate benchmark&lt;br&gt;Dividend subject to normal statutory restrictions and directors discretion&lt;br&gt;Dividend not cumulative, but if dividend unpaid no dividends can be paid to ordinary shareholders&lt;br&gt;Unpaid dividends may also trigger other rights, for example board of directors representation or loaded voting rights in shareholder meetings</td>
<td>Compound instrument with liability and equity component&lt;br&gt;Liability component based on present value of the amount payable on redemption (thus likely to be smaller component initially).&lt;br&gt;Various features designed to compel payment of dividend to preference shareholders, but economic compulsion not considered in classification of instrument.</td>
<td>This instrument is debt from an equity valuation perspective and would normally rank prior to ordinary shares in a liquidation. The dividends are also specified with reference to external benchmarks typically used by debt instruments. These types of instruments may also qualify as debt for tax purposes. The various mechanisms used to induce payment of the dividends may mean that the company has no real alternative to paying dividends on the instrument.</td>
</tr>
<tr>
<td>Contingently convertible bonds</td>
<td>Duration – 5 to 10 years&lt;br&gt;Pays dividend based on fixed interest rate or based on typical interest rate benchmark&lt;br&gt;Dividend not cumulative, but if dividend unpaid no dividends can be paid to ordinary shareholders</td>
<td>Instrument classified as a liability if it converts into a variable number of shares, or equity if a fixed number of shares.</td>
<td>Classification of the instrument can hinge on seemingly minor terms. Generally there is no consideration of the likelihood of the trigger event occurring, thus this clause can have a significant impact on the classification even though the probability of the event occurring could be quite small. In this case, this clause alone could result in an instrument that would otherwise be classified as equity</td>
</tr>
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</table>
| Units issued by limited life trust | Duration – 80 years  
Trust must distribute taxable income every year  
Assets distributed to unitholders when the trust is wound up at the end of 80 year life | The limited life of the trust and the requirement to distribute certain profits would result in liability classification.  
The instrument may qualify for the IAS 32.16E exemption that would allow for equity presentation in the entity's balance sheet. | This instrument is equity from an equity valuation perspective and would normally rank last in a liquidation.  
The returns on the instrument and rights to assets on liquidation are solely dependent on the entity's performance. The equity-like nature is supported by the fact that the paragraph 16E exemption exists. The exemption, however, does not apply to the presentation of non-controlling interests or to the treatment of investments in these types of instruments under the financial asset rules in IFRS 9.  
The same considerations would apply to a puttable instrument with similar features, except that the paragraph 16E exemption would not be available due to the requirement to distribute taxable income (IAS 32.16A(d)). |
## Appendix 1

### Accounting standards - financial instruments

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
<th>Source</th>
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<tr>
<td><strong>IAS 32 Financial Instruments: Presentation</strong></td>
<td>Reissued December 2003. Applies to annual periods beginning on or after 1 January 2005. Outlines the requirements for presentation of financial instruments, particularly the classification of such instruments into financial assets, financial liabilities and equity instruments. Provides guidance on classification of interest, dividends and gains/losses and when financial assets and liabilities can be offset. Amended in February 2008 for puttable instruments and obligations arising on liquidation. Following the amendment, some financial instruments that meet the definition of a financial liability will be classified as equity because they represent the residual interest in the next assets of the entity (IAS 32:16A-D). Amended in October 2009 for classification of rights issues. The amendment states that if rights relating to a fixed amount of foreign currency are issued pro rata to all existing shareholders (in the same class) for a fixed amount of currency, then they should be classified as equity.</td>
<td><a href="http://www.iasplus.com/en/standards/ias/ias32">http://www.iasplus.com/en/standards/ias/ias32</a></td>
</tr>
<tr>
<td><strong>IAS 39 Financial Instruments: Recognition and Measurement</strong></td>
<td>Reissued December 2003. Applies to annual periods beginning on or after 1 January 2005. Largely replaced by IFRS 9 for periods beginning on or after 1 January 2018. Outlines the requirements for the recognition and measurement of financial assets, financial liabilities, and some contracts to buy or sell non-financial items. Financial instruments are initially recognized when an entity becomes party to the contractual provisions of the instrument and are classified into various categories depending upon the type of instrument, which then determines the subsequent measurement of the instruments (typically amortized cost or fair value). Special rules apply to embedded derivatives and hedging instruments.</td>
<td><a href="http://www.iasplus.com/en/standards/ias/ias39">http://www.iasplus.com/en/standards/ias/ias39</a></td>
</tr>
<tr>
<td><strong>IFRS 7 Financial Instruments: Disclosures</strong></td>
<td>Issued August 2005. Applies to annual period beginning on or after 1 January 2007. Requires disclosure of information about the significance of financial instruments to an entity, and the natures an extent of risks arising from those financial instruments both in qualitative and quantitative terms. Specific disclosures are required in relation to transferred financial assets and a number of other matters.</td>
<td><a href="http://www.iasplus.com/en/standards/ifrs/ifrs7">http://www.iasplus.com/en/standards/ifrs/ifrs7</a></td>
</tr>
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</table>
### Appendix 2

