

Sequences of Change in Financial Reporting:  
The Influence of Financial Economics

Julia Morley

A thesis submitted to the Department of Accounting of the London School  
of Economics and Political Science for the degree of Doctor of Philosophy,  
September 2011.

## Declaration

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## Abstract

In this thesis, I analyse the influence of financial economic theory on financial reporting practice. This influence has manifested itself in the increasing use of economic methods introduced into practice by the publication and implementation of certain economics-based accounting standards. I provide three illustrative case studies in the areas of pensions, financial derivatives and contingent liabilities, focusing on projects by the FASB, IASC/B and the ASC/B.

To explain the increase in the use of economic methods in financial reporting practice, and their pattern of emergence, I draw on the genealogical and political economy approaches. I supplement these methodologies with a theory of causality by developing a qualitative causal model. This model, which I call the Causal Constellation Model, aims to explain the success of projects to introduce economics-based standards in terms of five individually necessary and jointly sufficient conditions. These conditions relate to the economic environment, the conceptual aims of financial reporting, the legitimacy of economic methods, the absence of institutional opposition and the effectiveness of advocates on the boards of standard setting institutions. The primary sources of evidence for my research are documents published by standard setting institutions, academic research and a number of interviews with high-level individuals, many of whom were directly involved in the development of the standards in question.

An unexpected finding is that interactions between different projects appear to generate sequences of change in financial reporting practice, spanning different areas of accounting and different regulatory jurisdictions. Thus, outcomes of earlier projects seem to create possibilities for later projects and shape their outcomes. In spite of the inevitable limitations of such case-study based, qualitative work, the model offers a plausible and apparently robust explanation of the overall pattern of influence of financial economics on the practice of financial reporting.

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## Acknowledgements

I would like to thank my doctoral supervisors, Professor Michael Power and Professor Richard Macve for their guidance and encouragement. I would also like to thank my family for their support. I am grateful to my interviewees for generously giving up their time.

This research was funded by the Economic and Social Research Council.



In memory of my father, Dr. D. R. McLintock

# Chapter 1

## Introduction

### 1.1. Revolutions in accounting

The notion of the ongoing transformation and mutability of accounting practice, to which Anthony Hopwood famously referred, can be applied to changing paradigms in financial reporting practice. Evidence for the fact that it is “not a static phenomenon” (Hopwood, 1987, pg. 1), can be found in a significant shift which has occurred in financial reporting practice. The pre-eminence of the historical cost convention has begun to yield to the increased use of fair values<sup>1</sup>, reflecting the influence of financial economic thought on ways of *doing accounting*. My primary research question is: *Why did financial economic theory influence financial reporting from the 1980s, leading to the emergence of accounting standards which required the use of financial economic representation techniques?* These representation techniques specify particular recognition and valuation criteria based on the standard setters’ interpretations of financial economic theory. They include the use of a range of valuation methods such as present values (with appropriate discount rates), option pricing models and expected values.

**Patterns of change in financial reporting.** Whereas traditional historical cost accounting valuations were influenced by legal considerations, newer measurement attributes have their basis in financial economic theory and bear little relation to their predecessors. Moreover, the inclusion of hard-to-value items on the balance sheet reflects a changing approach to representation in financial reporting practice. In this thesis, I analyse the influence of financial economic theory on financial reporting practice over the last three decades and investigate the reasons why economic techniques emerged in different areas of financial reporting and in different jurisdictions. The intensifying focus on economic theory in financial reporting is manifested by the increasing emphasis placed on the

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<sup>1</sup>I use the accounting term, *fair value*, and its economic counterpart, *economic value*, synonymously in this thesis while acknowledging that, in practice, significant differences exist and that the practical application of fair values by standard setters are not necessarily consistent with economic theory.

balance sheet, rather than the income statement, and the increasing use of *fair values*. My investigation focuses on a particular “constellation” of factors (Burchell et al., 1985), which I identify as individually necessary and jointly sufficient to bring about a pattern of influence of financial economic theory on financial reporting norms. I develop a qualitative causal model which makes use of theoretical tools from the philosophy of causation to make precise the notion of this “*pattern* of influence” and the associated shift in the form of accounting knowledge.<sup>2</sup>

The emergence, from the mid-1980s, of a cluster of new financial reporting standards requiring the use of economic valuation methods provides evidence of the penetration of financial reporting practice by economic ideas. In particular, developments in the financial reporting of pensions, financial instruments and contingent liabilities provide evidence of the influence of economics on financial reporting as a consequence of conceptual change and are associated with a shift in the form of financial reporting knowledge.<sup>3</sup> Although the introduction of economic valuation methods in financial reporting did not appear until the 1980s and 1990s, it was, in fact, preceded by a lengthy debate in the academic accounting literature (Canning, 1929; Hicks, 1939; MacNeal, 1939).

Over two decades before the introduction of economics-based accounting standards, Edwards and Bell (1961) distinguished economics, which “deals with the future and the decisions which will determine that future”, from accounting, which “is primarily concerned with historical description” (Edwards and Bell, 1961, pg. 1). The difference arises, they argue, because “improvement of managerial ability and related decision-making processes must lean heavily upon an evaluation of past decisions” (*ibid* pg. 3). Drawing on an economic notion of income (Hicks, 1939), they argue for the use of current values, since changes in market values provide “a concept of profit” which measures “truly and realistically the extent to which past decisions have been right or wrong” (*ibid* pg. 25). Thus they appear to suggest that changes in market value reflect cash flow expectations (see Revsine, 1981). Yet it was more than two decades after this theoretical contribution from economists (and four decades since Hicks’s work on the measurement of income), that economic methods would become established in areas of financial reporting practice.<sup>4</sup> Moreover, when economic theory finally exerted an influence on financial reporting practice, it was not uniform. Instead economic methods emerged in a piecemeal fashion across

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<sup>2</sup>Hacking sees a “form of knowledge” as a conceptual scheme with a particular set of measurement criteria, which, together, specify “what is held to be thinkable, to be possible at some moment in time” (Hacking, 2002, pg.170).

<sup>3</sup>The shift towards economic valuation in pensions can be seen by the adoption of the accounting standard, FAS 87 in the US in 1985 and IAS 19 in 1993 by the IASB. For financial instruments, new accounting standards were issued in 1998 (FAS 133 by the FASB and IAS 39 by the IASB), which required derivatives to be measured at fair value. Standards covering contingent liabilities were issued by the IASB in 1998 (IAS 37), by the ASB in 1999 (FRS 12) and by the FASB in 1975 (SFAS 5). An IASB project to revise IAS 37 has been underway since 2005.

<sup>4</sup>Economic decision-theoretic methods were adopted in management accounting practice from the 1950s however.

different areas of accounting and accounting jurisdictions. It is this non-uniform adoption of financial economic approaches to the representation of business activity, which I set out to explain in this thesis.

## **1.2. The increasing concentration of regulatory power**

Research into the sources of change in financial reporting is of particular relevance now. The increased concentration in the power of two standard setters, the US Financial Accounting Standards Board (FASB) or the International Accounting Standards Board (IASB) has resulted, over the last decade, in the application of these economic methods of representation to a large number of preparers around the world. Standard setters recognise their power over the world's public companies:

“Fourteen people have the power to set the law for 120 plus countries around the world. That’s a bit bizarre. No other international organization has that in the sense that something like Basel - which has been going for thirty-odd years - has done far less than we’ve done in ten . . . we have to be careful there’s not an arrogance about that in the sense that, who are we accountable to? Nobody” (Interview with IASB Board member T, January 2011).

As a result of the consolidation in the area of financial reporting regulation over the last decade, all US and EU listed companies, as well as listed companies in countries which have adopted International Financial Reporting Standards (IFRS), must now follow the rules determined by a group of 22 individuals at the Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB). Together they are responsible for the development and publication of new financial reporting standards which affect all listed companies in the US, Europe and many other countries around the world, and it is not clear that the drive towards a harmonised set of accounting standards is optimal (Walker, 2010). Given these circumstances, research investigating the nature of change driven by these standard setters seems timely and important.

## **1.3. History of regulatory change in financial reporting**

It is also important to consider the historical context in which regulatory change has taken place. Financial reporting has undergone several structural and conceptual shifts over the last century. It was not until the 1970s that the two main standard setting institutions, the FASB and the IASC, along with various national standard setters, such as the Accounting Standards Committee (ASC) in the UK, came into being. Before this time, companies were constrained in their financial reporting by professional accounting groups such as the American Institute of Certified Public Accountants (AICPA) in the US

and the Institute of Chartered Accountants in England and Wales (ICAEW) in England and Wales, along with fiscal and government regulators.

For the five decades preceding the shift towards the use of economic representation accounting in the 1980s, the historical cost convention dominated financial reporting. US regulators blamed the use of current values for the 1929 Wall Street Crash in the US and subsequently the SEC banned the use of current values and upward revaluations in financial statements. Thereafter in financial reporting, up until the 1970s, the focus of financial reporting fell on the income statement, with scant interest shown by accounting practitioners or investors in the balance sheet. By the 1960s, the tide was beginning to turn. The development of financial economics introduced a host of asset pricing theories. Given the obvious (and intended) applications of such theories to the practice of investment, it was not long before these academic theories began to spread to commercial investment practice. At about this time, an enthusiasm for decision-useful information and a focus on the balance sheet began to emerge (Sprouse, 1966; Revsine, 1970).

Meanwhile, finance theory was exerting an effect on the accounting and finance function of firms. Accounting academics have described the replacement of business finance, which was largely a descriptive field, by financial economics with its theory of efficient markets and asset pricing models (Whitley, 1986). Financial economic theories emphasise that assets should be valued in accordance with expectations of future cash flow streams and using stochastic models. From the 1980s onwards, the capital markets were responding to these new theories and their implications for trading and investment strategies. The newly formed standard setting bodies were undertaking an analysis of the conceptual underpinnings of financial reporting. Not surprisingly, given the increasing legitimacy of economic techniques in management accounting and developments in investment theory, and most importantly, the growth in capital markets, standard setters concluded that the role of financial reporting was to provide useful information to stakeholders, particularly potential investors. This aim led to an increased focus on the balance sheet, which was believed to be more useful in helping potential investors predict future cash flows than the income statement (Moonitz and Sprouse, 1962; Trueblood Committee, 1973).

It appears that financial reporting regulation experiences long cycles both in terms of structure and in terms of forms of accounting knowledge. Periods of stasis are followed by apparently revolutionary periods during which the regulatory structures or measurement schemes shift. It is against this backdrop that I analyse the introduction of fair value accounting in financial reporting.

#### **1.4. Financial reporting research**

Existing research in financial reporting change can be divided into that which investigates the effects of accounting change and that which analyses its sources. Much academic

research and press comment has been directed at the socio-economic effects of requiring companies to comply with particular accounting rules which reflect this shift towards a balance sheet focus using fair values. Many commentators question the usefulness of particular rules for stakeholders, for example the informational content of accounting information generally (Aboody and Lev, 1998; Barth et al., 2001). Considerable research scrutinises the value relevance of particular choices over disclosure or recognition of items such as pension and post-retirement health care obligations (Amir, 1993, 1996; Amir and Benartzi, 1999; Amir et al., 2007; Barth, 1991; Barth et al., 1992; Gopalakrishnan and Sugrue, 2006; Rees and Stott, 1998) and derivatives and financial instruments (Ahmed et al., 2011; Wang et al., 2005; Barth, 1994; Skinner, 1996).

Beyond the needs of investors, the socio-economic effects of fair value and of the recognition of previously unrecognised, uncertain obligations have also been a focus of attention. Some commentators highlight negative consequences. The decision to recognise pension liabilities on the balance sheet at fair value has been identified as a determinant of the funding of pension schemes (Harper and Strawser, 1993; Amir et al., 2007), and has been charged with playing a part in the closure of many defined benefit pension schemes (Dixon and Monk, 2009). The introduction of fair values for the reporting of derivatives has been blamed by many for exerting a pro-cyclical economic effect thus plunging capital markets into crisis in 2007-9 (American Bankers Association, 2008; Forbes, 2009).

Less attention has been focused on uncovering the underlying reasons for this shift towards economic valuation. The naturalistic approach is predicated on the notion that changes in accounting rules represent a consistent improvement in economic efficiency and benefit to stakeholders. Thus, the shift is explained simply by the fact that economic methods are the best tools for providing useful informational content in financial reports, and are superior to representations of assets and liabilities in accordance with the historical cost convention. This is consistent with the arguments noted above, that improved resource allocation results from the use of economic representation in financial reporting. Other commentators claim that such explanations miss the important fact that political and institutional interest groups can determine, to a large extent, the course of financial reporting regulation by political lobbying activity (Watts and Zimmerman, 1970; Perry and Nölke, 2006). Given this state of affairs, the notion of a simplistic evolution towards better reporting requirements seems somewhat naive. Functionalists might acknowledge the obstacles to functional improvements resulting from political lobbying and resistance from interest groups, but nevertheless argue that functionally superior techniques will ultimately triumph (FAS 87, 1985, ¶107).

## 1.5. This research study

In contrast to research about the socio-economic consequences of regulatory change in accounting, my research focuses on the *sources* of change in accounting thought and the consequent adoption of economic representation methods for financial reporting.<sup>5</sup> I analyse three case studies in financial reporting change. These account for attempts to introduce or extend the use of economic methods in financial reporting for the reporting of pensions, financial derivatives and contingent liabilities.<sup>6</sup>

I base my analysis on two main sources of evidence. The first is a series of interviews with senior technical staff and board members of accounting standard setting institutions (US, UK and IASC/B) and senior figures in institutions involved in the standard setting process for each case study. Access to this relatively small number of influential individuals provided insights into the reasons why particular standards were introduced, who was important in their promotion and what and who posed the greatest barriers to their successful publication and implementation. The second source of evidence is publications in academic journals, practitioner journals and the financial press. Using evidence from the development of one standard setting project in the US, I develop a qualitative causal model, which I label the Causal Constellation Model (CCM). This model identifies the individually necessary and jointly sufficient conditions for the successful introduction of economic methods by standard setters. I then apply the model to individual cases of regulatory change using the case study method.

The key finding is that the delay in adoption and the inconsistent pattern of penetration by economic methods can be explained in terms of a set of five individually necessary and jointly sufficient conditions. The first of these conditions is the shift in the aims of financial reporting towards the provision of economic information for decision-making. The second is the existence of favourable economic conditions. The third is the increasing legitimacy of economics within the accounting arena. The fourth is the existence of a favourable attitude of institutions involved in standard setting to the new standard. Finally, the fifth condition is the presence on standard setting boards of influential advocates of the use of economic representation methods in accounting. I find that the model provides a good account of the pattern of influence of financial economics on financial reporting as reflected in the introduction or extension of economic methods in the three areas of accounting studied.

The study of the three individual cases makes both an original contribution in empirical and methodological terms. It contributes to accounting knowledge by documenting the

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<sup>5</sup>By economic representation, I mean the use of economic values and the recognition of uncertain and hard-to-value items on the balance sheet, which would not have been recognised under the historical cost convention (for example pension liabilities).

<sup>6</sup>Other possible cases not selected were the use of the effective interest method for fees and discounts on debt and leases in the 1980s and stock options in the 1990s.

oral evidence from interviews with key actors, and by bringing together other forms of written evidence relating to the change in accounting knowledge in these specific episodes of change. In methodological terms, the research offers insights into the particular set of conditions which made possible the influence on accounting by economic theory and develops a plausible explanatory model, which builds on the genealogical approach to accounting explanation. An unexpected finding is that, when analysed in aggregate, these case studies reveal the existence of a sequence of change in accounting practice, which extends across, and connects, different jurisdictions and accounting items. I find that a change in one area of accounting itself constitutes a necessary condition for future change and carves out possibilities for change in other areas. What is more, this sequential analysis may be more generally applied to other areas of accounting change in future research.

My research is situated within, and contributes to, the methodological framework described by Napier (2006) as the *New Accounting History* (or NAH). In contrast to purely functional explanation, NAH emphasises the relevance of the historical *context* in which accounting phenomena take place. It stresses the necessity of paying attention to the meanings attached to particular accounting techniques *at that time and place* in order to avoid generating historical myths based on the unjustified retrospective application of a current conceptual understanding (Fulbrook, 2002).

NAH encompasses two strands of research. First, political economy approaches to explaining accounting phenomena (Tinker, 1980; Perry and Nölke, 2006) are used to scrutinize power relations and the economic-political paradigm. This approach aims to render visible the true structure of power relations and their impact on accounting change. In my research, I analyse institutional relations relevant to the introduction of new financial reporting standards using this approach. For instance, I consider power relations between the SEC, IOSCO, EU, investor groups and professional groups in the development of accounting standards for pensions, financial derivatives and contingent liabilities. The second element of the NAH approach emphasises the historical contingency of changes in accounting practice, drawing on the work of Foucault, for which there are many sources.<sup>7</sup> My analysis of the emergence of economic valuation builds on this historical contingency approach, by emphasising the importance of conceptual change as a condition for the introduction of economic techniques in financial reporting. In particular, I employ a version of the contingency approach developed by the philosopher Ian Hacking and labelled *historical ontology* (Hacking, 2002).

In addition, my research makes a contribution to the existing NAH framework by providing an explicit methodological treatment of causality. Causal explanation in the social sciences is often viewed with some scepticism due to the complex interactions and

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<sup>7</sup>See in particular Hopwood (1983); Burchell et al. (1985); Hoskin and Macve (1986); Hopwood (1987); Hoskin and Macve (1988); Miller and Napier (1993).



contextualised nature of social entities. To address these issues, I draw on the work of the philosopher of causation John Mackie, who proposes a theoretical approach to those problems of explanation for which a plurality of causes exists. Mackie acknowledges that particular events take place within a whole constellation of causal factors. He therefore replaces the notion of a single causal factor as an explanatory tool with the notion of *sets* of conditions which are individually necessary, but only jointly sufficient for bringing about an event. He names these *INUS* conditions (Mackie, 1974).<sup>8</sup> In supplementing the NAH approach with the work of Mackie, I aim to provide a causal explanation for the introduction of economic valuation into financial reporting practice, which takes into account the social and historical context of concepts in the accounting arena.

## 1.6. Limitations

My research is subject to limitations both in terms of methodology and evidence. However, I argue that it is no more subject to limitations than any social scientific endeavour for which limited evidence exists.

**Methodological limitations** In social scientific research, the notion of causal explanation is inevitably problematic as social facts do not necessarily succumb easily to analysis. They are potentially open to subjectivity in categorisation and exhibit dynamism due to the existence of feedback loops (Hacking, 1996) and this makes them troublesome variables in longitudinal research projects. It is not justifiable, for example, to assume that a particular social or accounting concept means the same thing to particular constituencies at different periods of time, or even to different constituencies at the same time.

In particular, qualitative research using categorical variables presents difficulties for hypothesis confirmation. It is not clear that absolute objectivity in categorising phenomena into particular types is possible. However, in my research, it is essential that I can categorise a particular project as a ‘success’, if I am to be able to analyse the effect of *INUS* conditions on that project. To this end, I aim to provide an observer-related, objective yardstick by which to measure this term. However, for any social scientific research, the risk of value-ladenness or subjectivity exists.

A further problem is that of deciding what constitutes sufficient evidence for a hypothesis to be determined plausible or even correct. Given the nature of my research and the evidence available, I have no recourse to the natural scientific approach of the experimental method. I have insufficient data (at least at this stage in my research) to carry out statistical tests. Given that I cannot rely on statistical analysis, how many case studies, interviews and how much archival research will suffice? These kinds of concerns

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<sup>8</sup>In Mackie’s terminology, an *INUS* condition is an insufficient but necessary part of an unnecessary but sufficient set of conditions.

about methods of confirmation pose limitations to this research, although they are not unique to this study. In using the case study method I aim to try, as far as it is possible, to replicate the experimental method. I try to establish if the INUS conditions are relevant in explanatory terms for different standard setting projects in different jurisdictions. Through the choice of the specific objects of study (the accounting standards projects) in a variety of jurisdictions (US GAAP, International GAAP and UK GAAP) and in different accounting areas (pensions, derivatives and contingent liabilities), I hope to increase the robustness of the model.

**Evidence** The use of interviews and practitioner publications as part of the evidence I use in explaining accounting change has the benefit of providing a broad spectrum of views from different interest groups. By reviewing the consistencies and inconsistencies between these views, I can triangulate on the facts of each case. In addition, the access to board level members and technical project leaders at the three major standard setting institutions whose standards I analyse, provides original research material. What is more, some of the interviews may represent a last chance to capture these individuals' views, as those who played a role in the development of the earlier standards in the 1970s and 1980s are now retired or close to retirement. However, I have encountered two specific limitations with the interview based element of my research. First, it is possible that the choice and availability of interviewees could skew the evidence. For instance, there is a risk of selection bias, in that I might interview individuals whose shared common view was unrepresentative of the population of potential interviewees. Second, there is a risk that employees or ex-employees of a particular institution might have felt duty-bound to present the 'party line' when responding to questions. I have though taken steps to reduce this risk by providing assurances of anonymity and by checking the consistency of answers with other sources where possible.

## 1.7. Layout of the thesis

In this thesis, I develop and test a qualitative causal model to explain accounting change, thereby making a contribution to the New Accounting History. I find that the model provides a good explanatory account of shifts in the form of knowledge in financial reporting in three areas. These areas are the reporting of pensions, derivatives and non-financial liabilities. Moreover, I identify sequences of change in financial reporting, which span accounting jurisdictions and different areas of financial reporting. These sequences provide a stronger explanation for accounting change, in tracing its sources to cross-jurisdictional lines of influence. The explanation for any one instance of accounting change is itself shaped by the outcome of financial reporting projects in other areas of accounting or in other jurisdictions, either directly or via a change in the prevalent form

of knowledge. Mechanisms for such influence are found to include factors relating to institutional structure and human agency.

The thesis is structured as follows. In Chapter 2, I consider various explanatory models within the social sciences from which I select a dynamic, interpretive approach developed by Hacking (1991, 2002) as the most appropriate for explaining change in accounting.<sup>9</sup> I base my theoretical approach on existing accounting research within the area of New Accounting History. I supplement this methodological approach by drawing on a philosophical theory of causal explanation which allows for a constellation of causal factors (Mackie, 1974). Having determined an appropriate theoretical approach, I develop the Causal Constellation Model (CCM) using preliminary evidence provided by archival and interview-based research. In Chapter 3, I apply the CCM to further evidence from the case of FAS 87 and to pensions projects in other accounting jurisdictions (IAS 19, 1998; FRS 17, 2000), and find that it appears to explain these cases of change well. In Chapter 4, I apply the CCM to the case of financial derivatives, in particular the successful publication of standards by the FASB (FAS 133, 1998) and by the IASB (IAS 39, 1998). In Chapter 5, I apply the CCM to the case of the unsuccessful IASB Liabilities Project, which aimed to extend the use of simple financial economic techniques to the financial reporting of contingent liabilities. I find that the predictions of the CCM are consistent with the outcomes in all three cases. The testing of the CCM across the three case studies suggests that it is not only applicable to different areas of accounting, but also to the introduction or extension of different kinds of financial economic techniques. In Chapter 6, I review the results of the three individual cases and analyse the interactions between the individual projects within the cases and between the cases themselves. I find that changes in institutional attitudes and accounting knowledge resulting from earlier successful projects influence the success of later projects. I find that the past successes or failures of projects affect the necessary and sufficient conditions of later projects, either through direct copying of other standards, or by the movement of staff between standard setters. This evidence serves to question the notion of a standard setting institution as an isolated unit. Moreover, the outcome of earlier projects also exerts an indirect effect on certain necessary conditions for the success of later projects, including the attitude of institutions and the advocacy of influential members of the standard setting boards. In this way, the interplay between sequences, and elements of sequences, of financial reporting change is evident. Finally, in Chapter 7, I draw conclusions and suggest opportunities for future research.

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<sup>9</sup>Hacking labels his contextualised and conceptual approach to history, *historical ontology*.

# Chapter 2

## Methodology and research methods

### 2.1. Introduction

In this thesis, I analyse the emergence of financial economic methods in financial reporting practice. I focus on evidence from three episodes in financial reporting in which standard setters attempted to publish new accounting standards requiring the use of financial economic methods for valuation or recognition. These three cases are the reporting of pensions, financial derivatives and contingencies. After considering a number of different historical methodologies, ranging from what might be labelled ‘naturalistic’ forms of social scientific explanation to non-causal, interpretive forms, I settle on a hybrid methodology which supplements a contextual interpretative approach with causality. Employing this methodology, I develop the *Causal Constellation Model (CCM)*, incorporating components of both political economy and contingency theories. According to this model, a particular standard can make its way on to the agenda, through the exposure draft stage and onto publication and enforcement, only if key individual board members at standard setting institutions suggest and support it, and if each one of a particular set of background conditions (including interventions by institutional groups) is satisfied. By analysing the emergence of economic methods in financial reporting practice, I am at the same time also analysing the more general influence of financial economics on financial accounting.

As a result of the inclusion of elements of the political economy approach, institutional interest groups feature in the explanation. However, in using this approach I acknowledge that epistemological concepts, such as knowledge, belief and understanding, all carve out possibilities for particular outcomes as a result of the constraints that they place on human agency. Thus we can see that an explanatory model, situated within a political economy methodology alone, would omit the fact that the interests of institutional groups are not exogenous, but are themselves shaped by accepted accounting *knowledge*. Similarly, what standard setters believe to be an appropriate response to perceived issues is itself contingent on the accepted way of doing things amongst the group of agents who come together to set standards.

The result of financial economic influence can be found in particular reporting rules which govern the ways in which entities are represented.<sup>1</sup> As a result, the extent to which economic theory is invoked by standard setters can be judged by the inclusion in new accounting standards of economics-based rules for representation. These rules prescribe that uncertain obligations or benefits, for items such as pensions, contingent or derivative obligations or benefits, are recognised on the balance sheet and that they should be valued in accordance with financial economic theory and that the income (or loss) relating to these items should be calculated along lines perceived by standard setters to be ‘economic’. Such methods would include, for instance, the use of expected values, discounted cash flows and asset pricing models. The emergence of accounting rules based on the application of economic theories thus provides evidence for the influence of financial economics on financial reporting practice. This particular pattern of emergence of new forms of representation, and hence of new forms of knowledge in financial reporting, is what I seek to explain in this thesis. In what follows, I consider which general social scientific research methodologies might be adopted to address this research question, how such approaches have been employed previously in accounting research, and what advantages and deficiencies each approach possesses.

## 2.2. Varieties of social scientific explanation

Researchers are divided in their approach to explaining change in accounting practice. Some, mostly standard setters and technical specialists, focus primarily on the benefits brought by technical innovations in new standards and associated developments in practice. These might be thought of as *naturalistic* approaches, in that they focus on causal explanation without necessarily focusing on the context or meaning of facts, events or actions. Others advocate a *political economy* view which sees accounting change as the result of lobbying by interest groups (Watts and Zimmerman, 1978; Perry and Nölke, 2006). Finally, the *contingency* or *genealogical* approach to accounting history identifies the importance of the contextualised meanings of techniques in accounting at particular points in time. It calls attention to the interplay between these techniques and the institutional environment in which they operate, and highlights the dynamism of forms of knowledge in accounting as a possible mechanism for change in practice. These frameworks for accounting research have their origin in broader methodological approaches to social scientific research. In what follows, I outline these broad methodologies and consider which appears most consistent both with my view of the ontology of accounting and with my specific research question.

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<sup>1</sup>These rules can, by analogy, be compared to the rules of perspective (Mouck, 2004).

### 2.2.1. Naturalistic approaches

Social commentators and academics have argued that social inquiry should be seen as a scientific endeavour, and carried out along the same lines as those in the natural sciences (Mill, 1843; Kincaid, 1990; Sperber, 2011).<sup>2</sup> This immediately raises an important question: which of the natural sciences provides the best blueprint for research in the social sciences? In trying to answer this question, it becomes clear that it is not the specific methods and assumptions of any one natural science that advocates of naturalism in the social sciences want. Rather what they seek most from social inquiry is some form of *causal* analysis, ideally the development of causal laws. Hard line naturalists assert that no real explanatory merit exists in identifying the *meaning* of an action per se. Naturalistic approaches are exemplified in the work of Hempel (1942) who argues in *The Function of General Laws in History*, that a genuine explanation of any historical phenomenon requires the identification of general causal laws. According to his covering-law model, we must deduce from general laws and the set of initial conditions in order to explain a phenomenon, such that the social sciences are viewed as a subset of the natural sciences.<sup>3</sup>

One particular naturalistic approach within the social sciences is functionalism, which was developed by the anthropologist Malinowski (1941). Functionalism explains the existence of social institutions and aspects of cultural life in terms of their ability to satisfy basic biological needs. Another naturalistic approach is economic explanation (based on neoclassical economic theory), which employs micro-economic laws to explain a variety of social phenomena (see Becker and Murphy, 2000). In terms of accounting research, the functional approach appears to correspond to this naturalistic methodology, as it tends to use law-like regularities and does not focus on interpretations or meanings of concepts. Taking a functional-accounting approach, we might argue that the best technical standards will drive out sub-optimal ones, and will be selected and improved upon consistently over time.

However, a problem with the naturalistic approach is that the meanings of important concepts necessary for an explanation may vary across different contexts or change over time, such that concept  $x$  in context  $A$  may not be equivalent to an  $x$  in context  $Y$ . Moreover, even the meaning of epistemological concepts such as knowledge or belief may not be static.<sup>4</sup> In terms of accounting, this approach fails to address significant questions such as: how do standard setters define *good* accounting? If they judge *goodness* by reference to a particular technical scheme, how do they select this scheme? And if they define *goodness* by reference to the needs of users, how do they (or others) resolve the

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<sup>2</sup>See also Hedström and Swedberg (1998) for a collection of essays advocating causal mechanisms in the social sciences.

<sup>3</sup>For example, we may explain the landing place of a cannon ball which has been launched by deduction from the laws of physics and knowledge of the location from which it was fired.

<sup>4</sup>See Woolgar and Pawluch (1985) who show how inconsistent descriptions of particular sociological concepts (for example, *types* of social problems) can allow false connections to be drawn.

inevitable social choice problem which ensues?

### 2.2.2. Interpretive approaches

In contrast to the naturalist school of social science, an interpretive mode of social analysis aims to understand the meaning of actions as an alternative, or indeed as a supplement to, the identification of causal laws or relations. Collingwood (1974) rejects the treatment of historical events as if they were just physical events. He views all human history as the history of thought. For him, the relevance of an action derives from its meaning within a social context, and the interpretation of such an action depends primarily on understanding the underlying human intention. For instance, in giving his famous example of Caesar crossing the Rubicon, Collingwood distinguishes between the *outside* and the *inside* of an action. We might think of the *outside* of an action as the physical manifestation (that is, as bodies in motion), in contrast to the *inside* of an action, which is what the actor *intended* it to mean. A naturalistic interpretation of this action thus misses the crucial relevance of the fact that Caesar intended to flout social rules. According to Collingwood, to explain some action or event is to uncover the human motivations of the actors involved. The historian must “always remember that the event was an action, and that his main task is to think himself into this action, to discern the thought of its agent” (Collingwood, 1946, pg. 213). This view seems helpful when one is trying to explain changes in accounting practice, given that accounting practice consists of the actions and interactions of purposeful actors. It is worth noting that Collingwood does not rule out causal explanation, even though he highlights the importance of interpretation and human intention.

However, other social scientists have been more explicit in suggesting that both interpretive and causal explanation can be combined when addressing problems of social explanation. For example, Weber notes that explanations can be adequate at the level of *meaning* or adequate in the sense of a *causal* explanation, and in fact can be *both* at the same time (Weber, 1978, pg.8). This seems a suitable scheme for explaining changes in a social practice such as accounting, since it seems reasonable to assume that individual actions by actors, which form part of a causal process, are motivated by (and hence can be explained in terms of) contextualised meaning. In other words, an understanding of meaning is necessary.<sup>5</sup>

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<sup>5</sup>Weber goes on to contrast the *experience* of feelings associated with an action with an *intellectual interpretation* of the meaning of such an action and the possibility of inferring causal relations between that meaningful action and some outcome. He defines sociology as: “a science whose object is to interpret the meaning of social action and thereby give a causal explanation of the way in which the action proceeds and the effects which it produces.” He goes on to say: “The aim of all interpretation of meanings is, like that of science in general, to achieve certainty . . . Rational certainty is achieved above all in the case of an action in which the intended complex of meanings can be *intellectually* understood in its entirety and with complete clarity. Empathetic certainty is achieved when an action and the complex of feelings experienced by the agent is completely re-lived in the imagination.”

Further discussion by Wittgenstein, and philosophers of social science such as Winch (1974) stress that forms of social activity derive their meaning by being embedded in sets of rules and conventions. The approach proposed by Winch requires “a scheme of concepts which is logically incompatible with the kinds of explanation offered in the natural sciences” (see Skinner, 1974, page 108). For Winch, “To give an account of the meaning of a word is to describe how it is used; and to describe how it is used is to describe the social intercourse into which it enters” (Winch, 1974, pg. 42). It is therefore possible to speak of non-linguistic behaviour expressing discursive ideas. An act of obedience, for example, recognises the relationship between the actor and the cause of the action (such as an order). Without knowledge of the entire set of social rules, it is not possible to explain this action (Winch, 1974, pg. 43). The naturalistic covering-law model of history fails according to this view, because the the laws it appeals to are abstracted from the system of rules of society. The interpretive tradition seems to offer promising solutions to the problem of explaining accounting phenomena, if accounting is viewed as a social practice. However, the approach fails to address important issues, such as the dynamics of the process of change and the reflexive relationship between practice and environment.

### 2.2.3. Historical ontology

A dynamic version of such an interpretive methodology is provided by the philosopher Ian Hacking, who calls his approach ‘historical ontology’. He identifies a ‘form of knowledge’ as a conceptual scheme combined with a set of investigative techniques. Alternatively it can be thought of as a “structured set of declarative sentences that stand for possibilities, that is, sentences that can be true or false, together with techniques for finding out which ones are true and which ones are false”. A form of knowledge is “what is held to be thinkable, to be possible at some moment in time” (Hacking, 1999, pg. 170). I see the notion of *good accounting* or *best practice* in accounting as a form of knowledge, in Hacking’s terms.<sup>6</sup> According to Hacking, epistemological concepts are not “constants, free-standing ideas that are just there timelessly”. They are “historical” and “situated” such that “a correct analysis of an idea requires an account of its previous trajectory and uses” (Hacking, 2002, pg. 8).

Hacking illustrates his notion of forms of knowledge in terms of historical contingency, using the development of the Stanford-Binet intelligence tests and measures of missile accuracy in military research. It may seem, at first glance, that Hacking’s examples are different in kind from concepts used in accounting, but in fact they have similar features. Financial reporting requires valuation and these valuations rely on a set of agreed

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<sup>6</sup>I acknowledge that different groups, such as academics, practioners and standard setters, may disagree on what, specifically, constitutes *good accounting* (Walker, 2010, pg. 139). However, the form of knowledge in financial reporting is that which constrains the standard setters who promulgate rules on that, which *formally* constitutes *good accounting*.



conventions within the epistemic community, in much the same way as measurement schemes determine correctness of a particular measure of ‘accuracy’ or of ‘intelligence’. Given that valuation is a form of measurement, it makes sense to apply Hacking’s notion of a form of knowledge to financial reporting.

According to Hacking, the intelligibility of a question is contingent on the scientific framework in which it is located, but beyond that framework, the answer to an intelligible question is not *contingent* on anything. Hacking rejects relativism in the sense of there existing the possibility of true – but different – answers to an intelligible question, given a specific form of knowledge. Instead, for him, relativism extends only to the *meaning* of the question, such that different (correct) answers may be given in different forms of knowledge. The question ‘how tall is X’, for example, depends on what we mean by ‘tall’ in the context of available measurement techniques. If a community agrees that a ruler correctly measures how tall someone is, then all scientific communities using a ruler to measure height should come up with the same answer. But if a different community agrees that a person’s height is best measured using much more precise measurement techniques, it will come up with a different (more precise) answer to the question, not because the truth of the answer is relative to the scheme, but because the *meaning* of the question is different.

In terms of accounting for pensions, the meaning of questions such as; *should a pension liability be shown on the balance sheet?* or *what is the value of the pension liability?* depends on the current ‘form of knowledge’ or agreed practice. In Hacking’s framework, if a question is intelligible and the methods for answering it agreed, a sentence which answers it must be either true or false, whatever the form of knowledge. By extension, the conceptual history of accounting for pensions can be analysed in much the same way as that of missile accuracy or the development of an intelligence test. According to Hacking:

“Historical ontology is about the ways in which the possibilities for choice, and for being, arise in history. It is not to be practiced in terms of grand abstractions, but in terms of the explicit formats in which we can constitute ourselves, formations whose trajectories can be plotted as clearly as those of trauma or child development, or, at one remove, that can be traced more obscurely by larger organizing concepts such as objectivity or even facts themselves” (Hacking, 2002, pg. 23).

The “explicit formats in which we can constitute ourselves” may be interpreted in the context of accounting practice as the agreed technical practice for recognition and measurement of particular items, such as pension obligations.

Historical ontology as an approach seems useful for an analysis of changes in accounting practice. Concepts in accounting are not static. Just as the meaning of social concepts, such as marriage and madness, have changed over time, so too have the concepts of

accounting. A shift in the overall objectives of financial reporting has been accompanied by a change in the meaning of concepts such as *relevant* or *objective*, which in turn have led to a change in how lower-level terms such as ‘asset’ and ‘liability’ are understood. Similarly, a shift in the meaning of the concept of truth in accounting from ‘corresponds to an underlying contractual reality’ to ‘gives us useful decision-making information’ and then further to ‘conforms with agreed economic models’ is likely to result in different interpretations of the lower-level concepts. Thus, the meanings of higher level concepts effectively determine the context in which the lower-level accounting concepts operate.

Hacking draws on the approach of Foucault to the archaeology of knowledge in asserting that:

“Discourse is, then, to be analyzed not in terms of who says what but in terms of the conditions under which those sentences will have a definite truth value, and hence are capable of being uttered” (Hacking, 2002, pg. 79).

Given that I aim to explain the dynamics of conceptual change (in order to explain the emergence of conditions of possibility for influence from other disciplines such as economics), I am really interested in analysing changes in the *form of knowledge*. Hacking sees a form of knowledge as a conceptual scheme combined with a particular set of measurement techniques. Therefore a change in the form of knowledge must be the result of a change in either the conceptual scheme or the agreed measurement techniques, or both.<sup>7</sup> A contextual analysis along the lines set out by Hacking may prove to be a very useful tool in explaining developments in accounting practice. In this thesis, I aim to provide a dynamic analysis of these concepts in order to throw light on the conditions which lead to the opening up of gateways to accounting practice from other disciplines such as economics.

### **2.3. Methodologies of Accounting research**

Accounting researchers have drawn on the different social scientific methodologies discussed above in developing their own frameworks for research. These translate into three main approaches to accounting research: functional, political economy and genealogical.

#### *Functional approaches*

Broadly speaking, the ‘functionalist’ approach is associated with the naturalistic approach to explanation in the sense that it focuses on causal explanation, rather than interpretation of actions. It is worth noting that the use of the ‘functional explanation’ within accounting research differs from that used within the naturalistic tradition. In accounting, the

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<sup>7</sup>Here the assumption is made that the conceptual scheme is independent of the set of measurement techniques, which I assume here for simplicity.

functional approach explains technical innovation in accounting in terms of functional benefits and assumes that techniques are selected because they provide the best possible solution given the environmental constraints. By contrast, in the social sciences generally, functional explanation does not focus on optimality or progressiveness as core explanatory factors.

The functionalist approach in accounting has particular weaknesses in explaining particular outcomes in standard setting. For one thing, it provides no precise mechanism for showing *how* a particular technical item is to be selected, and provides no real solution to the problem of choosing between several different techniques of apparently equal technical merit. Moreover, contradictory examples undermine the explanatory value of this type of explanation in accounting: for example, the IASB Liabilities Project for contingencies (discussed in Chapter 5). In this case, the IASB found that it was unable to achieve the outcome it believed was the best in technical terms due to a series of contingent events. In contrast to functional approaches, the *new accounting history* (NAH), emphasises the relevance of the historical *context* in which accounting phenomena take place (Napier, 2006). It stresses the importance of paying attention to the meanings attached to particular accounting techniques *at that time and place* in order to avoid generating historical myths based on the unjustified retrospective application of a current conceptual understanding (Fulbrook, 2002).

When viewed as a system of ideas, accounting practice provides a context in which the actions of practitioners (as well as other parties such as standard setters, preparers and intersecting institutional interest groups) have meanings relevant for understanding and explaining change in ways of *doing accounting*. A causal approach which ignores the context, and hence meaning, of actions may provide incorrect explanations as a result of this omission. Such an approach to historical explanation in accounting would extend beyond the inclusion of *political economy* considerations in which explanation accommodates the scrutinising of power relations in the economic-political paradigm and their impact on accounting change. I have argued for an approach to the analysis of change in accounting practice that looks at the “inside” of events and actions, thereby acknowledging the importance of human intentions and social rules in providing an explanation for a social phenomenon. To grasp the reasons why a particular practice exists, the historian must engage with the context in which it arose and its meaning at the time in which it emerged and persisted.

A further deficiency of this approach is that it fails to address the evident political lobbying and institutional influence on the process of change in accounting practice.

### *The political economy of accounting and standard setting*

The political economy approach to the explanation of accounting phenomena (Tinker, 1980; Perry and Nölke, 2006) focuses on the economic-political paradigm. It highlights the underlying structure of power relations and identifies the impact of these on accounting structures. In my research, I draw on the political economy approach by analysing institutional relations relevant to the introduction of new financial reporting standards. For instance, I consider the influence of interest groups such as the US Securities and Exchange Commission (the SEC), the International Organization of Securities Commissions (IOSCO), the European Union (EU) and specific investor and professional groups on the development of accounting standards. To some extent, this ‘rendering visible’ of power relations is consistent with certain elements of the interpretive approach. An attempt to reveal the *true* motivations of institutional actors might, in the interpretive tradition, be described as the search for the “inside” of an action. Unlike naturalistic or functionalist styles of accounting inquiry, the political economy approach focuses on the context in which accounting change takes place as it serves to scrutinise the existence of hidden agendas and concealed motives. However, the approach does not address the importance of contextualised *meaning*, which may be perceived as a deficiency in explanatory terms.

### *Genealogical approaches to accounting research*

The second element of the NAH approach emphasises the historical contingency of changes in accounting practice, drawing on the work of Foucault (Burchell et al., 1985; Hoskin and Macve, 1986, 1988; Miller and Napier, 1993). I use this contingency approach to a great extent in my research, in particular a version developed by the philosopher, Ian Hacking, and labelled *historical ontology*. The model proposed by Hacking is closely associated with the ‘genealogical’ approach used by one school of accounting researchers. However, proponents of the genealogical approach have tended to criticise evolutionary models, claiming that they imply that an inevitable movement towards improvement and optimality. Instead they argue for a genealogical approach, which has its roots in the work of Foucault.

Advocates of the genealogical approach (Burchell et al., 1985; Hopwood, 1987; Miller and Napier, 1993) have rejected functional approaches and instead drawn on the work of philosophers such as Foucault and Hacking. For example, Hopwood notes that most studies have “adopted a rather technical perspective, delineating the residues of the accounting past rather than more actively probing into the underlying processes and forces at work” (Hopwood, 1987, pg 207). He rejects a naturalistic approach in favour of a Foucauldian archaeology of knowledge, arguing that change results from particular events or problems arising, which caused agents to change features of the accounting system. Practice is viewed as “an outcome of processes”, which could “make accounting what

it was not” rather than being “seen as becoming what it should be” (*ibid*, pg. 208). In other words, rather than some teleological drive to technical improvement, accounting practice should be seen as the result of a series of contingent events, which carved out possibilities for change. Hopwood argues that the processes of change were “embedded in the very fabric of their functioning” and that “[p]articuliar regimes of accounting facts had been created” (*ibid*, pg. 226). Thus accounting facts emerge through a process of change, where this change is institutionally embedded and does not necessarily lead to improvements in practice.

Others similarly reject the simple functionalist approach labelled as ‘evolutionary’ by standard setters:

“Rather than viewing the history of accounting as a natural evolution of administrative technologies, it is coming increasingly to be viewed as the formation of one particular complex of rationalities and modes of intervention among many, a complex that has itself been formed out of diverse materials and in relation to a heterogeneous range of issues and events” (Miller et al., 1991, pg. 396).

The “natural evolution of administrative technologies” refers to the functionalist view of accounting advanced in textbooks and in documents issued by standard setters. From this perspective, accounting is seen as a collection of techniques which follow a trajectory of improvement over time. The term “evolutionary” thus construed appears primarily to be an artefact of the standard setting discourse. Miller and Napier (1993) also question the simplicity of representing accounting development as a kind of ‘natural evolution’ and it seems that what they reject is an orderly and goal-directed outcome, mostly controlled by the standard setters, which is understandable in terms of pre-existing practices. An accounting rule for a particular transaction or asset might be amended several times over a decade by standard setters in response to user demands and thus be described as constantly improving.<sup>8</sup>

Hacking’s notion of the historical nature of epistemological concepts appears in the accounting literature. In her paper, *Outlining Regulatory Space: Agenda Issues and the*

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<sup>8</sup>However, such an interpretation of the term “evolution” is distinct from the definition of cultural evolution. Rather than goal-directed outcomes and improvements over time, cultural evolution can describe the complex and unpredictable process of change over time. Evolution comes replete with ‘spandrels’ and ‘by-products’. In evolutionary terms, a spandrel is a feature which was not specifically selected for, but happens to confer some functional advantage in the future. The existence of spandrels can lead to incorrect functional explanations (on the basis of its current function). By contrast, a by-product is also not selected for, but comes into being because of its relationship with a feature which *was* selected for by evolution, which defies simple explanation in obvious functional terms. The impetus for institutional change may result from environmental pressure, but obstacles may exist which undermine institutional responsiveness, resulting in outcomes which appear to be unsuited to the environment. For in the case of culture, evolution is more than simply non-linear. The development of an entity (say, an institution or practice) may loop back on itself and path-dependencies, institutional inertia and conflicting incentives may result in what appear to be sub-optimal outcomes.

*FASB*, Young (1994) introduces the term “logic of appropriateness”<sup>9</sup> (akin to Hacking’s form of knowledge) and argues that “[e]xpectations about the standard-setter are critical in constructing accounting problems as appropriate for standard-setting action” (Young, 1994, pg. 89). According to Young, the logic of appropriateness constrains the kinds of actions which standard setters can reasonably undertake, given the expectations of participants in the regulatory space. Thus a logic of appropriateness may determine what issues are perceived as problems worth addressing and worthy of inclusion on the standard-setting agenda. The history and structure of an institution constructs the notion of ‘good accounting’ and shapes the possibilities for institutional action. Young’s concept bears a strong relation to that of “institutional logic” used in institutional theory (for example, see Lounsbury, 2007) and to theories of “groupthink” used in psychology and behavioural science (for example, see Lindblom, 1959; Janis, 1972).

