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The implications of research on accounting conservatism for accounting standard setting

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This paper provides a commentary on the academic literature on accounting conservatism with a view to highlighting the insights of that literature that are potentially useful for accounting standard setters. We begin by introducing the basic concepts of conservatism focusing on the distinction between conditional and unconditional conservatism. We then briefly discuss the objectives of financial reporting and the economics of information, paying particular attention to the role of stewardship in the Conceptual Framework, and the economic concepts of adverse selection and moral hazard. The two middle sections of the paper provide overviews of, respectively, the theoretical and empirical literatures on accounting conservatism. Having summarised the theoretical and empirical literatures, we then try to synthesis the implications of the literature for standard setters, paying particular attention to understanding the costs and benefits of conservatism, implications for the Conceptual Framework, highlighting the particular demands of public debt markets for conservatism, and explaining how accounting standards might be adapted to allow some degree of flexibility in conservative accounting choice. The final section discusses the limitations of the academic literature from the practical point of view of standard setters, and highlights areas for new research that may be of more direct value for policy-making.

Keywords: accounting conservatism; adverse selection; conceptual framework; contracting efficiency; moral hazard; prudence

1. Introduction

Accounting conservatism is a controversial subject both in policy-making and academic circles. In policy circles both the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) have moved away from viewing conservatism as a desirable characteristic of accounting information in favour of emphasising the neutrality of accounting

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numbers. However, some policy-makers, driven in part by understandable concerns relating to the recent financial crisis, have argued for a greater emphasis on prudence/conservatism. In academic circles, advocates of the value relevance approach to financial reporting tend to favour an approach to financial reporting built around neutrality, whilst advocates of the contracting efficiency approach argue strongly in favour of conservatism.

The purpose of this paper is to relate the recent academic literature on accounting conservatism[1] to the concerns of standard setters. It is our view that the academic literature has supplied both theoretical findings and empirical evidence that should help accounting standard setters in developing their thinking about the desirability or otherwise of conservatism. That said, we also believe that the academic literature falls well short of supplying all the answers that standard setters are looking for.

The academic literature has supplied theoretical explanations for why a demand for conservatism might exist, and it has also supplied empirical evidence that the demand for conservatism varies in ways predicted by theory. However, the academic literature has not supplied answers to whether or how the Conceptual Framework (CF) might be adapted to accommodate conservatism. Furthermore, the academic literature is not at a stage where it can help much in the setting of individual accounting standards.

The remainder of this paper is structured as follows. Section 2 discusses the meaning of the two different types of accounting conservatism considered in the accounting literature and their relations with the accounting standards. Section 3 discusses the objectives of financial reporting and relates these to recent advances in the economics of information, paying special attention to the concepts of stewardship, moral hazard and adverse selection. Section 4 examines the theoretical arguments and models developed in the academic literature surrounding the economic rationale for conservatism. In addition to discussing the general arguments for and against conservatism, we also highlight the role of formal theoretical models in helping us understand the limits to the general arguments. Section 5 discusses the main findings of the empirical evidence on the causes and consequences of different types of conservatism. Section 6 pulls together the implications of the paper for accounting standard setting in general and the CF in particular. In this section, we also outline how we believe accounting standards could be adapted to explicitly allow some forms of conservatism whilst respecting the role of neutrality as the conceptual starting point for all standards. Finally, section 7 highlights the limitations of the published literature on accounting conservatism for policy-making purposes, and puts forward some ideas for future research with more direct value for policy-makers.

2. Accounting conservatism concepts

Concepts of prudence or 'conservatism'[2] have always played a prominent role in financial reporting and have often been incorporated into conceptual frameworks (APB 1970, FASB 1980, IASC 1989).

Prudence is in general defined as the inclusion of a degree of caution in the exercise of the judgements needed in making the estimates required under conditions of uncertainty. However, both FASB (1980) and IASC (1989) clearly state that the exercise of prudence does not allow the creation of hidden reserves through the deliberate understatement of assets or income or the deliberate overstatement of liabilities or expenses.

A major change in the stance of the IASB and the FASB towards conservatism/prudence was heralded by their joint 2006 Discussion Paper and IASB (2008) Exposure Draft that contained the first two chapters of a new CF, which explicitly advanced neutrality over prudence. In 2010, the IASB and the FASB issued a revision of the two sections of the CF, and the Chapter on Qualitative

Characteristics does not include prudence. The Basis for Conclusions explains that prudence has been omitted because it is incompatible with neutrality.

In 2012, the IASB restarted its deliberations as an IASB project only, and issued a Discussion Paper on the CF (IASB 2013) which does not contain the concept of prudence. According to its chairman Hoogervorst (2012), one of the reasons to remove the concept was convergence with US GAAP, which did not have a definition of prudence. Another reason was that many felt that, in practice, the concept of prudence was often used as a pretext for earnings management. He insists on the fact that the old concept of prudence is still very much engrained in the IFRS. In summary, the main concerns of the IASB and the main reasons for the explicit absence of the concept of prudence in the Discussion Paper on the CF seem to be the apparent incompatibility with neutrality and the potential for misapplication of the concept to manage earnings.

Many stakeholders did not find these arguments persuasive, and there were increasing concerns about, according to them, the apparent abandonment of prudence by the IASB. For example, papers by the UK Shareholders' Association (2012) and EFRAG et al. (2013) raised serious concerns about the IASB's position of not including 'prudence' explicitly in the CF. Also, as highlighted by Kamall (2012), there were political pressures behind the scenes.[3] Finally, in May 2014 the IASB tentatively decided to reintroduce a reference to prudence in the CF to describe prudence in a similar way to the previous IASC 1989 CF, and to discuss in the Basis for Conclusions the significance of prudence for preparers in preparing financial statements and for the IASB when setting standards.

Part of the controversy surrounding conservatism, and its role in the standard setting process and in practice, comes from the ambiguity and the different meanings attributed to the concept. The misconception of the meaning of 'conservatism' and its relation with other accounting concepts must be clarified before analysing the determinants and consequences of 'conservative accounting'. In this section we discuss the different types and meanings of conservatism considered in the academic literature, and then draw some initial implications for standard setters.

2.1. *Unconditional versus conditional conservatism*

Miller and Modigliani (1961) (Equation (1)) represent the value of the firm as the present value of the assets in place plus the present value of future growth opportunities.

$$\begin{aligned}&\text{Present Value of Assets in Place} + \text{Present Value of Growth Opportunities}\\&\quad = \text{Present Value of Debt} + \text{Present Value of Equity}\end{aligned} \tag{1}$$

Generally accepted accounting practices throughout the world preclude the recognition of the present value of future growth opportunities in financial statements. In particular, accounting balance sheets do not include the present value of future growth opportunities as an asset. This is one of the reasons why, on average, the market value of the firm normally exceeds the book value.

The relation between the present value and the book value of assets in place depends on how the assets in place have been accounted for, and on the extent to which the expectations about the profitability of these assets have changed during their life to date. When a firm invests in a new project, the present value of the new project may exceed the economic costs (typically the replacement cost) of developing the project. The excess of the present value over the economic costs of the investment is called economic goodwill or economic rent. Accounting standards and preparers of accounts have generally taken the view that economic goodwill should not be recognised in the financial statements.

How then should we define accounting *neutrality* if we accept the idea that economic goodwill should not be included as an asset? One possible definition is that book value would be neutral if the value of assets recorded in the balance sheet is equal to the present value of assets in place minus economic rents.[4]

Unconditional conservatism, also often referred to as *balance sheet conservatism*, captures the idea of an asset being carried on the balance sheet at a value less than its neutral value. There are two main kinds of accounting practices that lead to conservative balance sheets, that is, unconditional conservatism. The first kind arises if the accountant makes a decision not to recognise expenditures that are made in anticipation of future benefits as an investment. The best known example of this is investment in research, which is typically not recognised as an asset. Thus, one reason why balance sheets are unconditionally conservative is because of the application of conservative asset recognition criteria. The second type of balance sheet conservatism arises from the way that some assets are measured. For example, most investments by firms have a finite economic life and generate economic benefits over more than one accounting period. Normal accounting practice is to choose some sort of depreciation schedule to match the economic benefits of the project against the costs. A neutral accounting choice in this situation would choose a depreciation schedule that results in the investment generating a constant accounting rate of return over its useful life (Kay 1976, Feltham and Ohlson 1996). We refer to such a depreciation schedule as economic depreciation. Conservative depreciation rates are defined as depreciation rates greater than the economic rate of depreciation. Conservatism in book values driven by conservative depreciation rates is the second type of *unconditional conservatism*. The word ‘unconditional’ here captures the idea that the conservative accounting choice is made before any information is available about how well the investment has performed. Thus the level of unconditional conservatism is not related to news flow about the performance of assets in place. This is why some commentators refer to unconditional conservatism as *ex-ante conservatism*.

Unconditional conservatism results in under-stated net assets, but it does not necessarily result in under-stated net income. Over the life of an investment project the total amount of depreciation is a fixed constant, so unconditional conservatism only alters the timing of the charge. If the asset performs as expected and there are no changes in circumstances, total income recognised over the life of the project will not be affected. So, the effect of unconditional conservatism is that the income from the project is lower early and higher later in the life of the project. At the firm level, the effect of unconditional conservatism depends on the maturity structure of the assets.