#### Summary of liability and equity classification under IAS 32 and IFRS 2

<table>
<thead>
<tr>
<th></th>
<th>IAS 32</th>
<th>IFRS 2</th>
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<tbody>
<tr>
<td><strong>Liabilities</strong></td>
<td>● obligation to deliver cash or another financial asset. (^{(a)})</td>
<td>● obligation to transfer cash or other assets.</td>
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<td></td>
<td>● obligation (in a derivative or non-derivative)</td>
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<tr>
<td></td>
<td>to deliver a variable number of the entity's own equity instruments.</td>
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<td></td>
<td>● obligation (in a derivative only) that may or must be settled by</td>
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<td></td>
<td>exchanging a fixed number of the entity’s own equity instruments for</td>
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<tr>
<td></td>
<td>a variable amount of cash or other financial assets.</td>
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<td></td>
<td>● derivative obligation that allows either the holder or issuer to</td>
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<td></td>
<td>elect whether the holder is to settle in cash or in shares.</td>
<td></td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>● no obligation to deliver cash or other financial assets (and none</td>
<td>● no obligation to transfer cash or other assets.</td>
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<td></td>
<td>of the above features present).</td>
<td></td>
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<tr>
<td></td>
<td>● some puttable instruments that entitle the holder to a pro rata</td>
<td>● no obligation for the entity at all because another group entity or</td>
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<td></td>
<td>share of net assets on liquidation, or earlier repurchase.</td>
<td>other related party will settle the obligation.</td>
</tr>
<tr>
<td></td>
<td>● obligation to deliver a pro rata share of net assets only on</td>
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<tr>
<td></td>
<td>liquidation of the entity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● derivative that must be settled by exchanging a fixed number of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the entity’s own equity instruments for a fixed amount of cash or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>other financial assets.</td>
<td></td>
</tr>
</tbody>
</table>

\(^{(a)}\) or to exchange financial assets or financial liabilities under conditions that are potentially unfavourable.

Appendix 3 Bibliography of selected relevant literature

This appendix provides details of papers relevant to the topic of debt-equity classification. Papers are grouped into five panels based on topic and themes. Panel A includes commentary papers. Panel B includes studies about the effect of accounting rules which instruments are issued and how they are presented. Panel C includes studies about investor responses to classification. Panel D includes studies about market response to classification. Panel E includes presents a study about disclosure. Panel E includes studies about debt-equity classification and employee stock options.