Although genealogical studies provide a rich description of the environment in which accounting takes place, and highlight the possibility of causal and conceptual overlap between accounting techniques and the environment in which they are used, they fail to make explicit the theoretical assumptions which explain particular *sequences* of events. Although a genealogical approach (or what we might also call a cultural evolutionary approach) captures both the endogenous nature of accounting practices and the shaping of the environment by such practices, it remains silent on the causal process which links one practice to the next, and which determines the timing of the looping effect between environment-and-practice and practice-and-environment. For certain research questions such as, *why did economic methods emerge in the financial reporting of pensions?*, we may want to understand the dynamism of accounting in causal terms. As institutional theorists have argued, what is needed is something which links the observed practice *today* with “some originating context or set of circumstances” and “interpolates some sequence of connecting events that allow the hand of the past to exert a continuing influence upon the shape of the present” (David, 1994, pg. 206). What is needed for explaining particular cases of regulatory change in accounting are *explicit* assumptions about the mechanism by which changes in the meaning of concepts occur over time.

## 2.4. Causal explanation

In giving reasons *why* economic valuation methods emerged in financial reporting for pensions in the mid-1980s rather than earlier, I am providing a causal explanation. Of course, in any explanation of a social phenomenon, the mere mention of “causality” tends to set off alarm bells due to the epistemological problems associated with causal inference. Establishing cause and effect is particularly difficult in the social sciences as entities may not, as in other fields of inquiry, be perceived as objective (to different people or in

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<sup>9</sup>Young cites March and Olsen (1989) as the original source of this term.

different contexts) and thus do not allow for neat categorisations. Even if social entities *could* be categorised neatly, we cannot test them using counterfactuals as in the physical sciences. Moreover, if several causal factors are at play, it is hard to know how to assign causal responsibility between them and this makes the causal story less clear. Other problems arise as a result of temporal issues. Some causes occur as single *events* whose occurrence is easy to spot, whereas other causes may best be described as *background conditions*. It is generally easier to identify *events* as the cause of a particular outcome, rather than existing background conditions.

Consequently there exists a greater chance of omitting background conditions from an explanation, or at least understating their importance. What I want to stress is that, when explaining a phenomenon, it is tempting to identify the main catalyst as the cause, such as the spark that caused the fire. In the case of pensions, this would be the emergence of a new accounting concept, the pension liability. However, this misses out the importance of the background conditions for the explanation. For the financial reporting of pensions, I argue that the decision by standard setters to use economic valuation methods is made possible by the background conditions as much as by the existence of a new liability to be valued.

This way of doing causal analysis, involving a plurality of causal factors has been described in the philosophy of causality. Mackie (1974) introduces an approach to dealing with such situations in which “causal statements are commonly made in some context, against a background which includes the assumptions of some *causal field*” (*ibid*, pg. 34–35). In other words, it is the whole constellation of factors that must somehow be incorporated into an explanation, but this then raises the question of how to allocate the causal responsibility between the factors, and whether to allocate *more* cause to some obvious foreground conditions and less to background conditions. Mackie draws on the work of J S Mill as a possible approach to identifying causes. Mill (1843) concedes that problems exist for an analysis with a plurality of causes. Given the fact that a particular event could have come about as a result of any number of sets of causes, we cannot say that any one particular set is necessary for the result.

As a solution to this problem, Mackie sets out his approach to causal explanation using the notion of an *INUS* condition as: “an insufficient but non-redundant part of an unnecessary but sufficient condition” (Mackie, 1974, pg. 62). For example, we may say that a particular event (a company writing down the value of its financial assets) is a necessary part of one particular set of conditions, which is sufficient to bring about a particular result (the company going into administration). In this case, the write-down of assets on its own is insufficient, although it is a necessary part of the set of conditions which will bring about the administration. The whole set of conditions may be sufficient to bring the company into administration, but it is not necessary because there are many different sets of conditions which can plausibly cause companies to go into administration.

However, in the case of this *specific* set of jointly sufficient conditions, the write-down *is* a necessary component. For instance, if a company has spiralling debt and has a strict debt covenant enforced by the bank, the addition of the write-down completes this particular set of conditions which is sufficient to bring about the administration. The write-down can more simply be thought of as the ‘final condition’ in the set of conditions which brings about the result, once the other conditions are in place (although a whole different set of circumstances could have led to the result). For the case of the introduction of economic valuation in the financial reporting of pensions, figure 2.3 shows the set of INUS conditions I have identified. In the next section, I outline the main components and the development of the Causal Constellation Model.

## **2.5. The Causal Constellation Model (CCM)**

The CCM aims to provide an explanation for processes of change in accounting practice. It recognises the importance of the historical context and the meaning of causal factors and their inter-dependencies, yet provides a causal explanation of regulatory change and interdisciplinary influence in financial reporting. The model incorporates elements of the political economy and the genealogical approaches. It identifies those INUS conditions which are individually necessary and jointly sufficient for the successful adoption of a financial reporting standard requiring the use of financial economic methods. In so doing, the model identifies the INUS conditions for the interdisciplinary influence by financial economics on financial reporting practice.

In developing this model, I aim to replicate the salient features of the system as a heuristic for developing a satisfactory explanation of the pattern of influence of financial economics on accounting practice. Such a model should not be expected to provide a detailed mapping of the whole causal system, but instead it should simplify and highlight necessary and sufficient causal features. Finding a clear explanation is evidently appealing, but the problem in the case of the CCM, is the question of predictive accuracy as a proxy for the *goodness* of the explanatory account the model provides. I now consider the definitions of the main terms employed: success and economic representation.

### **2.5.1. Terminology**

In what follows, I explicate the main terms used in the CCM, which are ‘success’ and ‘economic representation’. I identify and address potential methodological concerns relating to their use.



## *Success*

The dependent variable, ‘success’, is not generally understood to be objective. Instead, its meaning depends on the interests of those using it. For instance, a particular community, such as the board members of a standard setting institution, might judge the success of a project using a number of different criteria, including factors such as their perception of its political or socio-economic effects, the quality of its technical content, its costs and its public relations impact. However, a different group, such as the preparer community, may use entirely different criteria to judge its success, with the result that a particular project may be viewed as successful by some groups but unsuccessful by others. In other words, the interpretation of the term is dependent on the subjective views of different groups so that the variable for success changes as a result of observer-subjectivity rather than as a result of causal relations between variables in the model. Some might think that this undermines the attempt to make causal inferences based on the value of the dependent variable, but I argue that this is not the case.

The subjective nature of the term ‘success’ is not entirely avoidable. Yet the degree to which this subjectivity contaminates the analysis can be contained by invoking a definition which uses publicly available information as the metric of success. Hence, although different observers might disagree about whether a particular measure of success is the right measure to use from their own perspectives, there is little room for dispute over whether those criteria are, in fact, satisfied. Given that I treat the term ‘success’ as a dependent binary variable in this analysis, a reasonably clear picture of causation is capable of emerging, which might otherwise be obscured.

I define the dependent variable ‘success’ in terms of the satisfaction of two observable procedural characteristics. The first condition is the publication of the standard which introduces or extends existing economic methods (the use of discounted cash flows, expected values, option-pricing models and so on). The second condition is compliance with the new standard: the *implementation* of the standard must not be undermined by the intentional actions of preparers to the extent that this prevents the introduction (or extension of) economic methods (either through changes in their business practices or by putting pressure on auditors to accept their revised definitions of their activities).

## *Economic representation*

The analysis of the three case studies reveals the emergence of an approach to representing business activities that I label *economic representation*. I define economic representation in terms of three attributes. First, it requires the recognition of uncertain future benefits or obligations on the balance sheet, which would not be recognised under the historical cost convention. Second, economic representation uses economic valuation methods, based explicitly on techniques from financial economics or expected utility theory in

neoclassical economics (Sharpe, 1964; Treynor, 1962). It should be noted that invoking such financial economic theories for purposes of representation does not necessarily mean that they are correctly interpreted by standard setters, nor that a unified view exists about how financial economics should be incorporated into a valuation in all cases.<sup>10</sup> Third, economic representation uses an economic theory of income (Hicks, 1939; Paish, 1940; Bromwich, 1992). In using the term ‘economic *representation*’ I am not endorsing either a representationalist or realist view of financial reporting (Solomons, 1991), nor rejecting a constructivist position (Hines, 1988). Rather I am using the term ‘representation’ to describe the *use of a particular set of techniques* in financial reporting practice. In producing financial reports, accountants argue that they are representing economic reality, and their outward justification for their actions is best described in terms of a representational aim. I employ the term ‘representation’ as a descriptive term for a particular way of *doing accounting*, which should not be taken to reflect particular ontological commitments. Figure 2.1 summarises the components of the different types of accounting representation.

Representation type	Components		
	Recognition	Valuation	Income
non-economic	non-economic	non-economic	non-economic
weak economic	non-economic	economic	non-economic
weak economic	economic	economic	non-economic
strong economic	economic	economic	economic

Figure 2.1: The components of representation types

**Valuation and recognition.** Standard setters refer to the application of economic techniques to asset or liability valuation as *fair value*. Such techniques include the use of market prices. Where market prices are not available, proxies can be used, such as the price of items in a similar reference class, or prices derived from financial economics models, such as asset pricing models or valuations using expected values. An underlying assumption of fair value is that market prices are objective. However, market failures mean that this assumption is often not realistic. The existence of market imperfections such as blockage and disequilibrium asset pricing raise questions about the theoretical justifications for using market prices.<sup>11</sup>

<sup>10</sup>For example, we will see in Section 3.3 in Chapter 3, that financial economists such as Sharpe (1976), proposed a wind-up value for valuing pension liabilities, whereas others, such as Pesando (1985), advocate the use of a value which takes into account the constructive obligation of the employer to give salary increases to employees over time, thereby resulting in a higher value of the liability.

<sup>11</sup>Moreover, the piecemeal application of fair values may lead to a second-best solution which is sub-optimal (see Lipsey and Lancaster, 1956). In fact, the exclusion of changes in the value of internally

The fact that a value is current does not necessarily mean that it is an economic value, in any more than a trivial sense. Even the historical cost approach is implicitly forward-looking because the adjustments to the original purchase price, such as depreciation and provisions, which are used to arrive at the balance sheet value, rely on management estimates of future states of the world. One can go further and argue that even the pure ‘cost’ element of historical cost valuation is ultimately determined by expectations of future benefits accruing to the asset: only it is the expectations are those of the purchaser and vendor of the asset at the point of acquisition, which is one determinant of the price paid. However, I want to stress that for the purposes of my analysis, in using the term ‘economic valuation’, I refer to a valuation which is *explicitly* based on standard setters’ perceptions of the possible applications of financial economic theory. These kinds of valuation include: current market prices, probabilistic expected values, discounted cash flows and financial economic asset pricing models (such as the Black-Scholes option pricing models). The fact that the value of an asset or liability happens to agree with an economic value, at some point in time, is insufficient for it to qualify as economic. What matters is the *method* used to determine the value of the asset explicitly uses techniques drawn from economic theory.

In my analysis, I treat *valuation* and *recognition* as concepts which can be separately operationalised, because financial economic approaches to financial reporting in practice are based on the assumption that they *are* indeed separable. However, I acknowledge the strong case made by Napier and Power (1992) that the two terms may not in fact be independent. In their view:

“issues of identification, recognition and measurement are so heavily inter-related in practice that it is often impossible to distinguish between them”  
(Napier and Power, 1992, pg. 86).

They argue that an item may not be *capable* of being identified separately if it cannot be measured, and that recognition without the possibility of reliable valuation relies on a physicalist concept of assets and liabilities. This problem becomes apparent in the case of brands, where physical identification of separate assets is often not possible. In this case, if measurement fails, the intangible item, having no physical presence, cannot be separately identified.<sup>12</sup>

The economic approach to measurement and recognition does assume conceptual and operational independence of valuation and recognition.<sup>13</sup> According to this view, a company should recognise any obligation of which it is aware and even if it cannot state generated goodwill from the balance sheet, even if *all* company assets are valued at market values, can result in misleading performance figures (Horton and Macve, 2000).

<sup>12</sup>On the other hand, some philosophical contributions to the accounting literature support the existence of a separation between accounting concepts and their value. For instance Mattesich (2003) argues that “income” as a concept exists independently of the valuation of any particular instantiation of income.

<sup>13</sup>For instance, the ‘stand ready’ concept for recognition and the use of expected values for valuation,

with a high degree of certainty what the value of that obligation is likely to be. Thus, a liability ought to be recognised on the balance sheet, even if the probability of the entity having to pay out economic benefits in relation to that obligation is remote. The use of expected values means that the lower the probability of an economic outflow, the smaller the value of the liability on the balance sheet. I use the terminology proposed by advocates of economics approaches to financial reporting in this analysis and establish valuation and recognition as separate elements of economic representation.

**Economic income.** Economic income focuses on expectations of future benefits. It is generally associated with the exposition provided by Hicks (1939) and can be contrasted with legal definitions. Legal definitions of income were initially developed to serve the ends of trust law, which aimed to separate out the income element of a trust (paid to a life tenant of the trust) and the capital element (paid to the “remainderman” on the death of the life-tenant).<sup>14</sup> In contrast to this legalistic approach to income measurement, *economic* notions of income focus on future flows of benefits.

An interpretation of the concept of Hicksian income forms the core of the economic approach to income measurement developed by the FASB and IASC (Schipper and Vincent, 2003; FASB Staff discussion paper, 2005). Hicks (1939) develops a notion of economic income<sup>15</sup> derived from changes in capital values of assets and liabilities. This can be contrasted with the traditional non-economic accounting view of income as the difference between revenue and expenses. He identifies income in functional terms as a “guide for prudent conduct”, but conceptually as a “rough approximation of a logical category” (*ibid*, pg. 171), which can be used as an aid in the decision-making process for individuals and businesses. The basic income measure acts as a guide to individuals and businesses as to how much they can consume within a period, while maintaining their “well-offness”, either in terms of maintenance of wealth (what he calls *Income No.1*) or of the level of periodic consumption (*Income No.2*). According to Hicks No. 1 concept, income can arise from fluctuations in asset values based solely on changes in the discount rate applied to cash flow, without any change in the level or timing of cash flows.<sup>16</sup>

This kind of Hicksian income is operationalised in financial reporting by treating changes in economic measures of assets and liabilities as income, even if the change in

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proposed by the IASB in their Liabilities Project (particularly for warranties) reflects this separability. This is discussed in Chapter 5.

<sup>14</sup>Courts took the view that for landed estates in 18th century England, the income was the harvest and the capital was the land and focused on the physical existence of the capital rather than changes in value (the *res* principle), which had the benefit of requiring only “rudimentary” accounting records (Flower, 1974). This is consistent with the use of historical cost accounting for stewardship purposes, with an emphasis on physical asset maintenance and the minimization of potential disputes between contracting parties through easily verifiable valuation choices.

<sup>15</sup>This approach was discussed by Fisher in 1907.

<sup>16</sup>Hicksian Income No. 1 is defined to be  $Y = C + V_1 - V_0$  where  $Y$  represents income,  $C$  represents periodic cash flows, and  $V_n$  represents asset values at either the end or beginning of the period.

value results from a change in the interest (or discount) rate. However, this fails to take account of the fact that Hicks's notion of 'value' relates to the value of a business (or the wealth of an individual) rather than the value of an individual asset. For instance, the value of pension liabilities change significantly in value as a result of changes in the discount rate used for pension-related cash flows, which tracks bond rates. Changes in the pension liability from year to year should, in terms of Hicksian income No. 1, be treated as an expense in the income statement. Naturally, a distinction exists between the income statement and Other Comprehensive Income. I take a requirement to show the change in asset or liability values in the income statement as a stronger form of economic representation.<sup>17</sup>

In this section, I have defined the terminology I use in the CCM, and highlighted some of the conceptual difficulties with their use. In the following section, I set out the process by which I developed the CCM, including research methods, sources of evidence, variables to be included, the unit of analysis and the application of the model to other domains.

### **2.5.2. Model development**

I developed the model by analysing the case of pension accounting in the US, in particular the first pension standard to introduce economic methods, FAS 87. A total of five conditions were identified for this first project and I detail in Section 2.5.3 below, the sources of evidence I use in order to identify these conditions. Having found a model which provided a good explanatory account and was consistent with evidence from different sources, I apply it to further evidence from the FAS 87 case and then to other pensions projects in different accounting jurisdictions which were published subsequently, in the period to 2006 (IAS 19, 1998; FRS 17, 2000). I find that the model provides a good explanation for the introduction of regulatory change, at least within the area of accounting for pensions.<sup>18</sup> In order to test the robustness of the model, I apply it subsequently to the case of financial derivatives accounting (FAS 133; IAS 39). When applying the model to new domains, I apply the generic INUS conditions types to specific tokens in the new domain. For example, whereas 'institutions' in the pensions case refers to actuarial groups, in the financial derivatives case, 'institutions' refers to banking groups.

### **2.5.3. Research methods for identifying INUS conditions**

In this section, I detail research methods and sources of evidence for the development and subsequent testing of the model. I have used two sources of evidence to identify INUS conditions relevant for the success of standards which aim to introduce (or extend) the use of financial economic methods. First, I reviewed documents published by the

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<sup>17</sup>See also Paish (1940) for an alternative approach to income measurement.

<sup>18</sup>The case study is detailed in Chapter 3.

FASB as well as publications in the academic, professional and general financial press. During projects to develop standards, project teams write technical research reports and exposure drafts. Following the publication of the exposure draft, comment letters are received, and these are often addressed either in staff papers or in the *Basis for Conclusion* section of the published standard. These reports and sections in the published standard provide useful *official* views of the project team or standard setting board. By reviewing academic journals, practitioner publications and the financial and business press, I was able to ascertain responses in the academic and business community to the proposed new accounting standards and identify issues not broadcast by the standard setters themselves.

Second, I conducted semi-structured interviews with individuals who possessed significant experience and expertise in pensions accounting. These included academics, technical partners at major accounting firms, board members of standard setting institutions and technical staff involved directly with the standard setting projects being analysed. Table A.1 in appendix A, sets out details of the interviews conducted and also includes details of subsequent interviews conducted for other projects within the area of pensions and other case studies. Interviewees' names have been anonymised to allow them to speak freely.

I carried out ten interviews with eight individuals between July 2009 and May 2010 as part of the initial development of the model. I selected interviewees on the basis of their direct experience of the FAS 87 project for pensions in the US. This experience was obtained either by working in a technical role on the project itself, by working at other standard setting institutions and being indirectly involved, by acting as a senior professional advisor on technical aspects of pension accounting or through academic expertise in the area. The initial interviews included technical staff who were working at the FASB, the ASB or the IASC during the development of FAS 87 and board members of the ASB and IASC at the time.

I then carried out interviews with twelve further individuals to collect data regarding other projects within the pensions area relating to FRS 17 (2000) and IAS 19 (1998) and also the financial derivatives and contingent liabilities cases. For each standard setting project I analysed subsequently, I interviewed either senior technical staff or board members (or both) who worked on the project. The only case study for which I was unable to access technical staff members who had worked on the project was that of contingent liabilities. However, I was able to interview a more senior technical staff member at the IASB and two individuals who were board members during the development of the project.

Although I prepared a standard set of questions, in many cases the interviewee would identify one area of particular interest and focus on that. It is worth noting that two possible biases result from this interview process. First, a selection bias may result from the fact that the selection of interviewees was partly guided by suggestions provided by

an interviewee from the earlier interviews or by introductions from academics associated with the LSE. Second, interviewees may have chosen to represent the agreed view of their institution, rather than provide an accurate answer to a question based on their personal view. For instance, a member of the IASB might consciously feel duty bound to support the use of fair values in financial reporting, or else might unconsciously be unaware of an institutionally entrenched view. These problems may be eased by the fact that all interviewees were aware that they would be quoted anonymously in all cases. Subsequently, I interviewed a further twelve individuals who provided evidence for all three case studies.

**Evidence from FASB documentation.** The published standard identifies pensions as a source of “accounting controversy for many years” (FAS 87, 1985, *Summary*, pg. 4). It goes on to identify several factors as catalysts for the pensions project which culminated in the publication of FAS 87. These include the growth in the number of pension plans and associated value of pension assets and obligations, significant changes in the legal environment (the publication of the pensions law, ERISA, in 1974), changes in the economic environment (higher interest rates), and a growing awareness by “[c]ritics of prior accounting requirements, including users of financial statements” that pension costs were not comparable between companies or over time and that “significant pension-related obligations and assets were not recognized in financial statements” (*ibid* pg. 4).

Once the project was underway, a particular set of factors emerged as being important for its successful completion, and these INUS conditions are included in the model. In this regard, two main themes emerge from the *Basis for Conclusions* section of the standard. The first is that of the influence of incumbent institutions involved in the valuation of pensions. We learn that: “[t]he Board was significantly aided in its consideration of alternative attribution approaches by the work of several committees of the American Academy of Actuaries and by research conducted by that organization” (FAS 87, 1985, ¶96). The second factor identified in the standard is the legitimacy of economic methods. The Board reveal their awareness that, “the evolutionary change in some areas may have to be slower than in others” and that what the FASB Board believed to be “conceptually appropriate and preferable” would be unacceptable given the current norms in financial reporting practice, because “those approaches would be too great a change from past practice to be adopted at the present time” (FAS 87, 1985, ¶107). These factors, the influence of institutions (specifically actuarial institutions) and the willingness of preparers to accept that economic methods could provide a legitimate solution to a valuation problem, are included as two of the INUS conditions included in the CCM. Other publications by the FASB<sup>19</sup> were also used as evidence.

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<sup>19</sup>For example see the FASB Discussion Memorandum (1981).

**Evidence from interviews.** Interviewees identified many of the same causal antecedents to the development of FAS 87 as were identified in the published standard itself. For instance, several interviewees referred to legal changes in employers’ obligations and the increasingly high profile of pensions for companies given the significant growth in the number of defined benefit pension funds. In addition, interviewees identified other factors such as the changing social attitude to employers’ obligations to their former employees and the high profile failure of certain pensions funds. At the same time, many noted a shift towards the provision of useful information for decision-making relevant to the needs of potential and current investors led to standards setters recognising the omission of pension liabilities (valued along economic lines) as a problem.<sup>20</sup> For instance, evidence of the changing social concept of the pension obligation is revealed by a technical partner of a major accounting firm, specialising in pensions, interviewee D, who stated that, “[e]conomics changed the nature of pension provision, and now pension provision is changing at a faster pace than financial reporting can develop.” In a similar vein, Interviewee P, a senior UK pensions actuary, said with respect to both the UK and US experience, “financial economics is quite hard to argue against. It’s really annoying for actuaries. When the financial economists came along and argued that a pension obligation was like a bond, it was quite difficult to argue against it.”

Once the standard had been launched, interviewees identified the same two causal factors as were set out in the *Basis for Conclusions* of FAS 87, which were the influence of institutions (in this case actuarial institutions) and the acceptance by preparers and other stakeholders that economic approaches to valuing pensions were legitimate. Three additional background conditions were said to be important, including the shift towards a balance sheet approach, the economic environment and the advocacy of influential individuals on the FASB board. Figure 2.2 summarises the factors identified by individual interviewees in the initial set of interviews. Where interviewees referred to the causal influence in the standard development of actuaries or employee groups, I have used the term ‘institutions’ in the table. Where advocacy by influential individuals on the standard setting board was mentioned, I have used the term ‘individuals’.

The evidence gathered from interviewees strongly suggests that once the FAS 87 project was underway, five conditions played a role in determining its outcome (including the two conditions identified earlier from FASB documentation). The first condition was the shift towards pro-economics aims of financial reporting practice and the associated balance sheet focus, as reflected in conceptual framework projects. In this regard, a senior technical staff member at the ASB, interviewee G argued that “[t]he main driver on pensions was the increased balance sheet focus”. In other words, the standard setters saw the omission of information relating to obligations as a problem, whereas previously the focus on the

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<sup>20</sup>In many cases, interviewees stated that the same factors which they had discussed in answer to questions about FAS 87, were also relevant for later standards in pensions and other areas.



<b>Interviewee</b>	<b>Factors identified</b>
A (Academic)	Economic conditions and institutions
B (Former staff, IASC)	Individuals and institutions
C (Technical staff, FASB)	Economic conditions, individuals, institutions
D (Technical partner, accounting firm)	Institutions
E (Technical staff, ASB)	Individuals and institutions
F (Former board member, ASB & IASB)	Economic factors, individuals, institutions,
G (Technical staff, ASB)	Balance sheet focus, individuals, institutions
H (Board member, IASB)	Balance sheet focus, individuals, institutions

Figure 2.2: Results of initial interviews to identify INUS conditions for the success of the FASB project to publish FAS 87.

income statement meant that this would have not been a concern. The second was the existence of favourable economic conditions. One interviewee, a technical staff member of the FASB, argued that these were of particular importance in the successful introduction of FAS 87, stating: “by the end, when [Statement] 87 was nearing the end, the market was up and people had net assets to show” (Interview with C). A third condition was the legitimacy of the economic methods, which were prescribed in the standard. Specifically, acceptance of the present value method was necessary, since this technique was required by FAS 87 to calculate the pension liability. Even though many of the objections to FAS 87 were practical in nature, the legitimacy of the measurement techniques provided the standard setters with a theoretical justification for the requirements of the standard. The fourth condition was the attitude of key institutional groups. All interviewees mentioned the involvement of the actuarial profession with respect to the development of FAS 87, and also for subsequent pensions standards in other jurisdictions. The fifth condition was the presence of strong advocates on the standard setting board. These individuals were important in influencing other board members and negotiating successfully with institutions. Six out of the eight interviewees mentioned the importance of particular individuals in pushing through controversial standards.

The model, developed using evidence from the FAS 87 project, is represented diagrammatically below in Figure 2.3. According to the model, once a project has started (following some causal antecedent), the satisfaction of the five INUS conditions determine its success. Each INUS condition is effectively a constraint on the standard setting board.

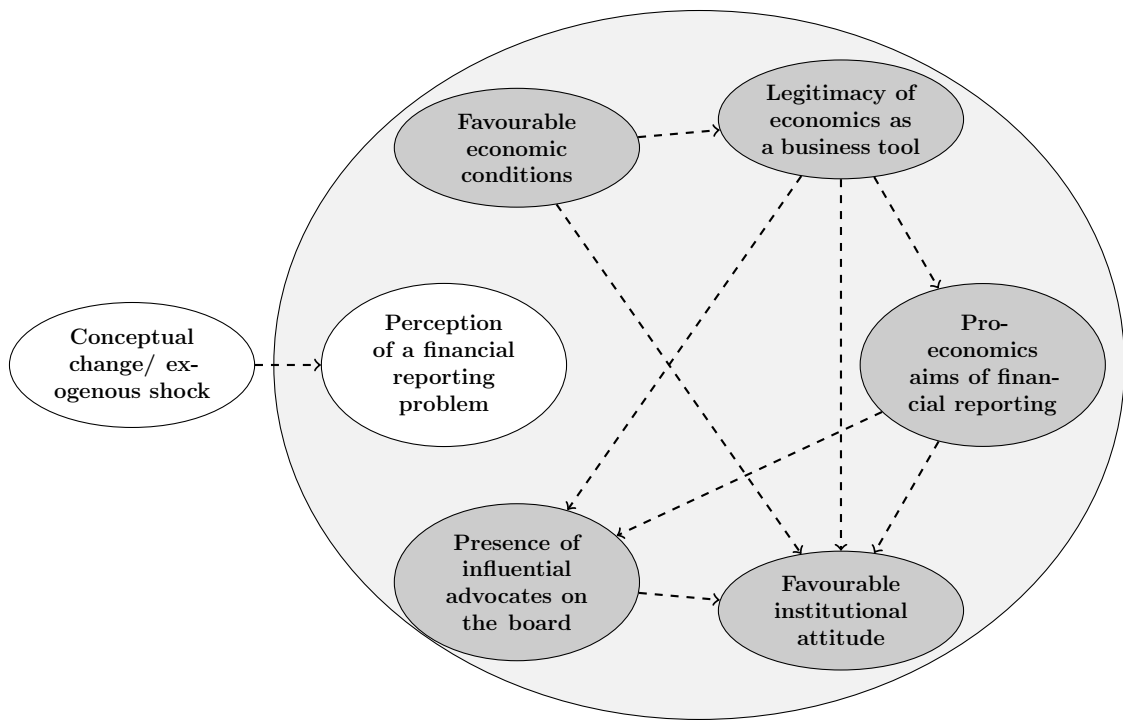


Figure 2.3: INUS conditions for the adoption of economic valuation methods. The large ellipse represents a slice of time during which the individual conditions must be satisfied and the small ellipses represent the individual INUS conditions whose satisfaction *at one particular time* causes the successful outcome of the project. The dotted lines represent possible causal influence between conditions.

#### 2.5.4. The nature of INUS conditions

INUS conditions are treated as binary variables in this analysis with their value being determined from a set of underlying conditions. For example, the underlying conditions for *favourable economic conditions* correspond to stock market levels. For the condition *institutional acceptance*, the underlying values might correspond to levels of objections to a project raised by an institution, which itself would be based on the proportion of members willing to object and voting procedures within the institution.

A simple mapping process would determine the value of the INUS condition (either *satisfied* or *unsatisfied*) such that a value of the underlying variables below a particular threshold would map onto a value of *unsatisfied* for the INUS condition, whereas a value of the underlying variable *above* a certain threshold would map onto the INUS condition value *satisfied*. This is relatively simple to visualise for the case of the INUS condition for *favourable economic conditions*: a stable or increasing level of stock prices maps onto a value of *satisfied* for the INUS condition, whereas stock prices below a certain level and rapidly falling stock prices would map onto the value *unsatisfied*. Figure 2.4 illustrates this mapping from underlying variables to the value of the INUS condition, using a simplified (and unrealistic) example of the INUS condition for *Favourable economic conditions* and the underlying variables for that condition over time. As is shown, the underlying values traces a curve, whereas the INUS condition has either the value 1 (satisfied) or 0 (unsatisfied).

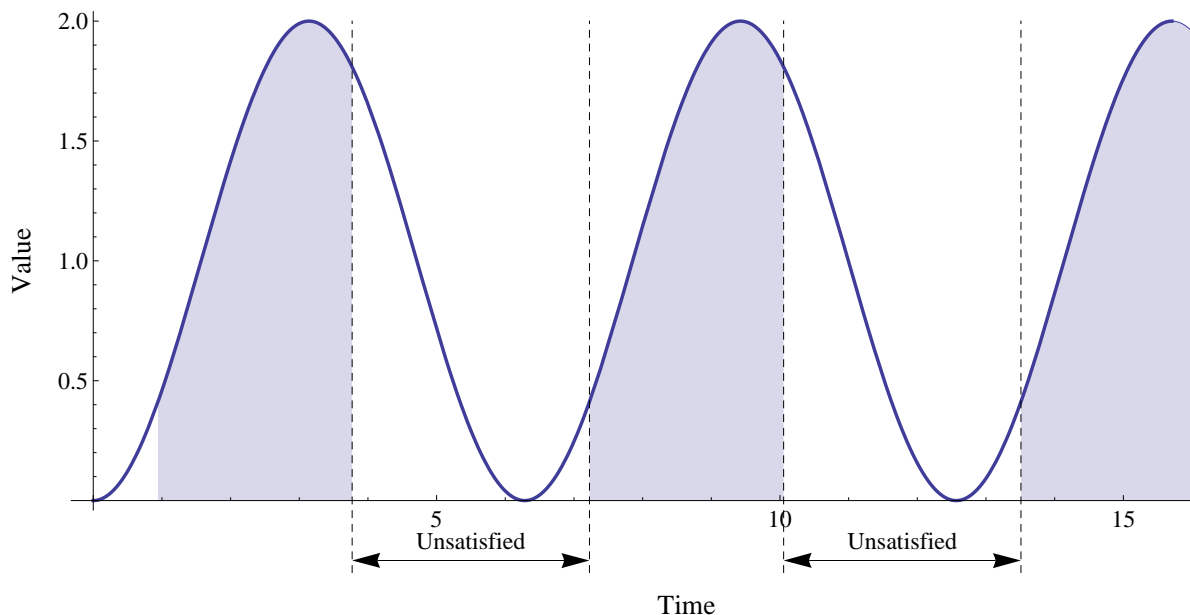


Figure 2.4: Illustrative example of the binary nature of INUS condition given underlying variable for favourable economic conditions.

**Cycles in INUS conditions.** INUS conditions may have a tendency to follow cyclical, or near cyclical, trajectories. This is easy to imagine for certain INUS conditions such as *favourable economic conditions*, as one might expect to observe cycles in stock prices. Other INUS conditions, such as that of *pro-economic aims of financial reporting* and *legitimacy of economic methods*, may be expected to vary over cycles of different lengths. The cyclical nature of the variables on which the INUS conditions are based, such as social norms or economic variables, may themselves result from the existence of tipping point. These may drive the system either towards, or away from, equilibrium (see Granovetter, 1978). Some conditions, such as the *presence of influential advocates on the standard setting boards* also include non-cyclical elements relating to board composition, however. These include hiring policies of existing board members and contingencies about the timing of service periods of particular board members.

Yet even if some of the variables are potentially cyclical, not *all* are. For instance, a change in institutional attitudes may be viewed as a one-time change. In the case of pensions accounting, there appeared to be a one-off shift in the attitude of the actuarial profession towards the use of financial economic valuation methods for pension obligations.<sup>21</sup> However, in some cases it may not be clear whether or not particular INUS conditions exhibit long cycles of variability (extending beyond the period under scrutiny) or if they do, in fact, demonstrate a one-off, irreversible change. For instance, it may seem that objections to the introduction or extension of economic methods by particular institutions are unlikely to reverse. However, this may not be the case. An INUS condition refers to general *types* rather than particular *tokens* of variables. As such, the INUS condition for institutional acceptance may refer to different institutions at different times. The fact that particular actuarial institutions decided to accept financial economic methods for pension fund valuations does not rule out the possibility that, at a later date, *different* institutions will raise objections causing the value of the INUS condition to shift back to being unsatisfied. The important point to note is that it is the *coincidence* of peaks in the cycles of values of INUS conditions (or the satisfaction of those not judged to be cyclical) at the same time which is necessary and sufficient for the success of a project to introduce economic techniques. Some INUS conditions are independent of each other, for instance economic conditions<sup>22</sup>, but most are causally interrelated. What is more, the values of the dependent INUS conditions are affected by the outcome of previous projects and associated changes, in previous periods, in the form of knowledge in accounting.

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<sup>21</sup>This is not to say that the shift involved a universal acceptance of financial economics within the profession. It did, however, mean that the proportion of institutional members willing and able to block a particular standard fell beneath a critical level, so that *overall* the institutional attitude was favourable.

<sup>22</sup>In fact, this condition may not be causally independent according to those who argue for the pro-cyclical nature of accounting regulation.

**Causal interdependence and common cause.** In the model, it is assumed that the INUS conditions are causally interconnected as can be seen in Figure 2.3 where the dotted lines connecting the INUS conditions represent causal connections. It appears that the condition, *favourable economic conditions* exerts a causal effect on several of the other INUS conditions, such as *legitimacy of economic methods* and *favourable attitude of institutions*. At a time of buoyant market conditions, one might expect financial economic methods to be viewed favourably, in part because they have not been subject to a crucial test. The experience of the financial crisis of 2007/8 led to the questioning of the legitimacy of certain economic techniques, specifically, derivative pricing models. As a result of these causal interconnections, it may be argued that the only factor, which is really necessary for explaining the outcome of a project, is that of *favourable economic conditions*. In other words, this condition can be thought of as the ultimate cause of the phenomenon under investigation. However, I argue that neither causal interdependence, nor the possible existence of a common cause for the outcome, undermines the inclusion of the five conditions, which are specified in the CCM.

A causal explanation answers a *why* question and thereby identifies relevant *proximate* causes, which provide the best explanation, even if these are all ultimately explicable in terms of a single common factor (Van Fraassen, 1980). For instance, the fact that a financial crisis affects all of the other INUS conditions, to some extent, does not mean that a good explanation should simply point to this one factor as the cause. Providing sub-categories of causes, which depend on this ultimate cause, can be valuable in explanatory terms. For example, in explaining the insolvency of a company, it may be better to highlight the fact that it breached a debt covenant (because of poor trading conditions in the market, which resulted from a general economic downturn) rather than simply identifying the economic downturn alone as a cause of the insolvency. Thus, pointing to the proximate or local causes may provide a clearer picture and enhance understanding.

### 2.5.5. Potential concerns regarding INUS conditions

Several potential concerns exist with the CCM which I now address in turn.

**Satisfaction of INUS conditions.** The treatment of INUS conditions as binary variables: either *satisfied* or *not satisfied* may be viewed as problematic. Intuitively, it makes sense to think of degrees of strength of causal conditions and to believe that extra strength in one particular condition may compensate for weakness in another. For the purposes of this explanatory framework, I assume that the satisfaction of an INUS condition means the satisfaction of certain *minimum* requirements, even if the other conditions are each strongly satisfied. Five weakly satisfied INUS conditions would be sufficient for the project to succeed, and strong satisfaction of one INUS condition could offset another barely satisfied INUS condition to force through the project more quickly

or with a higher degree of success.<sup>23</sup> However, the *strong* satisfaction of any one INUS condition will not compensate for another condition which fails to meet even the minimum level of satisfaction — much as a spark cannot ignite a fire if the tinder is not sufficiently dry, however much oxygen is present.

**Categorisation.** Categorical variables are not clear cut and inevitably subjectivity exists in the categorising of facts or events. It is not always clear at the margin, when a threshold condition has been met and this might reduce the confidence in the values of the INUS conditions. However, this problem of categorisation is a concern with all social scientific endeavour.<sup>24</sup>

**Determinism.** The CCM is a qualitative causal model and as such, the notion of ‘predictive accuracy’ in a *quantitative* sense is not particularly meaningful. It may seem unsatisfactorily simplistic to develop a qualitative model which is apparently untestable statistically. However, the lack of data limits the options for model development; the sample size is extremely small (eight projects in total within three case studies). At this early stage in the analysis of the influence of financial economics on financial reporting practice, this is the best that can be achieved. With more developed data sets in future, however, the application of statistical methods to the research problem would be useful, and hopefully fruitful, in establishing the *tendency laws* for regulatory change in financial reporting. In a limited sense, the fact that the model is deterministic means that it is falsifiable.<sup>25</sup> If the INUS conditions are all satisfied, the standard setters necessarily succeed in extending economic methods through the publication of a standard. The description of the model as ‘deterministic’ is, however, less demanding than might initially be thought. The model takes as a causal antecedent the launch of a project to develop the standard (hence the standard setting board has a pro-attitude) and one of the INUS conditions is the advocacy of influential standard setters on the board. Thus, the model focuses on background conditions when the standard setters are actively engaged in trying to push through the standard. The model is deterministic because it shows one set of necessary and sufficient conditions for the success of a standard. If the conditions are not satisfied, the standard will not be voted through, published and implemented. One problem with the use of a deterministic model is the possibility that the causal relations

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<sup>23</sup>Returning to the analogy originally used by Mackie, a spark may ignite a fire even in slightly damp conditions if there is ample oxygen as well as plentiful tinder. If all the conditions for a successful fire are met, however, the addition of a higher level of oxygen will result in a stronger fire or at least one which catches hold more quickly.

<sup>24</sup>In this regard, various issues such as value-ladenness, the instability of concepts or the fundamental valuation problem (of which the index-number problem is one example) can be included in this group of problems.

<sup>25</sup>However, the notion of falsifiability should not be taken to be a measure of how scientific an approach is. Philosophers of science increasingly view the concept of falsifiability with scepticism (see Kitcher, 1983).

modelled will be rejected due to an incorrect prediction, even though a probabilistic law exists.

### 2.5.6. The unit of analysis

In figure 2.5, I characterise the INUS conditions in terms of the *level* at which they are analysed, the evidence used to identify them and their determinants.

	<b>INUS condition</b>	<b>Explanatory level</b>	<b>Proximate cause</b>	<b>Observable feature</b>	<b>Ultimate causal influences</b>
1.	Economic conditions	Economy (holistic or societal)	Increased asset values	Economic data (generated by institutions)	Macroeconomic factors
2.	Legitimacy of financial models	Institutional (holistic or institutional)	Institutions accept economic models	Institutional actions and statements	Increasing intellectual influence of economics on society and business generally
3.	Shifting approach to decision-useful information and balance sheet focus	Institutional (holistic or institutional)	Standards focus more on the balance sheet and future economic flows	Actions and statements by individuals on behalf of institutions	Changing form of knowledge as a result of individuals
4.	Institutional acceptance	Institutional (holistic or institutional)	Institutional acceptance for financial reporting change	Actions and statements by individuals on behalf of institutions	Changing institutional form of knowledge in specific institutions and influence of economics generally
5.	Strong advocates on standard setting boards	Individual (individualistic)	Individuals force through new standards	Individual actions and statements	Education, changing form of knowledge

Figure 2.5: Unit of analysis for the INUS conditions

The table reveals explanatory *levels* ranging from holistic to individualistic for the INUS conditions. By a *holistic level* of explanation, I mean an explanation whose terms cannot be reduced to theories using individualistic terms. In other words, an individual is treated as a product of the social group to which he or she belongs because:

“individuals are what they are because of the social whole to which they belong; the result is that the individual can only be understood by placing

him or her in a social context, not the other way around. It follows that social wholes, not their individual human members, must be the bedrock of any adequate social scientific theory” (Fay, 1996, pg. 50).

By contrast, an individualistic explanation refers only to individualistic terms - there is no sense of the construction of the individual by society (or culture, or linguistic structures, or social institutions) as is the case in the physical sciences and in microeconomic theory.

A possible concern is that the INUS conditions may appear, at first view, to be an inconsistent mix of ideas, physical entities and social entities. However, I do not view this as a particular weakness of the model, in fact it might be considered to be one of its strengths. The INUS conditions are all theoretically reducible to the actions of individuals (or even to lower level explanations than that), but the importance of the INUS conditions is their ability to exert a causal effect. For instance, in the case of pensions in the US, the attitude of institutions is crucial because if the institution can block the progress of the project and intends to do so, the project will not succeed. This institutional ‘attitude’ (a lack of opposition) may be described as an ‘idea’ but it is, in the context of the CCM, simply the best possible description of a constraint on the standard setting process, whether described as a social fact or an idea, in terms of achieving a clear explanation.

Arguments between methodological individualists and holists about the correct level of explanation are relevant in this regard. All the INUS conditions, including that of *favourable attitude of institutions* could be reduced to low-level descriptions, for example in terms of individual agents (Watkins, 1952), but this would not make the explanation any clearer. In fact a disjunctive description of the INUS condition for *favourable attitude of institutions* in terms of all the possible states of the institution and all the individuals which constitute that institution, would almost certainly make the status of *favourable attitude of institutions* less comprehensible as an explanatory factor. Having all the INUS conditions at the same level of description would thus not benefit the model’s explanatory value. The reason for having a set of INUS conditions including both holistic entities such as *favourable economic conditions* and individualistic ones such as *influential advocates on the board* is simply to enhance explanatory clarity by choosing the level of explanation at which we can imagine an intervention, which could block the project. Another way of thinking about the different levels of analysis within the set of INUS conditions is in terms of the evidence necessary to show whether or not a particular condition is satisfied. Evidence of *favourable attitude of institutions* is to be found at the level of official documentation of the institution as a whole rather than at the level of the individual. By contrast, evidence for the satisfaction of the condition for *influential advocates on the board* is to be found at the level of the individual or the group of board members.



The INUS condition, *favourable economic conditions*, can be thought of as purely holistic, in that it does not make reference to individual actions. The conditions for *pro-economic aims of financial reporting*, *legitimacy of economic methods* and *favourable institutional attitude* are also holistic, but, can also be thought of as ‘institutional conditions’, in that they are explained by reference to descriptions of ‘institutional’ actions. Evidence for these institutional actions is obtained by reference to individual actions, where the individuals are acting *on behalf of* those institutions. For example, an individual member of an actuarial group may produce a report, which sheds light on the views of the institution.<sup>26</sup>

The final INUS condition listed, *influential advocates on the board*, is an individualistic variable, in that it identifies the causal power of the actions of specific individuals. However, although the individuals identified wield causal power in terms of the CCM, they are themselves the product of institutional shifts in terms of their education and professional influences. In this case, the individuals’ power can be identified as the *proximate* cause of the action, whereas the factors affecting all the individuals can be identified as the *ultimate* causes of the outcome of the project. Economic conditions, for instance could be explained “at rock bottom” (Watkins, 1952) in terms of individual market participants and could thus be thought of as individualistic. However, I argue that this would not enhance the explanation. I have tried to identify the proximate causal factors, so that the condition is described at the most detailed, low-level, individualistic level possible, without forfeiting explanatory power.

A complicating factor is that a difference exists between the factors we believe to be doing causal work in the model and the features we can actually observe. For instance, institutional factors are identifiable as a result of actions and statements on behalf of the institutions in question, but are produced by individuals within the institutions. An institution itself cannot write a report or vote in a new rule. This work is carried out by individuals who, together, represent the institution at that time, although they may be constructed by the institutional way of doing things (what Hacking would call, *form of knowledge* and what a structuralist might call *institutional logic*) and constrained in their behaviour by the existence of institutional and social norms.

The level of explanation is effectively a hybrid of the observable features and unit of causal influence. In the case of *influential advocates on the board*, the observable features are individualistic as is the proximate cause, although the ultimate cause is holistic (the influence on the individuals of education and the changing form of knowledge). The choice of the explanatory level identified is to some extent discretionary and I have described the INUS conditions in order to provide the best explanation. A distinction should be

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<sup>26</sup>As is discussed in Chapter 3, an influential article by Exley et al. (1997) provided evidence of a shift in the form of knowledge of the actuarial profession (an institution), but was produced by three *individuals*. Similarly the response by the profession to this seminal paper was initially identified from statements made by individuals, which became identified with the institutional view over time.

drawn between the chosen description of the condition (as institutional or individualistic), the observable manifestations of the condition and the ultimate causal properties of that condition.

Even if the individuals on the board who supported economic financial reporting standards are considered to be socially constructed and thus be, “only bearers of a system of discourse” (Fay, 1996, pg. 51), nevertheless their actions at that time were the relevant explanatory causal factors. An intervention to remove them would have changed the outcome of the development of economic representation *in these particular cases*. I am not making any reductionist claims about the ontology of standard setting. The different levels of variable (individualistic, institutional, holistic) reflect merely the pragmatic need to identify variables for which evidence is observable. In this way, to increase explanatory clarity, I include in the model the lowest (most individualistic) unit of analysis for each INUS condition. For instance, in the case of the stock market buoyancy, no meaningful intervention by an individual within the standard setting arena would affect the stock price level.<sup>27</sup> However, at the individual level, the removal of strong advocates for economic representation on standard setting boards could be seen as a causally effective intervention which would have changed the voting pattern and hence the adoption of economic representation.

### **2.5.7. Application of the model to other projects and cases**

To test whether this particular set of INUS conditions is causally relevant in the other cases of regulatory change, and hence to test if the model is robust, I apply it to other projects to see if it was predictively accurate and if it provides a useful enhancement to an understanding of regulatory change in accounting. I apply the model to further evidence from the case for FAS 87 (1985) and to two other projects for pensions in different financial reporting jurisdictions and at different time periods (IAS 19, 1998; FRS 17, 2000). I find that the model provides an explanation which was consistent with evidence in these areas. I then apply it to two cases for different accounting items. In Chapter 4, I analyse the development of standards to report financial derivatives. Finally, in Chapter 5 I apply the model to the project by the IASB to extend the use of economic methods within the area of contingent liabilities. In both of these case studies, the CCM appears to explain satisfactorily the success (in the case of financial derivatives) and non-success (in the case of contingent liabilities).