Significant additional complications arise when expectations about the profitability of investments change after the investments are put in place. When thinking about this issue, it is important to be clear about the extent to which the new information about assets in place is observed only by firm insiders or by all market participants. In addition, it is important to distinguish between cases where the new information is positive (i.e. the investment is performing better than expected) or negative.

Conditional conservatism refers to the relative speed with which good and bad news about assets in place is reflected in financial statements. If the accounting system requires a higher degree of verification for recognising good news than bad news in earnings, then this will result in an asymmetry in the recognition of bad and good news, with bad news being more timely recognised than good news. Such accounting systems are said to be conditionally conservative.

It is important to note that there are two aspects of conditional conservatism. The first is the way that the accounting system deals with economic losses. What efforts does the firm make to ensure asset values have not declined, how much evidence is needed to require recognition of a potential loss and how promptly are potential losses recognised? The second is the way the

accounting system deals with economic gains. What efforts does the firm make to assess whether asset values have increased, how much evidence is needed to require recognition of a potential gain and how promptly are gains recognised?

A deficiency of the empirical literature on conditional conservatism is that it often lacks precision as to whether the focus is on the recognition of potential losses, the recognition of potential gains or on the relative speed with which gains and loss are recognised, and the determinants and the effects of these two types of conditional conservatism may differ significantly.

A neutral accounting system would be one that is symmetric with respect to the level of evidence required to recognise a potential gain or loss, and with respect to the timeliness with which gains or losses are reported. An accounting system is conditionally conservative if, under uncertainty, less evidence is required to recognise a loss than a gain, or if, given the same evidence, losses are recognised more quickly than gains. Most of the empirical literature focuses on the difference in the speed with which good and bad news are recognised, but it is also important to understand how much of this difference is explained by the conservative treatment of good news or the conservative treatment of bad news.

Authors also refer to *conditional conservatism* variously as *earnings conservatism*, *ex-post conservatism*, *or information-driven conservatism*. An important example of conditional conservatism is the application of the lower of cost or market value rule in inventory valuation, which results in decreases in the value of inventory being recognised sooner than increases. The goodwill impairment rules enshrined in accounting standards are also a form of conditional conservatism.[5]

It is also important to mention that, as Pope and Walker (2003) pointed out, the scope for a firm to exhibit conditional conservatism depends on the extent to which its accounting is unconditionally conservative. García Lara and Mora (2004), Gassen et al. (2006) and Roychowdhury and Watts (2007) provided empirical evidence that supports this insight. Beaver and Ryan (2005) developed a general model that captures the interaction between conditional and unconditional conservatism. The basic idea is simple. First of all, it is not possible to recognise bad news by recording a loss on an asset that was never recognised in the first place. More generally, if an asset is depreciated using an unconditionally conservative depreciation rate, it will only be necessary to report a loss if the rate of losses exceeds the rate of depreciation. So, *ceteris paribus*, firms that pre-commit ex ante to use more accelerated depreciation rates are less likely to have to report a loss.

2.2. *Preliminary implications*

It is clear from the above that accounting is bound to be conservative at some level. For example, unconditional conservatism will be embedded in the standards as it is most unlikely that accounting standards will ever insist that firms should attempt to include a figure for the present value of future growth opportunities in their balance sheets. It is likely, however, that some forms of investments, such as research, the benefits from which are very difficult to predict, will continue to be treated as expenses for accounting purposes rather than as capital expenditures, and that conditionally conservative accounting rules, such as goodwill impairment and the writing down (not writing up) of under-performing (over-performing) assets, are here to stay.

Clarifying the concepts of unconditional and conditional conservatism helps to understand the link between them, and to identify the types of conservatism that are potentially beneficial to the economy. EFRAG et al. (2013) seek to draw a distinction between 'good' and 'bad' types of conservatism. They highlight that

> the acceptance of prudence as 'a degree of caution' has a common foundation in the demand that financial statements are based on sound verifiable information that users can depend upon, and

> thus be assured that the financial statements faithfully portray the economic position of the company, which would make them relevant for users. (EFRAG et al. 2013, p. 6)

The distinction between unconditional and conditional conservatism also makes it a little easier to think about the links between both types of conservatism and earnings management, which has been a matter of some concern to standard setters[6]. On one hand, unconditional conservatism can create opportunities for earnings management if and only if reversals of unconditional conservatism are allowed. If firms can pre-commit to a conservative depreciation schedule for their assets' entire lives, then no earnings management opportunities will arise, but if firms are allowed to reverse past conservatism, then opportunities for earnings management will arise. On the other hand, conditional conservatism may serve to limit opportunistic earnings management in an upward direction by delaying recognition of good news and encouraging the timely recognition of bad news. However, conditional conservatism potentially facilitates big bath type downwards earnings management. The interaction between conservatism and earnings management is a worthy area for further empirical research.

3. The objectives of financial reporting and the economics of information

3.1. *The objectives of financial reporting*

To some extent the case for accounting conservatism to be incorporated into accounting standards is related to the question of whether accounting standard setters should take into account the demand for information for stewardship and contracting purposes.

The academic literature shows two competing[7] views on the importance or otherwise of recognising a distinct role for stewardship over and above the provision of decision-relevant information for investors. One approach argues that standard setters should focus on a 'value relevance' approach to financial reporting, with stewardship being seen as of second-order importance. A second approach seeks to argue that improving contracting efficiency and stewardship is the most important objective of financial reporting. This is called the 'contracting efficiency' approach. Advocates of this approach argue that it is not possible to make sense of key features of financial reporting without recognising the importance of accounting in contracting and stewardship.

Successive CFs have attempted to specify the objectives of financial reporting. For example, the current CF states

> The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Those decisions involve buying, selling or holding equity and debt instruments, and providing or settling loans and other forms of credit

The so-called 'value relevance' approach taken by some standard setters and academics (see e.g. Barth et al. 2001, Schipper 2005) considers those needs are mainly focused on the usefulness to predict future cash flows. While acknowledging other uses of financial statements, this view assumes that performance evaluation and stewardship are not objectives but consequences of the economic forces shaping GAAP.

Holthaussen and Watts (2001) offer an extensive critique of this view. They argue that many observable features of financial reporting cannot be explained by application of the value relevance approach, and that tax, litigation, regulatory and mainly contracting concerns are important determinants of financial reporting practice. In particular, they argue that a value relevance approach does not explain the widespread existence of accounting conservatism. Thus, whilst

acknowledging the accounting information must be useful for predicting future cash flows, Holthausen and Watts (2001) argue that a contracting theory view of accounting significantly enhances our ability to understand financial reporting practices.

Kothari et al. (2010) attempt to provide a theoretical framework which combines aspects of the value relevance approach with aspects of the contracting efficiency approach, starting from the assumption that the objective of GAAP is to facilitate efficient capital allocation in the economy. They argue that this broader objective subsumes the need to provide value-relevant information to providers of capital, but also gives rise to demands for information about performance and stewardship over and above the demand for information for security valuation. They argue that the demand for information for performance and evaluation purposes explains key features of the financial reporting system, including the existence of a demand for accounting conservatism, and call their approach to financial reporting the 'efficient allocation' approach.

Commenting on Kothari et al. (2010), Lambert (2010) argues that GAAP is not primarily concerned with contracting and stewardship issues. He argues that, as a matter of fact, accounting standard setters, especially the FASB and the IASB, have explicitly moved away from citing stewardship as a key objective of financial reporting. In addition, he argues that casual inspection of financial statements would not lead one to conclude that their primary role is to support efficient contracting. He makes the important point that, just because there is a demand for information for a certain purpose, this does not imply that the supply of such information should be a concern of standard setters.

It seems to us that the 'efficient allocation' approach of Kothari et al. (2010) is a useful attempt to bring together the value relevance and efficient contracting approaches into a single framework. However, Lambert (2010) adds the important insight that contracting efficiency concerns may often be more efficiently be taken care of by the contracting parties themselves rather than standards. If one accepts Lambert's point of view, then the key questions to ask are:

(1) If there is a demand for contracting information, why cannot the parties to that information agree what information will be supplied?
(2) If the regulators only focus on the supply of information for one particular purpose (i.e. predicting future cash flows), is there a risk that their decisions may affect the costs of supplying information for other purposes?

3.2. *The economics of asymmetric information: moral hazard and adverse selection*

Like Lambert (2010, p. 291) we question whether 'the stewardship role' is helpful terminology. Rather than talking about different roles or different objectives, we prefer to talk about the conceptually distinct economic problems that financial reporting is designed to address.

In general, there are two major types of information asymmetry problems that general purpose financial reporting potentially helps investors overcome. These are moral hazard/hidden action/managerial agency problems, and adverse selection/hidden information problems. The concepts of moral hazard and adverse selection entered the lexicon of mainstream economics starting in the 1970s, and, in recent years, a number of Nobel Prizes have been awarded to the economists who developed these fundamental new insights. The social and economic importance of moral hazard was highlighted by the recent financial crisis driven by the moral hazard of banks.