<table>
<thead>
<tr>
<th>Overview</th>
<th>Paper</th>
<th>Abstract</th>
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<tbody>
<tr>
<td><strong>Panel A Commentary and fundamental analysis</strong></td>
<td>FASB. 2007, November. Preliminary views: Financial instruments with characteristics of equity. <em>Financial Accounting Series Number 1550–100</em>.</td>
<td>This Preliminary Views summarizes the Financial Accounting Standards Board’s (FASB) views on distinguishing between equity and liabilities or assets. In the course of its project on liabilities and equity, the Board has considered many approaches for distinguishing between equity and liabilities or assets. Three of those approaches (basic ownership, ownership-settlement, and reassessed expected outcomes [REO]) are described in this Preliminary Views. The Board has reached a preliminary view that the basic ownership approach provides more decision-useful information to investors while significantly simplifying accounting requirements for issuers and their auditors.</td>
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<tr>
<td>The first three papers set out the FASB’s preliminary views on the initial financial instruments with characteristics of equity project in 2007; the AAA response to those views and the AAA response to the exposure draft that became SFAS 150 in 2003.</td>
<td>HOPKINS, P. E., BOTOSAN, C. A., BRADSHAW, M. T., CALLAHAN, C. M., GIESIELSKI, J., FARBER, D. B., KOHLBECK, M., HODDER, L., LAUX, R. J., STOBER, T. L., STOCKEN, P. C. &amp; YOHN, T. L. 2009. Response to the FASB's Preliminary Views on Financial Instruments with the Characteristics of Equity. <em>Accounting Horizons</em>, 23, 85-100.</td>
<td>The FASB issued the PV in response to an &quot;increase in classification issues&quot; related to liabilities and equity. Although the FASB has considered numerous approaches for distinguishing debt and equity, the PV describes three possible equity-attribute-based approaches for distinguishing equity instruments from non-equity instruments (these non-equity instruments are usually liabilities, but some times are assets): basic-ownership (BO), ownership-settlement, and reassessed-expected outcomes. In summary, the Committee concludes that the principles underlying the BO approach are not clearly defined, are not appropriate given the extant conceptual framework, and will not simplify accounting for instruments that are within the scope of the PV.</td>
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<tr>
<td>This is followed by papers that present an accounting model for compound</td>
<td>RYAN, S. G., HERZ, R. H., IANNACONI, T. E.,</td>
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<tr>
<td>Source</td>
<td>Citation</td>
<td>Summary</td>
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<tr>
<td>MAINES, L. A., PALEPU, K., SCHRAND, C. M., SKINNER, D. J. &amp; VINCENT, L.</td>
<td>2001. Evaluation of the FASB's Proposed Accounting for Financial Instruments with Characteristics of Liabilities, Equity, or Both. <em>Accounting Horizons</em>, 15, 387-400.</td>
<td>Liabilities, Equity, or Both. The exposure draft classifies most complex financing instruments as liabilities, yielding a very heterogeneous set of liabilities and an artificially narrow set of equities. This decreases the usefulness of the balance sheet both for assessing a firm's solvency and for valuing its residual claims. The exposure draft does not clearly link the classification of financing instruments on the balance sheet to the related costs on the income statement, rendering analysis of the two financial statements through ratios such as return on equity difficult. The exposure draft's classification of hybrid and inseparable compound financing instruments relies on contractual provisions such as mandatory redemption rather than economic substance. The exposure draft bases the valuation of inseparable compound instruments on the relative fair values of the components, with embedded options valued incrementally above the value of the host instrument. This approach does not properly reflect the following two factors: the probabilities that these instruments will be settled as debt or equity, and the joint values of multiple, interacting options.</td>
</tr>
<tr>
<td>OHLSON, J.A &amp; PENMAN, S.H.</td>
<td>2005. Debt vs equity: Accounting for claims contingent on firms' common stock performance with particular attention to employee compensation options. <em>White Paper, Columbia Business School</em></td>
<td>This paper presents an accounting for claims whose payoffs depend on the performance of a firm's stock price, e.g., warrants, convertible bonds and compensation options. The accounting provides a comprehensive and unified treatment for all such performance-contingent claims. We argue that the accounting rests on appealing principles. We also view the accounting as practical, with implementation issues about the same as those in recent pronouncements on performance contingent claims issued by the Financial Accounting Standards Board and the International Accounting Standards Board.</td>
</tr>
<tr>
<td>BOTOSAN, CA, KOONCE, L, RYAN, SG, STONE, MS, &amp; WAHLEN, JM.</td>
<td>2005. Accounting for Liabilities: Conceptual Issues, Standard Setting, and Evidence from Academic Research, <em>Accounting Horizons</em>, 19:3, 159-186.</td>
<td>In this paper, we summarize conceptual issues that arise in the definition, recognition, derecognition, classification, and measurement of liabilities. We also highlight problems in existing accounting standards for liabilities and identify opportunities to refine those standards. Where relevant, we describe evidence from empirical accounting research involving liabilities and identify opportunities for future research. Our objective is to highlight the inconsistencies and controversies surrounding existing accounting standards for liabilities, and to describe the research evidence that provides insights into accounting for liabilities. A better understanding of the current problems in accounting for liabilities and the related research evidence should help standard setters and their constituents in their attempts to improve GAAP, and should stimulate future academic research to shed new light on accounting for liabilities.</td>
</tr>
<tr>
<td>SCHMIDT, M.</td>
<td>2013. Equity and Liabilities – A Discussion of IAS 32 and a Critique of</td>
<td>It is a traditional convention in accounting to distinguish between two classes of claims, liabilities and equity. The International Accounting Standards Board and the Financial Accounting Standards Board have been using a dichotomous classification approach, adhering to this convention. However, over the recent years, this approach has been put under stress. First, there is an ever-growing variety of hybrid financial</td>
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</table>
**Panel B**

**Firm response**

These papers investigate the effect of the accounting rules on what instruments are issued and how those instruments are structured. This is mainly in a US context, but also includes the Netherlands and Canada. The last three studies consider the influence of country and firm type on the issue of compound instruments.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal</th>
<th>Year</th>
<th>Institution</th>
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The classification, *Accounting in Europe*, 10:2, 201-222.