When applying the model to further projects, the generic INUS conditions (e.g. *favourable institutional attitude*) remain fixed, although the generic descriptions of the

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<sup>27</sup>It should be noted that the individuals I consider in the analysis do not include any who could move the markets. If I were to expand the model to include such individuals, the explanatory story would likely become unclear, so I take the economic environment to be a society-level variable rather than an individualistic one.

model pick out specific entities. The term ‘institution’ for example, refers to actuaries in the case of pensions, banking groups and political groups such as the Federal Reserve and European Commission in the case of financial derivatives, and to financial analysts, professional accounting institutions and political groups such as the European Financial Reporting Advisory Group (EFRAG) in the case of contingencies.

The results of the application of the CCM to projects other than FAS 87 (1985) suggest that it is capable of explaining the success of particular projects to introduce economic methods in a number of different contexts. The results of the application of the CCM to different projects are summarised in figure 2.6. It is evident that — at least

<b>Area</b>	<b>Standard</b>	<b>Success?</b>	<b>Accounting objectives</b>	<b>Economic conditions</b>	<b>Legitimacy</b>	<b>Institutions</b>	<b>Individuals</b>
Pensions	FAS 87 (1985)	yes	yes	yes	yes	yes	yes
Pensions	IAS 19 (1998)	yes	yes	yes	yes	yes	yes
Pensions	FRS 17 (2000)	yes	yes	yes	yes	yes	yes
Derivatives	FAS 133 (1998)	yes	yes	yes	yes	yes	yes
Derivatives	IAS 39 (1998)	yes	yes	yes	yes	yes	yes
Contingencies	Revised IAS 37	no	yes	no	yes	no	no

Figure 2.6: Satisfaction of INUS conditions for an extended set of projects

for the projects studied — the satisfaction of all the INUS conditions is associated with the success of the project. For the one project for which the conditions were not all satisfied, the project was not successful. These results suggest that the model is reliable in explanatory terms and may be predictively accurate.

## 2.6. Conclusion

The primary research question: “why did financial economics methods emerge in financial reporting practice” is answered by the application of the CCM to particular cases of attempted regulatory change in financial reporting. The model sets out necessary and sufficient conditions for the successful introduction of economic methods into practice through the publication and implementation of accounting standards. The model was developed inductively using FASB documentation and interview-based evidence for the FASB project to develop FAS 87. Given the small set of data (six projects)<sup>28</sup>, I chose to analyse the research question by employing the case-study method, although future research opportunities might involve the inclusion of an error term to the model and the use of statistical analysis. However, as a qualitative causal model, the CCM was found to

<sup>28</sup>I do also consider some evidence for FAS 106 (1990) and FAS 158 (2006).

be robust and to provide a consistent explanation of the success or non-success of projects when applied to other cases. The model is situated with the New Accounting History approach, drawing on political economy and genealogical approaches to accounting change, but supplementing them with causality. In the following three chapters, I analyse the cases of pensions, financial derivatives and contingencies using the model.

# Chapter 3

## Case study: pensions

### 3.1. Introduction

In the last chapter, I developed a qualitative causal model, the Causal Constellation Model (or CCM), to explain the emergence of financial reporting standards requiring the use of economic representation.<sup>1</sup> The CCM offers an account of regulatory change in complex settings through the identification of a set of individually necessary and jointly sufficient conditions. In this chapter, I present evidence from interviews, archival data, academic publications and press reports concerning the project to develop FAS 87, *Employers' Accounting for Pensions*, on which the CCM was based. I also present further evidence relating to the development of other standards in the area, specifically FRS 17, and to a lesser degree IAS 19 (1998). I use the evidence relating to the other standards to test the CCM and find that the outcomes of these standard setting projects are consistent with the retrodictions of the model. This corroborates the model and suggests that it provides a plausible explanation for the success of these projects which introduced financial economics to financial reporting.

I selected the area of pensions accounting for two reasons. First, standards in this area introduced economic representation relatively early. The US pensions standard FAS 87, which was published in 1985, employed the term *fair value* and required elements of economic representation. Second, the study of changes in the financial reporting of pensions offers rich insights into the influence of economics on financial reporting practice. This area has been heavily debated over the last four decades and as a result, much evidence is available. This evidence is in the form of documents provided by standard setters, notes of meetings, articles in the press, as well as the possibility of interviews with participants in the standard setting process, who still hold strong views which they are willing to discuss.

Pension accounting has been complex and controversial, not only because pension

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<sup>1</sup>I discuss the term *economic representation* on page 33 in Chapter 2.

obligations are long-term and uncertain, but also because of the “changing nature of pension arrangements and the legal and social contexts in which they operate” (Napier, 2009, pg. 231). Pensions have been subject to a variety of interpretations by practitioners, academics and standard setters and this has resulted in a lack of agreement on what constitutes an appropriate way of reporting these obligations.

In addition to changing interpretations, demographic trends have caused pension liabilities to increase significantly since their introduction as post-retirement life expectancy has increased. The increase in the size of pension obligations and the requirements of accounting standards have exerted a significant impact on the net assets of many companies which operate defined-benefit schemes. This is illustrated by an article in the Financial Times in 2003, which charged accounting standards for pensions with inflicting more economic damage than “corporate deviants” such as Enron and WorldCom. The article highlights the case of General Motors, which it describes as: “a social security system that finances itself by making and selling cars” (Financial Times, John Plender, December 19th, 2003). Thus we see that the economic impact of pensions accounting is potentially significant.

Before 1985, employers did not represent obligations for future pensions payments in their financial statements using economic valuation methods. This began to change as a result of the new US financial reporting standard, FAS 87 (1985). This new standard introduced elements of economic valuation for pension obligations which were disclosed in the financial statements.<sup>2</sup> Following the publication (in 1985) and implementation (from 1988) of FAS 87<sup>3</sup>, financial reporting representations of pensions in the US, UK and IAS-area increasingly began to incorporate economic valuations.<sup>4</sup> Figure 3.1 summarises the chronology of the development of the reporting standards in these areas, showing the introduction of economic valuation over time (moving from left to right along the arrow) in the US, UK and by the IASC. A movement towards economic valuation is seen in all three areas, represented diagrammatically by increasingly saturated shading.

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<sup>2</sup>In introducing economic *valuation*, FAS 87 also constituted a pre-condition for the later introduction by FAS 158 (2006) of overall economic *representation* of pensions through the recognition of an economically valued *pension liability* in the balance sheet.

<sup>3</sup>Mandatory implementation of FAS 87 was delayed to allow employers to design reporting systems and to amend any affected policies and legal agreements, such as debt covenants. Minimum liability provisions were to be implemented no later than fiscal years beginning after December 15th, 1988 (and expense provisions no later than fiscal year beginning after December 15th, 1986 for all companies except for nonpublic companies with plans with fewer than 100 participants (Miller, 1987, pg 94).

<sup>4</sup>The introduction of economic valuation methods in pensions reporting can be identified as one of the first examples of the application of this kind of valuation method in financial reporting. Outside this field, there was relatively limited use of economic valuation when FAS 87 was published in 1985. However, earlier uses of economic methods include lease accounting and the effective interest method for debt premiums. For lease accounting, FAS 13 (1976) and SSAP 21 (1984) required the use of present value techniques in determining the recognition and valuation of finance leases. FAS 65 (1982) and later FAS 91 (1986), in particular, ¶18 and ¶53, required the use of the effective interest method to calculate implicit, or economic, interest rates for debt instruments. In addition, certain accounting items were carried at market value on the balance sheet, for instance, investment properties (SSAP 19, 1981).

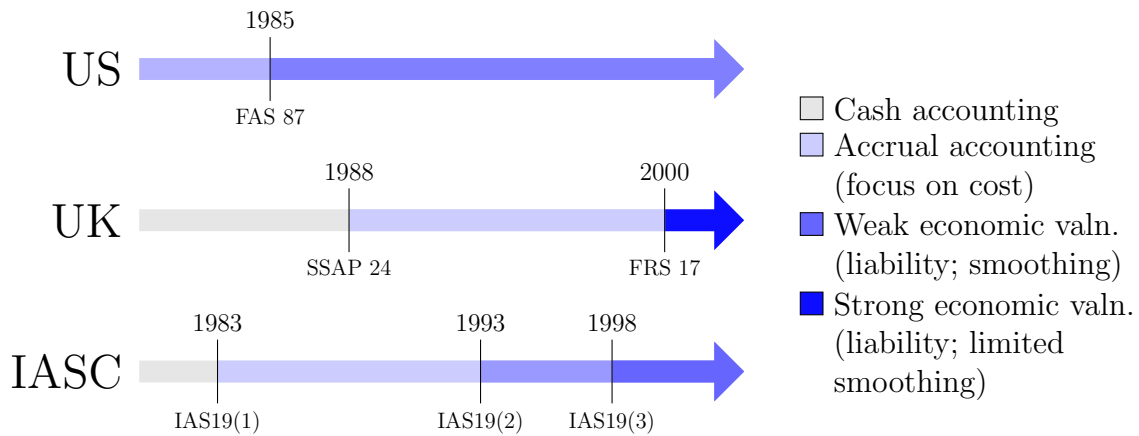


Figure 3.1: The increasing influence of economic valuation

The layout of the chapter is as follows. In Section 3.2, I consider the causal antecedents of the introduction of economic representations in the financial reporting of pensions. In Section 3.3, I consider the representation options open to the standard setters and what social and accounting concepts each of the possible accounting options reflects. In Section 3.4, I analyse in turn the five INUS conditions I have identified for the success of the projects. These are *the pro-economics aims of financial reporting, favourable economic conditions, the legitimacy of economic methods, favourable institutional attitude and the presence of influential advocates on the standard setting board.*

**Sources of evidence.** In order to find evidence for the hypothesis that one particular set of INUS conditions explains the introduction of economic valuation in the financial reporting of pensions, I have used three main sources. First, in order to establish that economic values have indeed been introduced, I have referred to financial reporting standards (FAS 87) and academic and professional publications relating to the approach and technical application of these standards. I also provide evidence of the introduction of economic representation in the UK as a test of the CCM, using the case of FRS 17 (2000). In addition, I consider evidence for the IASC jurisdiction, with the publication of IAS 19 (1998). Second, in order to establish the INUS conditions for the publication of the standards, I have reviewed literature from the disciplines of accounting, economics and actuarial science, as well as the financial press. Third, I have conducted interviews with former technical staff and board members at standard setting institutions, academics specialising in the area and accounting practitioners who were involved with the development of financial reporting standards for pensions. Details are set out in Appendix A.

The US and UK standards are of particular research interest because they pioneered the introduction of economic representations of pension obligations (based on the use of fair values and recognition of a pension liability) in US GAAP and UK GAAP. I do not

spend as much time discussing the IASC standard, which was introduced by the IASC before compliance by EU listed companies with IAS had been mandated by the EC. As a result, the publication of IAS 19 (1998) did not result in significant adoption by preparers for several years after publication. Its publication was necessarily less complicated than was the case of the first US and UK standards for this reason.<sup>5</sup>

**Background** The most common alternative valuation method used by financial accountants before the introduction of economic valuation was historical cost valuation. According to this convention, financial accountants looked to the legal substance of transactions and contracts, rather than using forward-looking economic values for assets and liabilities. This reflects their intention, which was to provide verifiable measures.<sup>6</sup>

This approach to financial reporting led standard setters to argue that verifiability of accounting information trumped decision-relevance for investors. Standard setters aimed to provide reliable valuations of specific, and generally physical, accounting items. Consequently, a host of accounting items, many intangible or with uncertain values, were omitted from the balance sheet. These included internally generated goodwill, intangibles and contingent liabilities. Moreover, under the historical cost paradigm, the focus of financial reporting was on the income statement rather than the balance sheet.

Given this backdrop in financial reporting practice, the economic valuation required by FAS 87 (1985) was new to financial reporting practitioners. However, it was not new to accounting academics.<sup>7</sup> Academic debates about economic valuation had begun as far back as the turn of the twentieth century. Fisher (1906) argued for assets to be valued according to discounted cash flows and Hicks (1939) identified the various *economic* interpretations of the terms *income* and *capital*. Other academic accountants, such as Canning (1929) and MacNeal (1939) also highlighted the importance of the relationship between accounting and economics.

However, the academic debate did not permeate financial reporting practice until the 1980s. The significant delay in the transfer of economic methods to financial reporting practice can be explained in terms of the absence, before the 1980s, of the existence of certain INUS conditions whose joint satisfaction resulted in the adoption of economic methods. The causal precursor to this set of conditions was the development of new

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<sup>5</sup>The limited adoption of the standard meant that fewer objections were raised by preparers and institutions with the result that successful publication was less difficult to achieve.

<sup>6</sup>It is noticeable that the language of financial reporting standards tends towards the use of the term *measurement*, whereas economic theories tend to refer instead to *valuation*. The subtle distinction between the terms seems to be linked to the relative objectivity or subjectivity of the value of an item. It appears that the term *measurement* is an epistemic notion which captures the idea of trying to discover the correct value of an item and to represent it using a set of agreed measurement rules. The notion of *valuation*, however, seems to emphasise the *choice* of rules by the valuer and can therefore be seen as more subjective.

<sup>7</sup>It was also not new to management accountants, who used economic methods extensively from the 1950s onwards.



accounting concepts as a response within financial reporting practice to changes in the *interpretation* of existing socioeconomic phenomena, which I elaborate on in the next section. In the case of pensions, for instance, the pension liability emerged in response to legal and social changes. Once it became evident to standard setters that pensions represented an obligation to the employer and therefore had to be reflected in the financial accounts, the standard setters faced the problem of how to value these new accounting items, for which the historical cost convention was inadequate. I analyse the valuation options open to standard setters in Section 3.3. The choice of valuation methods made by standard setters depended on the existence of particular background conditions at that time.

In the following sections, I analyse the causal antecedent of pensions standards, their requirements, and the INUS conditions which had to be satisfied in order that the projects to introduce the standards were successful.<sup>8</sup>

### **3.2. Causal antecedent: the emergence of the pension liability**

In this section, I will show how the financial reporting notion of a pension liability emerged in the US and UK in the twentieth century, shaped not only by social trends but also by a changing conceptual scheme of accounting concepts. The emergence of the new accounting concept, the pension liability, acted as a catalyst for the introduction of economic valuation in the financial reporting of pensions. The debate over what constituted an appropriate valuation method stemmed from differing opinions about how to interpret a pension liability.

Pensions are post-retirement benefits paid by employers and can be generally divided into defined-benefit or defined contribution plans. Early examples of pensions can be traced to the thirteenth and fourteenth century (Blake, 1997; Clark, 2000), but it was during the late nineteenth century that pensions became widespread. For much of the twentieth century, the average employee would tend to spend most of his or her working life with a single employer. Contributions to a pension scheme by the employer (and also by the employee in the case of contributory pension schemes) were sometimes notionally set aside by the employer, in which case the firm would set up a reserve from which pension payments would be made. Alternatively, pensions contributions could be invested outside the firm (a *funded* scheme). In either case, the firm's payroll would normally administer the payment of pensions. Pensions benefits were generally based on a formula which included variables for length of employment and average or final salary. This type of pension is now known as a defined-benefit scheme. An alternative was the defined-

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<sup>8</sup>I do not include in the scope of this chapter any analysis of pensions reporting in other jurisdictions, although an examination of these areas may provide a more complete picture of the factors which led to the adoption of economic theory in financial reporting practice.

contribution pension, in which the employer contributed a fixed periodic amount. A defined-contribution scheme requires the employer to do no more than make specified contributions to a plan, whereas a defined-benefit scheme pays out according to a formula which includes years of service and final salary. This makes the defined-benefit scheme obligation difficult to value, because the level of future cash flows is uncertain. The cost of a defined-benefit scheme to the employer depends on the length of time a pension recipient survives after retirement, as well as the final salary of the employee. Problems arise with defined-benefit schemes over the nature and valuation of the future pension obligation, due to the fact that the value of the obligation is uncertain. It is defined-benefit schemes which will be the focus of this research.

In what follows, I argue that changes in legal and social understandings of the concept of the defined-benefit final salary pension acted as a catalyst for change in their financial reporting treatment. This follows because financial reporting for such uncertain events depends on two facts. The first fact is the definition of the concept of a ‘pensions obligation’ (what is being valued). The second fact is the choice of measurement scheme (measurement using for example, the minimum amount contracted, actuarial valuation or economic valuation).

**Discretionary payments - until the 1950s.** Up until the mid-twentieth century, pensions were understood to be made at the discretion of the employer, without recourse by employees or ex-employees. This view of pensions as a manifestation of altruism on the part of employers has been described as the “gratuity theory” (McGill et al., 2004, pg. 16). McGill et al. argue that payments made by companies were typically discretionary, avoiding legal obligation through carefully worded contracts which waived employees’ legal rights to future benefits. Labour unions, not surprisingly, viewed employers’ provision of pensions, structured in this way, as a “paternalistic device employers could use to wean the allegiance of workers away from the unions” (McGill et al., 2004, pg.19). In reflecting pensions as voluntary payments, financial statements showed the contributions made in a given period, often the cash paid into a scheme, as a periodic cost and benefits to employees would be expensed only at the time of payment (Napier, 2009, pg. 232). No pension liability was recognised under the implicit assumption that the employee had no legal recourse.

**As deferred pay - the 1950’s to 1974.** During the first half of the twentieth century, social dissatisfaction with pension arrangements increased as these came to be perceived by workers as unenforceable promises made by employers. By the 1940s, the issue came to a head in the US as the result of a campaign by the United Mine Workers to establish a welfare fund. McGill et al. cite the president of the Mine Workers Union, John L Lewis, summing up workers’ frustration with such voluntary pension arrangements:

“..[I]ndustry owed an obligation to those employees, and the coal miners could no longer be used up, crippled beyond repair and turned out to live or die subject to the charity of the community or the minimum contributions of the state” (McGill et al., 2004, pg. 16).

These sentiments were echoed in other labour organisations across the US. Labour unions were instrumental in forcing legal change which, in turn, altered the way defined-benefit pensions were to be interpreted and represented by financial accountants. The gratuity interpretation of pensions finally gave way to that of a pension as deferred wages as the ruling in an appeal against a labour-law case (*Inland Steel Company v. National Labor Relations Board*, 1949)<sup>9</sup> changed the way in which pensions were reported.

The accounting treatments prescribed at the time supported the cost-only basis for representing pension activities. For funded schemes, pension contributions were recognised as an expense in the period they were made. Where a pension scheme was unfunded, actuarial calculations would generate implicit periodic costs which were charged to the income statement. In the US, the American Institute of Certified Public Accountants (AICPA) issued Bulletin No. 47 (CAP, 1956), which required the accrual of a pension expense for current service cost in the income statement. In 1966, the Accounting Principles Board issued Opinion 8, which adopted the approach of Bulletin No. 47, focusing solely on the income statement. The Accounting Principles Board addressed recognition rules for the ‘past service cost’<sup>10</sup> and encouraged smoothing of this cost by limiting to 10% the amount recognised in any year.

The calculations of annual expense were sufficiently complex that actuaries were generally brought in to carry out this work. In a published discussion of Opinion No. 8, in *Transactions of the Society of Actuaries* published in 1967, Mr. Douglas C Borton states:

“Since Opinion No. 8 was issued last November, it already has resulted in a considerable amount of additional work for consulting actuaries and their clients, as well as for accountants ” (Society of Actuaries, 1967, pg. D575).

The role of pensions actuaries developed and grew as a result of the introduction of this accounting opinion. Moreover, it led to professional interactions between actuaries and accountants. Actuaries were actively engaging with accounting practitioners in calculating the appropriate level of pension expenses to be charged in the profit and loss account. This involvement was to prove important when it came to attempts by standard setters to move to a more financial economics driven valuation approach.

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<sup>9</sup>See also, *Inland Steel v United Steelworkers of America* (1949).

<sup>10</sup>The past service cost was the actuarial assignment of pension cost to periods prior to the date at which an actuarial calculation was carried out.

**As a legal obligation - from 1974.** In spite of the legal requirement for pensions to be interpreted as deferred wages until 1974, there was no legal impetus for employers to reflect the total obligation they faced consequent on entering into a pension agreement with employees. However, in the 1960s and 1970s concern grew among various groups, including regulators, about the size and uncertainty of the pension obligations faced by companies with defined benefit schemes. Stock market collapses depleted the value of fund assets, while increased longevity and the impact of inflation increased the levels of future payments expected for post-retirement payments per employee (Napier, 2009). In 1974, pensions legislation in the US, *The Employee Retirement Income Security Act of 1974* (ERISA) clarified the employers' obligation for pensions, placing constraints on funding and establishing minimum disclosure requirements. However, the employer's obligation specified by ERISA was based on current rather than expected future pay levels. Therefore, although the emergence of the financial reporting concept of a pension liability arose as a result of ERISA (1974), employers were not bound to take into account constructive obligations they faced for future increases in wages over the employees' working life.

In the UK, following the high-profile collapse of the Mirror Group Pensions Scheme in 1991, legislation to protect employees was introduced in the form of the 1995 Pension Act. Just as in the US, pensions obligations became legally enforceable and were subject to stringent funding requirements, which led the accounting profession to respond by disclosing a liability for pensions and ultimately to recognise them on the balance sheet.

These three stages of development in the social and legal interpretation of pensions (as discretionary payments, deferred wages and as then as a legal obligation) are of interest because the change in the social perception of pensions ultimately resulted in the enactment of statutory requirements for employers with pensions schemes. This in turn led to the development of a new accounting concept, the pension liability, and standard setters were required to value these items, which would be disclosed (and later recognised) in the financial statements.

The financial reporting community responded to the legal clarification of the pension obligation by developing a new accounting concept, the pension liability. In the US, the FASB began a project to develop a new pensions standard in December 1974, resulting, eleven years later, in the publication of FAS 87 (1985). This new standard required companies to represent economics-based valuations of their pensions obligations in the financial statements through disclosures and also to include a 'minimum pension liability' on the balance sheet. The IASC and the ASB followed with IAS 19 (1998) and FRS 17 (2000). IAS 19 (1998) was amended in 2004 to reflect certain elements of FRS 17. The US and UK standards, in particular, changed the landscape of pension accounting. This is because they introduced economic methods into reporting practice which had previously been non-economic in nature. I focus my attention on these two standards in

what follows.

### **3.3. Valuation options for the pension liability**

The CCM explains the introduction of financial economic methods into financial reporting practice as a result of the publication of particular accounting standards. In this section, I demonstrate that standard setters selected economic methods out of a range of possible valuation options when developing the standards analysed in this case, by considering the range of valuation options open to the FASB for the pension liability when they were developing FAS 87. I show that these different options reflected different interpretations of the employer's obligation to employees. These interpretations depended on particular assumptions made about the labour market and the degree to which non-contractual obligations should be reflected in the financial statements. In particular, I clarify the extent to which the requirements eventually adopted by the FASB were consistent with economic theory. I find that FAS 87 required weak economic representation of the pension obligation.

Although the standard required the recognition of a pension liability on the balance sheet, this was not fully economic in the sense described in Section 2.5.1 in Chapter 2. The *minimum pension liability* required by FAS 87, failed to reflect a constructive obligation of the employer, resulting from the existence of social norms in the labour market, as it omitted projections of salary increases and risked understating the obligation because of measurement difficulties. It also allowed for significant smoothing in the income statement. However, the information necessary to calculate the economic liability was disclosed in the financial statements and sophisticated users would have been able to calculate the pension liability in economic terms by reference to the notes to the financial statements.

Faced with a new pension obligation to represent, standard setters had to decide on an appropriate set of technical methods for valuation. What becomes apparent in analysing this case is that the interpretation and valuation methods selected by standard setters was guided by a set of background conditions. These background conditions led to specific accounting interpretations of pensions obligations. The most common valuation option for financial reporting at the time was historical cost accounting, which recognised asset and liability valuations according to verifiable amounts incurred at some historical event such as the striking of a contract. Viewed from within this financial reporting paradigm, it might seem that the pension liability resulting from a pension contract would be suitable for valuation according to some contracted amount. However, the contract between employer and employee for pensions arrangements did not specify timing and amounts with certainty. Retirement ages could vary, and longevity and the level of final salaries were unknown. The historical cost approach therefore failed to provide a value for a pensions obligation. The historical cost approach could merely offer a cost-focused cash

accounting approach, as seen in Accounting Principles Board (1966), SSAP 24 (1988) and IAS 19 (1983). This recognised liabilities in the balance sheet only to the extent that cash paid into a fund was less than the actuarial cost for the period. Historical cost therefore failed to reflect the uncertainty inherent in pension cash flows.

In fact, the FASB was the first standard-setting body to introduce a forward-looking liability or asset for pensions by developing FAS 87. The FASB board argued for the recognition and composition of the employer's liability for pensions as follows:

“The Board believes that an employer with an unfunded pension obligation has a liability and an employer with an overfunded pension obligation has an asset. The most relevant and reliable information available about that liability or asset is based on the fair value of plan assets and a measure of the present value of the obligation using current, explicit assumptions” (FAS 87, 1985, ¶98).<sup>11</sup>

However, although FAS 87 might have been the first accounting standard to introduce a pension liability, it was often criticised for providing a smoothed liability, which was in any case not shown initially on the face of the balance sheet. Although the components of the pensions liability and the associated cost in the income statement were disclosed as notes to the accounts, the income statement was subject to various smoothing devices.

In this section, I analyse the possible interpretations of the concept of *pension obligation*<sup>12</sup> and how particular interpretations of these concepts influenced the valuation choices made by the standard setters. It is important to note that these interpretations were themselves shaped by the existing form of knowledge in financial reporting.<sup>13</sup> For instance, a liability understood as reflecting a shortfall in funding would logically call for an actuarial valuation, whereas an economic interpretation of a future obligation (irrespective of its funding) would call for an economic valuation. Moreover, given a particular interpretation of the *pension obligation*, for instance as an economic obligation, the standard setters' choice of particular representation requirements was constrained by the existing set of INUS conditions.

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<sup>11</sup>In this case “fair value” referred to the market value of the plan assets. In Appendix B.4, I summarise the main technical details of the standards, including required measurement techniques.

<sup>12</sup>I use the term *obligation* rather than *liability* here because, in the case of FAS 87, the economic valuation of the pension obligation was shown in the notes to the accounts rather than as a liability on the balance sheet. A liability (the *minimum pension liability*) was shown on the balance sheet, but its valuation was not consistent with economic theory.

<sup>13</sup>A form of knowledge is constituted by a particular set of concepts and also by a set of measurement techniques. In addition to the interpretation of concepts relating to pensions, the choice of the calculative techniques to be used is also important. In the case of pensions, the technique of discounted cash flows was already established in practice by pensions actuaries in their funding calculations and it was this calculative technique which was adopted by standard setters.

### 3.3.1. Cash flows

The present value of a pension obligation comprises two elements: the cash flows for pension payments and a discount factor. The choice of inputs for these depend on the *interpretation* standard setters judge appropriate, either in terms of representation or the provision of decision-relevant information.<sup>14</sup> The decision about what constitutes the appropriate cash flows to include when calculating the valuation of a pension liability reflects the need to provide decision-useful information (as embodied in the FASB's Concept Statements 1, 2 and 3). This suggests that expected, rather than contractual, cash flows should be used. However, the notion of *appropriate* cash flows also reflects different assumptions about the perceived structure of the labour market and the relative risk attaching to the pension agreement between the employer and employee. The weaker the perceived obligation on the part of the employer, the lower the size of forecast cash flows to pensioners. Choices over higher level accounting concepts and conventions thus affect the view of what constitutes the right level of cash flows to include in the valuation. An approach consistent with the promotion of objectivity and verifiability will be most consistently represented using some kind of measurement scheme similar to historical cost accounting, such as the use of current salary levels when calculating pension benefits. By contrast, cash flows based on forward-looking economic valuation approaches (possibly including an uplift for expected salary increases) present a view which is more consistent with the FASB's aim of providing decision relevant information for users of financial statements.

**The Contractual view.** The contractual approach argues for an interpretation of no more than the explicit terms of any employment or pensions agreement (Sharpe, 1976; Barnow and Ehrenberg, 1979; Bulow, 1982). It is somewhat paradoxical that this view, normally associated with a less economic view in standard setting terms (sticking to legal, contractual terms rather than more realistic expectations of future cash flows) is advocated by certain academics from the field of financial economics. This approach assumes that pensions contracts exist in a 'spot labour market' environment, in which workers are treated as commodities. As commodities, their wages equal the marginal contribution of labour to output at any time. Given these assumptions, the employer's relationship with employees ignores any obligations resulting from social norms or other potentially enforceable obligations which are not explicitly stated in the employment contract.<sup>15</sup> Proponents of the contractual approach advocate valuing pension liabilities at

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<sup>14</sup>I am grateful to Katherine Schipper for her suggestion that one should distinguish two components of an economic valuation: the *calculative technique* and *choice of inputs*. In my analysis, the choice of cash flows can, I believe, be thought of as the input, and the discounted cash flow calculation can be thought of as the calculative technique.

<sup>15</sup>This conflicts with the view that employees' productivity might be expected to increase during their period of employment and that their wages might initially exceed their marginal productivity but later in

a ‘wind-up’ value, being the minimum amount which the employer is contractually bound to pay. The wind-up value uses current salaries as a basis for the calculation of future obligations, known as accumulated benefit obligation (ABO). The assumption of a purely contractual basis for pensions obligations thus removes the requirement to use forecast salaries in calculating future cash flows. In support of this view, some academics have questioned how meaningful accounting numbers can be if they are based on predictions of uncertain future events, such as future salary increases. In this regard, Exley (2002) argues that:

“It makes no sense to regard future salary-related liabilities as an economic liability, any more than it makes sense to regard the future salaries of employees over their remaining working life as a capitalised liability today. It is quite clear that the financial liability of the company as a balance sheet item, should be the vested or accrued liability (including statutory revaluation)” (The Actuary, 1st April, 2002).

In Exley’s view, the use of projected salaries in calculating the magnitude of the liability seems to be a confusion between an actuarial valuation prepared for funding purposes and an economic valuation of the liability which provides expected values.<sup>16</sup>

One of the problems in assessing the consistency of using salary projections, in calculating the liability for pensions, stems from the difference between an economic value, based on relevant expected cash flows, and the accounting definition of a liability. The decisions made by standard setters about valuing pension liabilities were guided by the definition of a liability in the FASB’s conceptual statements. In December 1980, the FASB issued FASB Concept Statement No. 3 (1980) which defined a liability to be:

“ . . . probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events ” (FASB Concept Statement No. 3, 1980, pg. 6).

This definition is also included in paragraph 37 of FASB Concept Statement No. 6 (1985), *Elements of Financial Statements of Business Enterprises*, which was published in the same month as FAS 87.

In determining whether or not to include forecast pay increases in current liabilities for pensions, it was necessary for the standard setters to settle on what was meant by ‘probable’ and whether or not cash flows relating to pay increases result from a ‘past transaction’. In FASB Concept Statement No. 3 (1980), the FASB defines ‘probable’

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their employment, their marginal productivity is likely to exceed the level of their wages.

<sup>16</sup>It seems that only industry-specific or firm-specific salary increases would be expected to affect profits and be relevant for determining cash flows for pensions obligations.



as being “used with its usual general meaning, rather than in a specific accounting or technical sense” (footnote 13, pg. 58). This was also the sense in which the FASB uses probable in FASB Concept Statement No. 6, in which ‘probable’ is defined in terms of everyday usage as “that which can reasonably be expected or believed on the basis of available evidence or logic but is neither certain nor proved...” (FASB Concept Statement No. 6, 1985, footnote 18). Moreover: “Its inclusion in the definition is intended to acknowledge that business and other economic activities occur in an environment characterized by uncertainty in which few outcomes are certain” (*ibid*).

Although proposed by certain financial economists, such as Sharpe (1976), the contractual view, with its assumption of a spot labour market, is generally associated with a non-economic valuation method in accounting, as it includes only contracted cash flows, thereby ignoring the constructive obligation to give pay increases to employees. A value based on current salary levels is likely to provide information which is less useful for decision-making than values based on the true expected future cash outflows, including salary increases. In spite of the advantage in terms of decision-usefulness of using more realistic projections of cash flows for pensions, FAS 87 (1985) accepted the contractual cash flow view for the calculation of the “accumulated benefit obligation” disclosed in the financial statements which did not include projected salary increases.

**The Implicit contract view.** An alternative option for the standard setters was to base the pension liability on the implicit contract interpretation of the employer’s obligation to employees. This approach takes a longer term view of the employment relationship. It assumes that this relationship is constructed through practice and extends beyond the terms of the employment contract (Dewhirst, 1971). According to this view, employers are expected to give pay rises beyond those to which they are specifically contractually bound. For defined-benefit pensions, based on final salary levels, the implicit contract view takes into account these expected increases in salaries, which occur between the date at which the obligation is assessed and the date of retirement. Although it did not use the cash flows with salary projections (known as the Projected Benefit Obligation or ‘PBO’) for the calculation of the pension liability, FAS 87 required the use of projected salaries for the calculation of pensions expense. The use of the PBO in FAS 87, shows that standard setters did view pensions as more than merely spot-market-based, contractual relationships.<sup>17</sup>

The implicit contract view is based on two assumptions. First, it is assumed that non-contractual factors are likely to motivate employers to grant future pay rises to current employees. Second, the inclusion of such uncontracted, but probable, pay rises in constructing the liability conforms to the definition of a liability as set out in the FASB’s FASB Concept Statement No. 3 (1980) and FASB Concept Statement No. 6 (1985). An

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<sup>17</sup>However, this is inconsistent with its use of current salaries for the liability calculation.

early advocate of the implicit contract view was Dewhirst (1971), whose approach was described as the ‘pension exchange’ (see Napier, 1983).

This approach to the allocation of pension costs is related to Dewhirst’s view on the valuation of the pension liability and stipulates that the pension liability should also be based on this concept of ‘exchange’:

“An accurate presentation of the financial burden inherent in the pension liability at the end of each period, therefore, requires that future gross pension payments derived from employee labor-services exchanged in each period be present-valued by the application of an appropriate discount rate ” (Dewhirst, 1971, page 367).

From this, we can see that Dewhirst argued for a liability even before the legal obligation was introduced by ERISA in 1974. He provided an interpretation of the pension obligation which implied an allocation of deferred wages cost charged against current labour input. Another proponent of the implicit labour market view, Ippolito (1985), also argued that a correct economic valuation, using implicit contract assumptions, would result in much larger pension liabilities than those predicted on the basis of a legal model or contractual view. The views of Dewhirst and Ippolito are supported by empirical evidence for the existence of implicit contracts provided by Pesando (1985).

A tension thus existed between the two possible approaches to representing pensions. If decision-usefulness was the primary aim of financial reporting, we would expect a preference for an approach which included expectations of future (non-contractual) salary increases within the cash flows.<sup>18</sup> Choices over optimal pension valuations can be seen to depend not only on reflecting the most accurate interpretation of the operation of pensions contracts or firms’ behaviour in the labour market, but more importantly on the objectives of financial reporting given user preferences. These preferences may be for verifiable values, for maximum values or for point estimates of values. This is with or without disclosure of the likely shape of the probability function for pension cash flows.

The issue of the use of future versus current salaries in the liability calculation sparked intense debate on the FASB board. Board member Wyatt argued in favour of the PBO:

“Mr Wyatt believes the projected benefit obligation, as defined in this Statement, should be the measure of the pension obligation reported in the financial statements. He believes that neither the excess of net periodic pension cost over amounts contributed (unfunded accrued cost) nor the accumulated benefit obligation is an appropriate measure of an entity’s obligation . . . He believes,

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<sup>18</sup>Barth (1991) supports the use of expected future salaries. She assesses the value relevance of the recognition or disclosure of various elements of pensions due to FAS 87 empirically and finds results which are “consistent with investors considering salary changes as part of the firm’s pension obligation when the pension formula depends on future salaries” (Barth, 1991, pg. 23).

however, that the accumulated benefit obligation cannot be a faithful presentation of the pension obligation . . . it understates the appropriate measure of the liability, grossly so in some cases ” (FAS 87, 1985, Statement by dissenters, pg. 28).<sup>19</sup>

However, Arthur Wyatt did not achieve his aim of using the PBO for the calculation of the pension liability. The liability recognised in the balance sheet represented the shortfall between the fund asset value and the ABO, which was calculated without reference to future employee compensation levels.

### 3.3.2. Discount rate

In the last section, I considered cash flow assumptions that the FASB board required as an input to the calculation of the pension liability. Given that these cash flows occur in the future, they needed to be discounted to take into account the time value of money and this gave the board members a further decision to make about the discount rate which should be used. I now present three possible choices for the discount rate open to the FASB board for inclusion in FAS 87. It should be noted that I do not intend to evaluate the different approaches in a normative sense. I review the arguments made for and against each approach because these would no doubt have influenced the FASB board in their decision on what discount rate to use. These choices can be summarised roughly in accordance with the assumptions set out in figure 3.2.

Type of obligation	Representation type	Cash flow	Discount rate
Legal	Contractual	Current salaries	Risk-free or bond rate
Economic	Economic	Future salaries	Risk-free rate (less a risk-premium possibly)
Actuarial	Actuarial/funding	Future or current salaries	Return on assets

Figure 3.2: Reporting interpretations for pensions

**Rate of return as the discount rate.** When reviewing the academic and professional debate over discount rates, it is important to note that *actuarial* present value calculations were already well-established by the time the pensions liability was introduced. Such discounted cash flow models, were prepared by actuaries to assess a company’s required future funding levels (rather than its economic obligation for pension payments) and

<sup>19</sup>Only those board members who voted against the standard were permitted to set forth their reasons for dissenting in the published standard.

calculate periodic pension costs for reporting purposes. They involved the discounting of future expected cash flows by the *expected* rate of return on fund assets. These actuarial methods naturally represented a starting point for both academic debate and developments in financial reporting practice.

Actuaries have historically used a ‘matching’ argument for the use of discount rates based on expected returns. A discussion published in the *Record of the Society of Actuaries* in 1990 describes a standard approach as follows:

“...in a longer term perspective, the liabilities of pension funds are tied to inflation. Thus, using portfolio investments to hedge liabilities implies that those returns should keep pace with inflation” (Brackey, 1990, pg. 439).

The actuarial profession took a stance, which was at odds with financial economic theory regarding matching and its implications for the choice of discount rate. Actuaries argued for the choice of an equity-based investment policy, and hence a discount rate based on the market rate of return (Gold, 2005; Bader and Gold, 2003). The first justification related to the long term nature of pension obligations. In matching this long-term obligation, the actuaries argued that they could invest for the long run, and that equities were not as risky in the long run as they were in the short run. According to financial economists, this view understates the risk inherent in equity investments.<sup>20</sup> They also argued that the actuarial process is self-correcting.

**Entity-specific discount rate.** Various academics have argued for an entity-specific rate which reflects the employer’s cost of capital (Dewhirst, 1971; Slater and Copeland, 2005). This rate, they argue, incorporates the riskiness of the entity’s future cash flows. The choice of an entity-specific rate to discount cash flows means that pension contributions are seen as an alternative to investing in the business. The interpretation of pensions, calculated using an entity-specific rate, is as deferred pay. Slater and Copeland (2005) argue for an entity-specific discount rate, arguing that this equates pension cash outflows with the opportunity cost of funds for the employer. In their view:

“At the margin, additional pension liabilities have to be covered by recourse to the external capital markets in the same way as any other capital outlay (or from the reserves, which implies an equal opportunity cost of funds) . . . In other words, the earning assets which have to pay for pensions are those of the firm as a whole, not just those of the fund” (Slater and Copeland, 2005, pg. 2).

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<sup>20</sup>See also Bodie (1995) and Wendt (1999) for further explanations and possible objections to such equity-based matching stemming from financial economic theory. For early arguments about matching approaches, see Colbran (1982) and Wise (1984).

This entity-specific approach raises several issues. First, the use of such an opportunity cost may be taken to generate a *funding* valuation rather than an *economic* valuation. It does this because it treats future pension payments as having an inherent riskiness comparable to that of the entity as a whole, rather than being unavoidable and therefore riskless.

Second, this kind of approach also risks understating the value of the pension obligation. If the expected magnitude of the cash flows is a point estimate (the mean of the distribution of possible outflow profiles), then the riskiness of the *magnitude* of the cash flows has been taken into account already in calculating the point estimate. If the riskiness of the pension flows has been taken into account in the expected cash flows, the calculation of the present value of these future cash flows should simply take into account the time-value of money and any decline in its purchasing-power. The use of the firm's cost of capital as a discount rate could then be argued to double-count the uncertainty over the future level of cash flows, thereby reducing the present value of those obligations by a kind of 'double-discounting' for risk.<sup>21</sup>

Third, the use of an entity-specific discount rate means that the valuation method varies from company to company according to the variation in the expected cost of capital between companies. Alternatively, this may be perceived as signalling useful information to the market. Last, a paradox arises with the use of entity-specific discount rates. Such a rate should reflect the inherent riskiness of the firm's future cash flows, such that an increase in perceived riskiness of these cash flows will result in an increase in the cost of capital for the firm, and hence in an increase in the discount rate. This increase in the discount rate would cause a reduction in the present value of the obligation, although the forecast cash flows have not changed and the company is likely to be in a weaker position for repayment. Slater and Copeland respond to this criticism by arguing that the reduction due to financial uncertainty is mitigated by the fact that:

“... with the value of its assets as a whole marked down, the firm's pension liabilities, though reduced, are still likely to be higher relative to the value of the firm as a whole and in that sense do represent a burden which is as heavy or heavier than before the change” (Slater and Copeland, 2005, pg. 5).

The argument Slater and Copeland give is that the pension liability is reduced by an amount which is proportionately less than the reduction in the assets on the balance sheet. It has been argued that if internally generated goodwill were shown on the balance sheet, the problem would be resolved, as the goodwill would be expected to fall given the issue of credit risk (see Horton and Macve, 2000).<sup>22</sup>

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<sup>21</sup>The same argument applies to the use of the corporate bond rate, or any rate which is not the risk free rate (or below the risk free rate if a risk premium is deducted).

<sup>22</sup>See also the literature on the credit worthiness and the market valuation of debt.

**Corporate bond rate or risk-free rate.** Financial economists and actuaries have likened pensions to other types of long term debt, in this case loans made by employees to the employer (Treyner, 1977; Exley, 2002). The employee receives a pay-off after a long term of employment, and contributes some kind of additional benefit to the firm for the duration of his or her employment. Treyner argues that “[t]he appropriate discount rate is the riskless interest rate; the present value that results from discounting at the riskless rate is an estimate of the market value of the assets on which lenders must have a claim if they are not to be subjected to investment risk” (Treyner, 1977, pg. 627–628).<sup>23</sup>

Others have even argued that a risk premium should be treated as a deduction to the risk free discount rate to reflect uncertainty over future payment patterns. An uncertain pattern of outflows should, in this view, be discounted at the risk free rate *less* a risk premium to result in a larger liability than would be the case if a risk free rate alone was used.<sup>24</sup> Effectively, this appears to reflect accounting conservatism, in that the intention is to ensure that a liability is not understated by the use of too low a discount rate.<sup>25</sup>

An alternative discount rate is the corporate bond rate for AA rated companies, which generates a lower value for the pensions obligation than the risk free rate. It is this rate which is required in the current financial reporting standards issued by the FASB, ASB and IASB.<sup>26</sup>

FAS 87 required the cash flows for pensions to be discounted using a high quality corporate bond rate:

“Assumed discount rates shall reflect the rates at which the pension benefits could be effectively settled. It is appropriate in estimating those rates to look to available information about rates implicit in current prices of annuity contracts that could be used to effect settlement of the obligation . . . In making those estimates, employers may also look to rates of return on high-quality fixed-income investments currently available and expected to be available during the period to maturity of the pension benefits” (FAS 87, 1985, ¶44).

The use of the bond rate appears to offer a compromise between the use of the risk free rate and an entity-specific rate. In referring to annuity contracts, the FASB reveals the intention that the valuation of a liability should reflect the amount which a company

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<sup>23</sup>In fact, the pension fund comprises two elements. These are, the pension claim, which should be discounted at a riskless rate and the ‘pension put’ on the assets underlying the claim. The ‘pension put’ is effectively a put option, resulting from the possibility of employer default and thus representing an asset of the employer.

<sup>24</sup>This point was suggested by Geoffrey Whittington in discussion.

<sup>25</sup>Moreover, in practical terms this may present problems as the possibility of a near-zero or even negative discount factor would lead to extremely large present values of the pension liability, given that many of the cash flows occur far into the future.

<sup>26</sup>Blake et al. (2008) argue that compliance with an overall objective of decision-usefulness requires the use of a reference portfolio rate of return to calculate as the present value of the obligation, whereas a stewardship objective suggests use of a risk-free rate.

would have to pay to transfer the obligation to another party.

In this section, I have clarified the valuation choices open to the FASB who were faced with the task of valuing the new accounting concept, the pension liability. By requiring the use of future salaries as part of the cash flows for the calculation of the pension expense<sup>27</sup> and a discount rate equivalent to the AA bond rate, FAS 87 seems to provide an early, although weak, example of the application of economic valuation methods to the area of pensions reporting.

**UK experience** In the last section, I reviewed evidence relating to the case of the US and the development of FAS 87. In this section, I review evidence from the UK, regarding the discount rate used to discount cash flows.<sup>28</sup> As in the US, the actuarial view had predominated in UK accounting, until the 1990s, with actuarial groups advising the ASB to use discount rates linked to equity portfolios, supposedly as a means of hedging the risk of the employer. With respect to the UK experience of pensions as follows, interview evidence shows that:

“The ASB spent much time consulting the actuaries, looking in particular for ‘matching assets’, that is assets that could be shown to behave in the same way as the various types of pension liability. Eventually, they concluded that equities did not in practice ‘match’ final salary liabilities, contrary to the long-standing assumption that this was true over the long term” (Interview with former ASB technical staff member, E).

We see here the influence of the actuarial profession, who advised UK standard setters that the matching argument justified the use of the rate of expected return as a discount factor for calculating the pension liability. This view is reiterated by ASB technical staff member, G who recalls that:

“Tweedie and Cook used to argue for discounting at the equity rate because actuaries told them that equities were a good hedge for pensions. However, ultimately the actuaries were unable to provide sufficient evidence for their claim [that it was a good hedge] and so the ASB moved to requiring the corporate bond rate, as was the case for FAS 87.”

The point at which the ASB decided to move away from an equity rate, supported by a ‘matching’ argument, occurred at about the same time that the actuarial profession underwent a revolution, and began to accept a financial economic perspective on pensions

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<sup>27</sup>The PBO for the calculation of the pension liability was introduced in FAS 158 (2006).

<sup>28</sup>The UK standard, FRS 17 (2000) required the use of projected salaries for the calculation of the pension liability.

valuation.<sup>29</sup> These actuarial matching arguments gave way to empirical evidence in the 1990s.

Speaking about the demise of inflation-hedging arguments, a pension fund actuary who was working in the field at that time, admitted:

“One of the depressing pieces of research that financial economists did is to say, ‘if we look at equity returns over one, two or three years, can we find a link with inflation?’ The answer was no. So on a shorter-term basis, nobody was able to demonstrate that equities were a good match for inflation-linked liabilities” (Interview with managing principal in pensions at an international actuarial firm, P).