Moral hazard problems arise from the fact that investors cannot observe the investment decisions and other cash flow-influencing choices that corporate boards and executives make. To the extent that the personal objectives of company managers are less than perfectly aligned with the interests of investors, information is required by investors to monitor the behaviour of managers and, potentially, to provide a basis for contracting with managers giving appropriate

incentives. General purpose financial reporting potentially contributes to the information set that investors can use to monitor and control company managers' choices.

Related to the moral hazard problem, Lambert (2010) draws a distinction between using information to predict future cash flows and using information to influence future cash flows. The use of information to influence cash flows is closely related to the idea of using information to counter the moral hazard problems that routinely affect the relations between company managers and external investors.

General purpose financial reporting also has a potential role in reducing hidden information problems. It can serve as a mechanism to convey the hidden information of insider managers to external investors, and it may also serve to reduce the costs of competition between external investors in their attempts to 'beat the market'. For example Diamond (1985) has shown that the provision of public information about a firm's prospects to all investors can result in lower expenditure on private information production. In the USA, the Security Exchange Commission (SEC) sets considerable store by the need to ensure that capital market investors have equal access to information. Reasonably equal access to information is seen as a foundation stone for well-functioning capital markets.

3.3. *Preliminary implications*

From a policy point of view, thinking in terms of moral hazard and adverse selection problems helps to bring into sharper focus to the somewhat vague claim that the role of financial reporting is to provide useful information to investors. When thinking about what forms of conservatism to encourage, allow or disallow, standard setters need to focus on which specific types of information benefits and costs will be affected. The current 2010 CF does acknowledge that a key role of financial reporting is to convey information from the firm to capital providers. In this respect, at least implicitly, it recognises the adverse selection problem. A weakness of the 2010 CF is that it does not acknowledge the moral hazard problem either implicitly or explicitly. We will develop this point in Section 6.

4. The economics of accounting conservatism

This section discusses theoretical arguments designed to explain why accounting conservatism exists and what consequences could arise from the adoption of conservative accounting policies. Some of the literature is based on general theoretical arguments that do not make use of formal analytical models, while some other literature works with mathematical models to demonstrate specific logical possibilities.

4.1. *General arguments*

Ball (2001) makes the important point that it is not possible to understand the economic role of conservatism from a perspective that focuses on the value relevance of accounting numbers. General purpose financial statements are used for a variety of purposes beyond the valuation of equities, including 'short- and long-term debt agreements, management compensation, corporate governance, and monitoring of actual outcomes subsequent to managers' expectational statements' (Ball 2001, p. 142). He also points out the importance of recognising that the information set of the market consists of the audited financial statements plus other information that investors have access to, including voluntary disclosures by managers. This point is very important from an accounting policy point of view. The lesson for standard setters is that the role of financial reporting needs to be set in the context of optimising the overall information set of investors. They

should not set accounting standards based on the false assumption that investors have no other sources of information. In particular, it is vital to note that the adoption of conservatism in the financial statements does not imply that the information set made available to investors will be biased. If company managers have information that can credibly challenge the conservatism of reported earnings, then they have an incentive to make voluntary disclosure to correct any bias they perceive. If firms can credibly make voluntary disclosure of good news, then the main potential benefit of conservatism is timely loss recognition. In addition, accounting standard setters need to be aware that accounting plays an important disciplining role in relation to softer forms of information. Watts (2006), for example, argues that the role of accounting is 'to produce "hard" verifiable numbers that discipline other courses of information'.

Ball (2001) argues that economically efficient financial reporting systems are characterised by two criteria, independence from managers, which leads to a demand for audited financial statements, and timely incorporation of economic losses, because lenders and credit rating agencies are more exposed to economic losses than economic gains. In addition, timely loss recognition can play an important disciplining role as it may increase the incentives of managers to abandon losing investments and reduce the incentives of managers to adopt negative net present value projects.

Watts (2003a,b) also explores the drivers of conservatism arguing that contracting costs are the main determinants of the demand for conditional conservatism, as certain contracts are based on reported accounting numbers (especially accounting earnings). He argues that while the 'easy-to-verify' information is in general incorporated into financial statements in a timely manner and, in that case, the asymmetric recognition of this information is not necessary or desirable, debate about conservatism mostly focuses on the difficult-to-verify information, which drives the efficient level of asymmetric gain and loss recognition due to (i) the greater costs of incorporating difficult-to-verify information into financial statements vis-à-vis easy-to-verify information, (ii) the lower reliability of difficult-to-verify information vis-à-vis easy-to-verify information, (iii) the asymmetric usefulness of profits and losses to some users of financial statements (e.g. bondholders) and (iv) managerial incentives to bias financial reports upwards in an attempt to extract excess compensation.

In summary both, Ball and Watts, argue that debtholders have an asymmetric demand for good and bad news, as the value of their claim is more sensitive to bad news than good news, and if firms fail to provide such information they will potentially protect themselves by imposing a higher interest charge on the firm (thus indirectly affecting the shareholders). On the other hand, managers are in a position of information asymmetry and have incentives to bias earnings upward to their benefit. So, an important role of conservatism should be to constrain managers' opportunistic behaviour, making it costly for managers to deviate from reporting the firm's true economic earnings. However, even if one accepts the view that timely loss recognition is a major concern of lenders, this in and of itself does not explain why conservatism is necessary to achieve this. Accepting that lenders gain from timely loss recognition does not imply that they would also lose from equally timely gain recognition.

Although neither Ball (2001) nor Watts (2003a,b) explicitly distinguishes between conditional and unconditional conservatism, most of their arguments and their focus on timely loss recognition suggest that they had conditional conservatism more in their mind. In fact, conditional conservatism can benefit lenders by providing an early warning of declining performance, while unconditional conservatism provides no such signal and may even neuter such signals. According to Basu (2005), most forms of unconditional conservatism arose from tax-avoidance incentives, regulatory incentives and litigation concerns. In addition, his view is that unconditional conservatism cannot be viewed 'as a benign substitute for conditional conservatism' (p. 314).

4.2. *Formal models of conservatism*

The informal arguments of Ball and Watts discussed in the previous sub-section are interesting, and to some extent persuasive. However, it is important to consider whether it is possible to capture these ideas in formal analytical models. Formal models help us to identify potential limitations to the informal arguments, including potentially identifying circumstances where the informal arguments may break down. Formal arguments also help us to identify the potential trade-offs that are involved in choosing an optimum level of conservatism.

A general problem with formal models is that they often need to impose highly unrealistic assumptions in order to make them tractable to analytical solution. Partly as a consequence of this need for simplification, it is often difficult to compare models with each other. Formal models throw up a large number of logical possibilities leaving it to empirical work to sort out which of the large number of logical possibilities is most likely to be representative of the real world. Despite these limitations, it is our view that formal models play a vital role helping us think about the potential effects of accounting conservatism. We view such work as being highly complementary to the empirical literature.

Ewert and Wagenhofer (2011) present a number of analytical models in which conservatism could play a role. Although it is not explicit in some cases, they generally refer to conditional conservatism. These authors conclude that there is no unambiguous result that conservatism is good or bad, but the net effect of conservatism is dependent on the situation in which the accounting information is used. They argue for more scrutiny to evaluate the usefulness of conservatism, both in individual situations and even more so in accounting standard setting.

Most of the analytical papers focus on debt contracting efficiency, although some papers analyse executive contracts and the monitoring role on managers.

4.2.1. *Debt contracting*

Gigler et al. (2009) provide a formal analysis of conservatism in a debt contracting setting. They point out that the accounting system can lead to two types of errors. A type 1 error occurs if a project is liquidated because the accounting system sends a false alarm leading to costly liquidation. A type 2 error occurs if the accounting system fails to send an alarm when it should have done. They assume that, whatever the accounting system, the contract will be designed to minimise the expected cost of type 1 and type 2 errors. Thus, they measure contract efficiency as the sum of the expected value of type 1 and type 2 errors, and then consider how contract efficiency varies with the level of accounting conservatism. Their main finding is that the efficiency of debt contracting declines monotonically as accounting becomes more conservative in a conditional sense and, consequently, accounting system that maximises the efficiency of debt contracting must be conditionally liberal.

The findings of Gigler et al. (2009) are important but need to be interpreted carefully as their model implicitly assumes that there is no moral hazard or adverse selection problem. The surprising feature of this paper is that it indicates that, in the absence of moral hazard and adverse selection problems, the optimum accounting system will be conditionally liberal (not neutral).[8] What the Gigler et al. model teaches us is that the optimum level of conservatism will involve a trade-off of moral hazard and adverse selection costs, combined with the costs of type 2 and type 1 errors. In general, one would expect this trade-off to vary across firms.