Instruments, some of which designed to exploit this classification approach (accounting arbitrage). Second, the adoption of IFRS in Europe and elsewhere has brought scenarios to light in which the classification approach does not result in decision-useful information. These issues arise when IFRS are applied by entities in legal forms other than a private or public limited company. This essay discusses IAS 32 in the light of the historic origins of the dichotomous classification approach, the recent standard-setting activities and a review of the empirical research. This essay suggests that a reconsideration of the traditional dichotomous classification might be a way forward.

---

We test the influence of classification of securities into liabilities and equity on firms' financing choices, using as our setting the change in reporting classification of hybrid securities following SFAS 150. We find that this change affected the decision of firms to issue mandatorily redeemable preferred shares (MRPS). Following the requirement that firms classify the debt-like hybrid security MRPS as a liability, the share of MRPS issuances in firms' new financing declined. Characteristics of firms issuing MRPS also changed. While prior to SFAS 150 firms with higher levels of debt and lower coverage ratios chose to issue MRPS and not debt, after its adoption, the decision to issue MRPS is no longer related to firms' pre-existing debt and coverage levels. Furthermore, our results indicate that before SFAS 150 managers were willing to bear the higher issuance fees of MRPS and chose to issue these debt-like hybrid securities over cheaper debt. The requirement to classify debt-like hybrids as a liability took away the reporting incentives for issuance and made these securities a less popular financing vehicle.

We examine the relation between accounting-based debt contracts and the economic response of firms with trust preferred stock (TPS) to mandated liability recognition under Financial Accounting Standard (FAS) 150. Our results show that firms' financial covenants significantly affect their choice to redeem versus reclassify their outstanding TPS. Specifically, firms with bank debt covenants that would be adversely impacted by recognizing TPS as a debt liability are 26.88% more likely to redeem their TPS after FAS 150. We also find that firms are significantly more likely to redeem versus reclassify their TPS after FAS 150 if they used the original TPS proceeds to retire existing debt (i.e., to enhance their balance sheets). Our findings suggest that when bank debt contracts use "floating" Generally Accepted Accounting Principles (GAAP) to construct financial covenant terms, changes in the underlying GAAP measure significantly influence firms' economic behavior.

In this article we examine whether firms structure their convertible bond transactions to manage diluted earnings per share (EPS). We find that the likelihood of firms issuing contingent convertible bonds (COCOs), which are often excluded from diluted EPS calculations under Statement of Financial Accounting Standard (SFAS) 128, is significantly associated with the reduction that would occur in diluted EPS if the bonds were traditionally structured. We also document that firms' use of EPS-based compensation contracts significantly affects the likelihood of COCO issuance and find weak evidence that reputation costs, measured using earnings restatement data, play a role in the structuring decision. These results are robust.
<table>
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<tr>
<th><strong>Share. Journal of Accounting Research, 43, 205-243.</strong></th>
<th>to controlling for alternative motivations for issuing COCOS, including tax and dilution arguments. In addition, an examination of announcement returns reveals that investors view the net benefits and costs of COCOS as offsetting one another. Our results contribute to the literature on earnings management, diluted EPS, financial reporting costs, and financial innovation.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MARQUARDT, C. A. &amp; WIEDMAN, C. I. 2007. Economic consequences of financial reporting changes: diluted EPS and contingent convertible securities. Review of Accounting Studies, 12, 487-523.</strong></td>
<td>This paper examines the economic consequences of changes in the financial reporting requirements for contingent convertible securities (COCOs). Using a sample of 199 COCO issuers from 2000 to 2004, we find that issuers are more likely to restructure or redeem existing COCOS to obtain more favorable accounting treatment when the financial reporting impact on diluted earnings per share (EPS) is greater and when EPS is used as a performance metric in CEO bonus contracts. These results provide new evidence that managers are willing to incur costs to retain perceived financial reporting and compensation benefits. We also present evidence of significantly negative stock returns around event dates associated with the financial reporting changes, consistent with investor anticipation of the agency costs associated with the rule change.</td>
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<td><strong>LEWIS, C. &amp; VERWIJMEREN, P. 2014. Cash-settled convertible bonds and the value relevance of their accounting treatment. Journal of Corporate Finance, 24, 101-111.</strong></td>
<td>Cash settlements became a popular design feature in convertible securities once they obtained favorable accounting treatment for diluted earnings per share in 2002. The unexpected proliferation of cash settlements provoked the FASB to eliminate their favorable accounting treatment in 2008. We find that shareholders of firms that use cash-settled convertibles react negatively to the announcement of these recent changes. Firms that issued cash-settled convertible debt to avoid earnings dilution no longer have an incentive to keep them on their balance sheets. Consistent with this observation, we find that investors respond more favorably if the cash-settled convertibles of these firms include call features. We conclude that call features can be valuable in times of uncertainty related to possible accounting changes as they allow the firm to efficiently mitigate the effects of the accounting changes on their financial reporting.</td>
</tr>
<tr>
<td><strong>LEWIS, C. M. &amp; VERWIJMEREN, P. 2011. Convertible security design and contract innovation. Journal of Corporate Finance, 17, 809-831.</strong></td>
<td>This paper studies convertible security design for a sample of 814 issuers over the years 2000 through 2007. Using a nested logit model, we examine how firms choose fixed income claims and the method of payment. We find that fixed income claims are chosen to reduce corporate income taxes, minimize refinancing costs, and help mitigate managerial discretion costs. The method of payment choice frequently includes cash settlement features because they increase reported diluted earnings per share. Some of the cash settlement issuers also adopt other innovative financial strategies (share repurchase programs and call spread overlays) that inflate reported earnings per share. We find that firms needing debt capacity include mandatory conversion features.</td>
</tr>
<tr>
<td><strong>DUTORDOIR, M., LEWIS, C., SEWARD, J. &amp; VELD, C. 2014. What we do and do not know about convertible bond</strong></td>
<td>We review the literature on the issuance motives, shareholder wealth effects, and design of convertible bonds. Empirical studies on convertible debt issuance mainly focus on testing the predictions of four traditional theoretical models based on convertibles' potential to mitigate agency or adverse selection costs, and obtain mixed evidence. Recent studies on shareholder wealth effects of convertible bond issues highlight the need to control for arbitrage-related short selling and post-issuance risk changes. Studies on</td>
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the determinants of convertible bond design uncover earnings management, as well as catering incentives to convertible arbitrage funds, as important determinants of innovations in convertible bond characteristics. Overall, our review indicates that recent empirical research on convertible debt provides valuable insights into issue motives and determinants of financial innovations, but also considers the broader question of how investor demand characteristics impact corporate finance decisions. We conclude with an overview of potential research questions to be addressed by future research on hybrid securities.