Between 2000 and 2001, UK pharmacy retailer, Boots, switched its pension fund investments from equities into bonds. The finance director at the time, John Ralfe, argued that:

“Boots’ rejection of the cult of equity was based, unashamedly, on financial economics. Boots accepted the conclusion that pension assets and liabilities should be matched and pension funds should hold bonds not equities” (Ralfe et al., 2003, pg. 16)

This action by Boots was influential in the pension environment according to a former board member of the ASB and IASB, Interviewee F. Moreover, as a result of his decision, which was perceived as successful, Ralfe became influential in the actuarial profession and among other finance directors. In fact, the quotation above is taken from a presentation given at an actuarial conference entitled, *The Great Controversy: Current Pension Actuarial Practice in the Light of Financial Economics Symposium*. According the pensions actuary, Interviewee P:

“John Ralfe at Boots made a dramatic move into bonds rather than equities, arguing that as a pension fund you were better off in bonds. He was passionate about financial economics. John Ralfe was quite influential in terms of his thinking” (Interview with managing principal in pensions at an international actuarial firm, P).

This quote reflects a wider trend towards financial economic approaches to pension fund investment and hence in the determination of the bond rate as the discount rate in calculating the value of the pension obligation.

In this section, I have reviewed the arguments for different cash flows and discount rates. Standard setters were forced to decide whether or not cash flows should include or exclude expected salary increases. For FAS 87 salary increases were not included for the

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<sup>29</sup>This is discussed in detail in Section 3.4.4 on page 86 below.



calculation of the pension liability. For the discount rate, standard setters had a choice of the return on investment, the entity specific rate, the risk free rate (possibly less a risk premium) or an AA bond rate. The FASB, and the other two standard setters, used the AA bond rate in their pensions standards. Having determined that the standard setters chose reporting requirements which constituted economic representation, I use the CCM to explain why they were capable of successfully introducing a standard with these requirements. In Appendix B.1, I summarise the requirements of the main standards issued during the period 1985 to 2006, which introduced or extended the use of economic methods.

### 3.4. INUS conditions

In this section, I focus on the two standards, FAS 87 and FRS 17, which were effective in introducing economic valuation into financial reporting practice.<sup>30</sup> I consider in turn, the INUS conditions developed for the CCM using initial evidence from the case of FAS 87 and find that further analysis of the evidence available corroborates the model as I find that all five INUS conditions were satisfied for the US pensions case. I also consider the UK pensions standard, FRS 17, and again, find that the evidence is consistent with the model, which correctly retrodicts the successful introduction of the standard. I also provide some limited evidence relating to the introduction of IAS 19 (1998). However, given that the standard was not mandatory across the EU until 2005, the satisfaction of some of the INUS conditions (such as *favourable institutional attitude*) were trivially satisfied. Figure 3.3 shows the INUS conditions identified for the successful outcome of the project to develop FAS 87.

#### 3.4.1. Pro-economics aims of financial reporting (*satisfied*)

Acceptance of economic theory as a tool for financial accounting and reporting by standard setters was in part dependent on conceptual change in financial reporting practice. It may be contended that, in fact, the most important factor in the choice of economic methods was the lack of an alternative representation method. However, actuarial methods *were* available at the time, but were rejected in favour of a more economic set of methods, in part for FAS 87 and to a greater extent with FRS 17 (2000). A satisfactory explanation of the reasons *why* standard setters introduced these methods must also explain why they were *aware* of economic methods and why they were *able* to introduce them at this time. To answer these two sub-questions, it is necessary to demonstrate why standard setters considered economic methods as *possible* options and to establish that they were

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<sup>30</sup>Although the development of IAS 19 (1998) was important in affecting the development of FRS 17, through its effect on the ASB, its publication preceded the mandatory adoption of IASC standards for EU listed companies.

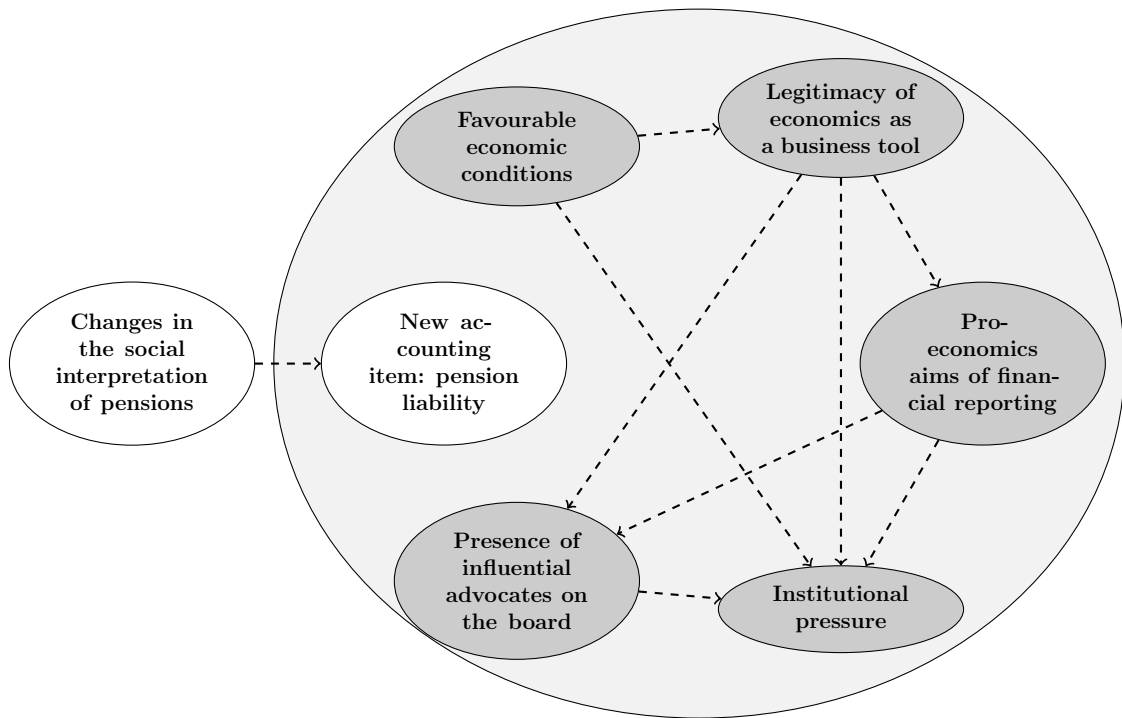


Figure 3.3: INUS conditions for the adoption of economic valuation methods

legitimate in the business and accounting community.

Standard setters inhabit a space between practice, professional bodies, preparers, academia and regulators. They need to appear legitimate in order to protect their claim of authority. The appearance of legitimacy is, in part, established by invoking theoretical elements from academic thought (Abbott, 1988). Their self-legitimizing behaviour may be identified as one factor which contributed to the drive towards the use of economic methods in financial reporting, as standard setters invoked economic theories to legitimise their role.

The gradual permeation of accounting academia by economic and financial economic theory became more intense after the 1970s. At this time, the development of capital markets research began to exert a major influence. This research stream focused on the value relevance of accounting information (Ball and Brown, 1968) and the efficient markets hypothesis (Fama, 1970). Economic ideas relating to decision-theory appeared in business journals and were included in training courses for management accountants and university accounting, finance and business degrees. Increasingly, management accountants in business became familiar with techniques such as investment appraisal using discounted cash flows, even if they did not necessarily understand the fundamentals of the economic theory on which they were based.<sup>31</sup> This increasing influence of economics on management

<sup>31</sup>For example, Bromwich (1977) notes the fact that much of the accounting literature at the time supported the use of net present value, and suggests that its use might have represented part of the search for the “best practical surrogate” for existing subjective measures of value used as part of financial

accounting practice preceded the introduction of economic valuation methods in financial reporting practice.

Management accounting practice does not face constraints imposed by external financial reporting regulation, as does financial reporting practice. Such constraints did not apply when management accountants in practice wanted to adopt new business ideas from academia, or from the company's finance or treasury departments. Bhimani and Bromwich (2010) show that management accounting was subject to the influence of economic theory from the late 1950s and 1960s, for example with the publication of *The Capital Budgeting Decision* by Bierman and Smidt in 1960.

However, financial reporting, in contrast to management accounting, practice was codified in financial reporting standards. As a result, even if preparers had an incentive to use economic valuation methods to represent their business activities, piecemeal adoption and a rapid spread of the use of techniques was not possible. The application of economic valuation methods was possible only when standard setters had published standards explicitly permitting such valuations. Thus, the willingness of standard setters to include on their standard setting agendas economic approaches to valuation was a necessary condition for the successful introduction of economic valuation methods.

It is important to realise that between the early 1930s and the mid 1970s, US GAAP was firmly rooted in historical cost.<sup>32</sup> This conceptual approach stemmed from the attitude and influence of the Securities and Exchange Commission (SEC) on US financial reporting. More specifically, it stemmed from the attitudes and influences of a particular series of SEC Chief Accountants in post from 1933 to 1972. The SEC played an important role in creating an environment in which the FASB was able to select current cost or fair value approaches to the balance sheet as, "all parties know that the ultimate authority to establish those principles rests with the SEC, which in most instances, usually means the Office of the Chief Accountant" (Zeff, 2007, pg. 59).

Since it came into being in 1934, only a few years after the US stock market crash of 1929, the SEC had exerted pressure on the accounting profession to require the use of historical cost for fixed assets and inventory. Commenting much later, the first Chief Accountant of the SEC (1935–1938), Carman Blough, argued that the anti-current value stance of one of the five founding commissioners of the SEC, Robert E Healy, dominated the SEC view (Zeff, 2007, pg.50).<sup>33</sup> An academic and former member of the SEC's legal

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reporting for external users.

<sup>32</sup>Much of this section is based on the work of Stephen Zeff, specifically his 2007 work, *The SEC rules historical cost accounting: 1934 to the 1970s*, which has been an invaluable source.

<sup>33</sup>Apparently, Healy was shocked by his findings when directing a Federal Trade Commission investigation into the shady accounting practices of public utilities that "practically everything except the furnace ashes in the basement" could be capitalised (*ibid*, pg. 49–50) and that asset write-ups were commonplace. This fervour for historical costs aimed to "make a historical record of events as they happen" (Healy, quoted in Zeff, 2007, pg. 50) and, according to Zeff, he believed that, "all upward departures from historical cost were veritably heinous" (*ibid*, pg. 50).

counsel, Homer Kripke, has argued that, “Healy’s strong views dominated the Commission in the 1930s and 1940s when it was still struggling to undo the effects of the indiscriminate departures from [historical] cost in the 1920s” (quoted in Zeff, 2007, pg. 50). Following the retirement of the first Chief Accountant, Carman Blough, the next three chief accountants, whose joint tenure spanned from 1938 to 1972, had all joined the SEC during the 1930s and continued to promote the use of historical cost.<sup>34</sup>

However, economic conditions later undermined the SEC’s fervour for historical cost and led to a significant shift in the institution’s attitude to the *correct* way of reporting asset and liability values. In the 1970s, high levels of inflation led to increasingly large differences between historical and current values of items such as property and inventories. When Chief Accountant Barr’s tenure at the the SEC came to an end in 1972, the chairman, William J Casey decided to hire in a new chief accountant rather than continue the tradition of appointing the deputy to the job. Casey employed Sandy Burton, a professor of accounting and finance at Columbia University. Burton had studied under Philip W Bell, who was an advocate of current costs on the balance sheet. Given the economic situation, Burton was keen to introduce replacement cost as an option for asset values and, being too young to have any memories of the stock market crash, was not constrained as his predecessors had been by uncomfortable associations between stock market crashes and asset revaluations (Zeff, 2007, pg. 57).

This move towards the provision of relevant information for decision-making was formalised in 1973 when the Trueblood committee invoked a forward-looking approach to financial reporting, which moved away from the traditional emphasis on stewardship. This marked the beginning of the conceptual framework project, which was seen as a test of the success of the FASB as a private sector standard setter (Macve, 1997, pg. 105-107). Over the next two years, FAS 2 (1974) on research and development costs and FAS 5 (1975) on contingencies asserted the new emphasis on assets and liabilities rather than revenue and expenses. Accounting academics, who supported this shifting emphasis of the balance sheet, such as Sprouse, a member of the FASB Board at the time of the debate over FAS 87, argued that the balance sheet was becoming polluted by meaningless assets, such as deferred credits (Sprouse, 1966).<sup>35</sup>

The new aims of financial reporting were codified in the conceptual framework projects in the US and UK. In the US, FASB Concept Statement No. 3 (1980) provided a definition of a liability in terms of the probable future sacrifices of benefits arising from present

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<sup>34</sup>According to Zeff (2007), pg. 50, Andrew Barr, the last of the chief accountants (1956–72) had been a student of A C Littleton, who Zeff describes as, “an arch historical coster” (*ibid.* pg. 51).

<sup>35</sup>Sprouse labels this kind of asset a “what you may call it”, which it seems we are to understand as a pejorative term. Such an item represents a residual in the balance sheet resulting from a focus on the income statement. Sprouse advocates an alternative approach, in which the balance sheet is the focus and the income statement can be assumed to be correct if the balance sheet is correct. However, the validity of some of the claims made by Sprouse in his article have been questioned recently by Basu and Waymire (2010).

obligations, which were to include non-contractual obligations. Specifically, according to the FASB Concept Statement No. 3: “although most liabilities stem from legally enforceable obligations, some liabilities rest on equitable or constructive obligations. . .” (¶39). In particular, this included responsibilities such as to “pay pensions, deferred compensation and taxes and to honor warranties and guarantees also create liabilities under the definition” (*ibid* ¶128). It was against this backdrop that some of the FASB board members argued in FAS 87 (1985) for the representation of the pension liability in the financial statements as a reflection of a constructive, rather than legal, obligation. Such an interpretation would have meant valuing the pension liability on the basis that expected future payments should extend beyond contracted benefits to include constructive or equitable factors such as pay increases. As it turned out, valuing the balance sheet liability in this way was resisted by many of the board members, who felt that it was simply a step too far and that it would not be acceptable to preparers and institutional interest groups. As a result, the balance sheet item did not reflect an economic valuation of the pension obligation, which was instead shown as a note to the accounts.

The conceptual framework project provided a theoretical basis for the development of accounting treatments, aiming to promote adherence to the agreed aims of financial accounting in all new standards and minimise deviations from these aims due to changes in the composition of the standard setting board.<sup>36</sup> However, on its own, the conceptual framework was not sufficient to bring about economic valuations for pensions. While it could influence the standard setters, the standard setting boards did not have the power, on their own, to push through standards requiring economic valuation. As a technical staff member of the FASB pensions project in the 1980s noted:

“The case of pensions was clearly an attempt to apply this conceptual approach, but in terms of Statement 87 it was not possible to get it through. Actually, pensions accounting tells us about the limitations of the conceptual approach rather than its power” (Interview with FASB staff member, C).

The conceptual framework may have provided guidance for standard setters, and no doubt some legitimacy through its invoking of a consistent conceptual approach to financial representation, but it did not, on its own, provide standard setters with any particular power to introduce change.

The shift in the aims of financial reporting advocated by standard setters, from the 1970s onwards, explains in part, why standard setters tried to introduce economic valuation for pension liabilities. However, it fails, on its own, to explain why they were successful, since they faced resistance from preparers and other institutional groups.

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<sup>36</sup>This role of the conceptual framework was reiterated to me by interviewee C of the FASB.

### 3.4.2. Favourable economic conditions (*satisfied*)

The bear markets in the 1970s led to funding concerns about defined benefit pensions, which resulted in the enactment of ERISA. Weak market conditions associated with the more likely recognition of a liability (as pension fund assets would, in most cases, be expected to be lower) would be expected to increase resistance from preparers.<sup>37</sup>

However, at the time the due process for FAS 87 was coming to its close in early 1985, conditions were quite different. Stock market buoyancy (and hence rising pension asset valuations), falling inflation and increasing employee turnover led to the development of pension surpluses.<sup>38</sup> As a result, the introduction of economic valuation for pensions was not expected to result in the requirement to disclose large net pension liabilities immediately. Had the economic conditions been unfavourable, it is likely that preparers would have mounted greater pressure to block the projects to introduce FAS 87 and FRS 17.

To illustrate the economic conditions existing during the periods being analysed, Figure 3.4 on page 79 shows the S&P Index from 1974 to 1990. The index can be seen to rise from the low point in the mid-1970s through to 1985 when FAS 87 was published. In the UK, the same pattern of increasing share prices can be seen to have preceded the publication of FRS 17. Figure 3.5 on page 79 shows the FTSE 100 index from 1992 to 2000. In spite of the volatility in the index from 1999 to 2000, the minimum value of the index during those two years was almost double the level at 1995.<sup>39</sup>

After the publication of FRS 17, market conditions deteriorated, causing the value of pension assets to decrease, and hence the value of the pension liabilities to be recognised on the balance sheet to increase. The negative reaction to the requirement to show a pension liability, given the weak market conditions, can be seen from the following article published in the Financial Times:

“Since pensions were first dragged onto company balance sheets in the UK almost a decade ago with large parts of the industry kicking and screaming, the hullabaloo has rarely died down... That move, by the UK Accounting Standards Board caused a furore in part because of its timing. Although

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<sup>37</sup>A commentary on the effects of the introduction of FAS 87, in the *Journal of Corporate Accountancy and Finance* states that, “[i]n general, the recognition of a minimum liability results in a deterioration of ratios involving the long-term balance sheet accounts” and that, “return on assets . . . would often deteriorate because of the increase in the denominator due to intangible asset recognition” (Bline and Skekel, 1990, pg.211). Moreover, the impact of economic conditions has been discussed as a factor affecting the introduction of other types of valuation in financial reporting, such as replacement cost (Boer, 1966) foreign currency (Cook, 1989) and inflation accounting (Pong and Whittington, 1996).

<sup>38</sup>In fact, Napier argues that the thinking of UK standard setters was driven by the assumption that the reporting of pensions would result in deficits and they did not address the issues of surpluses in any depth.

<sup>39</sup>Since compliance with IAS 19 (1998) was not required by European public companies until 2005, the economic conditions at the time of its introduction in 1998 were of less importance than those for FAS 87 and FRS 17.

### Standard & Poor's Index 1975–1990

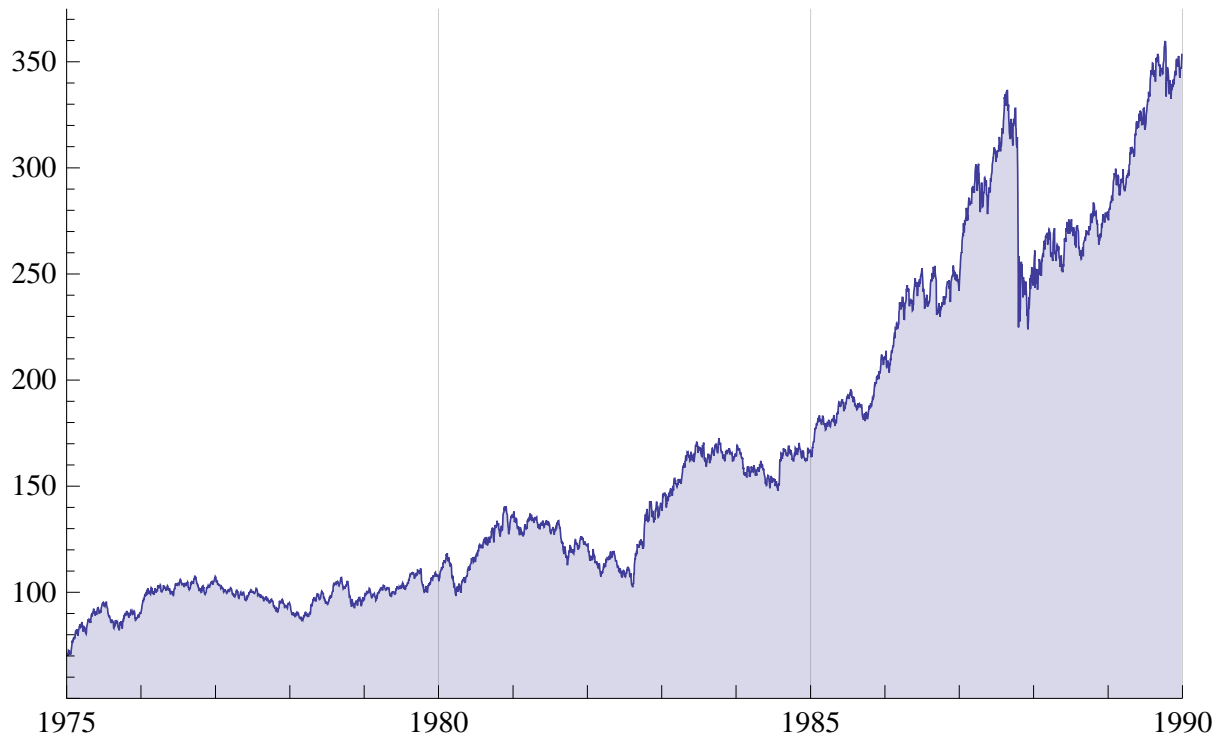


Figure 3.4: S&P 500 Index, 1974 to 1990 (Source: *Mathematica* financial indices)

### FTSE100 1992–2001



Figure 3.5: FTSE 100 Index, 1992 to 2001 (Source: *Mathematica* financial indices)

many did not in principle like the light it shed on scheme funding, the most immediate problem was that it came into force as the dotcom bubble burst, meaning that tumbling stock markets savaged the value of pension holdings, making deficits look even larger” (Financial Times, Jennifer Hughes, 5th October, 2008).

Had FRS 17 been voted on a year later, the market conditions would not have been conducive, and it is very unlikely that it would have been passed. As it was, it was introduced just before economic conditions deteriorated. In the case of both FAS 87 (1985) and FRS 17, the INUS condition for *favourable economic conditions* was satisfied. In the case of IAS 19 (1998), similarly rising stock prices existed.

### **3.4.3. Legitimacy of economic methods (*satisfied*)**

In order for standard setters to introduce financial economic techniques as a solution to the problem of representing pensions, these techniques had to be legitimate. For pensions, this meant acceptance by the standard setting community of the use of discounted cash flow techniques for the calculation of present values, and the treatment of certain long term obligations as having ‘bond-like’ features. In what follows, I briefly trace the history of financial economics and its growing legitimacy in business practice after the 1950s.

Financial economics applies theories of choice to markets for financial instruments, in which agents “trade on different valuations of time, risks and beliefs” (Hens and Rieger, 2010). Such theories have traditionally drawn on economic theories of rational choice (Muth, 1961), but more recently have started to incorporate elements of behavioural economics to explain, in descriptive terms, the choices agents make (Shleifer, 2000). Financial economics analyses the market prices which result from the aggregation of agents’ different valuations of instruments. It is a discipline which offers an axiomatic approach to normative problems of valuation and portfolio strategies, yet it is informed by rich empirical market-based research. Financial economics has its roots in the work of economists such as Fisher (1892, 1906, 1930) who investigated the relation between income and capital, employing simple techniques such as the discounting of cash flows.

Given the shifting aims of financial reporting towards the provision of decision-useful information, standard setters turned to financial economics as a measurement tool when faced with new types of uncertain item, particularly when traditional historical cost accounting failed to offer a solution. This is not to say that financial economic methods were necessarily legitimately applied to the problems of valuation faced by standard setters, nor that standard setters understood them perfectly. Theoretical concerns have been raised about the domain applicability of asset pricing models for the valuation of financial instrument in markets which are potentially neither complete nor perfect (Bromwich, 2007). Moreover, the possibility of intentionally simplistic interpretations



and cherry-picking of theories by standard setters has been suggested (Bromwich et al., 2010). However, issues of domain inapplicability and other theoretical concerns did not prevent the adoption by standard setters of financial economics based models for valuation in financial reporting. The normative merit of applying financial economics models to financial reporting practice is less relevant than the belief by standard setters that it is conceptually appropriate. Alternatively, and more cynically, standard setters may have been comfortable adopting such methods because they believed important constituents in the standard setting space viewed them as legitimate.

The legitimacy of the use of financial economic methods within financial reporting practice can be traced to the start of the twentieth century, when Fisher (1907) argued that present values could be applied to any capital project. Yet we see a significant time lag between the theoretical emergence of these techniques in academia and their use in business. Prior to the publication of a text by Dean (1951)<sup>40</sup> “neither the *Harvard Business Review* from its founding in 1922 to World War II, nor widely used textbooks in corporate finance as late as 1948, made any reference to present value in capital budgeting” (Rubinstein, 2006).

More generally, within academia in the 1940s, mathematical, deductive and model-based approaches, such as those advocated in the work of Samuelson (1947), became dominant, displacing non-mathematical Keynesian and institutional approaches (Yonay, 1998). Economic theory began to extend to new areas which were traditionally considered to fall within the domain of sociology. These included choices over how to spend one’s time, choice of marriage partner, the relationship between the quantity and quality of offspring and the optimal enforcement of punishment for crimes and drug addiction (Becker, 1965, 1973; Becker and Lewis, 1974; Becker, 1974; Becker and Murphy, 1988).

During the 1960s, mathematical economists carved out a niche in the rapidly changing discipline through the development of theoretical explanations based on a specific notion of rationality, using empirical results (Jovanovic, 2008). This new sub-field, known as financial economics, emerged from the University of Chicago based on work by economists including Eugene Fama, Irving Fisher, Milton Friedman, Frank Knight and George Stigler.<sup>41</sup> Mathematical portfolio and asset pricing theory were developed by these financial economists (see Fama, 1965a, 1970) and were made available for a less technical audience via practitioner publications (Fama, 1965b, 1968).<sup>42</sup>

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<sup>40</sup>Although techniques such as the use of *present value* are traditionally viewed as the product of recent economic theory, they may be traced back much further than is generally realised. In his book, *A History of the Theory of Investments*, Rubinstein (2006) shows that the theory of *present value* can be traced back to the work of Fibonacci in 1202, although it was not formalised until 1761 with Edmond Halley’s formula for the present value of an annuity (pg. 4-7).

<sup>41</sup>Although it should be noted that Fisher was not himself at Chicago and had retired by 1935, while the others were not contemporaries.

<sup>42</sup>Although mathematical work in finance was carried out earlier than this, the legitimacy of the field even within academia took some time to take hold and Jovanovic (2008) argues that it was not until

These changes in financial economic theory entered into business practice via academic research into business and accounting and ‘business finance’ began to adopt a more formalised and mathematical approach until it eventually evolved into ‘financial economics’ as a:

“combination of highly abstract and formal research on esoteric and idealised problems, which excludes lay involvement in setting intellectual goals or standards, with a strong demand for graduates, for academics’ advice and for knowledge produced” (Whitley, 1986, pg. 172).

Whitley argues that a driving force behind the increasing dominance of this economics-based business discipline was the expansion of capital markets. In particular, the increasing ownership of equities in the US and UK by financial intermediaries (pension funds and mutual funds) led to an increasing interest in portfolio analysis because these financial securities were particularly suited to analysis by mathematical methods.<sup>43</sup>

Furthermore, the burgeoning interest by the US government in the 1950s in funding operations research and the military led to the development of a scientific and often quantitative approach to management. This new approach to management, which also drew on theoretical economics, became established in business schools. The Ford Foundation funded US business schools emphasising the use of mathematical and economic approaches to management issues (Fourcade and Khurana, 2011, pg. 20).

By the time the issue of valuing pension liabilities came to prominence within financial reporting practice in the US in the early 1980s, the use of financial economic methods was emerging as a common tool in management accounting. Over the period from 1960 to 1980, there was a significant shift in the types of calculations employed in business for investment decisions. In the early 1960s, the use of discounting procedures for investment decisions was relatively uncommon, but had become much more prevalent in some of the largest industrial companies by the 1980s (Miller, 1991). The results of a survey carried out in 1980 by Scapens and Sale (1981) suggest that discounted cash flows were adopted by 50% of *Times 1000* UK companies and 84% of the *Fortune 500* US companies.

This increasing legitimacy was a necessary condition for the introduction of the use of economic methods for reporting pension obligations. In the case of FAS 87, the FASB

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after the 1960s that financial economics took hold as a sub-discipline within economics. The fact that financial economics was viewed as non-standard before this time is illustrated by the reaction caused by the submission of a PhD thesis analysing portfolio selection by Harry Markowitz in 1952. Markowitz has revealed that, “Milton Friedman argued that portfolio theory was not Economics, and that they could not award me a Ph.D. degree in Economics for a dissertation which was not in Economics. I assume that he was only half serious, since they did award me the degree without long debate. As to the merits of his arguments, at this point I am quite willing to concede: at the time I defended my dissertation, portfolio theory was not part of Economics. But now it is” (Markowitz, 1990, pg. 286).

<sup>43</sup>Risk analysis requirements included in ERISA (1974) also generated more interest in techniques of risk analysis as pension fund managers were faced with the requirement to demonstrate investment behaviour according to the ‘prudent man’ test set out in the Act.

board were able to introduce economic representation of pensions for the first time. However, they were not able to go as far as they wanted, in part because they faced constituent groups, many of whom were unfamiliar with and potentially hostile to the introduction of stronger economic approaches.<sup>44</sup> In the *Basis for Conclusions* section of the standard, we learn that:

“[t]he Board believes that it would be conceptually appropriate and preferable to recognize a net pension liability or asset measured as the difference between the projected benefit obligation and plan assets, either with no delay in recognition of gains and losses, or perhaps with gains and losses reported currently in comprehensive income but not in earnings. However, it concluded that those approaches would be too great a change from past practice to be adopted at the present time” (FAS 87, 1985, ¶107).

For the US standard, the legitimacy of economic theory was not as well developed as was the case a decade later when the ASB were developing FRS 17. Had preparers and the institutional groups involved in standard setting seen financial economics as a legitimate approach to the representation of long term pension obligations, the FASB might have been able to introduce stronger economic reporting.

In the case of FRS 17, the ASB were able to introduce strong economic representation in an accounting environment where previously non-economic representation existed for pensions. An interview with an ASB technical staff member involved with the development of the UK standard provides evidence to suggest that the increasing acceptance by the business community of applications of economic theory was a necessary condition for the introduction of such methods to financial reporting valuation:

“We firmed up ideas on FRS 17 and then went to the 100 Group of Finance Directors Meeting, but they were split. Douglas Flint (HSBC) recognised it was right [not to smooth] possibly because he was a new breed of FD who understood the ideas of financial economics. If we’d tried to do this ten years earlier it would have been very different” (Interview with former technical staff member of the ASB, E).<sup>45</sup>

Thus, changes in the perception of economic methods, or the form of knowledge, in the business community enabled standard setters to introduce economic methods for representing pensions. The INUS condition for *legitimacy of economic methods* was

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<sup>44</sup>Earlier in the thesis, on page 33 in chapter 2, I discussed the different levels of economic representation which I classified as weak and strong. FAS 87 was successful in shifting the approach to the representation of long term obligations from an actuarial or non-economic approach to a weak economic approach.

<sup>45</sup>Interestingly, the father of the Douglas Flint, who was receptive to financial economics was Professor David Flint who worked at Glasgow university and acted as a mentor to Sir David Tweedie in his early career (see chapter 6, page 174).

satisfied for FAS 87, which introduced weak representation, and for FRS 17, which introduced strong economic representation. The increase in economic legitimacy was a worldwide phenomenon and would have been expected to apply also in the IASC jurisdiction, relevant for the introduction of IAS 19 (1998).<sup>46</sup>

However, it was not just the attitudes of preparers which was important for the successful introduction of economic methods: institutions also played an important role, which I now consider.

#### **3.4.4. Favourable institutional attitude (*satisfied*)**

In the literature on the political economy of standard setting, it is well documented that interest groups and communities with specific agendas can bring significant influence to bear on standard setters and thereby on financial accounting practice (Ordelheide, 2004, pg. 26). Consideration of the institutional context of standard-setting is crucial in explaining how it was possible to introduce economic valuation. Standard-setting bodies were subject to the influence of various groups, such as preparers and the business community, the actuarial profession and other standard-setting bodies, as well as regulatory bodies such as the SEC and IOSCO. Moreover, many of these had formalised relationships with the standard setters, for example the relationship between the Securities and Exchange Commission and the FASB (Watts, 1977; Watts and Zimmerman, 1978). Groups capable of influencing the outcome of the standard setting process for pensions represented two main interests. First, the interests of investors and second, those of other stake-holders, such as preparers. Agencies representing the interests of potential investors, such as the SEC and standard-setting boards, generally advocated the use of economic valuation methods for pensions. They viewed (or at least acted as if they viewed) investors as rational utility-maximisers, whose interests were best served by the provision of economic information, which would allow for optimal resource allocations to be made in the present based on expectations of the future.

By contrast, the interests of certain other stake-holders (preparers, employees, creditors and the actuarial profession) were generally aligned with a variety of valuation approaches ranging from non-recognition at one extreme, to funding-based valuation methods or methods which provided significant smoothing in the income statement at the other. These stakeholders were ultimately advocating a historical cost approach on the grounds that the existence of significant uncertainty over the level and riskiness of future pension cash flows rendered the present value of the pension too large and too unreliable, and thus risked introducing unrepresentative volatility to the income statement.

For ease of analysis, I divide institutional groups into two broad categories: those in favour of economic valuation methods and those against them. This may seem to

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<sup>46</sup>Given the lack of mandatory adoption at the time of publication, however, the board of the IASC effectively acted as proxies for the preparers.

provide an unrealistic representation of institutional composition and influence at the time. It might be more realistic to argue that in fact opinion within groups and strength of influence between groups varied over time. Moreover, opinions might have been assumed to have varied across different technical issues in the standard setting process. However, the approach taken here reflects the fact that at a particular point in time, the satisfaction of the institutional INUS condition required simply that *enough* of the groups had leaned in favour of economic valuation, even if by a narrow majority. The marginal favouring of economic valuation, by all the institutional groups would suffice as satisfaction of the condition.

An examination of some of the various interest groups in more detail reveals the dynamic nature of attitudes to economic valuation methods within the groups themselves. I will analyse the views and patterns of influence of the three main institutional groups, which are preparers, actuaries and standard setters. Given constraints in space in this chapter, I do not provide an analysis of the influence of the SEC and IOSCO, which both strongly advocated the use of economic valuation and exerted a strong influence on the FASB.

**Preparers** Certain interest groups were particularly hostile to FAS87 and other standards dealing with post-retirement benefits, such as FAS 106 (1990). Companies in certain industries, such as the automotive industries, were especially hostile to reflecting large obligations in their financial statements, as they had significant obligations for pensions and post-retirement health care. According to a technical staff member at the FASB:

“For instance General Motors said old people would be dying in the street if we made them account for post-retirement healthcare. At the eleventh hour the board decided to allow people to either recognize the change as one time ‘cumulative catch-up’ or to spread costs over 20 years. And guess what, GM took advantage of the cumulative catch-up. In fact Roger Smith came personally to a public meeting — he didn’t wait for his slot, he just swept in, presented and then left” (Interview with FASB staff member, C).

The use of this kind of rhetoric by preparers illustrates their resistance to the requirement to recognise a post-retirement liability.<sup>47</sup> One might infer that these preparers were insufficiently powerful to resist pressure from the SEC and standard-setters, given that FAS 106 and FAS 87 were introduced successfully. However, another, more cynical interpretation is that preparers came to realise that continual resistance was an irrational

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<sup>47</sup>In a comment on an earlier draft of this chapter, interviewee B, previously at the IASC, commented that “It is quite remarkable how frequently one reads that changes in accounting standards will bring an end to the world as we know it. It was used by the leasing industry to resist the recognition of lease obligations as liabilities. It was used by the British property industry to resist depreciation of investment property. It was used by high-tech companies in Silicon Valley to resist stock option accounting.”

response. It has been suggested that, once preparers became aware of the huge obligations they faced, they accepted the requirement to recognise a liability because this recognition might provide a suitable excuse for closure of defined-benefit pension schemes. Speaking of the acceptance of FRS 17, by preparers and the business community in the UK, a former ASB, and later, IASB board member, argues that even an apparent climb-down was possibly a self-serving decision along these lines:

“The alacrity with which they closed schemes was not due to FRS 17 but to the realisation of the amount involved, so that it was useful to be able to blame accountants” (Interview with former ASB and IASB board member, F).

In other words, as preparers began to understand the risks associated with defined-benefit pension schemes, they sought a way of exiting such schemes without incurring moral castigation from stakeholders. The requirement by standard-setters to represent pensions in a way which led to volatility in the income statement and large liability in the balance sheet provided the opportunity for preparers to close defined-benefit schemes as an outwardly rational and understandable response to onerous constraints placed on them by accounting standards. This allowed them to eliminate the *cause* of the income volatility and huge balance sheet liability without having to make clear that this was their aim.

**Actuaries.** Another professional group, actuaries, exerted considerable influence on standard setters, and initially offered significant resistance to the introduction of economic valuations for pension liabilities. Funding calculations for pensions have always resided squarely within their professional domain and actuarial valuations using present value calculations can in fact be traced back to the eighteenth century (Horton and Macve, 1994, pg 298).<sup>48</sup> Given their long history of dominance in pension valuation, economic valuations of pension liabilities, for financial reporting purposes, were naturally seen by accountants and actuaries as an extension of these actuarial funding calculations, with modified assumptions on cash flows and the choice of discount rate.

The actuarial profession was itself subject to a variety of influences which led to a non-uniform pattern of influence of financial economics on the actuarial profession:

“Starting in the U.K. and continuing through the U.S. and Canadian actuarial professions, proponents of financial economics have been forcefully promoting a review of traditional actuarial practices and training . . . and have been used to highlight serious weaknesses in typical actuarial thinking” (Day, 2003, pg. 3).

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<sup>48</sup>Traditionally, actuaries’ valuation methods have been identified as forward-looking, in contrast to the backward-looking methods of accountants, which seems paradoxical since this episode demonstrates the resistance to *new* techniques being foisted on actuaries by accounting standard setters advocating economic approaches to valuation (Horton and Macve, 1994, pg. 311).

The spread from the UK to the US of the influence of financial economic thought was significant in terms of the impact of actuarial practice on the financial reporting of pensions. However, although the US actuarial profession accepted financial economics later than the UK profession, the US standard was issued significantly earlier, and before the actuarial revolution in the US. This may be explained by the fact that FAS 87 was largely an actuarial standard, although it also introduced certain significant elements of economic representation.

In the US, staff at the FASB had a significant level of interaction with the actuarial profession during the development of FAS 87. According to a member of the technical staff at the FASB:

“I was a regular on the actuarial circuit, speaking to actuaries — although the actuaries thought, initially at least, that the accountants were ‘mucking about with their territory’. But subsequently I met an actuary who said that the actuarial profession owed the FASB a vote of thanks because previously there had been no shared language for actuarial methods and terminology” (Interview with FASB staff member, C).

Initially standard setters learned the techniques used by actuaries, but then adapted them to reflect more closely the desired *economic*, rather than *funding*, valuation. It was the attempt to *adapt* actuarial ways of valuing which led to some resistance from actuaries.

In the UK, the ASB also consulted with actuaries extensively when developing FRS 17 (Interview with former ASB technical staff member, E). In fact, when the ASB first started its pensions project, it commissioned reports from a number of companies, including Unilever. The project team comprised a senior finance manager, an accountant from the pensions department and an actuary. The inclusion of actuaries on teams to consider pension valuations reflected the perceived importance of actuaries as technical experts in pensions valuation. The IASC also worked closely with actuaries when developing its standards for pensions (Camfferman and Zeff, 2007, pg. 129). What is important to note, however, is that actuaries tended to produce funding rather than economic valuations. Their interest was in the production of a valuation which would guide decisions about how to ensure funding was sufficient to cover future cash payments due (discounted at the return on investment), rather than as a representation of an unavoidable future liability (discounted at something close to the risk-free rate).

Although the actuarial profession was heavily involved in guiding standard setters in their development of pensions standards, they were initially resistant to the use of economic valuations. The catalyst for change within the actuarial discipline came in the form of a paper presented at the Institute of Actuaries in April 1997 and published that year in the British Actuarial Journal (Exley et al., 1997). This paper recast actuarial valuations in terms of financial economics and set in motion a move towards an acceptance

of a financial economics perspective on pension fund valuation. Exley et al. (1997) contrast funding approaches with economic approaches to liability valuation and note that the adoption of an economic approach would be new to the profession.

Their paper constituted a plea to actuaries to take up new valuation methods as a means of retaining control of the domain of pension valuation. In the question and answer session after the paper was delivered, one of the participants commented:

“The profession’s reactions to this paper may be fundamental to its future. The profession will not survive if it relies on techniques and assumptions inconsistent with the rest of the financial world: this paper offers it an opportunity to return to the fold” (P M Greenwood, 1997 Institute of Actuaries conference in the UK).<sup>49</sup>

The paper appears to have influenced the actuarial profession in two ways. First, it led to an increasing awareness of the theoretical justification for the use of financial economics in valuing pensions. Perhaps more importantly, it also made clear the practical consequences for the profession and the damage to the public’s perception of its technical expertise, if its members chose to ignore the increasing acceptance and legitimacy of the new valuation methods in business and economics.

Another member of the Institute of Actuaries made reference to *Gulliver’s Travels* in closing the discussion, saying:

“The pitched battles that have taken place between financial economists and actuaries have something in common with the Big Endians/Little Endians war. In fact, both sides are applying a scientific approach to complex financial problems, and each discipline can learn from the other. Financial economists can learn from the robustness, pragmatism and the tried and tested nature of the actuarial tradition. Actuaries can learn from the new ideas and the intellectual content of financial economics” (Exley et al., 1997, pg. 956).

Initial resistance by UK actuaries to economic methods gave way partly as a result of an increased understanding of, and respect for, the intellectual content of financial theory, but also, and importantly, as a response to a threat to the survival of the profession in the context of the increasing legitimacy of financial economics. According to a senior actuary, who was working at the time:

“Financial economics is quite hard to argue against. It’s really annoying for actuaries. When the financial economists came along and argued that a pension obligation was like a bond, it was quite difficult to argue against it. It was difficult to argue against the sound theoretical underpinning of a

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<sup>49</sup>Quoted in Exley et al. (1997).



calculation. So we were frustrated that our years of experience were being cast aside. Although FRS17 was only a snapshot, the fact remained that they had to put this snapshot of the disclosed deficit on the balance sheet. . . . From then on we were doomed” (Interview with pensions actuary, P).

This statement reflects the despondency felt by many actuaries at the prospect of the impending loss of their expert status in the area of pensions, due to the delayed response of the profession. Interview evidence suggests that many actuaries still resent the influence of financial economics. UK actuary, interviewee P, laid the blame partly at the feet of Exley, Mehta and Smith, the three actuaries who introduced financial economics. He described them as the “three young turks who completely screwed up the world of pension funds.”

Financial economic theory did not penetrate the US actuarial practice until shortly after the turn of the millennium. An article published in January 2003, in *The Pension Forum* of the Society of Actuaries, states:

“... a sequence of work applying financial economics to defined-benefit plans arrived during ERISA’s first decade and was ignored by the actuarial profession. . . . As other financial professions have adapted to and capitalized on these developments, the response of pension actuaries has been dilatory” (Bader and Gold, 2003, pg. 2).

In a section entitled, “A Call For Change”, the authors implore US actuaries to accept financial economic approaches or else suffer the loss of “intellectual leadership in the pension community”. They make the claim that the “insights of financial economics have made our science obsolete” and complain about the lack of progress made by actuaries towards adopting the current financial economic paradigm compared with other professions. In this regard, the authors note that:

“The accounting profession, both worldwide (through the International Accounting Standards Board — IASB) and in the US (via FASB), is on track to overturn its core paradigm (historical cost) in favor of a radical revision (fair value) for financial instruments by 2005 . . . Pension actuaries are now commonly seen fighting a rear-guard action against risk recognition, transparency, and other advances. We may find it difficult to admit that core actuarial methods and assumptions have now fallen behind those on which other financial professionals rely” (*ibid*, pg. 10).

Thus, the authors point out that the US accountancy profession had been quicker to take up financial economic approaches than had the US actuarial profession. The structure of actuarial education and the rigidity of actuarial standards of practice (ASOPs) were

blamed in part for the slow response by actuaries. However, the authors noted that the source of the problem ultimately rested with them:

“It is true that ERISA and FAS 87, to which ASOPs are naturally tailored, now dictate much pension work. Because actuaries were then the intellectual leaders in pension finance, APB 8 (1966) and ERISA (1974) largely adopted the actuarial pension model, and FAS 87 (1985) carried some of the same baggage. With our own model written into the regulatory framework, our profession has both some responsibility for that framework and some influence to exert in guiding its reform” (*ibid*, pg. 11).

We see a regulatory cycle at play here. The actuarial profession was closely involved with the development of FAS 87, and this standard then allowed them to continue a traditional actuarial model, rather than being forced to embrace financial economic theory. The adoption of the market based FAS 87 was acceptable, even in the 1980s, because of its large actuarial component. The adoption of this quasi-actuarial standard, however, facilitated the institutional entrenchment of actuarial and non-economic approaches to pension valuation. By contrast, in the UK, the move away from an accruals approach to the financial reporting of pensions occurred shortly *after* the actuarial profession had started to yield to financial economic influence. This may explain the ability of the ASB to introduce a relatively strong form of economic representation. In the US, it was not until 2006 that FAS 158 introduced a comparable reporting approach.

**Standard setters.** Standard setters often looked for guidance to the examples set by other standard setters in other jurisdictions when developing a new standard. In most cases, for national standard setters and the IASC, this meant looking to the United States. The development of APB Opinion No. 8 preceded developments in the UK (SSAP 24 was issued in 1988) and by the IAS (IAS 19 was issued in 1983):

“Even though IAS 19 was a fairly flexible standard, it was significant in that it was published well before the major national standard setters had completed their own projects on this issue. As if in recognition of this leadership, the IASC was asked a few years later to play a coordinating role during the closing stages of the Canadian, UK, and US projects on pensions.” (Camfferman and Zeff, 2007, pg. 130)

This example illustrates the interactions between standard setters, adopting elements of each other’s standards and extending them. In addition, the standard setters sometimes exerted significant influence on each other. For instance, in the early 1990s, the IASC applied pressure on the ASB to introduce a new pension standard by making it clear that the IASC would be publishing a standard along the lines of FAS87 (Interview with former ASB staff member, E).

What becomes evident in examining the role played by institutional influence on standard-setting, is that each individual institutional group did not represent a homogeneous view. Rather, each institution could be characterised by varying degrees of heterogeneity, with variations in members' preferences and attitudes towards economic valuation for pensions. For the purposes of explaining their influence on the standard setting process, however, what is important is that at some point in time, as attitudes within these groups changed, a tipping point was reached after which resistance to economic valuation *overall* gave way to a favourable attitude. Furthermore, at some point, the *effective* view of the *aggregated* institutions changed from resistance, to acceptance of economic representation. The overall acceptance by institutions of economic representation in the standards described, constituted the satisfaction of the INUS condition for *favourable institutional attitude*.

Individual standard setting institutions do not operate in isolation, but are subject to influence from other standard setting bodies. Once the original US standard, FAS 87, was introduced, other standard setters used FAS 87 as a blueprint from which to build their own pensions standard. A current IASB board member who was also involved with the IASC development of IAS 39 argued that:

“There was influence from the US on the development of standards by the International Accounting Standards Committee (IASC). Although the US representatives and observers kept a relatively low profile, they provided an important guiding hand. At the time, national standard setters from a number of countries were leveraging off one another and in the process providing significant support to the IASC. The iterative nature of standard setting was clearly evident. One standard setter filled a gap. This was then picked up and improved on by others. The Americans were the first serious national standard setter and typically the first to develop new standards and concepts, so they set the ground rules. Now the world of standard setting is becoming much smaller” (Interview with IASB board member, H, March 2010).