In contrast to Gigler et al. (2009), other analytical papers describe logically possible worlds in which conditional conservatism can be positively beneficial. Göx and Wagenhofer (2009) study optimal impairment rules in a context where the accounting system provides information about the collateral pledged to raise debt capital. They conclude that, absent any accounting regulation, a firm that seeks to finance a risky project with outside capital will optimally design a

conditionally conservative accounting system. This is also desired by lenders because they would not want the firm to fully report its private information about asset values. Similarly, Caskey and Hughes (2012) show that covenants based on conservative accounting systems requiring impairment can improve efficiency, and Li (2010) finds that costly renegotiation of the debt contract can make conservative accounting desirable.

4.2.2. *Stewardship and managerial monitoring*

Glover and Lin (2013) provide an overview of the analytical literature on management compensation in a principal agency context, showing that whether or not conservatism is desirable depends on particular features of the contracting context. So, for example, Kwon et al. (2001) model accounting conservatism in a principal agency context and conclude that, in a limited liability context, the optimal accounting system will always be conservative,[9] and show that conservatism has no role in an unlimited liability context. Kwon (2005) studies a more general principal agent model that focuses on the effect of conservative accounting on the agency costs of the agent's suboptimal effort choice under moral hazard. His results show that there are logically possible worlds where conservatism can be beneficial, and logically possible worlds where conservatism may be harmful. Balakrishnan et al. (2013) extend the work of Kwon (2005). Their basic model, which focuses on the effort motivation role, finds that the optimal level of conservatism varies with the acuteness of the agency problem. Conservative (aggressive) accounting is preferable when the agency problem is acute (not acute). In a more sophisticated model the authors also allow retention decisions to be linked to accounting reports. In this model they find that accounting conservatism may serve to increase the risk of incorrect dismissals.

There is also some analytical research on the effect of conservatism on earnings management. Chen et al. (2007) show that conservative accounting can serve to reduce the incentives for earnings management. In their model, accounting conservatism would not be beneficial if some other mechanism could be invented to prevent earnings management. However, if earnings management is a significant concern, then increased accounting conservatism can be considered as a possible remedy. Gao (2012) studies whether and how conservatism constrains earnings management in a debt contract setting, finding that conservatism is generally beneficial, and Gao (2013) shows that, to safeguard against managerial ex post opportunism, the optimal ex ante measurement rule is conservative because, in the face of managerial optimism and opportunism, a conservative rule requires more verification of the transaction characteristics that are favourable to managers. In contrast, Bertomeu et al. (2013) demonstrate that more conservative accounting may be associated with more highly powered managerial incentives linked to reported earnings and this, in turn, increases the incentives for earnings management.

A few analytical papers examine the relation between conservatism and board characteristics. Caskey and Laux (2013) find that a stronger board is associated with more conservatism as well as greater earnings–increasing earnings management. Gao and Wagenhofer (2014) model a situation where the board of a company relies on information from the accounting system to decide whether to fire the CEO or to monitor more closely the performance before deciding whether to fire. They assume that the firm chooses the level of conservatism, as well as whether or not to monitor. They find that the optimum level of conservatism depends in general on three factors: the costs of monitoring, the effectiveness of monitoring and the accuracy of the accounting system. There are combinations of these three factors under which a conservative accounting system is optimal, and there are combinations under which the optimal accounting system is aggressive.

Finally Gietzman and Trombetta (2003) develop a model that provides a role for conservative accounting policy choice and voluntary disclosure as alternative mechanisms to provide private information, focusing on the interactive effects of these mechanisms on the cost of capital. Their contribution is to argue that firms will consider the relative agency costs associated with conservative accounting and voluntary disclosure selecting the mechanisms which result in lower agency costs for the firm, although they suggest the two channels work in different ways, with voluntary disclosure being an imperfect substitute for conservatism. These authors suggest that a firm can signal good prospects by adopting conservative accounting policies or voluntary disclosure. However, investors will charge a higher cost of capital to aggressive firms, even if they disclose good news in credible voluntary disclosure, as they will consider these firms to have higher agency costs.

4.3. *Preliminary implications*

The theoretical literature recognises a number of possible drivers for conservatism. These include tax avoidance, regulatory gaming and litigation concerns. However, the main arguments for conditional conservatism have focused on the efficient contracting role of conservatism.

The formal theoretical models show that it is not generally true that conditional conservatism will always and everywhere improve contracting. However, the models do indicate that there are a wide range of circumstances where it would be in the interest of both sides to the contract for accounting to be conditionally conservative. Moreover, the contracting arguments in favour of conditional conservatism do not, in and of themselves, explain why standard setters should take contracting concerns into account. The work of Lambert (2010) suggests that a rationale for such policy intervention may be established by considering the demands of external investors (especially investors in public debt) who are not able to protect themselves from moral hazard problems. Such investors may exhibit a demand for cash flow-influencing information. Whilst the CF already identifies lenders as an important set of primary users, arguably it does not recognise the need for accounting information to improve debt contracting.

5. Empirical research on conservatism

In the previous section, we discussed the theoretical arguments that have been advanced to explain the demand for conditional and unconditional conservatism and the potential consequences of conservatism. In this section, we summarise the empirical evidence relating to these arguments[10].

Before summarising the evidence, however, we need to point out some of the problems involved in drawing reliable conclusions from econometric evidence. Specifically, in order to carry out empirical work on the causes and consequences of conservatism, it is necessary for researchers to be able to construct reliable measures of conditional and unconditional conservatism. Confidence in the construct validity of a measure can be achieved by theoretical arguments that explain why a particular measure may be a good proxy for the phenomenon of interest, or by empirical findings from repeated applications of the measure in a variety of contexts that yield results consistent with the empirical hypotheses.

Almost every empirical study on conservatism has to be viewed as a test of a joint hypothesis involving the main hypothesis of interest and the hypothesis that the proxies for conservatism used in the study are valid. This situation is similar to the literature on the efficient market hypothesis that requires a model of how the market prices risk in order to test the efficient market hypothesis. How to interpret the results when using different measures, or having doubts about these

measures representing what they are supposed to represent, is something inherent to empirical research in all social sciences.

The most frequently used measures of unconditional conservatism are the market-to-book ratio and the hidden reserve measure developed by Penman and Zhang (2002) who argue that unconditional conservatism creates hidden reserves. Therefore the higher the amount of the hidden reserves the more unconditionally conservative the accounting system.

With regard to conditional conservatism, much of the literature relies on a measure of differential timeliness (DT) developed by Basu (1997), whose model uses stock market returns as a proxy for news. The popular 'firm-year' measures of conditional conservatism of Khan and Watts (2009) and Barth et al. (2014) are also based on the Basu (1997) DT measure. The reliability of the DT measure has been called into doubt by the recent works of Dietrich et al. (2007), Cano-Rodriguez and Nunez-Nickel (2015) and Patatoukas and Thomas (2011, 2014). These criticisms are particularly severe, so we need to warn the reader that the empirical results on conditional conservatism that rely exclusively on the Basu DT measure or its variants mayneed to be reworked using other measures.[11]

5.1. *Evidence on the determinants of conservatism*

The theoretical literature discussed above highlights contracting efficiency concerns, especially with respect to debt contracts and executive compensation contracts, as the main drivers of conditional conservatism. Unconditional conservatism is argued to be driven mainly by tax and regulatory incentives and by litigation risk.

These theoretical arguments have been tested in empirical studies. We highlight the main conclusions of three sets of literature. First, we discuss papers that seek to test theories that explain how conservatism varies across countries because of variation in national factors and institutions. Then, we discuss papers that test hypotheses related to how conservatism is expected to vary with firm characteristics. We focus then on the evidence on contracting efficiency as a driver of conservatism. We conclude this sub-section by examining the evidence on the role of the standards in determining the level of conservatism.

5.1.1. *International differences in the levels of conservatism*

The first empirical studies on the potential drivers of conservatism focused on comparing the level of conservatism across countries. Ball et al. (2000) were the first to test the general idea that the demand for accounting information varies across institutional contexts. In particular, they compared the demand for conditional conservatism in common law countries which, they argued, follow a shareholder-oriented approach to corporate governance, with the demand for conservatism in code law countries that follow a stakeholder approach. Later studies analysed a more focused set of countries in Europe and also addressed some methodological issues (see Giner and Rees 2001, García Lara and Mora 2004, Garcia Lara et al. 2005[12]) to arrive at the same general conclusion that common law countries exhibit higher levels of conditional conservatism than code law countries. Giner and Rees (2001) and García Lara and Mora (2004) also compare the level of unconditional conservatism in UK against European code law countries and find that unconditional conservatism is greater in code law European countries than in the UK.

Overall, these studies conclude that higher levels of conditional conservatism are associated with countries with more developed stock markets and higher investor protection and litigation risk, while higher levels of unconditional conservatism are associated with countries with less-developed stock markets and/or where banks are the main providers of finance, and where accounting choices are more heavily influenced by tax considerations.

In a later paper, Ball et al. (2008) argue that cross-country differences in conditional conservatism are associated with the size of the debt markets and not with the size of the equity markets. Their results show that countries with larger debt markets exhibit significantly higher levels of conditional conservatism. They conclude that 'the debt market influence on reporting is inconsistent with the value relevance school of accounting thought and consistent with a costly contracting view' (Ball et al. 2008, p. 172). They also conclude that unconditional conservatism is completely unrelated to debt market importance, suggesting that unconditional conservatism has no role in creditor protection.