Many Canadian firms issuing convertible debt over the period 1996-2003 included provisions in the bond indenture giving them the option to repay interest and/or principal in shares rather than in cash. These payment-in-kind (PIK) provisions also allowed firms to classify a significant portion of the proceeds of the convertible debt issuance (beyond the conversion option) as equity in the financial statements. Thus, PIK provisions could have been used to minimize reported leverage or to provide financial flexibility. We find that highly-levered corporations with material convertible debt transactions were more likely to use PIK provisions and record the feature as equity, consistent with these firms minimizing reported financial leverage. In contrast, income trusts, entities with a high commitment to make payouts to owners, used this feature primarily for the financial flexibility afforded by the option to make payments in equity rather than in cash. Further, we document a negative price reaction by corporations with outstanding convertible debt with PIK provisions at the time when standard setters introduced accounting rules prohibiting the classification of anything other than the conversion option as equity, but no share price reaction by income trusts. Finally, we find that the use of PIK provisions declined for corporations but not for trusts following the introduction of the more restrictive accounting. Our findings support standard setters’ current efforts to create standards on assets and liabilities capturing the substance of transactions and to limit opportunities for structuring transactions to create the appearance of lower financial leverage.


This paper exploits the features of trust preferred stock to examine several tax and financial reporting issues. Trust preferred stock, first issued in 1993, was engineered to be treated as preferred stock for financial statement purposes and as debt for tax purposes (i.e., payments on trust preferred stock are deductible by the issuer). Our analyses are intended to shed new light on three issues: i) the extent to which firms will incur costs to manage the balance sheet classification of a security; ii) the magnitude of net tax benefits, if any, associated with leverage-increasing capital structure decision, and iii) the extent to which investor-level taxation imposes implicit taxes on securities.

DE JONG, A., ROSELLÓN, M. & VERWIJMEREN, P. 2006. The Economic Consequences of IFRS: The Impact of IAS 32 on Preference Shares in the Netherlands. *The International Financial Reporting Standards (IFRS) regulation on preference shares (IAS 32) in the Netherlands. IAS 32 causes most preference shares to lose their classification as equity and these shares will hence be classified as liabilities. We document that for Dutch firms with preferred stock outstanding, the reclassification will on average increase the reported debt ratio by 35%.
We find that 71% of the firms that are affected by IAS 32 buy back their preference shares or alter the specifications of the preference shares in such a way that the classification as equity can be maintained. The main determinant of the decision whether to give these consequences to IAS 32 is the magnitude of the impact of IAS 32 on a firm’s debt ratio. We conclude that IFRS does not only lead to a decrease in the use of financial instruments that otherwise would have added to the capital structure diversity, but also changes firms’ real capital structure.