This illustrates that interactions between standard setters were an important part of the standard setting process.

#### **3.4.5. Influential advocates on the standard setting board (*satisfied*)**

Although the INUS conditions discussed in the sections above were individually necessary parts of the constellation of factors which ultimately brought about the introduction of economic valuation methods in pensions reporting, they were not sufficient on their own. In part, this causal insufficiency stemmed from the resistance of preparers and some institutions to the new methods of valuation.

The strong adverse reaction during the initial stages of the project development of various interest groups, meant that the standard setting board had to be forceful to achieve its goal of publishing the standard. The presence of powerful, individual advocates on the board was necessary as they were able to persuade, or possibly even bully, powerful opponents in the institutional arena to accept the new standard. They remained committed to pushing through the standard in spite of the hostility they faced and potentially were prepared to use up political capital in ensuring the success of the project. Moreover, where the board was split, as was the case with FAS 87 (1985), the presence of powerful and persuasive advocates on the board, would presumably have put some pressure on less confident board members, potentially persuading them to vote in favour of the standard.

Individual advocates of economic approaches on the board needed three characteristics. These were a knowledge of economic methods, a desire to promote the adoption of such methods in financial reporting and the ability to bring others round to this view.<sup>50</sup> These individuals had learnt about economic theory as a result of studying economics, either as their main degree or as part of an accounting degree. Early in their careers, they had often been influenced by charismatic teachers or mentors who advocated a move towards an economic paradigm for financial reporting. They saw financial reporting as more than the application of techniques, but as having a commitment to providing useful values founded in economics. In Appendix B.7 and Appendix B.8, I provide summary biographies of selected standard setters and practitioners who were involved in FAS 87 and FRS 17 along with some indication of their academic background and involvement in academia. Moreover, in Chapter 4, I elaborate on the role of these influential individuals.

It can be seen that the influence of economics was present in the education of several of the main advocates of reform in pensions. Two of these individuals, David Tweedie (ASB and IASB) and Art Wyatt (FASB) completed PhDs in accounting, and Geoffrey Whittington (ASB and IASB) in Economics, at a time when financial economics and value-relevance was making significant headway. Others, such as Bryan Carsberg, had careers as academics and published on economics and mathematics. In the UK, David Tweedie gained his title “the most unpopular accountant in England” (The Scotsman Newspaper, 16th June, 2002) for his willingness to attack what he perceived to be unrepresentative or unhelpful financial reporting in spite of hostility from those in entrenched and opposing positions. Geoffrey Whittington had taken a BSc in Accounting and Finance at the LSE

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<sup>50</sup>Perhaps this assertion should be modified slightly to accommodate the possibility that standard setters were not so much committed to financial economics as to a *myth* of financial economics. Their commitment to this new economic paradigm in financial reporting might therefore be interpreted as an ideological position, and might conveniently ignore problems of the applicability of the theory to financial reporting in certain cases or areas. I discuss this further in chapter 6, section 6.4.1, page 171. This mechanism for interdisciplinary influence is consistent with that put forward by Miller for the influence of economics on other aspects of accounting practice. Miller (1998) argues that individuals such as Ronald Edwards and Ronald Coase were influential on management accounting (pg. 610).

in the 1960s at a time when economic influence on accounting was gaining momentum, followed by a PhD in Economics at Cambridge. He was a strong advocate of economic valuations of pension obligations. In the US, the FASB team leader of the FAS 87 project, Tim Lucas, had an undergraduate degree in economics. While, it would be misleading to suggest that all the standard setters who advocated economic methods had some kind of educational background in economics, it is clear that many did. What is more, these board members were often fairly strident in their advocacy of the application of economic methods. According to interviewee E (former technical staff member at the ASB) the individuals who were most involved in changing pension accounting were:

“... people like David Tweedie and myself. Also Carsberg and Whittington were strong and others would tend to follow them” (Interview with former ASB technical staff member, E)

. These strong individuals were responsible for bringing an economic perspective to financial reporting for pensions. Had the dominant board and staff members at standard setting institutions been unfamiliar with, or sceptical of, the application of financial economic theory, they would have been less likely to draft and push through forward-looking valuations for inclusion in the financial accounts.

### **3.5. Conclusion**

In this chapter, I have attempted to explain the adoption of economic valuation methods in pensions accounting, for entities adopting US GAAP, UK GAAP or International Accounting Standards, in terms of a particular set of jointly sufficient and individually necessary conditions. Several of these conditions arise as a result of conceptual change and I analyse these from a historical perspective. Changes in social and legal interpretations of pensions reflected by the enactment of pensions legislation in the US in 1974, led to the development of a new accounting concept, the *pension liability*. The emergence of this new accounting concept presented standard setters with a choice over valuation methods and therefore acted as a catalyst for the introduction of economic valuation. However, the catalyst alone was insufficient. To make possible the introduction of economic valuation, a set of INUS conditions was also needed.

The model developed using preliminary evidence from the case of FAS 87 (1985), identifies INUS conditions as follows. First, the shift in the conceptual aims of financial reporting led to the prioritising of valuation approaches perceived to be relevant for decision-making over traditional non-economic approaches. Second, economic conditions during the run-up to the publication of the standards made the adoption of economic valuation palatable for employers. Third, the legitimacy of economic methods in the business community made the standard setters' choice of economic valuation seem legitimate.

Fourth, a favourable attitude to the introduction of economic values for pensions, existed among institutional groups. Fifth, influential advocates of economic methods were present on standard setting boards. The evidence presented in this chapter supports the CCM, and its retrodictive capabilities with respect to the development of the FRS 17 (2000) and IAS 19 (1998).

Having developed and tested the CCM for the case of pension accounting, in the next chapter, I test its domain applicability by employing it to explain the success of the FASB and IASC derivatives standards.

# Chapter 4

## Case study: financial derivatives

### 4.1. Introduction

In the last chapter, I employed the CCM to explain the emergence of economic methods for use in the financial reporting of post-retirement employee benefits. The model was initially developed to explain the success of FAS 87 in introducing a weak form of economic representation for pensions in the US in 1985.<sup>1</sup> It was subsequently applied to later pensions accounting projects in different jurisdictions. The CCM's ability to retrodict the outcomes of these other projects correctly provides evidence that it is capable of explaining the introduction of economic representation methods in different jurisdictions. In this chapter I test the model further by applying it to a different area of accounting: financial derivatives. By testing the model in a new area we can gauge its explanatory usefulness. For if the CCM is capable of explaining accounting change for financial derivatives, as well as for standards in pension accounting, we may reasonably conclude that it is more robust and generally applicable than if its explanatory capability were limited to just one area of accounting.

In 1998, the publication of two standards, FAS 133 (1998) by the FASB and IAS 39 (1998) by the IASC, changed the reporting of financial derivatives and introduced strong economic representation into this area of financial reporting practice. Before their publication and implementation, financial derivatives were kept off-balance sheet under US GAAP, UK GAAP and other national jurisdictions in Europe. From 2005, the two derivatives standards were adopted by companies subject to US GAAP and EU IFRS (as well as voluntary adopters of IFRS). The derivatives standards exerted a significant effect on the financial reporting form of knowledge. It has been reported that "...it was the use of financial derivatives that signalled the end of pure cost accounting" (Butler, 2009, pg. 30). The standards were associated with an acceptance, within the standard-setting community of the FASB and IASB, that the use of economic methods resulted in 'good'

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<sup>1</sup>See page 33 in chapter 2, where I discuss the different notions of strong and weak economic representation.

financial reporting for uncertain items. At least for the period after the adoption of the standard and before the financial crisis in 2007, problematic items such as derivatives and pensions yielded to the new reporting approach.<sup>2</sup>

In this chapter, I focus on the US and IASC experience of developing FAS 133 (1998) and IAS 39 (1998). I do not consider evidence from the development of the standard for financial derivatives in UK GAAP, as the ASB did not exert influence on the technical content of the standards finally adopted in the US and EU IFRS jurisdiction. This was due to the waning influence of the UK ASB in the run-up to EU adoption of IFRS in 2005, with the result that the ASB decided to adopt the requirements of international GAAP rather than developing their own standard.<sup>3</sup> I find that the FASB developed the main technical components of the standards (for reasons discussed in section 4.4.4 below) and that the IASC used the US standard as a blueprint. Although the creation of a standard using economic methods originated from the work of the FASB, the shift towards the introduction of economic representation in other jurisdictions was the result of the adoption of the technical components of FAS 133 by the IASC. The IASB then played an important role in the introduction of economic methods for derivatives through IAS 39 because of their increasing jurisdictional reach, particularly after the mandatory adoption by EU listed companies of IFRS after 2005.

I find that the CCM provides a satisfactory explanation of the success of particular standards. The model shows that, given some causal antecedent, the success of a new accounting standard in introducing economic methods is dependent on the existence of a particular set of INUS conditions. In the case of the two derivatives standards analysed in this chapter, the attempt by standard setters to introduce economic methods was controversial and attracted much institutional opposition. As discussed in section 4.3 below, objections to the standards tended to focus on the effect of using fair values which, it was argued, would exacerbate volatility in preparers' asset values and income (due to the requirement to recognise certain changes in derivative values through the profit and

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<sup>2</sup>Strong economic representation was introduced in the UK in 2000 with the publication of FRS 17 (although the standard was not fully implemented until 2005 when the revised IAS 19 (2004) was introduced) and in the US in 2006 with FAS 158 in 2006.

<sup>3</sup>The ASB had originally started a project and published ASB, FRED 23 (2003) following work by the Joint Working Group (2000). However this was effectively an adoption by the ASB of the requirements of IAS 39 (1998). In Appendix IV of ASB, FRED 23 (2003), we learn: "... that IFRS will form the basis of those adopted international accounting standards" and that "... the ASB can look to IFRSs for an understanding of the future direction of UK practice on the measurement of financial instruments" (ASB, FRED 23, 2003, ¶11). Moreover, the ASB acknowledged that they expected hedge accounting practice to converge towards the requirements set out in IAS 39, but initially argued that a UK standard on hedge accounting was still necessary although admitting it should, "... as far as possible, adopt precisely the same words as IAS 39 ..." for its standard (*ibid* ¶17). In spite of the belief that an independent UK standard was necessary, the development of ASB, FRED 23 (2003) was halted by the development of IFRS for the EU. From the project webpage, we learn that "FRED 23 envisaged that a final standard based on its proposals would come into effect early in 2003. However, the convergence proposals ... have somewhat overtaken FRED 23 and, as a result, the ASB has no intention of taking forward the proposals in the FRED at this time" (ASB Discussion paper for FRED 23, 2002).



loss account).

Initially, standard setters faced significant opposition from banking groups, who were concerned about the possible contraction in the demand for derivatives resulting from the accounting requirements to take these products onto the balance sheet and lobbied Congress and the EU attempting to block or significantly curtail the requirements of the standards. Unlike other standards introducing economic valuation, IAS 39 and FAS 133 continued to attract political and institutional opposition even *after* publication. In the case of FAS 133, the standard was put on hold for a year before being implemented, while institutions such as the Federal Reserve and Congress remonstrated with the FASB. In the case of IAS 39, some requirements of the standard (specifically for the valuation of debt instruments) were “carved out” for EU preparers within the IASB jurisdiction (discussed below in section 4.4.4). However, in spite of the various obstacles faced by standard setters in developing, publishing and implementing the standards, the projects *were* successful in introducing economic representation to this area.

In certain respects, we see that the case for derivatives was similar to the pensions case, given the fierce opposition raised against it by institutional groups and preparers. However, an interesting feature of the case of derivatives reporting, which distinguishes it from that of pensions reporting, is the speed with which economic methods were introduced across different reporting jurisdictions. The new derivatives standards introduced strong economic representation in one fell swoop: immediate balance sheet recognition of derivatives, the use of economic methods of valuation (using either market values or economic models) and the recognition of changes in valuations for derivatives held for trading through the profit and loss account.<sup>4</sup>

In what follows I attempt to explain the success of each of the two derivatives projects by applying the CCM. The structure of this chapter is as follows. In Section 4.2, I discuss the preconditions for the launch of the derivatives projects. Following this, in Section 4.3, I detail the requirements of the new standards and the technical objections raised. In Section 4.4, I identify the INUS conditions for the project and find that they are all satisfied, and finally in Section 4.5, I conclude that the evidence in the case supports the use of the CCM to explain the introduction of economic methods into the reporting of derivatives.

## **4.2. Causal antecedents: the growth in the use of derivatives**

Before the implementation of FAS 133 and IAS 39, financial reporting regulation in the US, UK and IASC jurisdictions did not require the recognition of derivative contracts on

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<sup>4</sup>From the introduction of weak economic representation in the US in 1985, it was over two decades before both the US and EU jurisdictions used strong economic representation (after the publication of FAS 158 in 2006).

the balance sheet. However, conceptual change in capital markets provided an impetus for the development of an accounting treatment for derivatives. In fact, as discussed in the next section, the development of derivatives and the high-profile bankruptcies which resulted prompted a re-evaluation of measurement techniques within financial reporting. Other types of financial instrument had proved less problematic. Debt, for instance, had traditionally been reported using amortized cost. However, the emergence of financial derivatives caused standard setters to reconsider the application of the traditional reporting framework. The reporting approach they chose introduced economic theory into a high-profile area of financial reporting, which was to have far-reaching effects on the accepted *form of knowledge* in financial reporting more generally.

### *The increasing use of derivatives*

During the last two decades of the twentieth century, capital markets were transformed by the rapid growth in the use of derivatives. In 1977, only 3% of futures traded on the Chicago Exchange were financial instruments, compared with almost two thirds of the volume of futures trading on American exchanges by the mid-1980s (FASB Research Report, 1991, pg. 4). Derivatives are financial instruments whose value is dependent on, or derived from, the value of other financial instruments, events or conditions, known as underlying assets (or ‘underlyings’), such as shares, bonds, interest rates or currencies. Financial derivatives, such as futures, forward, swap and options contracts, are often highly leveraged, with the result that small movements in the value of underlyings can lead to a disproportionate change in the value of the instrument overall.<sup>5</sup>

Derivatives are commonly used for hedging in an attempt to insure against volatility in assets, liabilities, income or expenses, although another reason for entering into such contracts is speculation.<sup>6</sup> Derivatives may also be ‘embedded’ in a non-derivative host contract. In their simplest form, derivatives have been used for centuries as a form of insurance against (or as gambles on) asset price movements. In the Seventeenth century, the Dutch tulip trade was associated with an options market aimed at insuring against price fluctuations in these flowers. In the Nineteenth century, the use of agricultural forward contracts in the US Midwest to fix the price of agricultural produce such as grain, allowed agricultural producers to insure against agricultural price volatility and hence stabilise their income. However, these contracts were unregulated and therefore unreliable as either party could potentially renege on the contract.

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<sup>5</sup>An option is a contract offering one party the right to purchase (call) or sell (put) an underlying (an instrument, asset or liability) at a pre-determined strike price at the expiration date of the option. In some cases, the underlying instrument may itself be a derivative, in which case it is termed a *financial derivative*. For example an option over an interest rate swap, is known as a ‘swaption’. *Exchange-traded* options have standardised characteristics, whereas *over-the-counter* options are traded privately, normally by financial institutions.

<sup>6</sup>For a detailed examination of the determinants of the hedging policies of firms, see Smith and Stulz (1985).

In 1973, the publication of a new option pricing model (Black and Scholes, 1973) provided the necessary platform for an explosion in the use of derivatives. It provided a valuation method which traders were able to use as a guide to pricing derivative instruments which were traded at exchanges such as the International Monetary Market (IMM) in Chicago (established by the Chicago Mercantile Exchange), the Chicago Board Options Exchange, the London International Futures Exchange (LIFFE) and the Deutsche Terminbörse (DTB, now Eurex).<sup>7</sup>

In the 1980s, swaps and other over-the-counter (OTC) derivatives began to be traded to a significant degree and, by the 1990s, most large businesses were using derivatives as an efficient means of hedging against interest rate, foreign exchange and commodity price fluctuations (Chance, 1995).<sup>8</sup> Finance theorists, mathematicians and physicists were recruited by financial institutions and large corporates to develop new financial derivatives using variants on the new Black-Scholes option pricing model. Increases in computing capability, and hence speed, removed a critical constraint on the development of the market. According to *Swaps Monitor* (1993), the notional amount of outstanding interest-rate swaps at the end of 1992 was \$6.0 trillion and the outstanding notional amount of currency swaps was \$1.1 trillion. US commercial banks held \$1.2 billion of interest rate swaps and \$279 billion of foreign exchange swaps (quoted in Gorton and Rosen, 1995, pg. 300). In the mid-1990s, the increasing use of technically complex derivative instruments known as ‘exotics’ marked a shift away from the simpler derivatives of the 1980’s. By June 2000, the notional value of outstanding derivatives contracts amounted to \$108 trillion (Millo and Mackenzie, 2003).

### *Problems with the increased use of derivatives*

Financial derivatives were thrown into the spotlight in the late 1980s in both the US and the UK when a series of spectacular bankruptcies were attributed to their use. I discuss these later in this section. As a result, the FASB launched its financial instruments project in 1986. In the introduction to the disclosure-based financial instruments standard, FAS 105 (1990), the project team admitted that,

“Many new financial instruments have been and will be created as responses to market volatility, deregulation, tax law changes and other stimuli. The

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<sup>7</sup>Beyond technological obstacles, the development of derivatives trading was also hindered by other factors. These included regulatory suspicion of such activity, given concerns about market stability. In addition, derivatives trading was ruled illegal in US law until the 1960s due to the fact that such financial instruments were settled using cash and as such were indistinguishable in legal terms from gambling. The tide began to change in the US with the appointment by President Nixon of a new chairman of the SEC, William Casey, who was receptive to the idea of a derivatives exchange (Millo and Mackenzie, 2003, pgs. 113-115).

<sup>8</sup>In 1983, the Chicago Board Options Exchange created a new option based on the underlying value of an index of shares which became the S&P 100 index.

dynamic state of financial markets suggests the need to develop broad, general disclosure requirements about financial instruments” (FAS 105, 1990, ¶4).

The view that high profile derivative-related failures forced derivatives onto the standard setting agenda is supported by statements made by the FASB board in FAS 133:

“Derivatives can be useful risk management tools, and some believe that the inadequacy of financial reporting may have discouraged their use by contributing to an atmosphere of uncertainty. Concern about inadequate financial reporting also was heightened by the publicity surrounding large derivative losses at a few companies. As a result, the Securities and Exchange Commission, members of Congress, and others urged the Board to deal expeditiously with reporting problems in this area” (FAS 133, 1998, ¶212).

Evidence from comments made by interviewees also supports the sense of urgency about introducing a new standard for derivatives. A senior US analyst, Interviewee S, who sat on the Financial Accounting Standards Advisory Council during the development and initial introduction of FAS 133 (1998)<sup>9</sup> referred to the fact that in the mid-1990s, “. . . there were a slew of things that happened with derivatives that no one ever imagined would happen” (Interview with S, 2010). This “slew of things” included the infamous “Procter and Gamble interest rate swap”, the Dell “foreign currency derivative mess” and the Orange County case.<sup>10</sup> Interviewee S’s words provide clear evidence that anxiety about the existence of undisclosed, off-balance sheet risks was a major factor in prompting action by the FASB.<sup>11</sup>

Further evidence comes from records of the 1997 testimony of Arthur Levitt, Chairman of the US Securities and Exchange Commission to the US House of Representatives. Speaking about the FASB’s proposed accounting rules for derivatives, he spelled out the need for changes to accounting by saying:

“Five years ago, few Americans knew what a derivative was. Today, these complex instruments play a fundamental role in our markets: the notional

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<sup>9</sup>From 1998 to 2001, interviewee S was a member of the AICPA’s Accounting Standards Executive Committee, which advised the FASB on accounting standards.

<sup>10</sup>In the US, in 1994 the bankruptcy of Orange County, a US municipality, followed its loss of \$1.7 billion on interest rate swaps (Financial Times, Maggy Urry, 29th January, 2008).

<sup>11</sup>Many other examples of derivative-related bankruptcy can be cited. In the UK in 1988, a local authority in the UK entered into apparently speculative interest rate swaps, inadvisedly betting on falling interest rates and leaving the authority with significant commitments of over £500 million. In 1991, Allied-Lyons lost £150 million on foreign currency hedges. See also, Markham (2002, pg.198–202) for an extensive review of derivative-related financial crises. The use of derivatives also led to unexpected losses in Europe, where in January 1994 Metallgesellschaft, a metals, mining and oil group in Germany lost \$1.6 billion on oil hedges. In 1995, the collapse of Barings bank in the UK shocked the business and regulatory communities and drew considerable attention from the business press (The Independent, J Willcock, February 27th, 1995, pg. 24).

amount of derivatives outstanding at the end of 1995 on a worldwide basis was \$69.9 trillion, and in the United States, the notional amount was \$23.7 trillion, more than three times the Gross Domestic Product” (US House of Representatives, Testimony of Arthur Levitt, 1997).

Later in the same testimony, Levitt admitted to the “serious shortcomings of the previous accounting and disclosure guidelines,” which meant that the use of derivatives was not visible to investors. This statement echoed the famous commentary about the dangers of derivatives by Carol Loomis in *Fortune Magazine*, that “. . . [l]ike alligators in a swamp, derivatives lurk in the global economy” (Fortune Magazine, Carol J Loomis, March 7th, 1994). It became apparent to the wider business community and regulators that these instruments marketed as a vehicle for hedging risk could in fact have the opposite effect, paradoxically, increasing risk. Arthur Levitt made clear in his testimony that the SEC felt it was more appropriate, in spite of the many calls for restrictions on the use of derivatives, that the FASB instead “improve accounting principles applicable to these instruments.”

By the mid-1990s, investors, regulators and standard setters were becoming acutely aware that an off-balance sheet treatment of derivatives was leading to “problems and abuses” (Butler, 2009, pg. 41). The FASB and IASB found themselves wrestling with the problem of how to report derivatives, specifically rules for recognition, valuation and the reporting of changes in value. It turned out that the solution they identified and which was promulgated by FAS 133 and IAS 39 invoked financial economics through its use of fair values. If derivatives had not been seen to lead to a series of high-profile bankruptcies, there would have been less pressing need to incorporate economic representation into financial reporting. The perceived risks associated with unreported derivatives constituted a causal antecedent condition for the introduction of economic model-based valuations in this area of financial reporting. In the next section, I introduce the standards and the criticisms levelled at standard setters about them.

### *IOSCO and IAS 39 (1998)*

We have seen that the increasing use of derivatives, and associated bankruptcies in the business environment caused standard setters to include reporting standards for derivatives on their agendas. In the US, such environmental conditions led directly to the development of FAS 133 (1998). However, from the perspective of the IASC board, a more proximate and pressing cause for action led to the rushed development of the IASC derivatives standard. In 1995, the International Organization of Securities Commissions (IOSCO) gave the IASC a 3-year deadline within which time the IASC had to develop a set of core standards, including a standard on financial instruments. If it failed in this, it would not gain IOSCO endorsement for any of its standards. I provide more detail on the effect of the IOSCO demands on the IASC project to develop IAS 39 later in this

chapter (see page 118 in section 4.4.4). The pressure from IOSCO at this stage acted as a proximate causal antecedent for the development of the IASC standard, although IOSCO was ultimately only responding itself to developments with derivatives in the US and other business environments.

A former IASC board member at that time argues that the motivation of the IASC board was primarily, if not solely, to meet the IOSCO deadline.

“[It] wasn’t for reasons of external shocks as far as the IASC was concerned. It is possible that the reason the Americans passed FAS133 was because of external shocks, but the reason why we copied FAS133 was not because of external shocks . . . So the relevant ‘external’ background to IAS39 was not anything happening in real companies or the real economy. It was the political need to pass a standard for IOSCO to look at” (Interview with V).

Thus, the existence of external shocks due to the growth in derivatives instruments was far less important to the IASC board than to the FASB in determining the decision to develop a standard addressing derivative accounting.

The fact that the IOSCO deadline drove the *speed* of development (and, in the end, the choice to copy the US standard for reasons of expediency) is consistent with the view that market concerns about derivatives acted as the fundamental driver for the development of the IASC standard. The IOSCO deadline can be seen as a proximate cause which was uppermost in the minds of the board members as they struggled to complete the standard. However, concerns about risks associated with derivatives was the ultimate driver for development of the new standard, however, which was mediated by IOSCO. The demands made by IOSCO for core standards, including the financial instruments standard, did not develop in a vacuum after all. The motivation of IOSCO to include the financial instruments standard would have been influenced by the growth in derivatives.<sup>12</sup> A 1996 joint report by the Basel Committee and IOSCO, refers to the “exponential rate of technological and financial innovation, including notably the increased use of derivative products” (Basel Committee and IOSCO: Joint Statement for the Lyon Summit, 1996, pg. 1) and that “IOSCO is working closely with the International Accounting Standards Committee and the International Auditing Practices Committee to promote the development and implementation of *global accounting and auditing standards* for international securities issuers as alternatives to the use of national standards” (*ibid*, pg. 3). Finally, the fact that the FASB was influenced by problems relating to derivatives would have indirectly influenced the IASC’s standard, which was effectively copied from the US standard (discussed on page 118 in section 4.4.4 below).

However, the reason why the IASC was determined to meet the IOSCO deadline was because doing so would ensure it gained in authority as a standard setter. If it failed

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<sup>12</sup>See for example Basel and IOSCO Joint Report (1995) and Basel and IOSCO Joint Report (1996).

to gain endorsement from IOSCO, many companies, particularly those wanting to raise capital in US markets, would use US GAAP instead of the IASC standards and the IASC feared it would fail to develop into an authoritative standard setter (see page 119 in section 4.4.4 below). Given that the IASC was effectively competing with the FASB, the existence of a derivatives standard in US GAAP would have been expected to lead to the development of such a standard by the IASC irrespective of the immediate demands of IOSCO, given that the derivatives were causing concern in both the US and European business environments.

The evidence presented in this section supports the argument that it was high-profile problems associated with derivatives that led to the development of a new US derivatives standard. By contrast, the IASC board was driven to develop their standard as a result of the demands made by IOSCO, although ultimately the motivation of IOSCO stemmed from concerns about derivatives reporting.

### 4.3. The new standards

The two new standards, FAS 133 and IAS 39, aimed to ensure the recognition of all derivatives on the balance sheet and to introduce the use of fair values for all such instruments after initial recognition. The fair value of a traded derivative could easily be ascertained from the observed market price. For a non-traded derivative, fair value would be ascertained by reference to a similar class of instruments. If no similar class of instruments could be identified, the derivative valuation would be calculated using an economic model such as an options pricing model (a valuation type known as “mark-to-model”). In addition, both standards required immediate recognition in the profit and loss account for periodic changes in the fair value of derivatives unless hedging rules applied. I do not provide further technical detail about the requirements of the two derivative standards here, but I set out further detail in appendix C.1. In addition, for reference, I include as appendix C.3 and Appendix C.4, a chronological list of the main documents published by the FASB and IASC leading up to the publication of FAS 133 and IAS 39.

The US standard, FAS 133 states that: “An entity shall recognize all of its derivative instruments in its statement of financial position as either assets or liabilities depending on the rights or obligations under the contracts. All derivative instruments shall be measured at fair value” (¶17). Similarly, in an introductory section of IAS 39 entitled *Greater Use of Fair Values for Financial Instruments*, we read that the standard: “significantly increases the use of fair values in accounting for financial instruments” (IAS 39, ¶13). In particular, the standard would require the use of fair values for derivatives, which were up until this time “often not even recognised, let alone measured at fair value” (¶13). In addition, embedded derivatives were singled out for attention. Both standards introduced the following requirements for the representation of derivatives: (1) all derivatives were to

be recognised on the balance sheet, (2) they were to be valued at fair value, (3) gains or losses in the fair values of derivatives were to be charged to the income statement or to equity and (4) changes in the fair value of items subject to hedging would be allowed to be offset against changes in the value of the derivative in certain circumstances.

Although both standards required a strong economic representation of derivatives, an important factor differentiated them. Whereas the US standard addressed *only* the reporting of derivatives, the IASC standard included within its scope all financial instruments, which included debt and equity securities in addition to derivatives. The wider scope of IAS 39 meant that its implementation was more problematic, as it attracted objections to the non-derivative elements as well as those concerning derivatives, particularly from European banking and political lobbying groups. This is discussed in section 4.4.4 below. It is also important to note that the implementation of the standards was delayed significantly after their publication in 1998; the US standard was not implemented until 2001 and IAS 39 only became mandatory for EU publicly listed companies from 2005. I discuss this in section 4.4.4, in particular on page 121.

**Technical criticisms** In this section I briefly summarise the technical criticisms of the two derivatives standards. In appendix C.5, I provide further details based on an analysis of comment letters and press commentary. The two main technical complaints directed at FAS 133 and the derivative-elements of IAS 39 related to rules for hedge accounting and the potential volatility caused by the use of fair values when hedge accounting was not permitted. The standards were also viewed as extremely complex and preparers argued that compliance would be costly.<sup>13</sup>

The FASB received more than 250 comment letters on the June 1996 exposure draft, *Accounting for Derivatives and Similar Financial Instruments and for Hedging Activities*. An analysis of these letters in an article by Boyd et al. (1996) in the *Journal of Financial Management and Accounting*, reveals that 49% came from financial firms, mostly banks, which were least likely to agree with the exposure draft, with 77% being categorised as ‘disagree’ (*ibid*, pg. 249). Typical of such negative comments are these made by Wells Fargo & Company, who objected to the proposed standard on the grounds that:

“The exposure draft would not produce decision-useful financial information, would not provide a conceptually consistent model for the subject being studied, would not improve present practice, and would significantly add to accounting complexity.” (FASB comment letter no. 177, quoted in Boyd et al., 1996, pg. 247)

This demonstrates the extent of the technical concerns expressed by preparers.

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<sup>13</sup>According to a portfolio analysis yearbook, “the FASB, recognizing the complexity of the new standard, has created a full day continuing education course” (Hayt, 1998, pg. 165).



## 4.4. INUS conditions

When developing new standards in response to the growth of derivatives during the 1980s, standard setters faced choices over reporting methods relating to recognition, valuation and performance reporting. In this chapter, I present evidence that the approaches to reporting formalised in the new accounting standards were constrained by the environmental conditions the standard setters faced. The specific environmental conditions, identified in chapter 2 and tested in chapter 3 as part of the CCM include (1) the shift to pro-economics objectives of financial reporting, (2) favourable economic conditions, (3) the legitimacy of economic methods, (4) favourable institutional attitudes and (5) the presence of influential advocates of economic representation on the standard setting boards. Figure 4.1 illustrates the application of these INUS conditions to the case of derivatives reporting. In the rest of this section, I discuss each of these conditions in turn and find that each is satisfied.

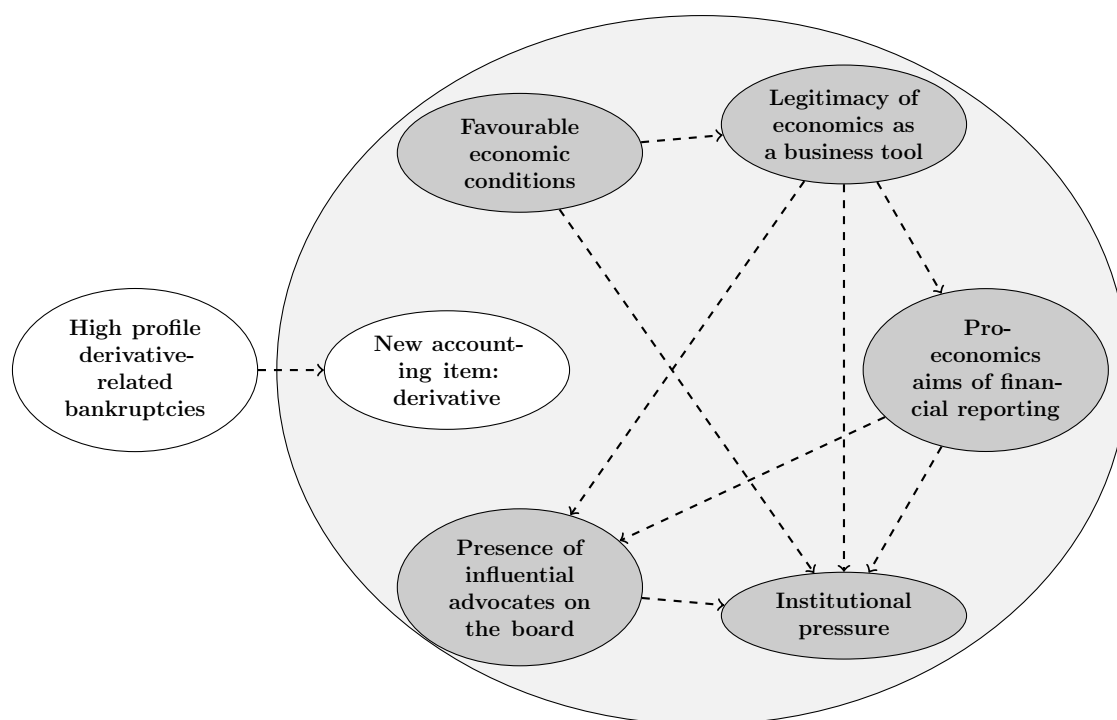


Figure 4.1: INUS conditions for the adoption of economic representation for derivatives. The large ellipse represents a period of time during which the INUS conditions persist. The small unshaded ellipse is a causal antecedent, the smaller shaded ellipses are INUS conditions and the unshaded ellipse within the larger ellipse is a problem as perceived by standard setters. Dotted lines show causal influence.

#### 4.4.1. Pro-economics aims of financial reporting (*satisfied*)

In Chapter 3, section 3.4.1, I analysed the shift in the objectives of financial reporting associated with the conceptual framework projects of the FASB, IASC and ASB, and the extent to which the conceptual framework constrained the choices available to standard setters between the different methods for reporting pensions. In addition, I considered the influence exerted by the SEC on financial reporting practice in the US. The shift away from advocacy of historical cost and towards support of economic values, was in evidence by the early 1990s in the case of derivatives.<sup>14</sup> Such a shift in attitude was important in changing the conceptual aims of financial reporting, and thereby enabling standard setters to incorporate economic methods of representation into their standards.

Institutional objectives have been viewed as a constraint on the development of new accounting measures. In her article, *Institutional thinking: the case of financial instruments*, Young (1996) addresses such constraints on the reporting of financial instruments. She notes that the formalisation of the objectives of financial reporting constitute a kind of institutional thinking, which shapes the standard setters' perceptions of particular events or situations as *problems* and of possible solutions to them. The existence of institutional thinking in standard setting organisations determines the process, and therefore also the possible outcomes, of standard setting. According to Young, the existence of conceptual frameworks: "... limits the search for 'appropriate' solutions to those problems designated as accounting problems" (Young, 1996, pg. 491). Young points to the taken-for-granted nature of financial reporting, and the inability or reluctance of staff in standard setting institutions to challenge the existing accounting framework, which is seen as 'natural'.<sup>15</sup>

In what follows, I consider the extent to which the accepted aims and conceptual approach endorsed by the standard setting institutions shaped the technical components of the derivative standards. My emphasis is on the US standard which effectively served as a blueprint for the development of the IASC standard.<sup>16</sup>

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<sup>14</sup>In 1993 SEC chairman, Richard Breeden, delivered an address to the International Swap Dealers Association, arguing that the accounting for derivatives needed revision and that off-balance sheet treatments were inadequate (International Swap Dealers Association, Annual Meeting, 1993, pg 16). Also in 1993, the Chief Accountant, Walter Schuetze, wrote a comment letter to the IASC on the subject of ED40, suggesting that fair value be the assumed choice for measurement (Camfferman and Zeff, 2007, pg. 81). The International Swap Dealers Association was founded in 1985 as a trade association for the swaps industry. It was renamed as the International Swaps and Derivatives Association.

<sup>15</sup>According to Young, derivatives posed significant technical problems for standard setters because some instruments blurred the boundaries between debt and equity. Rather than change the accounting framework to accommodate a new and problematic set of items, the financial reporting community instead tried to mould them to "fit financial instruments within this framework in order to maintain existing claims about representational faithfulness and to fit these instruments within existing accounting categories" (*ibid*, pg. 495).

<sup>16</sup>This was discussed earlier in section 4.2 and is discussed at greater length later on page 118 in section 4.4.4.

**Balance sheet recognition.** In the US, FASB Concept Statements 1 – 6, issued between 1978 and 1985, marked a shift towards an economic approach to financial reporting. For example, in FASB Concept Statement No. 1 (1978), ¶34 – ¶37 and FASB Concept Statement No. 2 (1980), ¶27 and ¶30, the FASB clarifies what constitutes useful information. The relevance for the development of FAS 133 is made clear in the *Basis for Conclusions* section of the standard. In explaining its rationale for recognising derivatives, the FASB argued that such instruments should be understood as assets or liabilities in accordance with FASB Concept Statement No. 6 (1985), *Elements of Financial Statements*:

“The ability to settle a derivative in a gain position by receiving cash, another financial asset, or a non-financial asset is evidence of a right to a future economic benefit and is compelling evidence that the instrument is an asset. Similarly, the payment of cash, a financial asset, or a non-financial asset that is required to settle a derivative in a loss position is evidence of a duty to sacrifice assets in the future and indicates that the instrument is a liability. The Board believes that recognising those assets and liabilities will make financial statements more complete and more informative. Before the issuance of this Statement, many derivatives were “off balance sheet” because, unlike conventional financial instruments such as stocks, bonds, and loans, derivatives often reflect at their inception only a mutual exchange of promises with little or no transfer of tangible consideration” (FAS 133, 1998, BC ¶219)

. The reference by the FASB to the Concept Statements is a justification for its proposed treatment of derivatives is indicative of the influence of the conceptual shift (as formalised in the conceptual framework) over the representation choices for the reporting of derivatives.

An interview with a member of the project team for FAS 133 reveals that:

“... [t]he thought that these things were assets and liabilities was based on the work we’d done in the Conceptual Framework. In principle, the conceptual idea was: assets and liabilities ought to be on the balance sheet. And the only measurement scheme we could come up with for derivatives that made any sense at all was fair value. Because they started out at zero. Putting something on the balance sheet valued at zero was not considered a good compromise” (Interview with FASB staff member C).

This suggests that the thinking of the FASB with respect to derivatives accounting was influenced to some extent by the Conceptual Framework.

IAS 39 was very closely modelled on FAS 133 in the end due to the IOSCO deadline (as briefly discussed earlier in Section 4.2 and elaborated on later in section 4.4.4). Nevertheless we can still see the influence of the conceptual framework on the *earlier* stages of the

financial instruments project, before the IASC was subject to IOSCO pressure. In a staff paper, the project team acknowledge that:

“the proposed accounting differs substantially from traditional historical cost practices and in significant respects from the proposals of the 1991 and 1994 IASC/CICA exposure drafts on financial instruments. However, it is emphasised that the principles proposed in this paper are reasoned within the IASC Framework for the Preparation and Presentation of Financial Statements (the IASC Framework), interpreted in the context of how financial instruments are used in modern capital markets” (IASC, 1997, ¶1.5).

We will see in chapter 5, that the Conceptual Framework has not always encouraged consistency.

**Choice of Measurement.** The choice of measurement in the standards can also be understood in the light of the new aims of accounting, which focussed on providing useful information for decision-making (primarily of potential investors). The historical cost convention offered little scope for providing a useful valuation of derivatives, since the initial cost of a derivative contract could be negligible compared with the benefit or exposure created (Hague, 2004, pg 24). As a result, standard setters were forced to look beyond historical cost approaches to find a measurement solution.

In FAS 133, the FASB justified its choice of fair value for derivatives by reference to the earlier standard on disclosure, FAS 107, which stated: “Information about fair value better enables investors, creditors, and other users to assess the consequences of an entity’s investment and financing strategies, that is to assess its performance” (FAS 107, 1991, ¶40-41), quoted in FAS 133 (1998), ¶220. The valuation basis proposed draws on FASB Concept Statement No.1, *Objectives of Financial Reporting by Business Enterprises*, which asserts that information provided in financial statements should be “useful to present and potential investors, creditors, and other users in making rational investment, credit and similar decisions” (FAS 107, 1991, ¶39). In the following paragraphs of FAS 133, we learn that: “The Board believes fair values for financial assets and liabilities provide more relevant and understandable information than cost or cost-based measures...” (¶221), and that: “[t]he Board also believes fair value measurement is practical for most financial assets and liabilities” (¶222); and moreover that: “[t]he Board believes fair value is the *only* relevant measurement attribute for derivatives” (¶223).

**Performance measurement.** The FASB project team were not sure initially how to reflect changes in the fair values of derivatives. An interview with a technical member of the FASB who worked on the project acknowledges the difficulties encountered in deciding how to reflect changes in asset values in the financial statements:

“Then we had to figure out: what are you going to do with the gains and losses? And are we going to have any hedge accounting? The board quickly came to the conclusion that we would. Putting something on the balance sheet and running all the gains and losses through [the income statement], without making any changes in the accounting model, just wasn’t going to fly. That wasn’t going to produce a representationally faithful answer” (Interview with FASB staff member C).

What we see here is that the team accepted hedge accounting as a solution to the problem of accounting volatility, which they believed would not have given a “representationally faithful” result.<sup>17</sup>

Meanwhile, the IASC project team issued a discussion paper in 1997, in which they set out their view that the changes in value of financial instruments should be treated as income (IASB, 1997, ¶5.6). The project team state that:

“... accounting for financial instruments should reason from, and be consistent with, both the IASC Framework and accepted economic concepts underlying capital markets for financial instruments and rational financial risk management practices. Taken together, these two frameworks provide important building blocks for a system of accounting that has external validity and internal consistency” (IASB, 1997, ¶6.8).

The conceptual basis of the standard at this stage is thus claimed to be drawn from both the conceptual framework and the existing “economic concepts”. It is not clear what is meant by “economic concepts” in this sense, but presumably the use of economic valuation techniques features within this broad category. The choices made by the standard setters are consistent with the strong form of economic representation for FAS 133 and IAS 39 (as discussed earlier in chapter 2, section 2.5.1 on page 33).

#### **4.4.2. Favourable economic conditions (*satisfied*)**

Evidence presented in this section suggests that economic conditions enabled the introduction of economic methods for the reporting of derivatives. If economic conditions had not been favourable, the recognition of derivatives on the balance sheet at fair value would have been unwelcome to preparers and many institutions. This is not because the value of the derivative itself is likely to be adversely affected by the economic conditions (that is, a lower value if an asset or a higher value as a liability).<sup>18</sup> The negative impact of weak

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<sup>17</sup>The treatment of changes in fair values is set out as ¶18 of FAS 133 (1998).

<sup>18</sup>The value of a derivative is not necessarily correlated with stock market levels but depends on the specific characteristics of the contract such as the price of the underlying, the strike price, the time to expiration, the dividend yield, the interest rate, and volatility over the remaining time to expiration of the contract.

economic conditions is that preparer balance sheets would generally be expected to be weaker in an economic downturn (the value of any investments would be likely to be lower if they are marked to market and a defined benefit pension liability would be expected to be higher). A preparer would, under these circumstances, be expected to resist any requirement to take on further liabilities as they may be concerned about liquidity issues, for instance the risk of breaching debt covenants or a failure to satisfy capital adequacy rules.<sup>19</sup>

In trying to establish that favourable economic conditions are necessary for a successful financial instruments project, we can look to evidence from the financial crisis of 2007. This reveals the kinds of problems faced by standard setters advancing a programme of economic valuation in this area. During and after the financial crisis, concerns were raised by certain academics, regulators and preparers that accounting was in part to blame for the financial crisis and had in any case exerted a pro-cyclical effect. The charge was that fair value led to firms taking on too much leverage in booms which subsequently led to a cascade of forced sales through asset write-downs and the breaching of debt covenants.<sup>20</sup>

The business press was full of articles on the subject. The FT reported in 2008 that:

“International accounting rulemakers are to hold an unscheduled board meeting next week to discuss certain topics made controversial by the credit crunch — including ‘fair value’ and off-balance sheet accounting. The meeting comes after the crisis on Wall Street has prompted fresh calls from banks and other financial institutions for regulators to ease their demands for ‘fair value’, or mark-to-market, accounting, where companies are required to mark their financial holdings at the current market value. It is the first time that the International Accounting Standards Board has held an extraordinary meeting of this sort and reflects the current intense interest in accounting.” (Financial Times, Asia Edition, Jennifer Hughes, 24th September, 2008)

With such hostility about the use of fair values, the introduction or increased use of economic representation for financial derivatives (balance sheet recognition and valuation using economic methods) would be expected to face great resistance.

A former IASB board member, reflected on the IASB experience of fair value during the credit crisis, saying:

‘The crisis was a real crunch for us. What we found was that it’s great going upwards, but when it comes downwards they don’t want to know about it’  
(Interview with former IASB board member, T).

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<sup>19</sup>In the case of pension liabilities, we saw that economic conditions were buoyant in the run-up to the publication of FAS 87 (1985), FRS 17 (2000) and IAS 19 (1998). The funded position of employers’ pension obligations was correlated with the level of stock prices, due to the value of the fund investments, with the result that firms found themselves with pension fund assets rather than liabilities.

<sup>20</sup>For a review of these arguments see Laux and Leuz (2009).

The interviewee makes clear that political institutions can exert a significant impact on standard development, and indeed *did* affect the development of IAS 39 prior to its adoption across the EU. Moreover, in the case of a significant economic downturn, regulators (such as banking regulators) and quasi-political institutions are more likely to scrutinize standard setters for due process issues and argue for modifications to potentially pro-cyclical elements of standards. This was the case for the IASB Liabilities Project, which is discussed in chapter 5.

Had the economic conditions been unfavourable, we might have expected the standard setters to come under pressure from regulatory agencies and institutions to weaken standards perceived to exacerbate the crisis. During the financial crisis of 2007, political institutions such as the G20 put enormous pressure on standard setters to remove their fair value measurements. The EFRAG<sup>21</sup> indefinitely postponed giving any recommendation on the endorsement of IFRS 9, which has still not been endorsed by the EU.

A former board member who was heavily involved in IFRS 9 stated that: “We’ve just issued IFRS 9 - but what a fight! We’ve been dealing with European Finance Ministers who want less fair value. Why? Because it’s volatile” (Interview with former IASB board member T). This evidence from the period after 2007 suggests that unfavourable economic conditions would have halted the derivatives project.

Having discussed the likely effects of adverse economic conditions, we can examine the particular conditions which existed during the development and implementation of the two derivative standards. In the run up to the publication of the projects to introduce FAS 133 and IAS 39, economic conditions were favourable, with an overall trend increase in stock market levels, as can be seen in Figures 4.2 and 4.3. Preparers affected by these two standards were not experiencing increasing ratios of liabilities to assets as a result of changes in stock market indices. However, the existence of buoyant economic conditions, and stable or rising stock markets prior to the *publication* of the standards was not all that was necessary for the satisfaction of this INUS condition, since the US standard faced strenuous objections even after publication (and following a delay of one year in mandatory implementation).

In the US, the S&P 500 Index showed an upward trend (albeit with increased volatility) between 1998 and 2000. Banks and political institutions did subject the FASB to intense criticism in the period from 1994 to 1998 over FAS 133, but the motivation for many of these criticisms stemmed from anxieties over the effect of the standard on operational issues,

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<sup>21</sup>The European Financial Reporting Advisory Group (EFRAG), a private sector body representing European organisations, has the role of providing technical advice to the European Commission on the endorsement of financial reporting standards issued by the IASB and their interpretations. The role of the EFRAG is extremely important, as without EU endorsement, a reporting standard does not form part of EUIFRS and cannot apply to EU listed companies, and is subject to the requirements of IAS Regulation (no. 1606/2002).