It is important to highlight that these studies did not test directly the association of the levels of conditional and unconditional conservatism with their potential drivers. Instead their main focus is on showing that country-specific institutional differences, such as the legal system, the tax system and broad features of the corporate financial system, significantly affect the levels of conditional and unconditional conservatism. These papers call into question the idea that the adoption of a single set of accounting standards by a set of countries (such as the implementation of IFRS in Europe) will automatically lead to the same level of conservatism in all the countries in the set. If the underlying country-specific institutional features remain unchanged, then cross-country differences in conservatism may persist by firms making discretionary accounting choices.

5.1.2. *The relation between firm characteristics and the level of conservatism*

A number of studies focus on the factors that cause firms within the same country to choose different levels of conservatism. This means that, in general, different levels of conservatism among companies should be discretional, as the accounting standards applied by the companies are the same.

Using a variety of proxies for corporate governance quality, some papers (Beekes et al. 2004, Ahmed and Duellman 2007, García Lara et al. 2007, 2009b, Vyas 2011, Jayaraman 2012, Ramalingegowda and Yu 2012) show a positive relation between governance quality and conditional conservatism. These authors argue that their results demonstrate the existence of a demand for conditional conservatism for the purpose of improved managerial monitoring.

Also several studies (such as Ball and Shivakumar 2005, La Fond 2005, Dargenidou et al. 2007, Peek et al. 2010, Bona et al. 2011) show a negative association between concentrated ownership and conditional conservatism, suggesting that concentrated ownership increases the likelihood that information asymmetries between managers and shareholders will be solved by private communication channels.

A recent paper by Badia et al. (2015) investigates whether US firms' measurements of the level 1 or level 2 fair values of financial instruments exhibit conditional conservatism. Absent the exercise of discretion, fair value measurements incorporate unrealised gains and unrealised losses symmetrically, inconsistent with the application of conditional conservatism. However, they argue and provide evidence that firms exercise whatever discretion they have over fair value measurements and they are conditionally conservative. These effects are stronger for firms (years) that have (provide) greater incentives to report conditionally conservatively.

Finally, Qiang (2007) reports the results of empirical tests designed to tease out the separate determinants of conditional and unconditional conservatism in the USA. She focuses on debt contracting, tax avoidance, regulation and litigation as potential drivers of conservatism choices at the firm level. She concludes that (1) debt contracting induces conditional conservatism; (2) litigation induces both forms of conservatism; (3) regulation and political costs induce unconditional conservatism and (4) taxation induces unconditional conservatism. García Lara et al. (2009a) confirm Qiang's major finding that debt contracting concerns drive conditional conservatism but not

unconditional conservatism, although they find that tax and regulatory concerns can also drive conditional as well as unconditional conservatism.

All these results suggest that attempts to force firms to adopt the same level of conditional conservatism will, if successful, reduce economic efficiency or, more likely, will be resisted by companies.

5.1.3. *Evidence on contracting efficiency as a driver of conservatism*

There are a number of recent papers that provide more direct evidence that debt contracting concerns are a major driver of conditional conservatism.

Nikolaev (2010) finds that firms with more extensive use of debt covenants in public debt contracts exhibit higher levels of conditional conservatism. Gormley et al. (2012) find that the entry of foreign banks into India was associated with an increase in conditional conservatism and that this increase was linked to subsequent increases in corporate debt levels. Other papers reporting evidence that debt contracting concerns drive conditional conservatism include Jayaraman (2012), Jayaraman and Shivakumar (2013) and Tan (2013).

Haw et al. (2014) provide evidence that private firms with public debt are more conditionally conservative than firms with only private debt. They argue that bank lenders are in a stronger position to protect themselves, so it is likely that it is the relatively weak investors in public debt markets who need the most protection through conditionally conservative accounting. This result is consistent with the evidence discussed above that conditional conservatism is lower in countries where banks are the main suppliers of company finance, or where public debt markets are less developed.

A prominent criticism of the idea that contracting efficiency should determine conditional conservatism highlighted in the previous section is that stakeholders can achieve the desired level of conservatism by insisting on adjustments to GAAP in the contract terms. Beatty et al. (2008) thoroughly examine this argument. They do find that lenders protect themselves by additional contracting provisions designed to make contract calculations more conservative than the figures obtained using GAAP. However, they also find a significant positive correlation between unexplained reporting conservatism and the use of contract modifications. Overall, their results suggest that contract modifications are used in combination with discretional conditional conservatism to protect lenders in situations where agency costs are especially high.

To date there is little direct evidence on management compensation contracts as a determinant of the demand for conditional conservatism (see e.g. Iyengara and Zampellib 2010). There is some evidence of other stakeholders driving to some extent the level of conditional conservatism, as for example suppliers (Hui et al. 2012) or labour agreements with workers (García Osma et al. 2015).

Overall, the evidence to date shows that debt contracting is the primary driver of the contracting demand for conditional conservatism, but not for unconditional conservatism.

5.1.4. *Accounting standards and accounting conservatism*

Whilst the studies discussed in the previous sections have shown a tendency for conservatism to vary systematically by broad institutional factors, and for within country variation to be associated with firm characteristics, relatively little attention has been paid to the role of accounting standards per se.

There have been some attempts to analyse the impact of IFRS adoption on the level of conditional conservatism exhibited by firms. Andre et al. (2015) study the effects of IFRS implementation in Europe on conditional conservatism. Overall, they report a decrease in the level of

conditional conservatism following IFRS adoption. However, using the Preiato et al. (2015) audit and enforcement index, they also find that the decrease in conditional conservatism is smaller for countries with high-quality audit environments and strong accounting enforcement.

Focusing on banks, Gebhardt and Novotny-Farkas (2011), for a large sample of European banks, analyse the impact of introduction of the incurred loss model in IAS 39 on conditional conservatism. Their results are consistent with a reduction in conditional conservatism under IAS 39. In contrast, O'Hanlon (2013), who focuses on UK banks, finds that UK loan loss provisions under IAS 39, from 2005 to 2008, did not result in reduced conditional conservatism compared with the loan loss provisions made during the period 2001–2004. These contrasting results illustrate some of the difficulties involved in trying to identify the effects of standards per se when dealing with different national contexts.

Lawrence et al. (2013) investigate the extent to which conditional conservatism is driven by extant accounting standards in the USA. They introduce the concept of non-discretionary conservatism to represent the level of conditional conservatism that a firm will exhibit if it faithfully follows the GAAP rules operating in its accounting jurisdiction. They show that faithful application of US GAAP rules explains a significant amount of the conditional conservatism practiced by US firms.

5.2. *Evidence on the consequences of conservatism*

This subsection provides an overview of the empirical literature on the effects of accounting conservatism. We divide our main discussion between papers concerned with the stewardship/cash flow influencing/contracting roles of conservatism and the effect of conservatism on value relevance and capital market transparency.

5.2.1. *The stewardship/contracting efficiency effects of conservatism*

We can distinguish studies analysing the effects of conservatism on managerial monitoring from those analysing the effect on debt contracting efficiency.

5.2.2. *Managerial monitoring*

The effects of conservatism on managers' behaviour have been analysed considering two main aspects: how it affects their investment decisions and the level of earnings management.

5.2.2.1. *Investment decisions*. There is strong evidence that conditional conservatism serves to reduce the overinvestment problem. The studies show that higher conditionally conservative firms make more profitable acquisitions and divest poorly performing acquisitions earlier (Francis and Martin 2010), constrain managerial misuse of cash-holdings (Louis et al. 2012), have a higher future cash flows and gross margins and lower likelihood and magnitude of special items charges (Ahmed and Duellman 2011) or make more responsible bank lending decisions (Lim et al. 2014). In countries where accounting is more conditionally conservative, investments are more sensitive to declining investment opportunities (Bushman et al. 2011).

There is some evidence of conditional conservatism reducing under-investment problems (García Lara et al. 2014), but this evidence is less compelling and some studies show conditional conservatism as a potential constraint on innovation (Ma 2010, Chang et al. 2013).

There is some evidence of unconditional conservatism leading to inefficient investment decisions (Jackson 2008, Jackson et al. 2009).

5.2.2.2 *Earnings management*. A particular concern of standard setters is that conservatism may have the potential to exacerbate earnings management. The evidence relating to this concern indicates that it is very important to distinguish between the effects of conditional and unconditional conservatism.

García Lara et al. (2012) report evidence for US firms that conditional conservatism constrains accruals-based earnings management, although it also increases real earnings management (through real actions, which is potentially more costly). But they conclude that, on balance, the effect of conditional conservatism is beneficial.

On the other hand, there seems to be a reasonable consensus that unconditional conservatism may facilitate earnings management. Penman and Zhang (2002) argue that unconditional conservatism creates hidden reserves that can be released back into earnings when the conservatism unwinds. Jackson and Liu (2010) find a positive relation between unconditional conservatism and earnings management for the case of bad debt expenses. However, it is important to note that unconditional conservatism can lead to earnings management only if subsequent reversals are possible. In particular, accounting standards that mandate some form of unconditional conservatism where reversals through accruals are not possible cannot lead to accruals-based earnings management.