We examine the relation between accounting-based debt contracts and the economic response of firms with trust preferred stock (TPS) to mandated liability recognition under Financial Accounting Standard (FAS) 150. Our results show that firms’ financial covenants significantly affect their choice to redeem versus reclassify their outstanding TPS. Specifically, firms with bank debt covenants that would be adversely impacted by recognizing TPS as a debt liability are 26.88% more likely to redeem their TPS after FAS 150. We also find that firms are significantly more likely to redeem versus reclassify their TPS after FAS 150 if they used the original TPS proceeds to retire existing debt (i.e., to enhance their balance sheets). Our findings suggest that when bank debt contracts use “floating” Generally Accepted Accounting Principles (GAAP) to construct financial covenant terms, changes in the underlying GAAP measure significantly influence firms’ economic behavior.

An important issue that firms consider when designing convertible debt is to specify security features such as conversion ratio, maturity date and call period. Following Lewis et al. [Lewis, M., Rogalski, R., Seward, J., 2003. Industry conditions, growth opportunities and market reactions to convertible debt financing decisions. Journal of Banking and Finance 27, 153–181], we employ a single measure that simultaneously considers all of these features: the expected probability (measured at issue date) that the convertible will be converted to equity at maturity. We find that firms in countries with stronger shareholder rights issue convertible debt with a higher expected probability of converting to equity. The positive association between the expected probability of conversion and shareholder rights is less pronounced in firms for which ownership structures create potentially high managerial agency costs. Specifically, in countries with stronger shareholder rights, firms with higher separation of control rights and cash flow rights tend to issue convertibles with lower probability of conversion. Furthermore, we find that large non-management block ownership strengthens the likelihood of issuing convertible debt with higher probability of conversion in countries with stronger shareholder rights. In contrast, firms in countries with stronger creditor rights issue convertibles with lower probability of conversion. We also document that the negative association between creditor rights and probability of conversion is more pronounced in firms with higher separation of control rights and cash flow rights.

This study examines the characteristics of firms that issue convertible debt versus firms that issue convertible preferred stock. The findings are consistent with the agency, information asymmetry, optimal capital structure, financial distress, and tax benefits hypotheses. The findings also indicate that these two
<table>
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<th>Panel C</th>
<th>User perception</th>
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<tr>
<td><strong>That Issue Convertible Debt versus Convertible Preferred Stock.</strong> <em>Quarterly Review of Economics and Finance, 39, 547-563.</em></td>
<td>types of convertible securities are used to raise external capital by distinctively different groups of firms. First, convertible preferred stock issuing firms have larger nondebt tax shields and higher levels of financial, operating, and bankruptcy risks than convertible debt issuing firms. Second, firms that issue convertible debt have greater free cash flow (financial slack) and growth potential than firms that issue convertible preferred stock.</td>
</tr>
<tr>
<td><strong>LOPEZ-ESPINOSA, G., MADDOCKS, J. &amp; POLO-GARRIDO, F. 2012. Co-operatives and the Equity-Liabilities Puzzle: Concerns for Accounting Standard-Setters. <em>Accounting Horizons, 26,</em> 767-787.</strong></td>
<td>The IASB/FASB joint project on Financial Instruments with Characteristics of Equity (formerly Liabilities and Equity) has highlighted the complexity and the associated difficulty of drawing the line between liabilities and equity. While classification difficulties have been identified for investor-owned businesses (IOB), the inconsistency of the different approaches being considered is clearer when applied to classification of the financial instruments of co-operatives whose ownership characteristics differ from the IOB model. In co-operatives the existence of an upper limit on members’ claims on the net assets while the co-operative is a going concern is a key ownership characteristic. We have examined the characteristics of co-operative member shares in six European countries as well as in the U.S. and in Canada, in order to analyze the application of the various classification approaches under discussion by the IASB and FASB. The results of this analysis indicate that classification criteria based on ownership must take account of the fact that ownership is multidimensional and contingent on the type of firm.</td>
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<tr>
<td><strong>CLOR-PROELL, S., KOONCE, L. &amp; WHITE, B. 2016. How do experienced users evaluate hybrid financial instruments? Journal of Accounting Research, n/a-n/a.</strong></td>
<td>Hybrid financial instruments contain features of both liabilities and equity. Standard setters continue to struggle with “getting the classification right” for these complex instruments. In this paper, we experimentally test whether the features of hybrid instruments affect the credit-related judgments of experienced finance professionals, even when the hybrid instruments are already classified as liabilities or equity. Our results suggest that getting the classification right is not of primary importance for these experienced users, as they largely rely on the underlying features of the instrument to make their judgments. A second experiment shows that experienced users’ reliance on features generalizes to several features that often characterize hybrid instruments. However, we also find that experienced users vary in their beliefs about which individual features are most important in distinguishing between liabilities and equity. Together, our results highlight the importance of effective disclosure of hybrid instruments’ features.</td>
</tr>
<tr>
<td><strong>HOPKINS, P. E. 1996. The Effect of Financial Statement Classification of Hybrid Financial Instruments on Financial Analysts’ Stock Price Judgments. Journal of</strong></td>
<td>This paper investigates whether the balance sheet classification of financial instruments that include attributes of both debt and equity (i.e., hybrid financial instruments) affects the stock price judgments of buy-side financial analysts. Financial economics research documents that, on average, firms announcing an offering of additional common equity securities experience a decline in the market value of their outstanding common stock. In contrast, firms financing with straight debt generally do not experience a decline in common stock market value (see Smith [1986] for a summary). Psychology research suggests that, when making judgments, individuals mentally access knowledge of similar or related situations and</td>
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that the classification of decision-relevant information can affect the knowledge that is accessed and used. If accounting classification is used by financial analysts to interpret information, then the balance sheet classification of hybrid financial instruments, like mandatorily redeemable preferred stock (MRPS), as a liability or owners' equity should influence common stock valuation judgments toward those observed for straight debt and additional common equity securities.