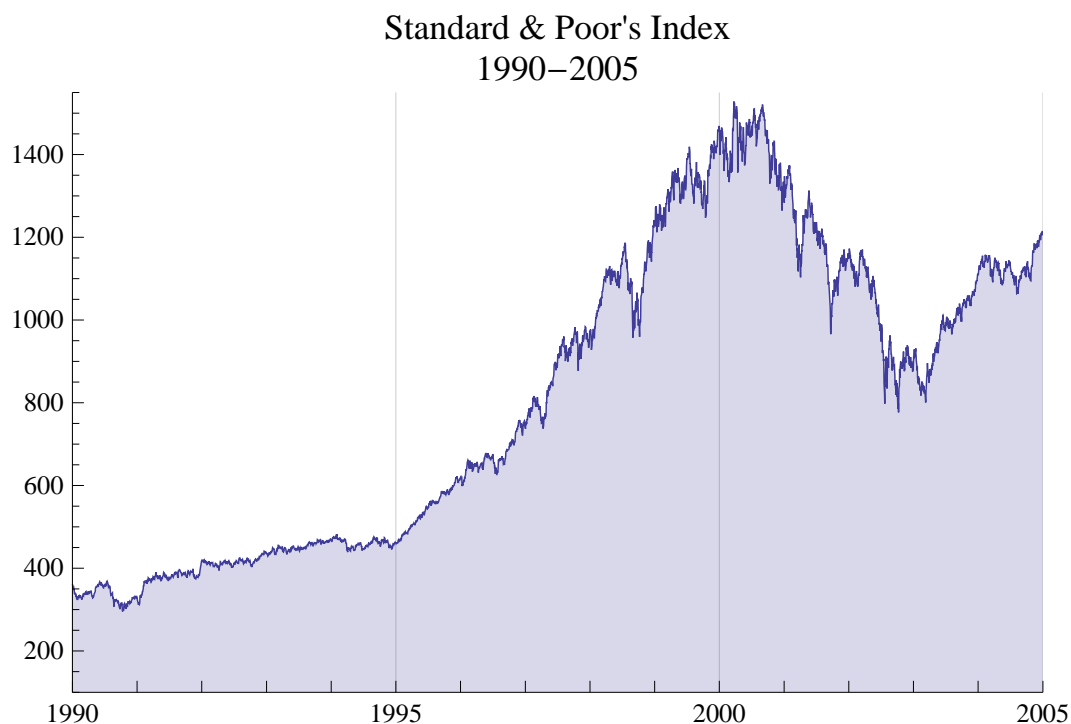


Figure 4.2: S &P 500 Index 1991 to 2005 (Source: *Mathematica* financial indices)

rather than on liquidity concerns. Thus the INUS condition for “economic conditions” was satisfied in the case of the US derivatives standard.

In Europe, adoption of IASB standards, including IAS 39, became mandatory in 2005 and it is the economic conditions during the period before European-wide adoption which are most relevant in explaining the success of the project. Before this date, adoption was voluntary in those countries which permitted the use of IASB standards. Economic conditions were buoyant in the pre-publication period for IAS 39 in 1998 and also during the two years before mandatory adoption for EU listed companies in 2005. However, between 2000 and 2003, before the adoption of IAS 39 by the EC, the UK FTSE 100 index and the S&P 500 Index<sup>22</sup> marked a downward trend (see figure 4.3). It was during this period that many financial institutions raised concerns about the effect of volatility in the standard. In the year before mandatory adoption in Europe, the UK and US stock markets recovered from the 2000-2003 declines, thereby satisfying the INUS condition for the imposition of IAS 39 in Europe.

#### 4.4.3. Legitimacy of economic methods (*satisfied*)

In chapter 3 (page 80 in section 3.4.3), I discussed the development of financial economics as a discipline and the growing use of economic methods in business, particularly the

<sup>22</sup>Given the size of the US stock market, I refer to both the UK and US stock market indices as proxies for the buoyancy of the European market.



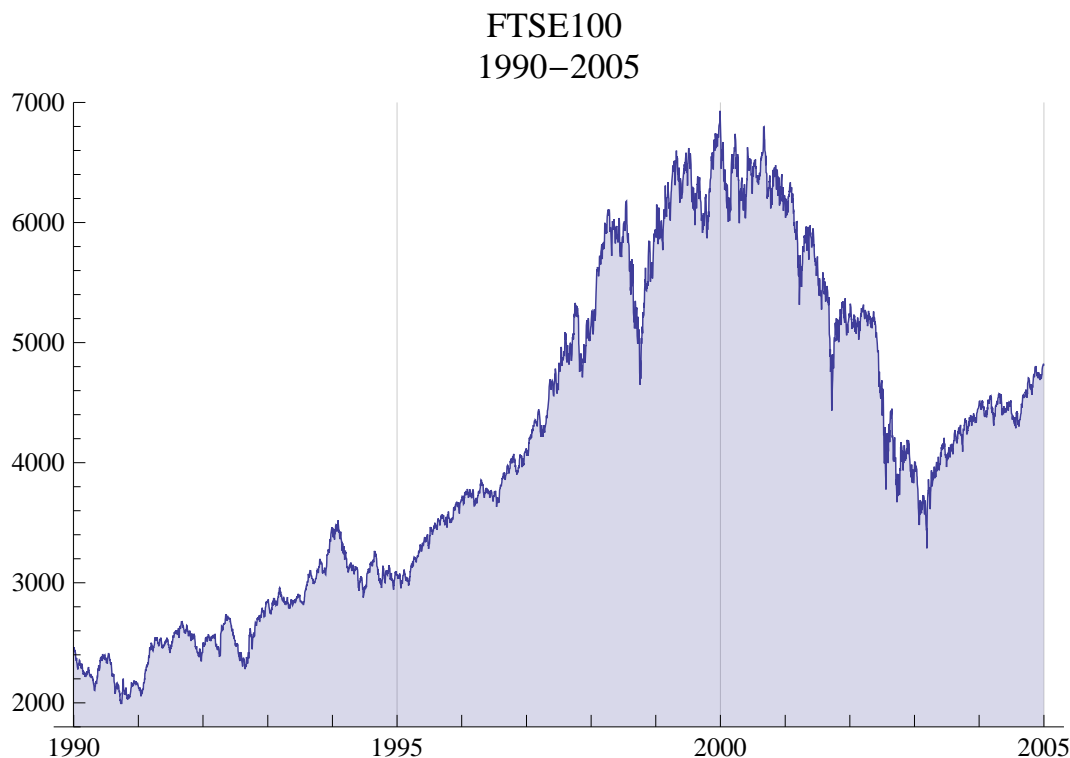


Figure 4.3: FTSE 100 Index 1990 to 2005 (Source: *Mathematica* financial indices)

use of discounted cash flows. In this section, I focus on the techniques which relate to asset pricing models, such as Black-Scholes. These methods grew in legitimacy within the general business and finance community, thereby making these techniques seem a logical choice for standard setters. Naturally, the lack of an alternative workable valuation choice increased the attraction of economics-based models.

During the 1960s, economics and finance courses became part of business school curricula. Whereas previously the place of economics had been squarely within social science faculties at liberal arts universities, now the business schools, such as Wharton, Harvard and the University of Chicago, were becoming a locus of economics teaching. The inclusion of economic theory on business school courses, and the publication of the new-style economics ideas in practitioner journals such as the *Harvard Business Review* and the general financial press such as the *Wall Street Journal*, *The Financial Times*, *Institutional Investor*, *Fortune Magazine* and *The Economist* disseminated them into the business community, with the result that economic methods became acceptable for application to a variety of business problems, particularly those concerning investment strategy.

Initially economists taught grudgingly at business schools with “obvious distaste for the students and for the whole process of money-making in the business firm” as they believed that a “[f]ocus of economic analysis on management problems would be letting the infidel into the temple of liberal arts economics — and perhaps beyond the ability of

many economics instructors who shy far away from the details of the firms about which they theorize and for whom they prescribe public policy” (American Economic Association Annual Meeting, 1956). However, “. . . the mastery of the language and techniques of financial economics soon became an indispensable credentialing device not only for finance professors but also for practitioners in the financial market” (Fourcade and Khurana, 2011, pg. 26).

Before the 1960s, financial economics was not part of the knowledge of business, or even possibly of finance. An informal analysis of the archive of the Economist magazine from 1960 to 2005 reveals a significant increase in the number of articles including the term ‘financial economics’ from 1980 onwards. I include this analysis in Appendix C.7 on page 226. Such an increase is likely to reflect a growing awareness of the field and its practical applications to business.

The evidence provided in this section suggests that by the time FAS 133 and IAS 39 were in development, and particularly by the mid-1990s when the standards were nearing publication, the methods of financial economics were accepted as legitimate, both in the accounting profession and in the preparer community.

#### 4.4.4. Favourable institutional attitude (*satisfied*)

As we saw in chapter 3, institutions played a crucial role in the development of standards for reporting pensions obligations. In this section, I assess the influence of institutions on the progress and adoption of FAS 133 and IAS 39. For the condition *favourable institutional attitude* to be satisfied, either institutions must accept the standard, or any institutions which opposed a standard must be unable, for some reason, to block its progress. Either of these circumstances constitutes the satisfaction of the INUS condition, *favourable institutional attitude*, which is necessary for the successful outcome of the project.

The fact that accounting academics have described accounting for derivatives as “one of the most controversial public policy issues for many years...” (Shin, 2004, pg. xiv) suggests that institutional hackles may have been raised by standard setters’ attempts to introduce new standards to account for derivatives.<sup>23</sup> In its July 1998 edition, an accounting journal carried a piece which claimed that: “[t]he FASB derivatives project has caused so much controversy that many observers doubted it would be issued at all” (Journal of Accountancy, 1998, pg.4). In other words, although the standards were controversial, the standard setters managed to overcome barriers to its successful publication and implementation by interest groups. A number of different institutional interests were influential in the development of IAS 39 and FAS 133, including the Basel

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<sup>23</sup>Nevertheless, before the derivatives projects, other projects such as employers’ post employment healthcare costs, stock options, and oil and gas industries reporting were also considered highly controversial.

Committee, the Joint Working Group on Accounting Standards (JWG), the Securities and Exchange Commission (SEC), the International Organization of Securities Commissions (IOSCO) and the European Union. What is more, the standard-setting agencies themselves competed with each other and were consequently mutually influential. An important feature of the derivatives standards was the delay between publication and subsequent *implementation*. The periods between 1998 and 2000 for FAS 133, and between 1998 and 2005 for IAS 39, provided an opportunity for further lobbying by institutions opposing the new requirements for derivatives and for post-publication amendments to be made.

In what follows, I review the influence of commercial and political interest groups.

### *The US experience: FAS 133*

Powerful interest groups in the banking and insurance industries lobbied the FASB to curtail the introduction of the derivatives standards. Such lobbying during the development of a standard was commonplace. Zeff (2002) identifies four such cases of lobbying during the 1990s<sup>24</sup> and notes that, for the derivatives project: “. . . the lobbying effort did not succeed in persuading the FASB to roll back its position” (Zeff, 2002, pg. 49). As I will discuss later (see the discussion on page 118), the inability of the opposing institutions to block the standard appears to have been in part due to economic events and in part due to the strength of particular individuals in defending the FASB (see next section, page 123).

The banking (and to some extent insurance) industries were anxious that the forced recognition of previously off-balance sheet derivatives would reduce demand for the products which they developed and marketed. A 1996 article in the Financial Times describes the introduction of FAS 133 as prompting a “barrage of criticism”:

“Despite the four-year gestation, the financial community is already complaining that the draft proposals have been rushed through under pressure from the Securities and Exchange Commission, and will create an accounting framework that could discourage the use of derivatives to hedge even the most conventional financial risks . . .” (Financial Times, June 20th 1996, pg. 28, Laurie Morse).

The view put forward in this article is that the main motivation for institutional opposition was to avoid damage to business operations. This is supported by interview evidence. All interviewees questioned about FAS 133 stated that banks opposed it for operational reasons. For instance, one interviewee, a leading US analyst<sup>25</sup>, contrasted FAS 133 with

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<sup>24</sup>These cases were: marketable securities, stock-based compensation (stock options) and intangibles and derivatives.

<sup>25</sup>This interviewee was a member of the Accounting Policy Committee of the Association for Investment Management and Research (now the CFA institute).

the earlier opposition to the FASB accounting standard for stock options, FAS 123 (1995). The interviewee argued that banks were: “more opposed from the standpoint that ‘this is going to change the way we do business’ and not so much ‘it’s going to hurt our stock’ as much as it was with the Silicon Valley stock option expensing” (Interview with S, 2010).

An ex-FASB board member involved in the development of FAS 133, noted the strength of the banking groups and the fact that at certain points, they appeared to be capable of blocking the project:

“There were certain banking groups who were (as they always are) opposed to accounting for these things. They lobbied Congress and the Federal Reserve. There were some indications that the Fed was not going to be as supportive as they ended up being. We had direct conversations with [Alan] Greenspan and I think he became more insightful as to what the issues were so it was a pretty open discussion between the Chairman of the Federal Reserve and the FASB . . . While legislation and everything else was ‘sponsored’ to stop the accounting for derivatives, that didn’t happen and we didn’t allow it to happen. But there were people like the International Swap Dealers’ Association crowd, which was made up mostly of banks [who] just said, ‘we’re against anything which reduces the use of derivatives, and if accounting for them might make people not want to buy them, we’re opposed to it’. So that activity was going on. It’s not unusual to have that kind of activity going on. It was more intense over derivatives in a sense because banks are very good at getting organised. Their lobbying efforts are very coordinated and they were vociferously opposed [to the standard]” (Interview with former FASB Board member Q).

This interviewee highlights the efficiency and power of the banking lobby. Also highlighted is the operational and pragmatic, rather than intellectual, nature of the opposition to the US derivatives project. Other sources of evidence for this view include press reports by the International Swaps and Derivatives Association (Financial Times, Vincent Boland, 3rd May, 2001) and an interview with Ed Jenkins, Chairman of the FASB at the time of the development of FAS 133, (Journal of Accountancy, 1998).<sup>26</sup>

The pugnacious stance of the banking institutions to FAS 133 may be explained, at least in part, by the recent history of FASB standard setting. The FASB had been viewed as having granted concessions to preparers, particularly those in Silicon Valley, on the hotly debated issue of stock compensation in 1995. This may have increased the confidence of opposing interest groups about their chances of blocking this standard, or

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<sup>26</sup>In addition, related institutions involved in the development of FAS 133, identified by a former technical staff member of the FAS 133 project team, Interviewee R, include the National Credit Union Association (NCUA), The Federal Deposit Insurance Corporation (FDIC) and The Savings and Loans Regulator. However, their influence does not appear to have been in any way as significant as that of the banking groups.

at least forcing the FASB to concede on important issues. The institutional opponents to FAS 133 lobbied Congress in an attempt to block the standard and weaken the FASB.<sup>27</sup> Involvement such as this by Congress in standard setting was not uncommon, with several interventions during the 1990s.<sup>28</sup> Dennis R Beresford, FASB chair during most of the financial derivatives project (until 1997) provides examples of the increasing political interference in the work of the FASB. He notes that the usual queries by letter or requests for face-to-face meetings were easily accommodated by the FASB, but that congressional hearings were perceived with some trepidation by the board because:

“The FASB is often on the defensive because these hearings are generally convened when certain companies, industry associations, or others allege that pending FASB positions will cause serious economic harm if adopted as final accounting standards. Although parties sympathetic to the FASB position sometimes are invited to speak, the deck is often stacked in favour of the opponents.” (Beresford, 2001, pg. 74)

In the case of the derivatives project, the de facto political spokesperson for the banking lobby was Alan Greenspan of the Federal Reserve, who entered the fray in July 1997. In a letter to the FASB, which was viewed as, “an uncompromising attack on its plans for a new standard” (Financial Times, Jim Kelly, August 15th, 1997) he argued that:

“The treatment of cash flow hedges will report an increase in the volatility of comprehensive income and stockholders’ equity where no comparable increase in risk has occurred.” (Greenspan (1997) quoted in Sapra and Shin (2004))

Greenspan opposed the increase in regulation which, he claimed, encouraged unnecessary and unrepresentative accounting volatility.<sup>29</sup> The kind of tough reaction to the intervention by the Federal Reserve which was exhibited by board members is evident from a report printed in a student magazine. During a visit to his alma mater, Albion college, in April, 2011, Ed Jenkins told students about his reaction to receiving letter from Alan Greenspan. He said: “Jim [Leisenring] and I worked on a letter that essentially said, ‘We won’t set interest rates if you won’t set standards for derivatives’ ” (Albion College website, <http://www.albion.edu/news/archives/2010-11-archives/albion-view/1396-fasb-executives-shed-light-on-accounting-standards-for-all>, April 5th, 2011).

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<sup>27</sup>Corporate lobbying over FAS 133 led to congressional hearings in 1997 (S1560) and 1998 (HR 3165), which aimed to restrict the power of the FASB. In 1997, HR 1560, known as *Accurate Accounting Standards Certification Act of 1997* required that federal banking agencies confirm to Congress that any new FASB standard was acceptable. HR 3165, or the *Financial Accounting Fairness Act* was a response to the FASB’s Exposure Draft and its aim was to undermine the FASB by requiring the SEC to review each new accounting standard to ensure it benefited investors and capital markets, and to consult with the federal agencies with respect to any standard affecting the banking industry (Zeff, 2002, pg. 51).

<sup>28</sup>According to Beresford (2001), between 1985 and 2000, fourteen hearings took place including retiree health benefits in 1988, stock compensation in 1993, three hearings concerning derivatives (the first in 1994 and two in 1997), loan loss reserves in 1999, and business combinations in 2000.

<sup>29</sup>See also an article in the Wall Street Journal, August 7th, 1998.

More objective evidence points to the vigour with which he opposed the development of reporting regulation on derivatives. According to a Financial Times article in July 1998:

“The full force of opposition to the standard was awesome once it was clear the FASB was determined to press ahead. The climax came with a dramatic intervention by Alan Greenspan, chairman of the Federal Reserve, who called for a rethink saying the standard would stop hedging - a legitimate tool in curbing financial risk. But the Securities and Exchange Commission stood firm in supporting the FASB. With the Asian financial crisis pointing to the need for international transparency on financial instruments the tide is running hard in favour of the FASB. . . . The vote represents a triumph for Mr Jenkins and for private-sector accounting standard-setting in the US. Opposition in Congress and the Senate had broadened to outright attacks on the FASB and threats to bring its powers back under direct control of the government. Mr Jenkins clearly thinks he has seen off the challenge. In response, Edmund Jenkins (Chairman of the FASB Board) complained, ‘Sadly there are some who would like to diminish the FASB by putting standards setting smack in the hands of the federal government’, said Mr Jenkins. ‘They have persuaded legislators to sponsor bills that would require more government — read, political — interference in the FASB’s process’ ” (Financial Times, Jim Kelly, 17th July, 1998, pg. 4).

Ultimately the FASB, with Edmund Jenkins at its helm, emerged triumphant from this debacle, having seen off the intervention from the Federal Reserve and with the standard on-track for publication. How was it that the FASB was able to overcome such resistance from this powerful lobbying group? It appears that contingent factors played a part. Following the Asian crisis in 1997, regulators became committed to enforcing standards which would enhance transparency (World Bank, 1998). This led them to position themselves on the side of the FASB.<sup>30</sup>

#### *The IASC and IASB experience: IAS 39*

In charting the influences on the development of the standard, I focus on two phases: first, the development and publication, which was heavily influenced by the US, and second, the implementation across the EU after 2005.

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<sup>30</sup>The G20 was set up in response to the Asian financial crisis, which also led “the World Bank, International Monetary Fund and G7 finance ministers, to call for a rapid completion and global adoption of high-quality international accounting standards” (FASB webpage, 2011).

**Phase 1: the development of IAS 39.** It is noticeable that inter-jurisdictional influence was more direct in the case of IAS 39 than it had been in the case of the pensions projects. The FASB drove the process. The derivatives element of the standards produced by the IASC was a virtual copy of the US standard. Right from the early stages of the project, US influence was evident. Arthur Wyatt, former board member of the FASB became chairman of the IASC in 1990.<sup>31</sup> The Canadian CICA was also heavily involved in the project at the outset.<sup>32</sup> In addition, arguments in favour of using fair value for measurement came from the Australian delegation (Camfferman and Zeff, 2007, pg. 364).

The development of IAS 39 formed part of a greater project by the IASC to develop a set of core standards for the International Organisation of Securities Commissions (IOSCO) (Camfferman and Zeff, 2007, pg. 374). In particular, the IASC needed to gain endorsement from IOSCO for a set of core standards and had been given a tight deadline.

If the IASC were successful in gaining endorsement from IOSCO, IASC-compliant financial reporting would enable companies to list on US stock markets without the need to provide a reconciliation between their financial statements and those prepared under US GAAP. This would make IASC compliance attractive to many European companies wishing to list on a US stock exchange. Without IOSCO endorsement of its standards, the IASC would have little authority to set standards, as I discuss below. The urgent need to complete the core standards had a significant effect on the development of the standard. Unlike most of the IASC standards issued by this time, no published US GAAP standard existed which could have acted as a model for IAS 39. The IASC project team was aware though, that the US standard for derivatives, which was still being drafted at the time, would probably be acceptable to IOSCO. Given the international importance of US capital markets, the SEC represented one of the dominant members of IOSCO and would be expected to find a US-style standard acceptable (Camfferman and Zeff, 2007, pg. 10). According to a former IASC board member:

“IOSCO told us that we had to cover all the main areas before they’d look at our package of standards . . . they wanted to look at the whole package at one go. That package had to include financial instruments. So it meant that the whole of the rest of the work would be wasted if we couldn’t get this standard added to the package. So we had to pass IAS 39 before anything could happen . . . So at the time, we thought that, unless we could get IOSCO to accept the standards, companies would give up waiting and go to US GAAP. And if the Germans all started using US GAAP then we’d have lost . . . And who’s the

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<sup>31</sup>Wyatt was also in favour of economic representation. He had voted against FAS 87, because he believed it to be *insufficiently* progressive in introducing economically representative pension reporting in the US.

<sup>32</sup>The original project manager was John Carchrae, a staff member of CICA. At the earliest stages of the IASC project, it was the resource constraints of the IASC which led to their acceptance of help from the Canadian Institute of Chartered Accountants (CICA).

most important member of IOSCO? The SEC!” (Interview with former IASC and ASC board member, V)

Thus the result of the pressure to produce a complete set of core standards for IOSCO was important as a survival strategy for the IASC.<sup>33</sup> Again, according to Interviewee V,

“So what’s the only way we could rapidly pass a standard on financial instruments which we knew would satisfy the SEC? Answer: copy US GAAP. Once you’ve decided to copy US GAAP, you might as well get an American to write it! [Laughs]” (Interview with V).

In the end, the IASC negotiated with the FASB to bring over an FASB staff member, Paul Pacter, to draft the standard under the guidance of FASB board member Jim Leisenring (Camfferman and Zeff, 2007). During the process, some of the FASB board members, who favoured the use of fair values complained that the developing US standard had failed to go far enough in this regard. Former IASC board member, V explained that:

“...senior Americans were advising us to not to follow US GAAP because there was too much choice allowed – and we said, ‘yes, we agree with you but we have rapidly to pass a standard and if we insist on full fair value, we probably won’t get a large enough majority on the board.’ The Germans and French would say no. And we’re not even sure that the SEC (and IOSCO) would like it – although they might have done. But the point is that we were not going to get a full fair value standard through the board in the late 1990s. And politically you’re left with the only possibility being to copy US GAAP even though the Americans on the board didn’t want us to do that” (Interview with V).

This statement suggests the form of knowledge at the time acted as a constraint on the introduction of fair value as board members in favour of fair value felt they were unable to “get a full fair value standard through the board in the late 1990s”.<sup>34</sup> The board members found themselves having to search for common ground between the likely preferences of IOSCO, the tough pro-fair value stance of key individuals at the FASB and the preferences of their own IASC constituents (many of whom were not in favour of fair value). The potential cost of getting this balancing act wrong was extremely high: if the standard was not ready in time, IOSCO would not consider any of the core standards.

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<sup>33</sup>For further corroboration of this view, see the discussion in McGregor (1999, 159-160). McGregor, a former IASC board member, supports the view that the endorsement sought by the IASC from IOSCO meant indirect influence from the US regulators as “. . . the linchpin to IOSCO endorsement is endorsement by the SEC”.

<sup>34</sup>Thus, what seemed a reasonable or acceptable way of doing financial reporting, at a particular time, and in a particular context, acted as a constraint on standard setting. It was not unique to the financial derivatives projects. It was also in evidence in the case of pensions when the ASB were trying to complete the FRS 17 project (see page 83 in section 3.4.3).



**Phase 2: EU adoption.** At the time the standard was approved in December 1998, the European Commission (EC) was merely an observer to the IASC's activities. This changed, however, in 2000 when the EC announced that it would require mandatory compliance with IASB standards for all listed companies within the EU from 2005. A condition of EU adoption of IAS 39 was approval by the EC and this condition placed significant political pressure on the IASB. Just as the IASC had needed to focus on gaining endorsement from IOSCO, now the IASB faced a similar hurdle with the EC. An added complication was the fact that the scope of IAS 39 included financial instruments generally, whereas FAS 133 set out the reporting requirements for derivative instruments alone. Objections to the required treatment of *non-derivative* financial instruments risked impeding the progress of the whole standard. Had the standard dealt only with derivatives, the challenge of gaining approval may well have been less problematic.

In 2001, the newly formed IASB added to its agenda a project to reduce the complexity of a number of standards, including IAS 32 and IAS 39. In June 2002, the Board published an Exposure Draft of proposed amendments (IASB Exposure Draft IAS 39, 2002). Disgruntled constituents were quick to see this as an opportunity to raise objections to some of the core features of the standard, which they claimed to be unsuited to the European banking model and the IASB received over 170 comment letters (IASB, 18th December, 2002). US-style lobbying of the EC was quickly in evidence in the period between the announcement and implementation of mandatory adoption of IASB standards:

“...there continues to be serious opposition by some European banks in particular to adoption of IAS 39, even in its improved version. The banks are seemingly willing to use any means open to them to avoid being made to follow IAS 39, without any regard apparently to the collateral damage that they might do to the credibility of European financial reporting and the viability of the IASB” (Walton, 2004, pgs. 5–6).

The European banks were keen to avoid a requirement to recognise debt instruments at fair value or see their hedging activities restricted and lobbied the EU with vigour. Member governments, which had themselves been subject to significant pressure from European banks and financial institutions, pressurised the European Commission to restrict IAS 39 (Shin, 2004, pg. xv). The concerns of preparers and regulators were the focus of significant press commentary:

“IAS 39 has created more debate and controversy than the rest of the standards put together. Its impact was hotly disputed among EU countries and it was even criticised by Jacques Chirac, French president. The fracas over IAS 39 encapsulates much of the debate in the accountancy world over the benefits of valuing items at ‘fair’ or market value, rather than historic cost ... Many companies are also uncomfortable with the way IAS 39 restricts hedge

accounting by making them show that the instruments they use are genuinely for hedging purposes” (Financial Times, Deborah Hargreaves, January 20th, 2005).

The controversial nature of the standard soon led to the emergence of some hostility between the IASB and EC, as French prudential institutions lobbied to prevent the adoption of IAS 39 in full. The following article in the financial press describes the political battle provoked by IAS 39:

“France has slammed EU proposals to impose the International Accounting Standards (IAS) on all member states. Anti-liberalist and anti-Anglo-Saxon sentiment is rife. Accounting is not a set of neutral rules but ‘a language that provides structure’, claim bankers, sudden devotees of Claude Lévi-Strauss, the anthropologist.” (efinancialnews.com, 2nd February, 2004)

As the discussions became increasingly tense over adoption of standards, the French president Jacques Chirac became frustrated with the process, arguing that “the European Union, the Commission and the Member States should be in a position to exert more influence on the writing of standards by the IASB” (Walton, 2004, pg. 11).

In 2004, as a result of intense lobbying by national governments and concerns raised by the Basel Committee for Banking Supervision (see Basel Committee on Banking Supervision, 2000, pg. 1 ), the European Central Bank and prudential supervisors (EFRAG Press Release, 2004, ¶2.2), the EC announced that it could not adopt IAS 39 in full. Two “problematic” areas were to blame: the fair value of debt and hedge accounting. Banking groups, in particular, objected to the “limitation of hedges to either cash flow hedges or fair value hedges and the strict requirements on the effectiveness of those hedges”, which made it “impossible for them to hedge their core deposits on a portfolio basis” (EC Memorandum on IAS 39, 2004). The carve-outs included the ‘fair value option’ as well as several sections of IAS 39 relating to hedge accounting.<sup>35</sup> A two-tier system thus evolved with IFRS required for all non-EU preparers, who had adopted IFRS and a potentially different *EU-IFRS* for EU preparers which constituted those standards which had been published by the IASC/B and endorsed by the EC.

Many institutions were appalled by the carve-out and saw it as a disgraceful climb-down by the IASB. The Bank of England was particularly scathing:

“The recent furore over IAS 39 — the international accounting standard for financial instruments — has resulted in a situation which all agree is unsatisfactory. . . There are now effectively two versions of IAS 39, one proposed by

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<sup>35</sup>The hedge accounting carve-out affected paragraphs in the standard relating to allowing hedging of core deposits on a portfolio basis, amending those items which could be designated for hedging and reducing effectiveness testing for certain hedges (EFRAG Press Release, 2004). However, a Member State would be permitted to make these provisions mandatory under its national rules, thereby side-stepping the hedging carve-out (EC Press Release, November, 2004).

the International Accounting Standards Board and the other by the European Commission” (Bank of England Press Office, 2004).

The Bank of England’s disapproval is focused on the lack of political independence of the standard setter in particular. This theme was also raised in the financial press at the time. The 2005 FT article referred to on the previous page also notes:

“Even more worrying for many in the accounting profession was the precedent set by political interference in the supposedly independent standard-setting process” (Financial Times, Deborah Hargreaves, January 20th, 2005).

Although the carve-out weakened the reputation of the IASB by signalling its lack of political independence, nevertheless it did facilitate the adoption of the pared down standard across the EU, thus mandating the use of economic representation of derivatives across the EU jurisdiction for listed companies.

#### **4.4.5. Influential advocates on the standard setting board (*satisfied*)**

In the face of hostility from preparer groups and institutions, the resolve and strategic capabilities of the standard setting boards were of paramount importance in achieving successful publication of, and compliance with, rules on the reporting of derivatives. It is not easy to establish evidence for the influence of individuals on the board. Records in board minutes, transcripts of congressional hearings or academic articles may fail to reveal such influence, as actions which were effective in bringing about a particular result may have occurred off-the-record. However, anonymous interviews of FASB board members and technical staff, combined with evidence from archival and other sources, provide evidence of a consistent picture of the strong voices supporting fair value at the FASB and those who defended the IASB standard against institutional objections.

##### *Individuals at the standard setting institutions*

**FAS 133.** The board members who figured heavily in the development and implementation of FAS 133 included Dennis R Beresford, the Chairman who was involved in the early stages of the project, but retired in 1996 before its publication. Also key were Edmund Jenkins, who took over as Chairman after Beresford, and Jim Leisenring. The involvement of these three would have been expected to increase the economic content of the standard. In particular, Leisenring has been described independently by several interviewees as being a strong advocate of fair value approaches to reporting derivatives. These interviewees were T (former ASB and IASB board member), V (former IASC board member) and W (IASB technical staff member). Appendix C.8 sets out the educational background of the FASB board members at the time FAS 133 was issued.

Following the attack on the new proposals for derivatives by Alan Greenspan in July 1997, Edmund Jenkins responded by offering firm resistance and did not back down or offer to weaken the requirement to recognise derivatives at fair value (Financial Times, Jim Kelly, August 15th, 1997). At a Senate Hearing in October 1997, Edmund Jenkins argued firmly for the FASB's position on derivatives accounting when he addressed the following concluding arguments to the Senate Chairman:

“Our goal is to protect the public interest by making sure that investors and creditors have the information they need to understand companies that they might want to invest in. The information about derivatives and hedging reported in financial statement today is incomplete, inconsistent, and just plain wrong. Better information is badly needed by all consumers. We have worked long and hard to find an appropriate solution. We understand that not everyone is pleased with the results, but no solution will please everyone. However, we have found a workable solution and the time for action is now” (Senate Banking Committee, October 9th, 1997).

These strong words signal the determination of the standard setting board to achieve the publication and implementation of a standard which would introduce an economic approach to the reporting of financial derivatives.<sup>36</sup> When asked in an interview how important the presence of strong board members was for the FASB when dealing with the Federal Reserve, a former FASB board member at the time of FAS 133 answered:

“Absolutely! It's very easy to cave in to the pressure but we didn't! . . . You have to decide if you are going to stand up to the pressure and argue and fight and more importantly stick to the intellectual arguments you have for why it's the right accounting. . . There were two bills in Congress against accounting for derivatives – you know, but they didn't pass. Ed Jenkins was not going to back down as chairman” (Interview with former FASB board member, Q).

The Leisenring and Jenkins pairing appears to have been an effective one, especially given the aftermath of the Asian financial crisis, which provided them with ammunition for their battle with banking and political institutions.

**IAS 39.** We have seen that the IASC used the US standard as a blueprint when developing IAS 39 and so the individuals who influenced the technical content of the original standard as published were essentially the individuals discussed in the last section. For IAS 39, the important influence of particular individuals was likely to have involved interactions with the EU and European banking institutions from 2002 to 2005 when the IASB was subject to intense political pressure over EU adoption.

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<sup>36</sup>Leisenring was the other FASB board member involved in defending FAS 133 against the criticisms from the Federal Reserve. His reputation as a determined negotiator is well established.

The main supporters of fair value at the IASB during the period were Mary Barth, Jim Leisenring, David Tweedie, Warren McGregor and John Smith. Tweedie joined the IASB from the UK ASB where he had supported projects such as FRS 17 (2000) which introduced economic representation for pensions. Leisenring was appointed in 2001 immediately after leaving the FASB, where he had played a significant role in developing FAS 133. Tweedie, Leisenring and McGregor were all members of the G4+1 during the 1990s. Mary Barth, an academic, was previously a member of the Financial Accounting Standards Advisory Council of the FASB. Finally, John Smith had previously been a member of the FASB's Derivatives Implementation Group (DIG) and Financial Instruments Task Force and chairman of IASC's IAS 39 Implementation Guidance Committee. The fact that these individuals had either worked for the FASB before joining the IASB or had been members of the G4+1, highlights the opportunities for intellectual cross-fertilisation between standard setting institutions. The G4+1 emerged informally during the early 1990s as a working group and provided a forum for the exchange of views about standard setting (Street, 2005). Appendix C.9 sets out the educational background and prior institutional affiliations of certain individuals who were IASB board members between the period 2002-2005, when there was significant political objection to IAS 39 before its adoption for EU listed companies.

Claims that the IASB board were less tough than the FASB have emerged from interviews conducted. One former board member from the FASB expressed dissatisfaction with the actions of the IASB board in its interactions with the EC, claiming that the board was too weak:

“All they had to do was do it right. If the EU wants to ‘not endorse’ the standard, that’s their prerogative. Who is the standard setter, the EU or the IASB? If every time they object to something you say, ‘oh boy, we can’t go there’ then who’s the real standard setter? . . . Is it because the environment is different or because the board behaved differently? Did the board stand up better or didn’t they? Was the environment really that much different – I’m not sure that it was” (Interview with former FASB and IASB board member, Q).

According to this interviewee, a strong board was extremely important in dealing with the EU. However, it is not clear what options were available to the board, and whether other courses of action would have resulted in a more favourable outcome. A former IASC board member argued:

“. . . two things could have happened if the IASB had said ‘we’re not going to change IAS39 and what is more, the reason we’re not going to change it is because we’re not giving way to this very obvious political pressure. If you put us under this political pressure, you will get a result which is counter to

what you want because we will not do this just because you are telling us to do it. We might have done it otherwise, but in these circumstances we will not.’ If they had said that, two things might have happened. Either they win and the EU climbs down in which case it’s a huge victory for the standard setters in which case they can change IAS39 afterwards — thus proving that they’re doing it because they want to. Or the EU changes IAS39 for Europe which makes it a problem for Europe to a large extent” (Interview with former IASC board member, V).

Some individuals point to the fact that the presence of strong individuals on the IASB board might have led to a tougher stance by the board overall and the possibility of avoiding the EU carve-out. However, this is speculation. It is not clear whether the IASB could have avoided a carve-out if they had acted differently. In the event, through their compromise, they did achieve EU-wide adoption of the carved-out standard. This resulted in the introduction of fair value for derivatives for listed companies in the EU, thereby introducing an economic approach to the reporting of derivatives, even if the requirements were slightly less strong, in terms of economic representation, than had initially been intended.

**Expertise and influence of individual board members.** It seems natural to assume that, during the development of technical standards, authority tends to accrue to those with particular expertise. In the case of the developments to IAS 39 in the early days of the IASB, it seems that familiarity with financial economics constituted expertise in this sense. It is also a view which is supported by interview evidence. A member of the IASB technical staff stated that:

“... when you talk about stochastic models, some people’s eyes glaze over because that’s just not their background. So they rely on a few individuals to help them ... And with hedge accounting, people can have difficulty understanding. You know, maybe three people in the room understand it [laughs]. And so personalities can be very important as well. If someone has a strong background *and* a strong personality, they can dominate a conversation — and they can dominate accounting ” (Interview with W).

In this we see how the ideological commitments of a small group of board members can dominate, and indeed have dominated, the development of technically complex standards, such as the financial instruments projects. If this is true for the IASB, which has a board of fifteen, we might expect technical discussions to be dominated to an even greater extent by certain individuals at the FASB, which had a board of only seven.

Once a group of ‘experts’ emerges on the board, they may be able to drive the discussion. The same interviewee, W, referred to an unofficial analysis of frequency and

duration of contributions to discussions by particular individuals during board meetings. This research revealed that:

“... when we had Jim Leisenring, Mary Barth and Trish O’Malley, something like 60% of the talking was done by those three. I’m sure Geoffrey Whittington wouldn’t let them get away with that – he was most probably doing the rest [of it]! [laughs] When Jim left, the whole dynamic changed” (Interview with W).

This corroborates the hypothesis that dominant individuals play an important role in driving the technical development of reporting standards and that their ideological commitments may be reflected in the standards produced by the boards.

Another important factor was experience of standard setting in this area. The American members of the new IASB board were influential, partly because several of them brought with them experience of working on the US financial instruments project. According to an IASB board member at the time:

“When they [the board] are learning, it’s hard for them. It was like that when this board started. The major issues were IAS39 – that was like the American standard and they [the Americans] had been all over it. Then it was share-based payments – the Americans were all over that – they’d just done it. So all of the voices in our boardroom were American. Gradually, as the rest of the team got involved in it, the American voices subsided – well except for Jim [Leisenring]... [laughs]” (Interview with T).

Thus, the experience of setting derivatives standards conferred authority and this effect would be expected to be stronger when combined with a knowledge of finance.

Moreover, former FASB board members who felt that they had not achieved their aims fully in the US with FAS 133 may have wanted to try to introduce a full fair value standard for the EU from 2005. Evidence of this is provided by a former IASC board member, who stated that particular ex-FASB board members took a tough pro-fair value position:

“Jim Leisenring and others (maybe Tony Cope — one or both of them depending which year) would say, ‘we don’t really like US GAAP. We don’t think there’s enough fair value in US GAAP and so this is our opportunity to put it right for the whole world’ ” (Interview with V).

The fact that these board members were dissatisfied with the extent of fair value included in FAS 133 and wanted to ‘put it right for the whole world’ reveals their ideological commitment to economic representation for financial derivatives. When combined with experience of standard setting and confidence in discussing issues related to financial

economics, they would presumably have been a strong force in driving the IASB's technical discussions on derivatives, as well as in arguing for the board to take a tough approach to dealings with EU political objections.

*Accounting knowledge and authority over valuation methods*

What becomes evident in the case of the reporting of derivatives, is that the introduction of FAS 133 and IAS 39 transferred valuation skills out of the domain of accountants, thereby reducing their expertise. The introduction of the new accounting item, the financial derivative, resulted in a need for specialist knowledge about valuation. This specialism never fell within the remit of the accountants, but instead fell to financial economists. This forced delegation of valuation skills effectively diluted the technical authority of the accountancy profession over this new accounting area.

A FASB technical staff member who worked on both the pensions and derivatives standards revealed a striking difference between the two projects:

“I think [statement] 133 – with respect to the difficulty of the problem and the extent to which we had to invent something new — was probably more difficult than pensions. For pensions, there were a bunch of models out there and we had to understand them and then pick one. But we didn't start from scratch in understanding how the actuarial process worked – we had to start from scratch in *learning* it – but it was there. [For derivatives] there was no model out there waiting for us to polish up. We had to invent one” (Interview with C).

From this, we see that the development of measurement and recognition criteria for financial derivatives was very different from FAS 87. Long before the advent of financial economics as a basis for pensions valuations, accountants had already delegated expertise to the actuarial profession. From the perspective of standard setters, the relatively simple models used by actuaries for valuing pensions left them (and the accounting profession more generally) on relatively safe ground. Even if an actuarial model was unfamiliar to accountants in terms of its technical content (for instance, the choice of actuarial assumptions), it was relatively comprehensible. The technical complexity of actuarial models extended only to forecasting and discounting cash flows, which was well within the capabilities of standard setters and accountants in practice.

By contrast, financial models used to value derivatives demanded mathematical sophistication and familiarity with finance theory, which most accountants lacked. Thus, accountants may have inadvertently accepted a measurement scheme which left them without authority over the valuation process of a whole raft of classes of financial assets and liabilities. In deciding on mark-to-model requirements in FAS 133 and IAS 39,



standard setters may well have been aware that they were giving up their authority over valuation skills, but had little choice, given the set of conditions they faced.

## 4.5. Conclusion

In this chapter, I have used the Causal Constellation Model (CCM) to explain the introduction of economic methods for the financial reporting of derivatives by the FASB and IASB. The model appears to provide a good explanatory account of the success of the two derivatives projects, FAS 133 and IAS 39. The retrodiction of the projects based on the satisfaction of the INUS conditions would suggest a successful outcome, as indeed occurred. These standards were important in the overall introduction of economic approaches to representing derivatives and can be seen as a crucial test.

The application of the CCM to the case of pensions supported the usefulness of the model in explaining regulatory change in financial reporting. In this chapter, the application of the model to the case of the reporting of financial derivatives further increases confidence that it can explain the introduction of different *types* of financial economic technique in different accounting *jurisdictions*. The ability to employ the model in different accounting and jurisdictional domains increases the usefulness of the model as a more general explanatory tool.

However, all the projects studied so far share a common feature, in that they have been ‘successes’. Each project resulted in a published standard which introduced (or extended) the use of economic methods to financial reporting. If the CCM is to be applicable more broadly to cases of regulatory change, it must also be capable of explaining cases of *intended* regulatory change, which turn out to be unsuccessful. In order to test if the model is robust with respect to the variable for ‘success’ or ‘non-success’, it must show itself to be capable of explaining such a case of non-success. To perform this ‘test’, in the next chapter, I apply the CCM to the case of the IASB Liabilities Project.

# Chapter 5

## Case study: contingencies

### 5.1. Introduction

In chapters 3 and 4, we have seen how methods drawn from theories of financial economics began to emerge in financial reporting practice from the 1980s in the US and from the 1990s in the IASC (and subsequently the IASB) jurisdiction. The CCM has provided a causal explanation of the pattern of emergence, and thus of the influence of financial economics, in terms of individually necessary and jointly sufficient conditions. However, both the earlier cases studied, accounting for pensions and financial derivatives, were successes, in that methods using financial economics were introduced. In order to demonstrate robustness, the case investigated in this chapter is one of non-success: the IASB Liabilities Project.

After eight years of controversy, the International Accounting Standards Board (IASB) has unofficially shelved its “Liabilities Project” (the “LP”). This project was intended to revise the methods employed for reporting obligations which have uncertain outcomes, such as pending litigations or clean-up costs related to environmental damage. Through the LP, the IASB aimed to extend the use of economics-based, expected value techniques<sup>1</sup> for determining whether to recognise and how to value these potential liabilities. Following a general trend towards the increased adoption of economic methods in financial reporting over the last twenty years<sup>2</sup>, the IASB might reasonably have expected to complete the LP without difficulty. Yet, this was not the case. The LP was frustrated by a combination of harsh criticism from preparers and institutions, fall-out from the economic crisis of 2007-9 and the waning influence of its supporters on the IASB board. Viewed in isolation, this episode of accounting history shows how the progress of a project can be thwarted by contingent events. However, if viewed as part of an IASB programme to establish

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<sup>1</sup>These techniques are used to calculate a value for an uncertain event by aggregating the probability-weighted values of possible outcomes.

<sup>2</sup>In the financial reporting of pensions and financial derivatives, economic methods had been introduced by the FASB and by the IASC (and subsequently the IASB) from the mid-1980s onwards, with a particular movement to adopt economic methods from 2000 onwards.

economic theory as a core component of financial reporting *knowledge*, the failure of the LP can be seen as an instance when economic theory was rejected by financial reporting practice.

This chapter is divided into three sections. In Section 5.2, I summarise the history and requirements of the original standard (IAS 37, 1998), the problems standard setters have identified with it, the amendments they have proposed and the current status of the LP at June 2011. In Section 5.4, I consider in turn each of the individually necessary and jointly sufficient background conditions for the publication and implementation of the LP. I find that only two of the necessary background conditions were simultaneously satisfied. Finally, in Section 5.5, I conclude that the current lack of success of the LP can be explained in terms of the five INUS conditions I have identified.

## 5.2. Causal antecedent: technical weaknesses in IAS 37

### 5.2.1. The requirements of IAS 37

The original standard, IAS 37 (1998), *Provisions, Contingent Liabilities and Contingent Assets* was not introduced by the International Accounting Standards Committee primarily to deal with conceptual issues surrounding the recognition of uncertain future events on the balance sheet. Rather it was developed as a joint project with the UK Accounting Standards Board aimed at clarifying the rules for the recognition and valuation of provisions, in order to tackle the commonplace practice of making *big bath* provisions (see ASB, FRS 12, 1999).<sup>3</sup>

**Recognition.** According to IAS 37, provisions<sup>4</sup> are “liabilities of uncertain timing or amount” for which recognition requires the satisfaction of two existence conditions. First, it must be *more likely than not* that an obligation exists. Second, this obligation must *probably* result in an outflow of economic benefit. In other words, if the obligation exists, but is not likely to lead to an outflow of resources, the obligation should not be recognised according to IAS 37 (1998), *even if there exists a non-zero probability of an outflow of benefit resulting*.

**Measurement.** Once the existence of a liability has been established, the standard specifies that the liability should be measured at the “best estimate of the expenditure

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<sup>3</sup>These were spurious liabilities (often supposedly for restructuring costs) which companies could include on the balance sheet and subsequently release in order to smooth earnings.