5.2.3. *Debt contracting efficiency*

The evidence shows positive effects of conditional conservatism on the efficiency of debt contracts. There is evidence that conditional conservatism facilitates the monitoring of debt contracts and reduces the cost of debt (Zhang 2008, Beatty et al. 2012), triggers debt covenant violations, reduces shareholder–bondholder conflicts over dividends and improves debt ratings (Ahmed et al. 2002). It also reduces risk-shifting (Loktionov 2010) and the bid-ask spread in secondary loan markets (Wittenberg-Moerman 2008). There is also evidence of conditional conservatism facilitating the access to debt funding (Watts and Zuo 2012), preserving value in default situations (Donovan et al. 2014) or serving to reduce bankruptcy risk (Biddle et al. 2014).

So far as we are aware, there is no evidence that unconditional conservatism produces material debt contracting benefits or costs, although there is some evidence that unconditional conservatism may serve to reduce bankruptcy risk (Biddle et al. 2014).

5.3. *The effects of conservatism on capital markets*

It has been argued by the defenders of the value relevance approach that conservatism, both conditional and unconditional, can damage the value relevance of accounting numbers.

Brown et al. (2006) find that the association of conditional conservatism with the value relevance of accounting earnings depends on the country-specific level of accrual intensity, concluding that the value relevance implications of conditional conservatism are contextual, that is, country and firm specific.

In relation to unconditional conservatism, the models of Feltham and Ohlson (1995, 1996) suggest that, provided one estimates the model correctly, the value relevance of accounting numbers should not be affected by unconditional conservatism. Some empirical evidence supports this view (e.g. Ahmed et al. 2000, Mason 2004). In more recent work, Balachandran and Mohanram (2011) explicitly analyse the effect of unconditional conservatism on value relevance using two proxies, the book-to-market bias measure of Beaver and Ryan (2000) and the hidden reserves measure of Penman and Zhang (2002). They find that value relevance has declined and that unconditional conservatism has increased over the time. However, the authors were unable to

confirm that the decline in value relevance was unequivocally caused by the increase in unconditional conservatism.

A number of papers examine the effects of conservatism on the predictive value of earnings and information asymmetry among investors. Some of them find a positive effect. So, for example, Kim and Kross (2005) find that the predictive value of current earnings for future operating cash flows has improved over time. They use a measure which includes both conditional and unconditional conservatism, and argue that increasing accounting conservatism has contributed to this improvement. Hui et al. (2009) find a significant negative association between several measures of conservatism (both conditional and unconditional) and the frequency, specificity and timeliness of management forecasts. These authors conclude that their evidence is consistent with both types of conservatism reducing managers incentives to pre-empt bad news by using forecasts, and they interpret their results as being consistent with conservatism reducing information asymmetry.

Just focusing on conditional conservatism, García Lara et al. (2014) find that an increase in firm-level conditional conservatism leads to a decrease both in the bid-ask spread and in stock return volatility. In addition, they find that increases in conditional conservatism are followed by more accurate and less dispersed analysts' forecasts and greater analyst following, also consistent with conditional conservatism decreasing information asymmetry. In a cross-country analysis, Giner et al. (2013) show that GAAP regimes with higher conditional conservatism are more attractive to ordinary shareholders who wish to hold diversified portfolios.

There is some evidence that conditional conservatism serves to reduce adverse selection problems in equity markets. LaFond and Watts (2008) and Khan and Watts (2009), after controlling for other potential drivers of conditional conservatism, report a positive association between conditional conservatism and the existence of information asymmetries, and conclude that an increase in information asymmetry leads to an increase in conditional conservatism.

However, a number of studies find that analysts seem to struggle with understanding the effects of conservatism for their forecasts. For example, Mensah et al. (2004) find that conditional conservatism is associated with higher forecast errors and forecast dispersion. Similar results are reported by Helbok and Walker (2004), Louis et al. (2014) and Pae and Thornton (2010). A recent paper by Barth et al. (2014) finds that more conditionally conservative earnings have lower information content as higher conditional conservatism decreases the speed with which equity investor disagreement and uncertainty resolve around earnings announcements.

Focusing just on unconditional conservatism, Monahan (2005) finds that the unconditionally conservative accounting treatment of R&D results in the market underestimating future earnings when past R&D growth is high, which in turn results in underestimates of firm value. He also finds that residual income valuation estimates are less accurate for firms with a high level and high growth rate of R&D.

A recent paper by Chen et al. (2014) finds that US firms with more conservative accounting, both conditional and unconditional, exhibit less persistent earnings (with conditionally conservative earnings being less persistent than unconditionally conservative).

Finally we wish to highlight that some research has attempted to assess the overall effects of conservatism on the cost of capital. This is not easy work, as the cost of capital is not observable, and there are severe endogeneity issues involved in the research designs. Most of the evidence shows that conditional conservatism reduces the cost of capital (Artiach and Clarkson 2010, García Lara et al. 2011, Kim et al. 2013, Li, forthcoming), although there is some evidence to the contrary (Chan et al. 2009).

Overall, we conclude from the empirical evidence that conditional conservatism probably has a variety of beneficial effects including improved contracting efficiency (especially for public debt contracts), constraining overinvestment and constraining upwards accruals earnings management.

On balance, it looks like conditional conservatism also serves to reduce the cost of capital and bankruptcy costs. There is some evidence that conditional conservatism may help to reduce adverse selection problems in equity markets, and may help in forecasting future cash flows. Against these generally positive findings, there is some evidence that conditional conservatism may increase earnings volatility, reduce earnings persistence and make the forecasting of earnings more difficult. There is also some evidence that conditional conservatism may discourage firm investment. The effect of conditional conservatism on the value relevance of earnings is mixed. Taken along with the favourable evidence relating to the effects of conservatism on the cost of corporate debt, the evidence overall points to conditional conservatism serving to reduce the cost of capital for most firms.

There is no evidence that unconditional conservatism improves either contract efficiency or the value relevance of earnings, while evidence suggests that unconditional conservatism increases the scope for earnings management.

6. Implications for standard setting

The purpose of this section is to synthesise the potential implications of the academic research reviewed in the previous sections for standard setters. Before doing this, we need to distinguish between positive and normative research. Positive research seeks to provide answers to 'what is' questions about how the world works. Normative research seeks to provide answers to questions as to 'what ought to be'. Some of the formal theoretical models reviewed above do contain normative implications. However, even though the formal models come closer to directly addressing normative concerns, their relevance for policy-making needs to be judged by reference to the realism or otherwise of the assumptions on which the models are based.

In contrast, empirical research is designed to test positive hypotheses about the causes and consequences of accounting phenomenon. It is not designed to provide direct answers to normative questions, such as what forms of accounting are better or best. In order to derive normative implications from empirical work, additional assumptions are needed to provide a normative framework.

6.1. *The normative framework: cost–benefit analysis*

Schipper (2010) reminds us that accounting standard setters are required to follow a (social) cost–benefit approach. From this it follows that the correct normative framework for deciding whether one or more forms of conservatism should be allowed or required is cost–benefit analysis. Relative to neutrality, if the expected benefits of allowing conservatism are greater than the expected costs, then conservatism should be allowed. If the expected benefits of mandating some forms of conservatism are greater than the expected costs, then conservatism should be mandated. Furthermore, in making such judgements, standard setters need to recall that current standards already embody significant commitments to various forms of unconditional and conditional conservatism (see Barker and McGeachin, forthcoming).

An important contribution of the academic literature on conservatism is the emergence of the view, both from theory and evidence, that the potential costs and benefits of conditional and unconditional conservatism are very different. In addition, the literature has helped to highlight the fact that whilst some forms of conservatism may bring private benefits to the firm, this may result in costs falling on society as a whole, for example through tax avoidance or regulatory gaming. This latter possibility is of particular concern with regard to unconditional conservatism.

The empirical evidence reviewed above suggests that the demand for conditional conservatism is largely driven by contracting needs, with the information and contracting needs of investors in debt markets in general, and public debt markets in particular, being the main driver.

However, contrary to the claims of some of its advocates, the economic desirability of conditional conservatism for debt contracting is not clear cut. Recent theoretical papers demonstrate that it is not safe to conclude that conditional conservatism will always and everywhere be the best design choice for the financial reporting system. Rather it is safer to conclude that the optimum level of conditional conservatism is likely to vary across firms, circumstances and jurisdictions.

With regard to unconditional conservatism, there does seem to be fairly widespread acceptance that it serves no useful contracting purpose, may reduce the value relevance of financial statements and that it plays no positive role in curbing opportunistic earnings management, at least when reversals are allowed. Indeed, it may actually facilitate earnings management. Nevertheless, many firms choose to adopt unconditionally conservative accounting practices beyond the ones mandated by the standards, perhaps for opportunistic earnings management reasons or for reasons related to tax, litigation, regulatory gaming and other third-party concerns. Ultimately accounting standard setters will have to decide whether unconditional conservatism has any socially useful role.