This paper documents an experiment with securities market analysts in Brazil (analysts from APIMEC and from ANBIMA), in order to evaluate the effect of balance sheet classification of a compound financial instrument on the analyst's judgment (estimation of target prices of a company used in the experiment). Fourteen analysts (twelve sell-side and two buy-side) took part in the experiment. They were grouped into three subsamples and each of them received a limited information set about the company used in the experiment and different information regarding the accounting for the compound financial instrument (IAS 32 model, SOA model and NEA model), after the following event: a private placement of a mandatorily convertible debenture to finance the acquisition of another company abroad. For the analysis of the collected responses the following statistical tests were applied: nonparametric test of means and bootstrap test. The results of the experiment indicate that regardless of balance sheet classification of the compound financial instrument, analysts are likely to treat it conservatively as a liability. Moreover, if the compound financial instrument is wholly classified as a liability and the company is highly leveraged, they tend to penalize more the company in terms of its share price.

We investigate the systematic risk effect of introducing an accounting standard that required the classification of hybrid securities according to their economic substance rather than their legal form. Using a sample of Australian firms we find that firms’ systematic risk is significantly lower in the post-regulatory period than in the pre-regulatory period. However, only after firms adopted the changed classification was there a significant difference in the reduction in systematic risk for firms required to adopt the new classification and control firms. This suggests that the new accounting classification rules provided more transparent information to investors and reduced information asymmetry, but that investors waited to see the impact on financial statements before they reassessed systematic risk vis a vis other firms. Cross-sectional tests explaining the variation in firms’ systematic risk demonstrate that the variation in systematic risk is negatively (positively) associated with firm size (firm performance and leverage). These findings are important to understanding the potential impact of the current joint FASB/IASB project to improve and simplify financial reporting requirements.