<sup>4</sup>In IAS 37 (1998), the term “provision” is an uncertain obligation which is recognised on the balance sheet, whereas “contingent liabilities” are not, because “their existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity”. This can be contrasted with the nomenclature used by the FASB, for which the term contingent simply refers to the uncertainty of either timing or amount, irrespective of whether the obligation meets the criteria for recognition.

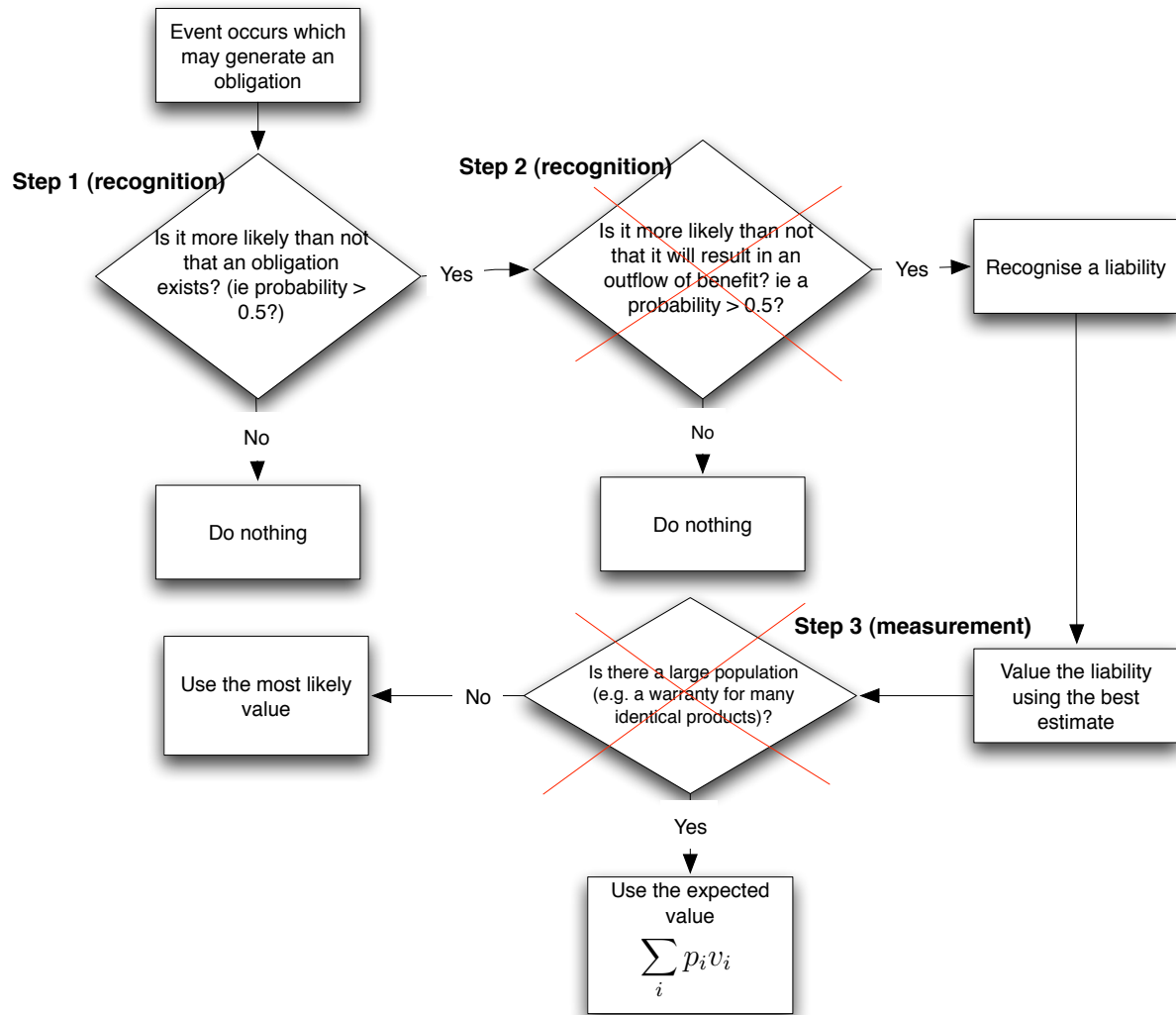


Figure 5.1: IAS 37 decision flowchart showing the two probability thresholds for recognition (steps 1 and 2) and the probability threshold for measurement (step 3). The Liabilities Project aimed to remove the steps shown here as marked with a cross.

required to settle the present obligation at the end of the reporting period” (IAS 37, 1998, ¶36). A ‘best estimate’ is based on the opinion of the entity’s management “supplemented by experience of similar transactions and, in some cases, reports from independent experts” (*ibid* ¶38). The standard requires the use of expected values as a tool for calculating the *best estimate* where a large population of items forms part of the contingency (*ibid* ¶39) but *not for single events*. Since expected values serve as a foundational element of rational choice theory in neoclassical economics, their use in IAS 37 (1998) reflects some adoption of techniques from economic theory. However, as we will see, IASB advocates of financial economics would see the standard as insufficiently ‘economic’ and point to inconsistencies which, they argued, could be resolved by the removal of non-economic elements. Figure 5.1 shows diagrammatically how these tests are applied according to IAS 37 and which tests the LP identified as flawed (identified by a strike-through).

### 5.2.2. Criticisms of IAS 37

The LP originally arose out of a desire to achieve convergence with US GAAP in 2002, but the IASB soon became concerned about inconsistencies in the treatment of liabilities between IAS 37 (1998) and other International Financial Reporting Standards (IFRSs), as well as inconsistencies between IAS 37 and US standards.<sup>5</sup> These inconsistencies related to the treatment of restructuring costs as a lower threshold for recognition existed in the IASB. In particular, the IASB wanted to remove the unclear requirement to use a “best estimate” of the expenditure required to settle an obligation, which is open to a variety of interpretations such as, “the most likely outcome, the weighted average of all possible outcomes or even the minimum or maximum amount in the range of possible outcomes” (IASB, 2010, pg. 2). This meant using economic approaches consistently for valuation. A group of IASB board members, who advocated economic measurement and the use of fair values in financial reporting soon argued that the *probable outflow* test in IAS 37 led to a potentially misleading and unobjective representation of businesses in financial reports. In the view of a former IASB Board member:

“IAS37 gives weird results in practice in some circumstances, for example warranties. The accounting treatment is dependent on an assessment of the probability of future cash outflows arising. If an entity assesses that it is not probable that cash outflows will arise, a provision is not recognised, even if there is a greater than zero probability that they could arise” (Interview with IASB board member H).

The perceived weakness highlighted by this board member relates to the opportunity by companies to *understate* liabilities by claiming that an existing obligation fails the *probability of outflow* test and therefore should not be recognised on the balance sheet.<sup>6</sup> As a result of these concerns, and in spite of the general satisfaction among users and institutional groups with IAS 37 (1998), the IASB launched the LP to address these perceived inconsistencies. They aimed to enhance the representation of non-financial liabilities by using a more economic approach. Such an approach requires the recognition of *all* obligations which have a probability,  $p$ , such that  $p > 0$ , and measuring those obligations using expected values, based on discounted cash flows for different possible outcomes, an approach consistent with economic theory.

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<sup>5</sup>In an IASB meeting in July 2002, the IASB board identified inconsistencies between FASB Statement 146, *Accounting for Costs Associated with Exit or Disposal Activities* and the IASB approach formalised in IAS 37 (1998) and IAS 19 (1998).

<sup>6</sup>This can occur where it is more likely than not that outflows of resources will not occur (if the value of the probability,  $p$ , such that  $p < 0.5$ ), but that a positive probability nevertheless exists for an outflow occurring ( $p > 0$ ). This is more likely to be the case with single events, but could occur with large populations of items (such as warranties), where the probability of outflows is near to  $p = 0.5$ . For instance, consider the case where management and legal advisors estimate that there exists a probability,  $p = 0.45$  of losing a law suit. In this case, there is no requirement to recognise a liability, even though the company may have to make a large pay-out in the event that it loses the case.

By 2006, the FASB, IASB and ASB had successfully published several pioneer standards, which prescribed recognition and valuation of assets and liabilities based on principles drawn from economic theory.<sup>7</sup> Given the successful introduction of these earlier economic methods in the financial reporting of pensions and derivatives, it might seem reasonable to assume that the introduction of a measurement scheme based on economic theory for the reporting of contingencies would be more readily accepted by interest groups in the accounting arena, such as preparers, auditors, investor groups, and other institutional interests. However, as we will see, this was not the case.

### 5.3. The Liabilities Project to revise IAS 37

I summarise here the main amendments to IAS 37 proposed by the two exposure drafts (taking the most recent decisions for any item). Details of the two exposure drafts are set out in Appendix D.2. The LP proposed two major changes to the rules for representing uncertain obligations. First, it aimed to remove *step 2* of the process for recognition by introducing the notion of an unconditional *stand-ready* obligation in place of the probability-of-outflow test. A stand ready obligation reflects knowledge that an obligation may have been triggered by actions of the entity, even if the probability of economic outflows is still low. Examples include a pending litigation, negligent behaviour which might lead to economic outflows (for example as a result of an ensuing litigation)<sup>8</sup> or an ongoing responsibility to service warranty obligations. Even if the probability of having to pay out for these stand-ready obligations is low, the new rules would require them to be recognised. Second, it amended *step 3*, the rules for measurement of the liability, by removing the distinction for measurement between large populations of items (such as warranties) and one-off items (such as an individual law suit against a company). Figure 5.2 shows the proposed new decision rules for the recognition and valuation of uncertain obligations.

The exposure drafts, particularly the second issued in 2010, attracted significant criticism. The criticism focused mainly on the following two issues: the lack of reliability of the methods when applied to single cases and the failure of the IASB to follow due process in the development of the LP.

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<sup>7</sup>These include FAS 87 for pensions in the US, which introduced the pensions obligation measured in quasi-economic terms as a disclosure. In the UK, through FRS 17, and in the IASB-zone, through the third revision of IAS 19 (1998), the pension liability was recognised and measured using discounted cash flows using high quality bond yields as a guide to the discount rate. For financial derivatives, in the absence of a market price, or quoted prices for similar assets or liabilities, FAS 133 and IAS 39, required the use of financial economics model, such as Black-Scholes.

<sup>8</sup>The example of such a *stand-ready* obligation which is often cited in IASB literature is that of a burger vendor who negligently sells potentially poisonous burgers to customers.

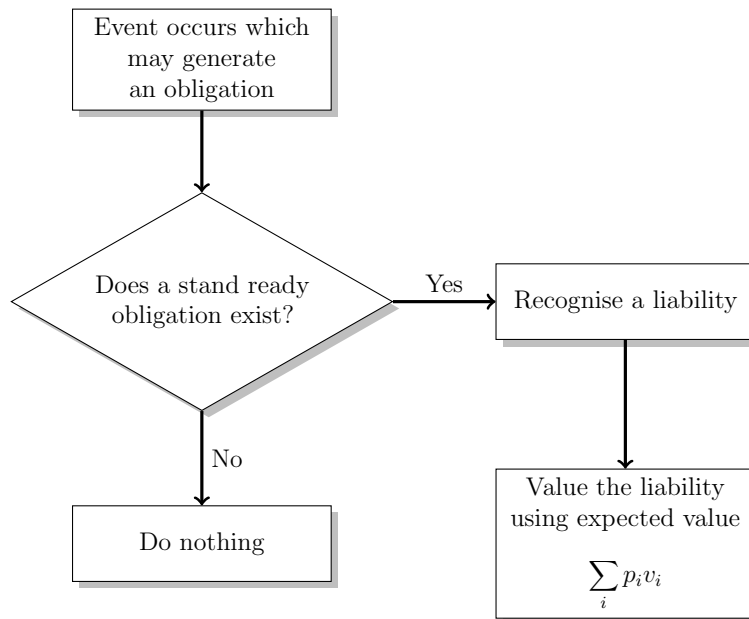


Figure 5.2: The Liabilities Project: revised rules for recognition and measurement of liabilities

### 5.3.1. Criticisms of the LP

**Lack of reliability of expected values for single events.** The main technical concern raised in almost all the comment letters received by the IASB, concerns the extension of expected values to single events, specifically the fact that an apparently precise probability for a single event may be misleading. This view is summarised by a senior technical staff member of the ICAEW who argued:

“Don’t put something apparently precise in the balance sheet when the probability judgments are probably unreliable — single case probabilities are not precise. . . Anybody can say: ‘we think there’s a 1% probability or there’s a 5% probability. It’s very difficult to challenge. It’s virtually un-auditable. How can you possibly tell the difference between whether you’ve got a 1% or a 5% probability of a one-off event? The difficulty is not that it’s difficult to produce the numbers, the difficulty is that it’s low-quality information” (Interview with ICAEW staff member, L).

This argument refers to the deficiencies of probabilistic valuations in cases where limited evidence exists and also highlights the belief in many constituents that the aim of providing *useful* information is simply not met by the proposed measurement rules. Even among constituents who approved of the standard overall, anxiety at the increasing application of economics to financial reporting valuation is revealed. According to a letter from the Charities Commission: “An ongoing concern is that the development of IAS37 is being unduly influenced by purist economic theory” (Comment letter from *The Charities Commission* 2010, CL08). In other words, ‘pure’ economic theory may provide

inappropriate tools for financial reporting, because it fails to describe real business activity and real markets accurately.

**Due Process.** Another major concern raised was that of weaknesses in the IASB's due process. After the financial crisis and the consequent backlash against the IASB's introduction of fair value accounting for certain financial instruments, the IASB was subject to greater monitoring regarding its due process. In these circumstances, claims of due process weaknesses slowed down the LP significantly. The One Hundred Group, representing the finance directors of the UK's largest companies (mostly represented on the FTSE100 Index) highlighted due process concerns in their comment letter, stating:

“At a time when the Board's due process is under scrutiny, we believe that it was ill-advised not to have sought comments from constituents on revised proposals that are likely to affect all of them” (Comment letter, CL 202, 19th May 2010).

Whether the IASB was trying to save time, or hoping to minimise criticism by simply not producing a full second exposure draft, the decision resulted in harsh criticism. The comment letter from Pfizer used the word “disappointed” to describe the company's reaction to the LP. The use of such negative language in many of the comment letters might be expected to have damaged the confidence of the LP team in their ability to produce an acceptable standard.

However, the motivation by some groups, such as the ICAEW, to raise due process concerns may not necessarily reflect their dissatisfaction with the due process *per se*. Instead it might be interpreted as a strategic action to slow the progress of the LP and potentially cause it to fail. This will be explored further in Section 5.4 below.

**Other factors which unified resistance to the Liabilities Project.** So far I have highlighted two main points of opposition to the LP, which were the lack of reliability of probabilities for single events, and complaints about the IASB's failure to follow due process.<sup>9</sup> However, these criticisms do not explain the vociferous opposition to the LP from constituents. The implications of adopting the IASB's proposed amendments to IAS 37 would not have been particularly onerous to most companies, particularly when compared to other projects such as those for pensions (IAS 19) and financial derivatives (IAS 39). Nor would the use of expected values be especially difficult or costly to apply. Moreover, the effects on the income statement would be insufficiently large in most cases to justify such a negative reaction. Many financial reporting numbers incorporate allocations based on unreliable assumptions (for example, inventory and the allocation of fair values for

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<sup>9</sup>Other complaints not discussed in this chapter include the inclusion of profit margins and the possibility of being required to reveal privileged information during a litigation.



business combinations) and preparers' discomfort with the kind of subjective measurement included within IAS 37 is hard to explain in terms of technical issues alone.

An analysis of the comment letters combined with the views expressed by interviewees provides an explanation for this forceful response. This may have arisen because most constituents viewed the requirements of the LP as an unnecessary and unreliable substitution for an existing technique which preparers believed was satisfactory. In other words, the 'problems' in IAS 37 addressed in the exposure drafts were, in the eyes of preparers, not really problems at all.

Moreover, some of the hostility towards the LP may be explained by the fact that virtually *all* preparers would be affected. Measurement techniques and recognition rules required by other financial reporting standards such as IAS 39 for financial instruments may have been complex and imposed costs on preparers (as well as generating concern about volatility in assets and earnings and their pro-cyclical consequences), but they affected financial institutions primarily.<sup>10</sup> Most companies were not affected by IAS 39 directly, whereas the revisions to IAS 37 were wide-reaching and would impact on most companies. As Andy Simmonds (technical partner of Deloitte, and a member of the UK Accounting Standard Board and Chair of the ICAEW Financial Reporting Faculty) argues in his weblog: "Unlike financial instruments, which affects a relatively small group of preparers, this change affects just about everyone" (Simmonds, Andy. ICAEW weblog. <http://www.ion.icaew.com/FinancialReporting/19258>, 2010). A unifying factor for preparers was the universal scope of the LP.

Another factor which might explain the clearly articulated resistance to the LP is the *simplicity* of the expected value technique. Since the use of probability-weighted values is easily understandable by preparers, they can identify and clearly articulate its weaknesses. By contrast, the technical complexity of models such as Black-Scholes for the valuation of financial derivatives or actuarial models for the valuation of pension liabilities may have rendered opaque concerns about the accuracy or realism of the valuations produced, as well as their robustness under different market conditions. In part, this may have been due to the need to delegate technical calculations on the valuation of derivatives to financial economists or those of pension liability valuations to actuaries, with the result that the potential for technical criticisms was also effectively delegated to and controlled by small groups of professionals in the valuation space, rather than a wide class of preparers.

### 5.3.2. Status of the LP

Since the IASB meeting to discuss comment letters in November 2010, work on the LP appeared to have ceased. The last minuted comment from the meeting states: "The Board will schedule future deliberations based on priorities with other projects, but expect to

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<sup>10</sup>It also affected some non-financial institutions that held derivatives.

further deliberate in 2011.” However, the LP is not on the convergence agenda, no specific timetable exists with respect to the production of any further consultation documents and statements made by board members of standard setting institutions, including the IASB, acknowledge that the LP has been indefinitely postponed, if not cancelled. According to an interviewee who was an IASB board member during the LP:

“It’s been shelved now though. That’s not to say that the exposure draft wasn’t going in the right direction, but we only had 9 votes and then we lost one. That stopped it and frankly while we’re trying to get this stuff done for the US, we haven’t the time. And so it’s been postponed . . . people don’t like just this part being exposed. It’s been five years since we exposed the last one and that’s really because of pressure with the financial crisis and everything else” (Interview with former IASB board member, T).

The decision to ‘shelve’ the LP effectively constitutes a failure to extend economic approaches to the representation of uncertain non-financial liability values. In contrast to the representation of pension liabilities and financial derivative liabilities, the case of contingencies is an example of financial reporting practice rejecting economic theory.

#### **5.4. INUS conditions for the adoption of the revised IAS 37**

In this section, I analyse the conditions of possibility for the success of the LP. These are: the causal antecedent and the five INUS conditions. Figure 5.3 on page 139 shows the causal antecedent condition for the launch of the project, and the set of INUS conditions identified as being sufficient for the introduction of economic representation methods to the representation of contingent obligations. I consider each of the INUS conditions in turn and find that not only were the conditions not all simultaneously satisfied during the life time of the LP, but in fact only *two* were satisfied at all. This model provides a means of explaining why the LP has floundered, whereas the projects for economic representation of pensions and financial derivatives were adopted. One point is worth noting. Given the scope of this chapter, I do not focus on the complexity of, and interactions between, the INUS conditions described. The categorisation of events and concepts using the CCM is intended to clarify the argument without weakening the explanatory strength of the model. I do not rule out the possibility of a common cause affecting some of the conditions, nor causal interaction between some of the conditions at some points in time, nor even the possibility of some conceptual overlap of conditions. I will discuss these issues at the end of this section.

As in the previous two case studies, the INUS conditions for *favourable institutional attitude* and *presence of influential advocates (of financial economic methods) on the board* are specific instantiations of the types of condition set out in the model. The

specific institutions or individuals to which the INUS conditions refer vary from case to case. In the case of pensions, we saw that actuarial institutions exerted significant causal influence in all the projects. In the case of financial derivatives, banking and political groups exerted a strong influence. In the case of the LP, we see that there was in fact no specific group which influenced the process and ultimate outcome of the project, but rather a diffuse resistance to the LP among institutional interests such as professional accounting institutions, analysts groups and political groups.

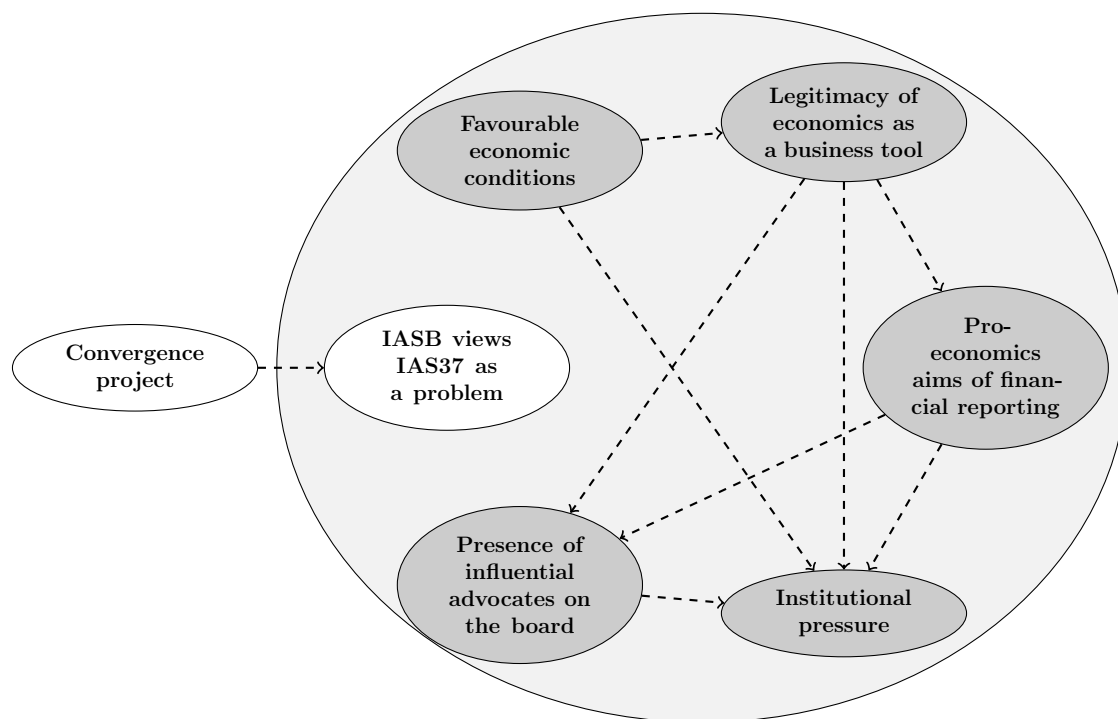


Figure 5.3: INUS conditions for the adoption of economic valuation methods. The large ellipse represents a slice of time during which the individual conditions must be satisfied and the small shaded ellipses represent the individual INUS conditions, whose satisfaction *at one particular time* along with the catalyst causes the successful outcome of the project. The dotted lines represent possible causal influence between conditions.

#### 5.4.1. Pro-economics aims of financial reporting (*satisfied*)

In chapters 3 and 4, I discussed the shifting aims of financial reporting practice from the mid-1970s onwards, in particular the increased emphasis on the provision of decision-useful information to users and the focus on the balance sheet. Consistent with the desire to provide a means for stakeholders to predict future cash flows, standard setters aimed to ensure that preparers disclosed a *full* picture of the entity. Therefore they favoured the inclusion on the balance sheet of liabilities for obligations which were non-contractual or of an uncertain value. This shift in emphasis in financial reporting towards a pro-economics approach to financial reporting constitutes an *INUS* condition for the adoption

of economic valuation methods.

Even financial analysts who have been involved in the LP, and who are generally assumed to be in favour of economic valuations of balance sheet items, note the fervour with which the IASB has identified the balance sheet as the main focus of financial reporting. In an interview, a senior figure in a professional organisation of financial analysts argues that the IASB: "... are obsessed with the balance sheet" (Interviewee K). An evident shift had occurred in financial reporting regulation and practice, in terms of what constituted *optimal* methods of representation. This conceptual shift in favour of *economic representation* might be expected to have smoothed the way for the introduction of new economic valuation methods required by the revisions to IAS 37. However, the shift towards pro-economics aims of financial reporting, on its own, was insufficient for making possible the adoption of the LP. Further conditions were necessary if the LP was to result in the adoption of a revised standard.

#### **5.4.2. Favourable economic conditions (*not satisfied*)**

According to the CCM, favourable economic conditions are necessary if a standard is to be accepted by institutions and preparers. Consequently, the financial crisis of 2007-9 created a barrier to the introduction of economic valuation, and impacted negatively on the progress of the LP. Three main mechanisms were at work. First, many firms risked breaching debt covenants or were concerned about potential insolvency as a result of downward spiralling asset values. As a result, they became hostile to the use of economic or fair values, which they cited as a major catalyst for falling asset values and income. Firms were likely to be hostile to requirements they believed might lead to the recognition of additional liabilities. This concern was raised in comment letters, and subsequently rebutted by the IASB staff who argued in a staff paper that the LP would not lead to an increase in liabilities recognised (IASB Staff Paper, April, 2010, ¶6 and ¶7).

Second, this general hostility to fair values led to the start of a period of increased focus on due process at standard setting bodies and regulators. Accusations of poorly thought out standards, which were blamed for exacerbating the crisis, forced standard setters to defend not only their reasoning over the technical benefits of the new recognition criteria and valuation methods, but also the appropriateness of, and compliance with, the *processes* by which such methods were introduced. The increased concern with due process offered ammunition to those institutions opposed to the LP, who were able to hamper its progress more successfully by bringing up due process concerns than by raising technical criticisms with the LP.

Third, in the aftermath of the financial crisis, the workload of the IASB increased significantly as the Group of Twenty (G20) demanded that the IASB comply with a set

of specific tasks, including an increased pace for the convergence project with the FASB.<sup>11</sup> The volume of projects on the convergence agenda was too great to be processed within the convergence deadline set by the G20 without compromising quality. Constituents were overwhelmed by exposure drafts and staff papers and IASB staff were similarly overwhelmed by the volume of work. The G20 demands used IASB resources, which would otherwise have been available for work on existing projects. This may have affected the resources available for the LP adversely, as well as reducing the time available at Board level for consideration of the LP.

These three factors during the period from 2008 to 2011 meant that the INUS condition relating to *favourable economic conditions* was not satisfied, at least in the period from late 2007 onwards. These conditions can be contrasted with those existing during the introduction of other standards, such as FRS 17, when relatively buoyant asset prices made the adoption of new reporting requirements for pension obligations palatable to preparers.

#### **5.4.3. Legitimacy of economic methods (*satisfied*)**

In the post-crisis period, economics as a discipline, and many of the models derived from its theories, began to be viewed by the public, the business community and many professions with increasing scepticism. In particular, option pricing models, such as Black-Scholes, which were used for valuing financial derivatives, came under attack for being descriptively inaccurate once markets had become illiquid. Fair value measurement had relied on market prices or, where market prices were unavailable, on now-defunct economic models. These also came under attack for being unreliable or even misleading. This loss of legitimacy of economics generally, and the economic models underlying fair value accounting were debated extensively in the financial press:

“Until very recently, there was a widespread assumption in the market that this shift towards fair value was a thoroughly good thing. After all, this approach injects more objectivity into the system by not allowing managers to

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<sup>11</sup>The Washington Action Plan, set out in November 2008, required accounting standard setters to focus on improving the “application and enforcement of high-quality accounting standards” but also highlighted issues of accountability of the IASB itself. In April 2009, at the *London Summit*, the G20 published a report which, “called on the accounting standard-setters to work urgently with supervisors and regulators to improve standards on valuation and provisioning and achieve a single set of high quality global accounting standards” (IASB Response to G20 Recommendations, 2010). At the Pittsburgh Summit in September 2009, the G20 stated: “We call on our international accounting bodies to redouble their efforts to achieve a single set of high quality, global accounting standards within the context of their independent standard setting process, and complete their convergence project by June” (G20, 2009). Given this workload, concerns began to be raised about the ability of the IASB to complete the items on its agenda. In a document summarising progress on convergence produced in June 2010, the IFRS Global Office, in conjunction with Deloitte, note that: “. . . [c]oncerns have also been voiced about the vast resources that would be necessary to implement such a large number of new standards in a short period of time.”

use their own idiosyncratic models and supports the supremacy of the market as an independent verifier of value. Moreover, until recently bankers had a vested interest in applauding these changes. Between 2002 and 2007, the value of many credit instruments rose sharply - which in turn boosted the value of assets reported on balance sheets, flattering bank results. In the last eight months, however, this once-benign pattern has gone into reverse. As the value of assets such as mortgages has tumbled, so has the value of portfolios. This has not just hurt balance sheets but also hit profits directly, since the value changes of some instruments, particularly derivatives, feed through to the bottom line” (Financial Times, Jennifer Hughes and Gillian Tett, March 14th, 2008).

In addition to this loss of legitimacy, some political parties, financial institutions and others claimed that the use of *fair value* exerted a de-stabilising and pro-cyclical effect, which exacerbated the crisis.<sup>12</sup> They held economists and their economic models accountable in this regard (Colander et al., 2009). This loss of faith in economic measurement models effectively led to a moratorium on the introduction of further fair value measurements and shifted the focus of the IASB to defending (and suggesting means of attenuating) the perceived risks to the economy of *existing* requirements to use fair values.

However, the loss of legitimacy of sophisticated asset pricing models need not necessarily have had any significant effect on the perception of expected value models. Most participants in financial reporting practice and related institutions were likely to be aware that expected value theory is quite different from that of derivatives-pricing models.<sup>13</sup> Consequently for them, expected value techniques *per se* would probably not have appeared to be invalid.

Overall, while complex financial economic models were tainted by the financial crisis, the expected value technique itself was not undermined and its legitimacy remained intact. The high-profile unravelling of opaque financial models did not prevent the satisfaction of the INUS condition for the legitimacy of the expected value approach to valuing contingencies.

#### **5.4.4. Favourable institutional attitude (*not satisfied*)**

Almost all preparers strongly opposed the proposals in the exposure drafts, particularly those on measurement. The financial crisis had exacerbated this hostility to the introduc-

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<sup>12</sup>See Pozen (2009).

<sup>13</sup>An expected value calculation simply incorporates outcome-specific values with probabilities of those outcomes occurring as a way of assigning values to uncertain events. By contrast, financial economic models such as asset and derivative-pricing models extend to arbitrage-theoretic reasoning based on the Efficient Markets Hypothesis and ultimately invokes neo-Walrasian theories of general equilibrium, assigning particular values to financial instruments which are themselves derived from the values of other instruments.

tion of an economic representation approach to non-financial liabilities and the legitimacy of economic models had been significantly weakened. Under these conditions, institutional influence on the IASB was an important factor in the success of the LP. In this section, I consider the main institutional groups which influenced the progress of the LP. These were accounting institutions, financial analysts, quasi-political groups such as the European Financial Reporting Advisory Group (EFRAG), political authorities such as the European Commission (EC) and other standard setters such as the FASB. Most of these groups objected to the technical details of the LP. None pushed the IASB to prioritise the LP, although some did put the IASB under immense pressure to fulfil a number of competing tasks in the wake of the financial crisis. As a result, the institutional acceptance condition for the LP was not satisfied.

**Accounting institutions.** Accounting institutions would generally be expected to be less hostile to the LP than preparers, since their role was merely to advise clients on the new standard (with the result that complex change could generate business) and they were likely to understand technical claims made by standard setters. Nevertheless, several accounting institutions became antagonistic towards the IASB over the LP. In particular, the Institute of Chartered Accountants in England and Wales (ICAEW) saw the contents of the second Exposure Draft as a direct rejection of their advice. In an interview, a senior technical partner of an international accounting firm and member of several advisory groups to standard-setters (Interviewee J) described the IASB as “utterly pig-headed”, suggesting that they did not listen to advice which contradicted their desired approach. The frustration felt by accounting institutions at having their technical advice ignored by the IASB may have contributed to a desire to use any means necessary to halt the LP. According to the same source:

“This was tactics. Within the IASB there were six dissenting opinions - and there were going to be two major changes to the board [at the end of June] ... So we thought if we could get it deferred till after June, we might get another dissenting vote and get it defeated [...] By claiming due process, in essence, we were going above their heads to the trustees and the supervisory body ... It was the most effective way of putting pressure on them. Because if we simply said to them, ‘we disagree with your technical arguments’, they would (and regularly did) say (as they often do) in their basis for conclusions: ‘Some people said this. We considered it. We disagree. We are staying with that argument.’ So if you try to argue technically, they are quite entitled to disagree” (Interview with technical partner, J).

Thus, some interest groups realised that the most effective means of halting the progress of the LP, and possibly preventing it from being voted in, was by making complaints

about due process rather than raising technical concerns they believed to be legitimate. Most other comment letters from professional accounting organisations were also resistant, if not hostile, to the proposals contained within the LP. For instance, in Germany, the Association of Chief Financial Officers noted that it was “. . . very surprised that the board is standing by its proposal to eliminate the probability threshold, especially as this proposal was criticised by many respondents to the former exposure draft” (Comment letter CL21). The Accounting Standards Board in the UK (ASB) was also unsupportive of the LP, arguing that it should be delayed and advising the IASB to undertake a “fundamental rethink of its proposals” (Comment letter CL12). The evidence from comment letters and interviews I have conducted shows that accounting institutions were generally strongly opposed to the LP.

**Analysts.** Financial analysts represent the interests of potential equity investors and would normally be expected to favour economic valuations, which they can use as inputs to their overall entity valuations.<sup>14</sup> However, in their comment letter to the IASB, CFA (UK) note the problem of insufficient re-exposure of the recognition criteria (Comment letter CL207). Although they support the use of probability weighted measurement, they make an exception for circumstances where: “the outcome is binary, or where there is too much uncertainty to make the production of a single ‘answer’ meaningful.” Moreover, they highlight a lack of clarity in some elements of the recognition criteria arguing that: “It would have been helpful if any such overall aims were explicit from the outset” and describe the aim of the standard as being, “a bit confusing”. These comments and the language used may be interpreted as particularly negative given that they are made by a group which generally supports a move towards economic valuation.

**The EFRAG.** The views expressed on the LP by the EFRAG were generally negative. At a meeting on Wednesday March 17th 2010 between the IASB and representatives of the EFRAG on convergence-related issues, the unofficial observer minutes state:

“The EFRAG representatives expressed their grave concerns about the IAS 37 proposals. The EFRAG noted that there is lots of uncertainty about the probability-of-outflow recognition criterion and urged the IASB to expose the whole Standard for a new comment period.”

The EFRAG comment letter in response to the second exposure draft states:

“[W]e do not support the measurement model proposed in the exposure draft. We believe that a case has not been made to justify how the proposed changes are likely to improve the decision-usefulness of financial information about

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<sup>14</sup>See letter by Jane Fuller, Chair of the Accounting Advocacy Committee, CFA Society of the UK, Letters to the Editor, Financial Times, October 8th 2008.



liabilities. Accordingly, in our view, the proposals set out in the exposure draft fail to satisfy the IASB's objective to improve the quality of financial reporting" (Comment Letter from the EFRAG (CL184) 19th May 2010).

Such a negative response to the exposure draft could only signal the likelihood that the EU would refuse to endorse the standard if it were to be voted in by the IASB Board. This in turn would no doubt impact on the voting behaviour of the Board, since there would be little point in pushing through a standard if it was unlikely to be endorsed by the EU.<sup>15</sup>

**Other standard setters — the FASB.** By 2008, the financial crisis had changed the priorities of the IASB. Certain projects, such as the financial instruments project, became more high-profile, whereas others, such as the LP, were effectively demoted. The result of the determined effort to complete the convergence project paradoxically harmed the chances of success for the LP. Given the short deadline given by the G20 and the resource constraints at the IASB, only projects which were seen to be both high-profile, relevant to users *and* capable of being completed successfully by June 2011 were attractive contenders for inclusion on the list of priority projects. In the face of an overwhelming workload, the board moved the LP down its list of priorities.

#### **5.4.5. Influential advocates on the standard setting board (*not satisfied*)**

In the face of strong opposition, the advocacy of board members of standard setting institutions would have been an important factor in enabling the voting in of a project. Given the effects of the financial crisis and the hostile institutional response to the LP, the strength of individual members on standard setting boards was crucial. First, they could persuade other less supportive board members to vote for the LP, thus potentially ensuring a positive outcome. Second, they could potentially exert a causal influence over the other INUS conditions in the future, whether through negotiation, lobbying or generally taking a tough attitude to opponents of the LP, resulting in a possible attenuation of their opposition to the LP. Third, if for some other reason a hostile institutional attitude were to soften so that the institutional INUS condition was minimally satisfied, the board would be poised to exploit the window of opportunity and be ready to push through the new standard.<sup>16</sup>

The strength of the overall attitude of a standard setting board itself depends on two factors. These are the ideological commitments of individual standard setters to financial

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<sup>15</sup>Moreover, the perceived risk that the standard might fail to be endorsed may have increased as a result of the decision by the EU not to endorse the new standard on financial instruments, IFRS 9, in November 2009.

<sup>16</sup>An example of such an outcome is to be seen with the IASB and ASB pensions projects in the late 1990s after the volte-face by the actuarial profession in 1997.

reporting and the composition of the Board to include such advocates. In the case of the LP, the advocacy of the individual supporters of the LP waned and in any case, several of them were removed from the board before the revised standard could come to a vote.

As a result of the ideological commitments of these standard setters, we would expect to see strong support for the LP, as it proposed the introduction of techniques which would strengthen the economic component of measurement. Yet this was not the case. In order to explain the non-satisfaction of the INUS conditions for *influential advocates on the board*, we need to explain why board members, who had supported unpopular standards in earlier years, failed to support the LP.

The evidence from interviews conducted suggests that this lacklustre support for the LP resulted from the acceptance by fair value advocates on the board that the LP was unlikely to succeed (for many of the reasons discussed earlier) and was not sufficiently important to warrant significant effort being made by the board to turn its fortunes around. A long-serving and influential IASB board member, interviewed in January 2011, described the waning interest in the LP as follows:

“There were some guys here who wanted to push it. Some of us thought, ‘this isn’t the right time, but you’re going to run out of time unless you do it now, so this is your last chance. Let’s see what happens.’ . . . It wasn’t the biggest fight we needed — like getting operating leases on the balance sheet [had been] — we don’t care what you say, we’ll go for it. But this one, the board was divided anyway and there were bigger fish and it wasn’t worth using all the political capital” (Interview with IASB board member T).

In other words, with limited time and resources, the fair value advocates judged it a poor choice of project to support. This may explain why ideological commitments were abandoned by some board members, or at least they were unwilling to use their ‘political capital’ trying to persuade others to support an extremely unpopular project.

#### *Changes in the composition of the IASB board*

Not only did individual fair value advocates decide to give up on the LP, but also changes in the composition of the board may have resulted in a change in the attitude of the IASB board *overall* to the economic representation of liabilities. Table 5.1 shows the changes in the membership of the IASB Board during the period 2006-2010.

The board members who retired between the date of the publication of the 2005 exposure draft of IAS 37 and June 2010 were generally committed to an economic approach to financial reporting, especially Tom Jones and Mary Barth. They had both been board members since the inception of the IASB in 2001 and were influential. While Mary Barth offered an academic perspective, Tom Jones had previously been a board member (and for two years Chairman) of the IASC. Both Barth and Jones had expressed

a commitment to economic valuation approaches (Barth, 2006, pg. 274).<sup>17</sup> It seems probable that the removal of two such influential members ten months before the vote for the 2010 exposure draft may have affected the outcome. Compared with the 2005 exposure draft, against which only one board member had voted, the 2010 exposure draft proved more controversial. Six members dissented and nine voted in favour, leaving a majority of only three members.

<b>Date retired</b>	<b>Name</b>	<b>Vote: ED 2010</b>	<b>Vote: ED 2005</b>
June 2010	R. Garnett	For	For
June 2010	G. Gélard	For	For
June 2010	J. Leisenring	For	For
June 2009	T. Jones	n/a	For
June 2009	M. Barth	n/a	For
June 2007	H. Bruns	n/a	For
June 2007	A. Cope	n/a	For
June 2007	P. O'Malley	n/a	For
June 2006	G. Whittington	n/a	Against

Table 5.1: Board changes during the LP

In June 2010, three of the fifteen board members who had voted in favour of the 2010 exposure draft were due to retire, thus eliminating the definite majority altogether. One of them, Jim Leisenring, was a particularly outspoken advocate of economic valuation approaches. His absence might have reduced the pressure on other members who had voted in favour of the exposure draft previously to do so again. According to interviewee J, the champions of the project on the IASB Board were Warren McGregor and Jim Leisenring. Leisenring, as well as Garnett and Gélard, would have to step down in June 2010 as his term expired. This offered opponents of the LP an opportunity to undermine it by delaying the vote until after June 2010, by which time three of the pro-votes would be replaced. This would leave the outcome of the vote hanging in the balance. In July 2010, two new members, Elke Koenig and Paul Pacter joined the board. Pacter was a career standard-setter having served at the FASB and having been heavily involved with FAS 133 (the standard which covered financial derivatives). He was therefore a likely vote in favour. However, Koenig's experience was in the financial services industry in Germany, and she was therefore a less reliable pro-vote. The fact that a total of five board members who were in favour of economic valuation retired between June 2009 and June 2010 would have been likely to put pressure on those in favour to speed the process as much as possible, in order to vote it through while a majority of those who advocated

<sup>17</sup>See also Barth et al. (2001) for arguments for the value relevance of fair values measurements.

economic representation remained on the Board. The LP history displays some tell-tale signs of rushed preparation. One interviewee, J, argued that the project team's decision to re-expose only *part* of the proposed standard, in 2010, reflected a desire to speed the standard through. They did this, he suggested, because they hoped to have the exposure draft ready to be voted on before the imminent changes in board composition and thus to maximise the chances of it being voted through.

## 5.5. Conclusion

In this chapter, I have applied the Causal Constellation Model to explain the apparent non-success of the LP for representing contingencies. I have identified five individually necessary and jointly sufficient (INUS) conditions, each of which must be satisfied in order for the LP to be published and implemented. I have shown that three of these INUS conditions were not satisfied during the development of the LP. First, underlying economic conditions (especially since the financial crisis) were not conducive to the introduction of the new recognition and measurement requirements for contingencies included in the LP. In addition, the fall-out from the crisis caused the standard setters to be overwhelmed with additional work, which led to a de-prioritisation of the LP. Second, institutional attitudes and actions impeded the progress of the LP. Many institutions were hostile to the LP and used due-process criticisms as an effective method of slowing progress and ultimately causing it to fail. Third, the influence of powerful advocates for the LP waned due to the shifting priorities of individual board members and as a result of changes in the composition of the IASB Board during 2009 and 2010. As a consequence of the non-satisfaction of these three INUS conditions, the LP has not been completed successfully and the influence of financial economics, manifested as economic representation methods, has not been extended in this area of financial reporting.

In contrast to a functional explanation, which might have cited technical weaknesses in the LP as a cause of its non success, the Causal Constellation Model instead points to the non-satisfaction of a particular set of social, institutional and political conditions. What is important in such an analysis is an awareness that these conditions were situated at a specific time, in a particular institutional setting and were interpreted by standard setting participants, who operated within the constraints of a specific form of knowledge. For instance, it can be seen that apparently technical concerns may have been raised disingenuously by institutions in order to promote a hidden political agenda. Moreover, even if complaints made about technical aspects of the standard are taken at face value, the notion of what seemed *sensible* or *acceptable* to participants was shaped by the existing form of knowledge.

Using the Causal Constellation Model, I attempt to pick out from the complex of interacting causal factors those which are crucial for the provision of a comprehensible

explanation that answers the question, *why did the LP fail to extend the use of economic methods in financial reporting?* Although, the model may not represent some of the finer details and the subtleties of this episode of change, this is not the aim of using it. Rather the aim is to draw attention to the main causal factors, while acknowledging the importance of contingent historical features. Although the model provides an analysis of the process to introduce a new financial reporting standard (in terms of the satisfaction of five INUS conditions), its application to this episode of financial reporting change can also usefully throw light on more general features of change in financial reporting practice. By viewing the introduction of the new standard as synonymous with extending the influence of economic theory in financial reporting, the model can be used to help illuminate the pattern of this influence and the associated changes in the *form* of financial reporting knowledge. In this way, the model may be used to explain why a normally powerful standard setter, whose members were imbued with a strong preference for economic approaches to financial reporting, failed in its bid to import techniques from economics into financial reporting practice.

It is particularly interesting to note that the non-success of the liabilities project is consistent with the CCM, as is the success of earlier projects to introduce economic methods into the reporting of pensions and financial derivatives projects. The agreement of the CCM with the outcomes in these three cases, including non-success as well as success in different accounting jurisdictions, gives us reason to believe that the scope of the CCM may extend to a broader domain than is demonstrated by the analysis of this particular case for the LP in isolation.

# Chapter 6

## Analysis

### 6.1. Introduction

In the preceding chapters, I have sought to explain the increasing influence of financial economics on the representation methods used in financial reporting practice from the 1980s.<sup>1</sup> In chapter 2, I developed a qualitative causal model for the US pensions project for the standard FAS 87 (1985), which I then applied in chapters 3, 4 and 5 to six episodes of change in three areas of financial reporting: pensions, derivatives and contingent liabilities. The aim of developing the CCM was to provide a unified explanatory account of the introduction or extension of economic techniques in financial reporting practice. The CCM provides a causal, yet contextual, account of the pattern of influence of financial economics on financial reporting practice.<sup>2</sup> When analysed individually, each of the three cases offers a rich insight into the process of change in the *form of knowledge* of financial reporting associated with the adoption of financial economic methods. Taken as three individual cases they support the model developed.<sup>3</sup>

The research contributes to the understanding of regulatory change in financial

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<sup>1</sup>I am not ruling out attempts at introducing economic representation before. For example, in the 1970s, an attempt was made to introduce some elements of economic representation through the use of inflation accounting, but this was not ‘economic representation’ in the sense that I use (that is, based on financial economic theories) and also it did not succeed, being withdrawn shortly after its introduction.

<sup>2</sup>Although I apply the CCM to all of the three case studies, and extend it to other cases of interdisciplinary influence, I do not claim that it can explain *changes* in accounting practice of other kinds. Nor do I claim that the model is capable of providing accurate predictions of future projects. At best, it can provide probabilistic predictions about future accounting change in response to interdisciplinary influence given existing background conditions. As such, it approximates a *tendency law*, for which the probabilistic nature of predictions result from the complexity of the environment and in particular the existence of confounding forces.

<sup>3</sup>In Chapter 2, I introduced the notion of a *form of knowledge*, which comprises a conceptual scheme (the set of concepts and language) and a set of measurement techniques (Hacking, 2002). The form of knowledge determines the *meaning* of a particular question. For example, the question: “Is that £100 worth of untraded options?” takes its meaning from the concepts used in the sentence (e.g. options) and from the accepted measurement scheme (e.g. the use of an economic model to value the option). A form of knowledge carves out acceptable forms of discourse, rather than relativistic approaches to what is or is not true.

reporting and takes as its methodological basis the genealogical approach. A fundamental methodological premise of the research is the need to: "...examine accountancy as outcome, as an historically and geographically localized result of the composition of various lines of force" (Miller and Napier, 1993, pg. 644). In the CCM I developed, I have specified the particular "lines of force" operating during episodes of accounting change as necessary and sufficient conditions for successful outcomes of standard setting projects. Since the conditions form part of a causal model, they are testable to a certain degree, although they are subject to the limitations inherent in any social scientific model.