6.2. *Implications for the Conceptual Framework*

We suggest that the main implications of the academic literature on conservatism for the CF should be more explicit recognition of the moral hazard and adverse selection problems that financial reporting is designed to solve, and explicit recognition of the distinction between conditional and unconditional conservatism.

6.2.1. *Moral hazard and adverse selection*

A key point highlighted by the literature on accounting conservatism is that moral hazard and adverse selection problems explain the existence of the economic demand for conservatism, especially conditional conservatism. In fact, some of the theoretical papers we reviewed indicate that conditional conservatism would have no value in the absence of moral hazard or adverse selection issues (Gigler et al. 2009).

We note that the IASB's 2010 CF implicitly recognises the adverse selection role of financial reporting.[13] Nevertheless, in the light of the empirical evidence, we would suggest that this statement might be extended to explicitly mention the need to reduce (a) information asymmetries between firm insiders and external investors, and (b) information asymmetries between different classes of investors (e.g. institutional investors versus retail investors).

With regard to moral hazard, the IASB's 2010 CF attempted to subsume the stewardship role within a single overarching role involving the provision of information useful for decision-making by investors and creditors. However, in 2014 the IASB indicated a willingness to recognise a distinct separate role for stewardship.[14] In our view, this move by the IASB could be seen as an implicit acknowledge of the role of financial reporting in solving moral hazard problems. Nevertheless, we would like to see explicit reference to the importance of the moral hazard issues or what Lambert (2010) calls the 'cash flow-influencing role' of financial reporting. Moral hazard is a general issue that affects all types of public companies, but it is especially important in relation to the banking sector and the systemic risk that this sector imposes on the economy.

6.2.2. *The existence of two different types of conservatism and their potential conflict with neutrality*

The 2010 revision of the CF does not include prudence. The Basis for Conclusions explained that prudence had been omitted because it is incompatible with neutrality. Also the Discussion Paper

on the CF (IASB 2013) contains no reference to the concept of prudence. In May 2014, the IASB[15] tentatively decided to reintroduce a reference to prudence, describing prudence as the exercise of caution when making judgements under conditions of uncertainty, and stating that the exercise of prudence is consistent with neutrality and 'should not allow the overstatement or understatement of assets, liabilities, income or expenses'.

The IASB's 2010 CF states that

> neutral depiction is without bias in the selection or presentation of financial information. A neutral depiction is not slanted, weighted, emphasized, de-emphasised or otherwise manipulated to increase the probability that financial information will be received favorably or unfavorably by users.

Focusing on the first part of this statement, in which neutrality is defined as 'without bias in the selection or presentation of information', it is difficult to understand how the insistence of the IASB on *neutrality* as a component of representational faithfulness can be consistent with 'prudence' and with many of the standards that are currently in place. The second part of the statement seems to be more a warning against manipulation than a proper definition of neutrality. However, this 'warning' could be seen as perfectly consistent with the implicit recognition of two types of conservatism, a 'beneficial' conservatism and a discretional 'unconditional conservatism' which needs to be discouraged.

The empirical evidence suggests that some forms of (unconditional) conservatism are harmful and facilitate earnings management, and there are incentives driving the use of inappropriate practices. We agree with the IASB that there has been often a misconception of the term 'prudence' as defined in the CF, and we tend to agree with Barker (forthcoming) that this does not mean the IASB is rejecting prudence as some stakeholders think. However, we do not agree that the best solution to solve this 'misconception' issue is to withdraw explicit mention of conservatism in the CF. We believe that it is important for the CF to acknowledge the existence of the two types of conservatism, unconditional and conditional, as their economic effects are very different. In addition, unconditional conservatism limits the degree of conditional conservatism. In particular, excessive unconditional conservatism restricts the extent to which unexpected bad news can be reflected in financial statements.

A key issue here is how financial statements should respond to new information about the value of assets in place, that is, the potential role of conditional conservatism. Simply asserting that financial statements should be *neutral* does not provide sufficient guidance on this issue. Neutrality would indicate that when the value of assets in place experience an unexpected increase (decrease) in value then the firm should recognise a capital gain (loss). Conditional conservatism would indicate that when the value of assets in place experiences an unexpected increase (decrease) in value then the firm should not recognise a gain (should recognise a loss). Accounting standard setters need to be clear on this point. Should firms recognise all/some unrealised gains in the value of assets in place under uncertainty? For example, should firms write up goodwill on acquisition if a merger turns out more successful than expected? Neutrality would imply that firms should. Conservatism would imply that firms should not. It seems to us that the claim that prudence is consistent with neutrality in the way they are defined is of doubtful validity. There should be a guide on how and when conservatism OR neutrality will be applied in cases where assets in place unexpectedly rise in value.

6.3. *The importance of public debt markets*

Arguably the most impressive body of work on conservatism is that related to the role of conditional conservatism in debt markets. Indeed, there is a view that the information needs of

debtholders in general and public debtholders in particular are the main driver of the market demand for conditional conservatism.

At the present time, public debt markets are dominated by the USA and, arguably, the demand for conditional conservatism is reflected in the accounting choices of US firms and, perhaps, even in US accounting standards themselves. However, it is impossible to assess how different US GAAP would be today in the absence of US public debt markets.

As public debt markets develop around the world, it is likely that they will play a more significant role in shaping the demand for financial information by non-US firms. At the present time public debt markets are growing in importance because of weaknesses in the international bank lending systems, especially in the European Union. Encouraging the growth of public debt markets potentially reduces the dependency of industrial companies on banks for debt capital.

In the light of this evidence, our view is that international accounting standard setters should consider how they might facilitate the development of public debt markets outside the USA by ensuring that accounting standards allow firms to respond to the information needs of public debtholders. Lambert (2010) argues that standard setters should focus on 'investors who are disadvantaged relative to insiders with respect to the economic state of the firm'. The demand for conditional conservatism by investors in public debt markets would seem to us to be a prime candidate for consideration here.

Ball et al (2015) have raised concerns about the usefulness of IFRS for debt contracting. They report evidence of a significant reduction in accounting-based debt covenants and an increase in non-accounting covenants around the mandatory adoption of IFRS by 43 countries between 2001 and 2010. Consistent with this evidence, it is probably fair to say that the IASB has tended to focus, up to now, on the design of accounting standards for equity market investors, and that relatively little attention has been paid to the needs of debt markets. A possible defense of the IASB is that standard setters cannot know in advance what contractual triggers people will want to use. However, if there is a general demand by a class of primary users for information for contracting purposes, then the social cost/benefit argument would suggest that this demand is not something that the IASB can or should ignore.

6.4. *Flexibility versus comparability*

Accounting standard setters have to think about two main issues in relation to conservatism. First, what forms of conservatism (both conditional and unconditional) will firms normally be expected to follow and, second, what alternative forms of conservatism will be allowed as deviations from normal practice.

In particular, given that international standards have to operate in countries with very different legal, regulatory, tax, ownership and governance arrangements, the IASB needs to be aware that the demand for conservatism could vary materially across countries. If these variations reflect underlying variations in the costs and benefits of conditional conservatism, then accounting standards that force all firms to have the same level of conditional conservatism will result in the imposition of unnecessary costs on firms. Furthermore, Roychowdury and Martin (2013) point out that allowing firms some degree of discretion over their levels of accounting conservatism provides potentially important evidence over time on the demand for conservatism.

Recognising that the costs and benefits of conditional conservatism vary across firms and jurisdictions, as well as the need for standard setters to consider the possibility of allowing firms or jurisdictions to choose their preferred level of conservatism leads to the need to consider a trade-off between the comparability benefits of having all firms choose the same level of conservatism, and the benefits of allowing firms or jurisdictions to tailor the level of conservatism to their

specific contracting, governance, legal and institutional context. An important argument against allowing discretion in conditional conservatism is that this could result in reduced comparability of financial statements between firms and across countries. We have a considerable amount of sympathy with this argument, but ultimately it is an empirical question as to whether the net benefits of allowing discretion over the level of conditional conservatism outweigh the costs of reduced comparability that such discretion might cause. Comparability should not, in our view, be viewed as a sacred cow that cannot be sacrificed at any costs. Rather we need to think of the economic trade-off that exists between enforcing strict comparability and allowing some degree of discretion. Moreover, what we have learnt from empirical evidence is that forcing the 'comparability' should be not just inefficient, but also unsuccessful. The discretionary component, which always exists under uncertainty, will be used by firms to get different levels of conservatism according to their circumstances.

As Roychowdury and Martin (2013) argue, it is also important to acknowledge the two-way interaction between the accounting choices of firms and accounting standards. Accounting practices are to some extent determined by accounting standards, but accounting standards are also to some extent determined by reference to observed accounting practices.

One possible way forward, we suggest, would be for the IASB to maintain neutrality as the general norm for all its standards but to elaborate on a standard by standard basis precisely how neutrality is to be interpreted, what specific forms of conservative deviations from neutrality will be allowed (likely conditional), and what forms will not be allowed (likely unconditional). From a contracting efficiency perspective, an important feature of accounting is the extent to which firms are able to pre-commit to a well-defined level of conservatism (or neutrality). If all accounting standards explicitly recognised what particular forms of conservative treatment are allowed, then firms could more easily pre-commit, on a standard by standard basis, to the conservative treatments they prefer in their statements of accounting policies and embody these commitments in their financial contracts.