This paper examines the economic substance of a broad range of securities by investigating their association with systematic risk and prices. The analysis is motivated by continuing security innovation and its impact on hybrid security reporting. Based on a sample of 2,617 firms that reported minority interests or preferred stock during 1993–1997, the results indicate that redeemable preferred securities (including trust preferred stock) are not viewed by the market as either debt or equity, suggesting
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<td><em>Research in Accounting Regulation</em>, 16, 3-28.</td>
<td>Dichotomous security classification may lack representational faithfulness. Inconsistent with their treatment in the financial statements, non-redeemable preferred stock and minority interests are viewed as debt-like and equity-like respectively. Additional analyses document that the systematic risk and pricing results vary based on firm size, performance, and bond rating.</td>
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<td>KIMMEL, P. &amp; WARFIELD, T. D. 1995.</td>
<td>This study uses the relation between firm leverage and systematic risk to provide empirical evidence on the economic substance of a hybrid security: redeemable preferred stock (RPFD). The tests are conducted on 239 firms with RPFD outstanding between 1979 and 1989 and examine variation in this relation conditioned on the magnitude of RPFD as an element of firms’ capital structures. The empirical results suggest that, despite mandatory redemption payments, RPFD does not have a debt-like impact on systematic risk and that the market perception of a hybrid security is conditioned on attributes such as voting rights and conversion features. Thus, dichotomous classification of hybrid securities may lack representational faithfulness to the economic substance of these securities, as measured by their effects on systematic risk. More generally, it may be difficult for the FASB to develop a comprehensive classification rule for hybrid securities without requiring additional disclosure of important security attributes.</td>
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<td>TERANDO, W.D., SHAW, W.H. &amp; SMITH, D.B. 2007.</td>
<td>This paper examines whether investors' valuations of cash and share-put warrants are influenced by their potential differential effect on firm solvency. It is motivated by the enactment of SFAS 150, which requires that all contingent put warrant obligations be classified as balance sheet liabilities regardless of put type. Consistent with the critics of SFAS150, we show that market participants differentially value cash and share-puts based on their solvency characteristics beyond the firm's recorded assets and liabilities. Our results add to existing capital structure literature by suggesting that complex financial instruments (such as cash and share-puts) be reported separately from each other on a firm’s balance sheet.</td>
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<td><strong>Panel E</strong> Disclosure</td>
<td>We present descriptive evidence on the quality of firms’ disclosures related to contingently convertible securities (COCOs). We document evidence of inconsistent and inadequate disclosure of the information necessary to undo the financial reporting effects associated with COCOs prior to 2004, when only the general disclosure requirements on capital structure provided in SFAS 129 were in effect. Disclosure quality improved after the introduction of FASB Staff Position 129-a, which specifically required firms to disclose the terms of COCOs that would enable users to understand the conversion features of COCOs and their potential impact on earnings per share (EPS). However, we find evidence that managerial incentives significantly affect disclosure quality in both disclosure regimes. Our results underscore the difficulty that standard setters face in developing general disclosure guidelines that foster adequate disclosure and suggest that additional specific disclosure guidance may be necessary as new financial instruments and transactions evolve.</td>
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**Panel F**

**Employee Stock Options**

A selection of papers on the characterisation of ESOs as debt or equity

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<td>This study seeks to determine whether employee stock options share key characteristics of liabilities or equity. Consistent with warrant pricing theory, we find that common equity risk and expected return are negatively associated with the extent to which a firm has outstanding employee stock options, which is opposite to the association for liabilities. We also find the following. (1) The association is positive for firms that reprice options and less negative for firms that have options with longer remaining terms to maturity, which indicates that some employee stock options have characteristics that make them more similar to liabilities. (2) Leverage measured based on treating options as equity has a stronger positive relation with common equity risk than leverage measured based on treating options as liabilities. (3) The sensitivity of employee stock option value to changes in asset value mirrors that of common equity value and is opposite to that of liability value. Also, we find that, unlike liabilities, employee stock options have substantially higher risk and expected return than common equity. Our findings are not consistent with classifying employee stock options as liabilities for financial reporting if classification were based on the directional association of a claim with common equity risk and expected return. Rather, our findings suggest the options act more like another type of equity.</td>
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<td>We use a residual income valuation framework to compare equity valuation implications of four approaches to employee stock options (ESOs) accounting: APB 25 “recognize nothing”, SFAS 123 (revised) “recognize ESO expense”, FASB Exposure Draft “recognize and expense ESO asset” and “recognize ESO asset and liability”. Theoretical analysis shows only grant date recognition of an asset and liability, and subsequent marking-to-market of the liability, results in accounting numbers that capture the dilution effects of ESOs on current shareholder value. Out-of-sample equity market value prediction tests and in-sample comparisons of model explanatory power also support the “recognize ESO asset and liability” method.</td>
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| Accounting for employee stock options is affected by whether outstanding options are viewed as equity or liabilities. The common perception is that the FASB’s recommended treatment (per SFAS No. 123), which is based on the options-as-equity view, results in representative financial statements. We argue that this treatment distorts performance measures for three reasons. First, the deferred taxes associated with nonqualified options should also be included as equity, but are not. Second, since unexpected share price changes affect option holders and equity holders differently, combining their interests provides an average earnings effect that is not representative for either group. We show that efforts to isolate the interests of common stockholders via diluted earnings per share calculations (per SFAS No. 128) are inherently incapable of identifying wealth transfers between stockholders and option holders. Finally, projections of future cash flow statements prepared under SFAS No. 95 overstate cash flows to current equity holders by the pretax value of projected option grants. We show that these distortions can be avoided simply by accounting for options as liabilities at grant and thereafter recognizing changes in option values (similar to
the accounting for stock appreciation rights). Our analysis of stock option accounting leads to two, more
general implications: (1) all securities other than common shares should be treated as liabilities, thereby
simplifying the equity versus liability distinction, and (2) these liabilities should be recorded at fair values,
thereby obviating the need to consider earnings dilution.