7. Areas for further research and improved engagement

Prior literature has pointed to failings in the relationship between academic accounting researchers and accounting policy-makers. Abela and Mora (2012) review the literature that shows that this relationship has rarely worked well, and that standard setters and academics share responsibility for this. Singleton-Green (2010) argues that there is a serious *communications gap* caused by a variety of factors. His view is that research that is potentially relevant often fails to register a policy impact, partly because academics are bad at communicating their results to non-academics, and partly because standard setters lack the capacities needed to assess and absorb relevant research insights.

Rutherford (2011), whilst acknowledging that Singleton-Green (2010) helps to understand some of the reasons for the lack of impact of academic research, takes a much more pessimistic view of the relevance of academic research. The real problem for policy-makers, according to Rutherford (2011), is that the conclusions of academic research 'have a strong tendency to be at a higher level of generality than that required for purposes such a crafting individual standards' (p. 149). He goes on to opine that for policymaking at the normal level of engagement, that of individual accounting practices and procedures, the problem is not one of communication and 'the perception of irrelevance' but of actual irrelevance. Finally Rutherford urges academics to reopen the space for classical a-priori theorising.

Thinking specifically about the academic literature on accounting conservatism, we tend to agree with Singleton-Green that researchers in this area need to do a lot more to relate their findings more directly to the concerns of standard setters. We also tend to agree with Rutherford that,

taking the literature as whole, the papers are pitched at a level that is not easy to relate to the setting of individual standards. In particular, given that the main driver for conditional conservatism seems to be debt contracting, more focus is needed on which specific standards could be modified, and in which specific ways, to improve debt contracting.

We find it encouraging that the academic literature has made some helpful contributions to understanding the different forms of conservatism, and the conditions under which the different forms might be economically beneficial or harmful. The highlighting of the role of conditional conservatism in ameliorating moral hazard problems is especially important.

We tend to agree with Rutherford that there is space in this area for more a-priori theorizing on conservatism, and we note that Barker (forthcoming) and Barker and McGeachin (forthcoming) have made insightful recent contributions in this respect. However, arguably, more work is needed on the meaning and definitions of conditional and unconditional conservatism, and on relating these improved definitions directly to the CF definitions of neutrality and prudence.

The literature on conditional conservatism is beset by serious doubts about the reliability of the Basu (1997) DT measure of conditional conservatism. This measure also underpins the firm year measures of conditional conservatism of Khan and Watts (2009) and Barth et al. (2014). Since a large body of empirical literature relies on these measures, we would expect a significant reworking of this literature as and when a more reliable indicator of conditional conservatism comes to hand.

Significant gaps remain in our understanding of the determinants and consequences of conservatism. In particular, as pointed by Ruch and Taylor (2015), researchers should look to separately evaluate the determinants and effects of timely loss recognition versus deferred gain recognition, the latter of which has been largely ignored in the literature, but which is highly relevant for policy-making. In addition, more work is needed on the demand for conditional conservatism for contracting over executive compensation.

More research on the effects of conditional conservatism on earnings management is required, including the effects of conditional conservatism on real earnings management.

There is a relative paucity of literature on the causes and consequences of unconditional conservatism. More work is needed to derive better measures of unconditional conservatism, and to test theoretical hypotheses relating to why firms make unconditionally conservative accounting choices.

The literature on the effects of accounting standards on accounting conservatism is underdeveloped. We would expect more research in this area building on the start made by Lawrence et al. (2013). In particular, we would expect more research on the effects of the increased emphasis given to neutrality in the CF, and fair value accounting in individual standards, on accounting practices, and on the use of GAAP for contracting purposes. To the extent that contracting parties prefer conservative accounting practices, one should see greater (less) use of non-GAAP (GAAP) numbers in contracts the more that accounting standards force firms in the direction of neutrality.

An important part of the case for conditional conservatism is that firms have strong incentives to disclose good news not recognised in the financial statements. However, Lambert (2010) questions this argument on the grounds that, even if firms wish to disclose good news, they will struggle to make the disclosures credible. More research is needed to show whether and how stock market values are informed by financial disclosures outside the financial statements, and the related role of financial signalling. A particular focus should be on how firms establish a reputation for truthful revelation of good and bad news. In particular, do the firms that choose conservative accounting practices also have a better reputation for truthful revelation of good news?

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Notes

1. The academic literature on accounting conservatism is vast, so our review, whilst extensive, is far from exhaustive. We focused mainly on publications in, arguably, the top five North American accounting journals (CAR, JAE, JAR, RAST and TAR), and the top four European accounting journals (ABR, AOS, EAR and JBFA) from 2008 to 2013, as well as recent working papers which are available on SSRN or at the AAA and EAA annual conference web sites. In addition, we took into account papers published before 2008 that were frequently cited in the literature from 2008 onwards.
2. Barker (forthcoming) proposes a theoretical distinction between "prudence" and "conservatism" although they are commonly used as synonymous. We accept Barker's distinction, but we tend to use the term "conservatism" as it is the one used in the academic research we discuss.
3. A significant threat to the financing of the IASB emerged in October 2013 when the European Parliament's Economic and Monetary Affairs Committee issued an official report in which it threatened to link the EU's contribution to the funding of the IASB and specifically states that co-financing should be given to the bodies in question only if it is clear that Union accounting concepts, in particular with regard to 'prudence ... are appropriately considered in the revision of the CF' (EU, 2013).
4. This definition is not the same as the definition of neutrality in the IASB (2010) CF which states that

   > A neutral depiction is without bias in the selection or presentation of financial information. A neutral depiction is not slanted, weighted, emphasised, de-emphasised or otherwise manipulated to increase the probability that financial information will be received favourably or unfavourably by users.

   Unfortunately this definition has operational concerns, because it fails to specify whether the aim of the depiction is to estimate the present value of an asset or the present value minus economic rents. However, the general stance of accounting standard setters has been to exclude economic rents from asset values. Hence we suggest that our definition of neutrality is consistent with the CF (2010) definition.

5. The practice of treating goodwill on acquisition as an asset conflicts to some extent with the idea that economic rents should not be included in asset values to the extent that the acquisition price includes a payment for future abnormal profits, that is, economic rents. Nevertheless, in relation to conditional conservatism, the important point is that accounting standards require goodwill on acquisition to be written down if the acquisition proves materially less profitable than expected, but the standards do not allow goodwill on acquisition to be written up if the acquisition proves to be materially more profitable than expected.
6. There is a substantial and growing body of evidence that opportunistic earnings management exists both through the exercise of discretion over accounting accruals and through real economic choices (see Walker, 2013 for a recent survey).

7. In this regard, Gebhardt et al. (2014) give some examples illustrating the two objectives can lead to different conclusions. So, for example, the level of verifiability is less important for capital allocation than for contract efficiency, the (past) transactions are more important for contracting than expectations, which are more important for valuation, and timely recognition of news (both, good and bad news) is more important for valuation than for contracting.
8. Gigler et al. (2009) use the term "conditionally liberal accounting system" to refer to accounting systems for which the verifiability requirements for recognising bad news are stricter than the requirements for recognising good news.
9. Limited liability here refers to the limited liability of the agent, not the firm.
10. A more detailed description of some of these papers can be found in Ruch and Taylor (2015).
11. Callen et al. (2010) have proposed another conservatism measure which also uses stock returns to identify good news years and bad news years, and which also involves regressing a measure of deflated earnings on stock returns. This measure is based on the return decomposition model of Vuolteenaho (2002). At the time of writing this review, the Callen et al. (2010) measure has not been assessed for the problems highlighted by Patatoukas and Thomas in relation to Basu's DT measure. However, it is possible that it will run into similar problems. Collins et al. (2014) and Hsu et al. (2012) claim that the problems with the DT measure can be largely avoided by replacing the dependent variable in the Basu (1997) equation by subtracting cash flow from operations from earnings to arrive at a measure of deflated total accruals. Ball and Shivakumar (2005, 2006), building on Basu (1997), develop a time series measure of differential timeliness based on deflated earnings changes.
12. Garcia Lara et al. (2005) further extend this work by controlling for the relatively high levels of downwards earnings management in continental European countries. With this control in place they find that the UK exhibits a significantly higher level of conditional conservatism than the continental European countries.
13. For example, paragraph OB5 states:

    > Many existing and potential investors, lenders and other creditors cannot require reporting entities to provide information directly to them and must rely on general purpose financial reports for much of the financial information they need. Consequently, they are the primary users to whom general purpose financial reports are directed.

14. According to staff paper (IASB, agenda paper, June 2014),

    > on May 2014 the IASB tentatively decided to amend Chapter 1 of the CF to increase the prominence of stewardship within the overall objective of financial reporting. It would do this by identifying the information needed to assess the stewardship of management as not overlapping fully with the information needed to help users assess the prospects of future net cash inflows to the entity.

15. www.ifrs.org/Meetings/.../IASB/2014/September/AP10A-CF.pdf

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