The CCM has proved to be capable of providing retrodictions of the outcomes of particular projects which were consistent with the actual outcomes of the projects. These outcomes were the success of the pensions and derivatives projects and the lack of success of the Liabilities Project. On its own, I believe this is a satisfactory result both in methodological and empirical terms. Empirically, I have made an original contribution by gaining access to senior board members and technical staff at standard setting organisations, as well as academics and practitioners specialising in pensions, derivatives or contingent liabilities. In methodological terms, the development of the CCM appears to provide a good explanation for individual cases of success (or non-success) and thus for the pattern of influence observed from the discipline of financial economics.<sup>4</sup>

Given that I have situated the CCM within the genealogical tradition, a natural expectation is that the model will acknowledge a dynamic interaction between accounting and the environment in which it operates. However, when employed as an explanatory tool in the three individual case studies, the CCM does not specifically address interactions between the outcome of a project and the causal conditions which gave rise to it. A failure to recognise the importance of mutual interactions in the episodes of change may raise possible concerns that the model presents an over-simplistic view or that it fails to reflect the fundamental structure of the genealogical approach to accounting explanation.

Such concerns are consistent with the criticism of traditional historical approaches, which identifies the: "...unproblematic differentiation between the external (economy, society, organizations) and the internal (accounting)..." which "...rarely address the extent to which "successful" accounting methods transform the entities and practices of which they provide a calculative knowledge" (Miller and Napier, 1993, pg. 632). In applying the CCM to the individual projects analysed, the set of INUS conditions are indeed treated as being independent of the outcome of the project.<sup>5</sup> I do not make an

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<sup>4</sup>Each of the case studies analysed provides evidence of the emergence of *economic representation* (which I defined on page 33 in chapter 2) for specific types of accounting item and for projects taking place at different times and in different jurisdictions. The evidence available in the cases supports the retrodictions of the CCM for each case.

<sup>5</sup>However, dynamism does play an important role in the model as the INUS conditions are not assumed to be static over time. It is conceptual change which constitutes the causal antecedent of the original pensions projects. Moreover, the INUS conditions are taken to be dynamic, so that a condition which is not initially satisfied (for instance institutional acceptance) might come to be satisfied during the

explicit link between project outcomes and INUS conditions in the individual cases, but this is because the outcome of the project occurs at the end of an episode, and so cannot affect the INUS conditions necessary for the particular outcome of the project. However, when the set of projects is viewed as a whole, dynamic interactions are revealed.

In fact, in extending the analysis of the projects to cover the entire set of projects, an unexpected and surprising finding is the occurrence of *sequences* of regulatory change over time, spanning different jurisdictions and areas of accounting. Thus, the research project, which was intended initially to explain the outcomes of individual projects, using a qualitative causal model, evolved into a dynamic analysis of sequences of regulatory change. An overview of the different projects within the cases reveals that the status of INUS conditions may be, and often is, influenced by the outcomes of earlier projects.

In this chapter, I focus on the interactions between projects which, I argue, yield sequences and looping effects both between jurisdictions and between types of accounting items.<sup>6</sup> These sequences drive changes in the form of knowledge in financial reporting, and carve out possibilities for change in future projects and hence further changes in the form of knowledge. Viewed in this way, the successful completion of the first pensions project in the US (culminating in the publication of FAS 87) constitutes more than an isolated *breakthrough* of economic theory in financial reporting. Instead, it deserves credit as a *critical experiment* for the development of a new accounting paradigm. Its legacy includes not just the later pensions standards which moved increasingly towards strong-economic representation, but also, in part, the derivatives standards.

Another interesting finding which emerges from the analysis of the individual cases is the existence of three factors that affect standard development without themselves being INUS conditions. These are the impact of ideology on standard setters, of complexity on institutional opposition and of conceptual frameworks on changes in the form of knowledge. What emerges is an explanation of regulatory change in accounting, in terms which may not have been obvious before. The apparent simplicity of the explanation of individual projects gives way to more complex and dynamic structures of change. Rather than viewing regulatory change simply in episodic terms, the analysis highlights its sequential nature.

This chapter is divided into three sections. In section 6.2, I provide an analysis of the increase in economic representation across the three case studies and find that accounting has indeed moved towards a more economics-based approach to financial reporting. In the section 6.3, I analyse causal interactions between the projects and identify possible mechanisms by which sequences of regulatory change emerge. In section 6.4, I consider evidence to support three factors which emerge as being relevant for the determination of particular INUS conditions and hence the development of economics-based standards.

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development period of the project so that the project succeeds.

<sup>6</sup>See Hacking (1986).



## 6.2. Evidence of economic representation

A review of the three case studies taken together shows the increasing *strength* of economic methods in financial reporting. Figure 6.1 below summarises the types of economic representation introduced by standards during this period in the areas of pensions, financial derivatives and contingent liabilities.

Case	Standard	Valuation	Recognition	Income	Outcome
Pensions (phase 1: 1985–1999)	FAS 87 (1985)	weak- economic	weak- economic	non-economic	published (success)
Pensions (phase 2: 2000–2006)	FRS 17 (2000) IAS 19 (1998) FAS 158 (2006)	strong- economic	weak- economic	weak- economic (some smoothing)	published (success)
Derivatives (1998–2005)	FAS 133 (1998) IAS 39 (1998)	strong- economic	strong- economic	strong- economic	published (success)
Contingent liabilities (2003–2010)	Revised IAS 37	strong- economic	strong- economic	strong- economic	project stalled (non-success)

Figure 6.1: Components of economic representation in the three case studies.

In Chapter 2, I defined an approach to representation in terms of three components, valuation, recognition and associated income measurement. These individual components can be categorised as non-economic, weak-economic or strong-economic and their combination determines the strength of economic representation. At a minimum, at least one component must be weakly satisfied for the representation type to count even as weak-economic representation. The pension case spans the publication of standards over more than two decades between 1985 and 2006 and naturally appears to display two phases. Phase 1 includes pension standards published during the period from 1985 until 1999, when we observe that the representation type is categorised as weak-economic. Phase 2 includes all standards published between 2000 and 2006, during which time the level of economic representation became stronger. For derivatives, the two standards were issued in 1998, and by 2005, had been implemented for US GAAP and across the EU. The two standards in this case, FAS 133 and IAS 39, brought in strong-economic representation of derivatives.

We observe that economic representation has generally become stronger over time in *each* of the three areas of financial reporting. In the area of pensions, FAS 87 initially introduced economic representation for pension reporting by requiring market valuation of pension fund assets and economic valuation of the pension obligation (even though it

was disclosed, rather than fully recognised on the face of the balance sheet). Subsequent standards such as IAS 19 (1998), FRS 17 (2000) and FAS 158 (2006) required stronger economic representation. In the case of derivatives, FAS 133 (1998) and IAS 39 (1998), introduced strong-economic representation, where previously there had been no reporting at all of these types of financial instrument. In the case of contingent liabilities, the Liabilities Project aimed to extend economic representation by increasing recognition of uncertain obligations and using expected values as a tool for valuing these obligations. However, this attempt to introduce strong-economic representation was unsuccessful and the project was unofficially removed from the agenda in 2010.

In each of the three cases, where all of the INUS conditions were satisfied contemporaneously, we saw a stable or monotonically increasing degree of economic representation over time. In the areas of pensions and financial instruments, the degree of economic representation increased significantly over the period under investigation. By contrast, where INUS conditions were not satisfied, economic representation did not become stronger, as in the case of contingent liabilities in the IASB jurisdiction more recently. To recapitulate, although the use of techniques for economic representation increased generally, the adoption was not linear: not all cases were successful and economic methods were not introduced across different jurisdictions or types of accounting at the same time. It is this non-linear *pattern* of adoption which I have attempted to explain in this thesis through the use of the CCM, showing why some projects succeeded and others did not.

Between the start and end of the period analysed, economic representation became part of financial reporting practice and knowledge, often as a result of piecemeal extensions to existing projects. Initially, a weak form was introduced (FAS 87, 1985) and eventually strong-economic representation emerged (FRS 17, 2000; IAS 19, 2004; FAS 158, 2006). The pattern of adoption of economic methods did not occur linearly across the three case studies and so in explaining the sequences of change, it would not be helpful to provide a strict chronological analysis of the developments in each area. Instead, in this chapter, I focus on particular interactions which were important in shaping the emergence of economic methods in these areas of financial reporting.

### **6.3. Interactions**

In this section, I explore the interactions between projects over time and between jurisdictions. The evidence I present supports the presence of *sequences* of change in financial reporting practice and demonstrates that projects do not develop in isolation. Initial drafts of standards are often based on earlier standards by the same standard setting institutions, or on standards developed in other jurisdictions. Once in the process of development, standards are subject to direct and indirect influences from standards in the same and different accounting areas.

The starting point in my analysis is the US pensions standard, FAS 87, the development of which forms the basis for the development of the CCM. The FASB initiated this project in 1974 in response to the changing legal and social interpretation of employers' pension obligations. Two decades after the publication of FAS 87 (1985) in 1985, the publication of FAS 158 (2006) introduced far stronger requirements of economic representation for pensions in US GAAP. I found that the feedback loop as one project influences others affect future versions of projects in that area. In the interim period, projects in other jurisdictions also introduced economic methods for pensions in new accounting jurisdictions. I will argue that these interim projects were influenced by the original US project and subsequently exerted both direct and indirect influence on future projects. For instance, new standards in other jurisdictions such as FRS 17 (2000) (whose economic roots, I argue, were to be found in the original US pensions project) themselves exerted an influence on the development of pensions standards such as IAS 19 (2004) and ultimately the US pension standard FAS 158 (2006). In addition to the influence of standards published in the same accounting area, I will argue that projects can also be influenced indirectly by previous standards in *different* areas of accounting. For example, I will analyse the indirect effect of FAS 133 (1998) on subsequent projects in pensions and contingencies.

In analysing these interactions between projects, the following analogy may be useful. A successful PhD supervisor generates many students who may be thought of as her intellectual offspring. Yet the supervisor herself may, in later years, find that her research needs to address issues and problems raised by the work of her former students. In financial reporting regulation, successful accounting projects influence or generate other projects as offshoots, and these 'child projects' may then influence later revisions of the original project in important ways. In particular, we see that the pensions project changed perceptions of how accounting ought to be done, what role financial economics could and should play in financial reporting, and what standard setters could reasonably expect to achieve given existing institutional attitudes to financial economics based methods. One might view the interactions between a parent project and the child projects as a kind of dynamic feedback loop.

I find that influence between projects can be direct or indirect. A project can be said to exert a direct influence over another project if parts of the earlier standard are copied or paraphrased, or if the technical requirements contained in one document are incorporated directly into another. For example, a standard setter may incorporate elements of earlier standards published by itself, or standards for the same type of accounting item issued by a standard setting institution in a different jurisdiction, as was seen with FAS 133 (1998) and IAS 39 (1998), which are analysed and discussed below.

Indirect influence can take two forms. First, the success of a previous standard may exert a causal effect on the status of INUS conditions for future standards. In particular, the INUS conditions for *favourable institutional attitude* and *influential advocates on the*

*board* are most likely to be affected. For example, evidence from the case studies suggests that standard setters tended to aim for consistency of accounting treatment and that this was facilitated by the structure of the standard setting institutions and the tendency towards imitative behaviour by particular standard setters.

A second form of indirect influence occurs when the success of a project has the effect of shifting the form of knowledge in financial reporting. In so doing, it carves out possibilities for future projects and for the outcomes of future projects by changing the perceptions of standard setters, institutions and preparers about what constitutes a ‘problem’ in financial reporting and what methods provide technically and socially appropriate solutions. In this way, the form of knowledge constrains the initiation and development of projects by determining what merits attention and what constitutes good accounting. I provide examples of this indirect effect in section 6.3.2 below. This is not to say that successful projects create deterministic *paths of success*. Only *some* INUS conditions are affected by the outcomes of earlier projects. Others such as ‘favourable economic conditions’ remain causally independent. Others are probabilistically dependent, such as ‘favourable institutional attitude’ and ‘the presence of influential advocates on the board’.

Figure 6.2 shows interactions between the projects in all case studies. Progressive standards can be seen within each of the three areas of accounting (pensions, derivatives and contingent liabilities) and interactions are represented by lines linking the projects, with arrows demonstrating the direction of influence. Projects are shaded to show whether they require non-economic (unshaded), weak-economic (cross-hatch) or strong-economic representation (shaded grey). In the diagram, direct influence between projects is represented by bold lines and indirect influence by dotted lines between project icons.

In order to contextualise the timing of the publication of standards, I have noted along the top of the diagram, events which occurred outside the standard setting institutions and which exerted an influence on the development of the projects. Some of these acted as, or are correlated with the existence of, causal antecedents for the projects. First, in 1974, the US pensions act ERISA (1974) was enacted and this changed the way in which pensions were interpreted by standard setters and was largely responsible for the development of the project which resulted in FAS 87. Second, in 1990, the Nobel prize was awarded to three financial economists. This was associated with the increased awareness of financial economic theory in the business and finance community and the perception of techniques from financial economics as increasingly legitimate. It was after this time that the use of derivatives began to grow at a significant rate. Third, in 1995, the Pensions Act (1995) was passed in the UK. In the same way that legislation in the US led to the development of a new pensions standard, in the UK the Pensions Act was to a large extent responsible for the development of FRS 17. Other external factors which influenced the development of projects were the adoption of EU IFRS by the EU in 2005 and the



financial crisis of 2007/8.

The diagram captures the sequential nature of change in practice through the introduction of standards requiring increasingly strong versions of economic representation. Before 1998, the standards were mostly non-economic with the exception of FAS 87 (1985). The Liabilities Project to amend IAS 37 (1998) is shown on the diagram as a rectangle. This project was unofficially removed from the IASB project agenda in 2010. A striking feature of the diagram is the clustering of strong-economic standards from 1998 onwards. The first strong-economic standards were those for the derivatives projects of the FASB and IASC, and thereafter several strong-economic pensions standards were published (FRS 17, 2000; IAS 19, 2004; FAS 158, 2006).

### 6.3.1. Direct influence

To illustrate the existence of direct lines of influence between projects, I focus on two particular examples. The first is the interaction between FRS 17 (2000) and IAS 19 (1998) for pensions accounting and the second is the interaction between FAS 133 (1998) and IAS 39 (1998) for derivatives accounting. Other cases of direct influence between projects within each case study exist, but I do not discuss them in this chapter.<sup>7</sup>

#### *Pensions*

The development of FRS 17 (2000) by the UK Accounting Standards Board was subject to direct influence from the IASC and the FASB. Concerns about consistency were given by the FRS 17 project team as motivations for the choice of particular technical requirements in the standard. These are detailed in Appendix IV of the published standard. The case of FRS 17 reveals the extent to which a standard may mirror elements of pensions standards from other jurisdictions.

The ASB notes that other standards developed before FRS 17 had already adopted a market-based approach and “[a]s expected, IAS 19 (revised 1998) ‘Employee Benefits’ adopts a market value approach that is very similar to the US standard, FAS 87 ...” (FRS 17, 2000, ¶5). Not only can we see here reference to the direct influence of the US standard on the standard being developed by the IASC, but also we see that the anticipated publication of the more economic IASC standard led the ASB to develop a similar standard for reasons of consistency. In a 1996 article in *Accountancy Age* a pensions partner at Price Waterhouse questions whether the ASB could continue to issue UK standards which were at variance with international standards (*Accountancy Age*, 31st October, 1996). Andrew Lennard, at the time Assistant Technical Director at the ASB, was quoted in the article saying that the ASB Board was considering its position in

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<sup>7</sup>These include the influence of earlier versions of IAS 19 on later versions, FAS 87 (1985) on FAS 158 (2006) and IAS 37 (1998) on the Liabilities Project.

the light of how the IASC was developing its standard, and was deciding whether to try to change ED54 at the proposal stage or to issue a FRED in line with the standard. As further evidence, the Board expressed its reluctance to provide an inconsistent standard by declaring that it did not believe “there were sufficient reasons to stand out against the global trend to a market value approach...” (FRS 17, 2000, ¶6). Accordingly, when the ASB initiated a pension project to replace the existing pensions standard, SSAP 24, the UK standard, FRS 17 (2000) moved from an actuarial basis of measurement to the use of market values, which was consistent with FAS 87 and IAS 19 (1998).

The case of FRS 17 illustrates how one accounting standard setter (the ASB) developed its standard in response to developments in other jurisdictions with the aim of maintaining consistency in accounting treatment. However, in one important requirement, FRS 17 (2000) did in fact go beyond a mere copying of technical aspects of standards from other jurisdictions and extended the representation of pensions obligations beyond that required by the IASC and FASB. This was its requirement to recognise actuarial gains and losses immediately. This differed from FAS 87 (1985) and IAS 19 (1998), which both allowed for actuarial difference to be recognised gradually over time. In the case of pensions, we see the use of the existing US and IAS standards as a *starting point* for the UK standard setters, who then developed a form of economic representation which was stronger than had existed in those earlier standards.

### *Derivatives*

We also see evidence of direct inter-project influence in the case of derivatives. In the development of the derivatives project, the IASC was strongly influenced by the FASB, primarily because of the urgency with which core standards had to be produced for IOSCO. For reasons of expediency, and given that the SEC was a member of IOSCO and would accept US GAAP, the IASC standard for financial instruments, IAS 39, was largely a redrafting of the US standard, FAS 133 (discussed in chapter 4, page 118). The IASC Board was unfamiliar with this complex and rapidly evolving area, while the FASB had already made significant progress in developing a standard for financial instruments, and had made clear its wish that the IASC exposure draft should not conflict with its standard. With time running out before the IOSCO deadline, the IASB decided to use FAS 133 as the basis for IAS 39. The drafting of the IASC standard was completed by Paul Pacter, then an employee of the FASB, who subsequently moved to the IASB.<sup>8</sup> When asked about the extent to which the FASB influenced the development of the IASC standard, one former FASB board member during the development of FAS 133 (1998) stated:

“You know darn well it [IAS39] is a copy of US GAAP. The guy that did all

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<sup>8</sup>At the time of writing, he remains a board member of the IASB.

that work is Paul Pacter who is now a Board Member” (Interview with former FASB Board member, Q).

We have now seen two examples of direct influence from one standard to another. In some cases, standard setters might reasonably be expected to use the experience of standard development in other jurisdictions as a starting point when developing new standards locally. Such imitative behaviour is more likely to occur if the jurisdiction supplying the blueprint is similar to the mimicking standard setter in terms of three characteristics. The first is the similarity of the antecedent causes for the project. For example, if two jurisdictions experience similar exogenous shocks which caused the launch of the projects in different jurisdictions, it is more likely to be efficient for one standard setter to copy another. In the case of pensions, for example, pension fund collapses occurred in both the US and UK, leading to the passing of new pensions legislation (discussed on page 59 in chapter 3). Similarly, with the case of derivatives, the ultimate antecedent causal conditions were the same in both the US and IASC jurisdiction, as an increasing number of high-profile derivatives-related corporate failures arose (see page 99 in chapter 4).

The second factor is the existence of comparable institutional influences on standard setting bodies. For the pensions case, the actuarial profession played a significant role in the area of pensions both in the US and the UK. In the case of derivatives, both the FASB and the IASB were subject to hostile objections from banking groups. The third characteristic of the standard setting institutions, which makes possible such mimicry, relates to staff and board members. One might naturally assume that a number of factors bring the standard setting institutions close, both in terms of structure and people, and indeed we find evidence of such factors. First, the individuals on the standard setting boards often worked together, as joint projects were not unusual<sup>9</sup> and this co-operation offered the opportunity for the sharing of ideas and mutual influence. In addition, groups such as the G4+1 created the opportunity for the sharing of ideas between the major standard setters.

Moreover the movement of board members and staff between the different standard setting institutions illustrates one obvious mechanism for cross-jurisdictional influence. Apart from Paul Pacter, other examples include Jim Leisenring, who served as an FASB board member (from 1987), where he was involved in the derivatives project, and was also later an IASB board member (from 2001); Mary Barth (who served on the FASB Board and later as a part-time member of the IASB); and David Tweedie, originally of the Accounting Standards Board, who left after it had introduced FRS 17 to join the IASB where he pushed for reform of pensions reporting.

Given this evident cross-fertilisation of accounting ideas by virtue of joint projects and the movement of staff, we might ask how such overlap is possible. One factor which may

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<sup>9</sup>Examples of joint projects include the working party on deferred taxes in 1981 and the earning-per-share project in the mid-1990s.



play a role is the fact that standard setters around the world tend to be similar in structure and purpose. The structure and aims of the FASB and the IASB are very similar.<sup>10</sup> Given the similarities in structure and objectives, the comparability of institutional pressures, the existence of joint projects and the movement of staff, the standard setters may appear to be less distinct than was originally assumed. Instead of seeing standard setters as separate units, we see them as more fluid and overlapping organisations.

### 6.3.2. Indirect influence

In the last section, I gave examples of direct influence between projects for the same *type* of accounting item. In this section, I consider how and why one project might indirectly influence another project, either in the same or a different area of accounting, and provide evidence from the three case studies. In doing this, I elaborate on and provide evidence for the claim that a *looping effect* exists between the successful outcome of a project and the satisfaction of INUS conditions affecting later projects in the same area or in different areas of financial reporting. It becomes evident that the ultimate causal roots of a project extend back to earlier projects, which shape the INUS conditions for future projects or the future *form of knowledge*.

Indirect effects occur through three mechanisms: standard setters' confidence in a project's chance of success; institutional attitude given expectations of outcome based on past experience, and shifts in the form of knowledge. First, success in earlier projects may serve to increase the confidence of the individual voting members of standard setting boards that a project is *capable* of being adopted and therefore worth supporting. Second, past successes in the introduction of a particular standard may act as a signal to institutions that their objections are unlikely to block a project. Third, a successful project may exert an *indirect* effect on future projects by changing the form of knowledge in the regulatory space. It is, however, more problematic to find persuasive evidence of indirect influence between projects than is the case for direct influence. In spite of this, I provide supporting evidence in this section.

Figure 6.3 illustrates the lines of indirect causal influence between the cases. It specifies the particular INUS conditions which appear to have been affected by the outcome of earlier projects. The pensions project is divided into two phases (see Figure 6.1 in section 6.2). Each case study (or phase of a case for pensions) is shown as an ellipse with the INUS conditions as ellipses surrounding it. The bold lines represent causal influence between earlier projects and the INUS conditions for future projects.

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<sup>10</sup>The IASC was somewhat different in approach in that its standards were more focused on consensus which reflected existing accounting practices and allowed a variety of different treatments.

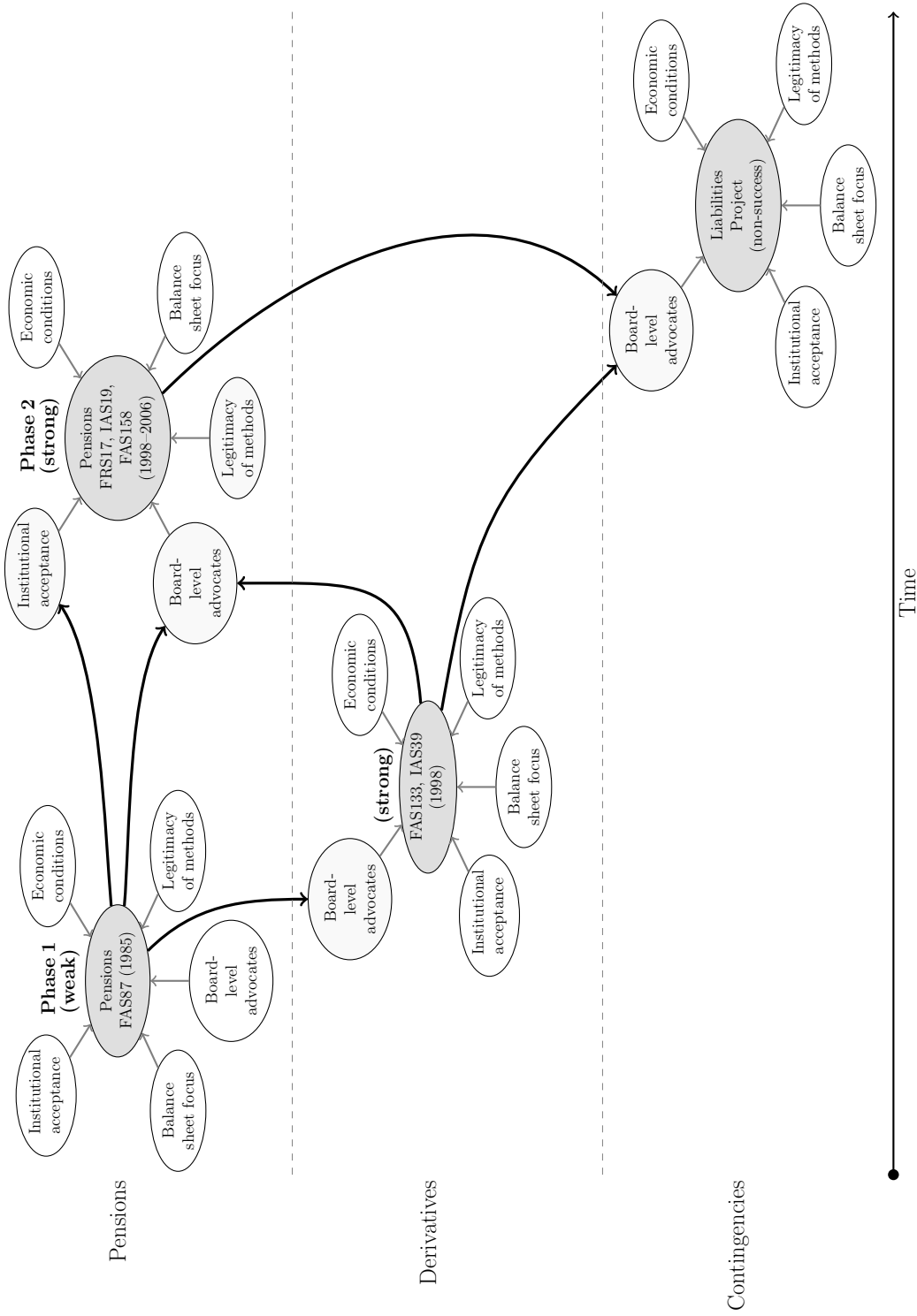


Figure 6.3: Causal linkages between the pensions, derivatives and contingencies case studies. Dark arrows show the influence of prior successful projects on specific INUS conditions in future projects.

### *Indirect effect via standard setters' confidence*

Gauging the confidence of standard setters is problematic because the evidence we find for high levels of confidence is hard to differentiate from that evidence which relates to standard setters' perceptions, due to changes in the form of knowledge. They are certainly closely related. However, we can see that when FAS 87 was published, the FASB Board acknowledged that they had wanted the standard to include balance sheet recognition rather than disclosure in the notes:

“...it would be conceptually appropriate and preferable to recognise a net pension liability or asset measured as the difference between the projected benefit obligation and plan assets, either with no delay in recognition of gains and losses, or perhaps with gains and losses reported currently in comprehensive income but not in earnings. However, it concluded that those approaches would be too great a change from past practice to be adopted at the present time” (FAS 87, 1985, ¶107).

FAS 87 can be seen as a testing ground for the future introduction of economics-based pensions reporting. Although it introduced a relatively weak form of economic representation, it appears to have acted as a signal to standard setters that the publication of FAS 158 would be more likely to be successful (and therefore worth championing) than if FAS 87 had not been in existence for almost two decades. Standard setters probably viewed successful projects as evidence that future projects of the same type might also have a high chance of being published and implemented. In the case of FAS 87, standard setters were aware that they were constrained in terms of what elements of economic representation they could introduce by the current accepted way of doing accounting, or form of accounting knowledge. Following the publication of the derivatives standards, standard setters may have felt increasingly confident about the chances of success for projects such as FRS 17 (2000) just *because* the preparers and institutions had accepted the legitimacy of financial economics and viewed more economic ways of representing pensions as acceptable.

### *Indirect influence via effects on institutional attitude*

We have seen in the case studies that institutions wield enormous power and that this can slow down or halt an unpopular project. The case of pensions offers a good example of the impact of an earlier successful project on institutional attitudes. The successful outcome of the first stage of the project appears to have influenced the second stage, specifically through its effect on three of the INUS conditions. First the INUS condition for institutional acceptance was strengthened since the actuarial profession was prepared to accept this standard after significant contact with the FASB. So although representatives

of the actuarial profession expressed certain doubts about FAS 87, they did not perceive it to be a threat to their professional expertise in pension fund valuations. According to an FASB board member who project managed FAS 87:

“... the actuaries thought, initially at least, that the accountants were ‘mucking about with their territory’. But subsequently, I met an actuary who said that the actuarial profession owed the FASB a vote of thanks because previously there had been no shared language for actuarial methods for dealing with items like pensions and each firm had had its own methods and terminology” (Interview with FASB staff member C).

As a result, the INUS condition for institutional acceptance for FAS 87 was relatively easily satisfied as actuaries were not threatened by the standard and, given the buoyant stock market, preparers were not concerned about the possibility of having to disclose large liabilities. By contrast, institutional dispositions to later standards in phase II were more likely to be negative, and hence the INUS condition for institutional acceptance was harder to satisfy. In the UK, FRS 17 stirred up significant hostility in the actuarial community against financial economics approaches as the jump from SSAP 24 to FRS 17 marked a challenge to the importance of actuarial judgement, and hence dominance, in this professional domain. It seems natural to assume that the existence of FAS 87 as a functioning standard in the US may have made the institutional acceptance of actuarial groups and preparers more forthcoming, than if no economics-based standards were in operation. FAS 87 can be seen as an important watershed for the development of those standards which were published as part of Phase II of the pensions case study (see Section 6.2), as it marked a half-way house between purely actuarial cost-based and full economic representation. It was in 1997 that the famous Exley et al. (1997) paper brought home to the actuarial profession the undeniable advance of financial economics into the pensions arena, and led to the acceptance overall of FRS 17 by the actuarial community in the UK.

In the US, in what I have labelled ‘Phase 2’ of the pensions project, the proposed FAS 158 caused discontent in the actuarial profession. This professional community sensed an imminent loss of professional control over pensions valuations and responded fiercely. According to an article presented in 2003 at a major actuarial conference:

“U.S. pension actuarial practice is facing perhaps its most serious challenges in its existence as an identifiable discipline. One of those challenges comes from financial economics. These critics charge that the standard actuarial model represents, quite simply, bad economics — and that this flawed model creates problems such as inequitable cost allocations and inefficient investment policies” (Todisco, 2005, pg. 1).<sup>11</sup>

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<sup>11</sup>The Society of Actuaries conference, “The Great Controversy: Current Pension Actuarial Practice in

However, given the existence of FAS 87 for almost twenty years, the proposed new standard, FAS 158, did not constitute an abrupt introduction of economic representation. In fact it was more of an extension of a weaker version of economic representation. In FAS 158, the FASB Board reiterates the fact that:

“... this Statement does not change the basic approach to measuring plan assets, benefit obligations, or annual net periodic benefit cost. Employers were previously required to disclose in the notes to financial statements amounts for a plan that, under the application of this Statement, are recognized in the statement of financial position. Therefore, no new information or new computations other than those related to income tax effects are required” (FAS 158, 2006, pg. 4, *Benefits and Costs*).

In other words, the existence of FAS 87 made the introduction of the later US standard a matter of transferring information from the notes to the body of the financial statements, rather than introducing a new representation scheme for the first time which affected the balance sheet.

Having considered the case of pensions, we can now briefly consider the impact of past projects on the INUS condition for ‘favourable institutional attitude’ in the case of the US derivatives standard. In chapter 4, we saw that banking institutions were confident of their ability to achieve the outcome they wanted because the FASB had recently given way to the demands of Silicon Valley (see page 117 in chapter 4). In this way we see that an earlier standard raised the confidence of institutions that their objections were likely to succeed.

The third case study, the Liabilities Project developed in response to a perceived inconsistency of treatment whereas the pensions and derivatives projects were initiated in response to external pressure, either from social or economic factors, or specific political issues (as was the case for the IASC). Standard setters who advocated economic representation viewed the reporting of contingencies as inadequate. Without a significant external shock, the IASB initiated the project and this reflects the confidence of the IASB board that they would be likely to issue the standard without excessive resistance. According to a former IASC and ASC board member:

“It isn’t just that the auditors don’t like the verifiability problems — in the UK, they really are being old-fashioned. You can find virtually no one who even thinks it’s technically the right answer. So my view is that it [i.e. the ED to revise IAS 37] is technically correct but it may be so difficult to do it, that we might have to give up... But virtually every time this comes up, nearly everyone in the room thinks that we’re getting it technically wrong which I

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Light of Financial Economics Symposium” held in Vancouver, Canada.

find very difficult to understand ... I think they just didn't get it, amazingly ... it's weird" (Interview with former IASC and ASC board member, V).

We see that this interviewee found it "amazing" and "weird" that preparers and institutions did not "get" the proposed changes to IAS 37. The fact that they were surprised by the problems they encountered in response to the Exposure Draft is likely to result from their initial confidence at the start of the project in their ability to succeed. This confidence was likely to have been increased by previous successful projects.

*Indirect influence via a change in the form of knowledge*

The indirect influence of one standard on the INUS conditions for another later standard can also result from a shift in the *form of knowledge* in financial reporting. As the result of the success of projects requiring economic representation, individuals and institutions in the accounting community change their perception of what makes sense or what is accepted as a good way of 'doing accounting'. This line of influence is similar, although broader in scope, to that of influence via standard setters' confidence. Whereas a standard setter may be confident in the success of a project based on past evidence of successful projects, the community's perceptions of what is acceptable in a standard may be out of line with the views of the standard setters.

In this section I provide evidence for the effects of previous projects on the form of knowledge of financial reporting and how this acts as a constraint on future change. As described earlier (see page 24 in chapter 2), a form of knowledge is made up of a conceptual scheme and a measurement scheme, and we can see that the changes in the form of knowledge associated with the introduction of economic representation methods affected both elements. During the period I analyse in this research, new concepts came into being (for example, 'pension liability' and 'traded financial derivative') and also (as a response to these new items) new ways of measuring these concepts. The series of projects extending the use of economic representation had the effect of changing the form of knowledge in financial reporting.

In the case of pensions, by changing the way in which pensions obligations were valued, FAS 87 changed the idea of how a long-term, uncertain liability *ought* to be valued.<sup>12</sup> The fact that it was not superseded for over two decades (from 1985 to 2006) in the US, meant that its requirements became established as the accepted way of representing pensions. This can be seen in terms of the creation of a representational *norm* in financial reporting. Institutions and preparers became accustomed to the new way of reporting pensions. Meanwhile, newcomers to the area knew of no other way of reporting pensions. What had previously made sense as a means of reporting pension obligations (at the time

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<sup>12</sup>It should be noted that I am not making a normative claim here about the correct approach to financial reporting, but simply referring to a descriptive norm in reporting practice.

of APB Opinion No. 8, the first version of IAS 19 and SSAP 24) suddenly seemed to be poor accounting.

However, FAS 87 marked only a small change in the form of knowledge. It led to the disclosure of a pension obligation valued using economic methods, but failed to bring the obligation onto the balance sheet as a liability:

“This Statement continues the evolutionary search for more meaningful and more useful pension accounting. The FASB believes that the conclusions it has reached are a worthwhile and significant step in that direction, but it also believes that those conclusions are not likely to be the final step in that evolution. Pension accounting in 1985 is still in a transitional stage. It has not yet fully crystallized, but the Board believes this Statement represents significant progress, especially in the measurement of net periodic pension cost and in the disclosure of useful information” (FAS 87, 1985, ¶5).

The Board recognised that the standard had fallen short of their expectation of what they considered a “more meaningful” way of representing pensions in the financial statements. Moreover, the Basis of Conclusions in the published standard reveals the Board’s view that they felt they had achieved as much as they could given the institutional and preparer environment and that this standard marked one important step along a longer route towards better ways of representing pensions. This statement reveals the constraining nature of the form of accounting knowledge. It was only after the publication of the derivatives standards and the ensuing economic standard for pensions (FRS 17) that the FASB extended the use of economic representation in US pensions accounting.

Statements of Arthur Wyatt’s view on the standard ends the Basis for Conclusions section of the published standard:

“Mr Wyatt agrees with the assenters that, on an overall basis, the conclusions in this Statement will lead to improvements in accounting for an understanding of pension costs. He believes, however, that the degree of improvement is modest when related to the improvement that he believes should have been achieved. Thus, in his view the Statement’s deficiencies represent a lost opportunity for improvement in financial reporting” (FAS 87, 1985, pg. 28).

Wyatt’s statement seems to signal his advocacy of economic methods and also his expectations of what could and, in his view, ought to be achieved in the future given preparer and institutional community acceptance of such an approach. This outcome appears to be associated with a change in the form of knowledge. Similarly, in the published standard, FAS 106 (1990), the FASB Board acknowledges that, “the Statement is not likely to be the final step in the evolution of more useful accounting for post retirement benefit arrangements” (FAS 106, 1990, ¶4).

The publication of the derivatives standards played an important role in shifting the form of knowledge in financial reporting. They represented the ideal accounting item to use as an example of economic representation, since market values can often be obtained for financial instruments and financial economics draws heavily on empirical studies from the markets for financial instruments. Second, no other solution existed to the problem of valuing derivatives, whereas actuarial methods existed in the case of pensions. Finally, in 2005 the decision to adopt IAS 39 across the EU meant that the practice of using economic methods for reporting became commonplace for a large number of preparers. As a result of these three factors, the effect of the publication and implementation of the derivatives standards was to shift the form of knowledge significantly.

As a result of the derivatives projects, financial reporting practice experienced a move away from the dominance of legal considerations and towards an economic one. A legalistic convention values *reliable* evidence, such as a contract or an invoice. By contrast, the new *economic* form of knowledge invokes a new kind of truth-maker: *financial economic theory* (Power, 2010). A valuation is correct if it is consistent with an economic model rather than with a historical contract. This representational norm would be expected to affect the agenda-setting of standard setters, their perception of certain forms of accounting as inconsistent or problematic and their framing of solutions in terms of economic representation.

Another factor which led to indirect influence between standard setters was the existence of joint working groups. In particular, the emergence of the G4+1 during the 1990s provided a forum for standard setters from a number of accounting jurisdictions to share views and develop particular approaches to accounting issues. For example, the G4+1 was active in discussing the issue of financial instruments during the development of FAS 133 and IAS 39 (see page 125 in Chapter 4). What is more, the G4+1 provided more than just scope for intellectual interaction by its members. It also had a social dimension. Interviewed by Donna Street, David Tweedie commented:

“G4+1 was a very enjoyable group, nice people that were committed to getting an answer. We had good fun, played hard, worked hard. We liked each other, respected each other. That was our secret” (Street, 2005, pg. 98).

By offering opportunities for social interactions, the working group may have encouraged the breaking down of barriers between representatives of different accounting jurisdictions, the sharing of ideological commitments and norm-building. It is noticeable that the individuals who are often identified as members of the group which favours of the use of fair values at the IASB (Jim Leisenring, Patricia O’Malley, David Tweedie and Warren McGregor), were all members of the G4+1. As a transnational group, the G4+1 may have nurtured or intensified the pro-fair value beliefs of its members. In this sense, it can be seen as an example of a “transnational community”, an informal structure which



encourages the development of a particular set of transnational norms and beliefs (Djelic and Quack, 2003). Such communities appear likely to have contributed to the ultimate harmonisation of accounting rules by enabling members to share “common cognitive frames through parallel socialization” (*ibid*, pg. 319).

In this section, I have analysed interactions between projects. I have found that influences can be direct or indirect and that we expect to see looping effects between projects and the status of INUS conditions for future projects.

### *Sequences, looping and recursivity*

Although evidence of sequences and interactions between projects was a surprising finding in this research project, such recursive or cyclical interactions are not new to social scientific inquiry. Such sequences have been described in earlier research into the evolution of regulatory procedures in other areas of professional practice. In the area of the sociology of law, Halliday and Carruthers (2007) point to the recursive relationship between *law in practice* and *law on the books*. They point out that:

“Legal change that involves state law of any kind will proceed through cycles between formal law and law in practice. . . . Lawmaking cycles frequently cluster in *recursive episodes* with discernible beginnings and endings” (Halliday and Carruthers, 2007, pgs. 1146–1147).

This notion of a cycle of regulatory change usefully throws light on the kinds of cyclical changes I identify with respect to changes in accounting practice. However, the use by Halliday and Carruthers (2007) of the term “cycle” differs in an important way from my notion of a sequence or looping effect in the form of knowledge. Their notion of a recursive cycle refers to a process by which legal norms are constructed by two alternating sources of influence (“formal law” and “law in practice”). By contrast, the dynamic structures in my analysis refer primarily to feedback loops as part of the process of evolution in the *form of knowledge* of accounting practice. ‘Cycles’, in my analysis, reflect an oscillation between a form of knowledge in which economic methods dominate and those in which non-economic representation methods dominate.

Halliday and Carruthers (2007) argue that cycles of change are bounded in time with “beginnings” and “endings” which leads us to question what might constitute the beginning or ending of an episode of regulatory change in financial reporting? The answer depends on the level of analysis. A focus on particular areas of financial reporting, for instance the use of one particular economic method, leads to the identification of the start and end point of a project with relative ease. The beginning can be identified as the launch of the project and I have explained this in terms of the existence of an antecedent causal factor. This is often related to an exogenous shock, for those first-mover projects which introduce new accounting concepts. For instance, in the case of the early pensions projects for FAS

87 and FRS 17, the new legal interpretation of a pension obligation following pension fund collapses, spurred standard setters into action.

Similarly in the case of financial derivatives, concerns over high-profile derivative-based corporate failures led to the projects for FAS 133 and IAS 39. In the case of the contingencies project, the causal pre-cursor was endogenous as this involved the perceived inconsistency between existing approaches resulting from an initial convergence concern. Such a causal precursor to a project is related to, but always dependent on, a particular form of knowledge, which leads standard setters to judge it to be a problem worthy of attention. The end of a project, whether successful or not, would constitute the ending of such a cycle. Where projects languish without a defined date of completion, as has been the case with the IASB Liabilities Project, it is harder to specify an end to the sequence of change. However, if the sequence is taken to extend to the earlier projects which exert influence on particular INUS conditions in the future, it is harder to identify a particular beginning or end to the sequence.

So far I have argued that past projects constrain possibilities for future projects. However, this is not to say that this is a simple story of path-dependency. The success of a project affects the likelihood of the success of future projects through its effects on the form of knowledge and the confidence of standard setters, but does not *determine* the future outcome. Success does not always beget success. Some of the INUS conditions are independent of the earlier successes or non-successes of projects. For instance, economic conditions are generally thought of as being unrelated to the introduction of economic valuation methods<sup>13</sup>, and the tenure of board members of standard setting institutions is generally independent of the previous outcomes of standard setting projects.

While successful projects may change the probability distribution for the outcome of subsequent projects, making them more likely, they do not *determine* the outcome. The process is not a simplistic one of path dependency, because some of the INUS conditions are independent of earlier project success. An example is the INUS condition, *favourable economic conditions* and independent elements of other INUS conditions. These include elements such as the fixed tenure of influential advocates on the standard setting boards, the institutional architecture and configuration of interest groups in the regulatory space and the legitimacy of economic methods, all of which are individually necessary parts of the causally effective set of conditions.

#### **6.4. The impact of ideology, complexity and frameworks**

In the last section, I reviewed evidence from the case studies to support the hypothesis that interactions between projects generated partial path dependencies and sequences of change in financial reporting practice. I now consider three other factors which seem *a priori*

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<sup>13</sup>However, some have advocated the pro-cyclical effects of the use of using fair values.

candidates for exerting influence on the process of change in financial reporting. These are: the ideological commitments of board members at standard setting organisations, the role of technical complexity in determining the attitudes of institutional groups and the role of conceptual framework projects in encouraging or stifling shifts in practice.

#### 6.4.1. Ideological commitments of board members

In earlier sections, I have discussed the INUS condition for *influential advocates on the board*, but I have not given any explanation of the possible motivations of these board members. I have simply taken as given that the advocates favour the use of economic measures. By questioning the source of the ideology of these influential advocates, we begin to consider the fact that they are mediating a view which originated elsewhere and to wonder what is the ultimate source of their firmly held beliefs. This question is relevant to this research project because it aims to trace the history of the accounting thought. It is this accounting thought which partially determines the INUS condition and hence plays a role in bringing in new strong-economic standards. What I find is that it is often academic sources which supply the theoretical commitments of these board members. In this way, the influence of economics on financial reporting practice can, in part, be explained in terms of influence by academics as an underlying feature of one of the necessary conditions for accounting change. In what follows, I provide an overview of the types of view commonly held by standard setters.

The IASB has to a large extent embraced the fair value approach, which is “implicit in the IASB’s pronouncements” (Whittington, 2008, pg. 139). By contrast, the *Alternative View* comprises groups and individuals who raise objections to the approach taken by the IASB or FASB. Whittington notes that from a standard setter’s perspective, the fair value view has “attractive attributes of coherence and simplicity from a theoretical standpoint”, whereas the alternative view is open to the criticism of being “somewhat incoherent, pragmatic and lacking in theoretical foundations” (*ibid* pg.164). Similarly, Power (2010) divides the standard setting communities roughly into two groups, which he labels “fair value idealists” and “fair value pragmatists”.<sup>14</sup> The pro-fair value group tend to look to the theoretical component of fair value measures for legitimacy, in particular the fact that fair value can, they claim, be comprehensively applied across many financial reporting issues.<sup>15</sup> Outside the academic domain, the idealism of standard setters who

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<sup>14</sup>Power points out that the term ‘fair value idealist’ is not synonymous with the terms ‘academic’ or ‘economist’. Practitioners, too, may support the use of fair values and the term ‘economist’ extends to areas of the discipline beyond that of financial economics, such as game theory. This kind of economist might prefer other representation methods.

The demarcation between the two groups derives from their view of what constitutes accounting reliability.

<sup>15</sup>However, the theoretical justifications for fair value approaches are far from universally accepted. Bromwich (1992) questions the realism of market assumptions made, Horton and Macve (2000) question the meaning of resulting performance measures and Bromwich et al. (2010) raise the concern that elements

favour the fair value view is often taken to reflect an overly academic outlook, which lacks pragmatism. A member of CFA (UK) complained: “[t]here has been some *ivory towerdom* amongst staff and board members. They are monotheists and they have a creed” (Interview with CRUF staff member, K).

According to Lennard (2002), methodological approaches taken by standard setters tend to be polarised into “two schools of thought” (pg. 28), which are pro-fair value and alternative approaches. According to Lennard, those who advocate the fair value approach:

“would have financial statements reflect all future cash flows to the extent, at least, that they can be identified and measured with reasonable precision. These would then be reduced to present value, using market rates to reflect the effects of timing and uncertainty. The cleverer we get at doing this, the closer the total of the balance sheet should approximate to the market value of the company. Ultimately it should be possible, with the aid of the share price from the morning newspaper, to decide from the balance sheet whether the shares should be bought or sold. On this view, taken to its extreme, no additional information is provided by the profit and loss account; all one needs is the balance sheet and a note of the number of shares in issue” (*ibid* pg. 28).

According to the fair value approach, useful information for key stakeholders (potential investors) should be objective, in other words, free from entity-specific bias, such as management estimates.

A significant problem for those standard setters who do not support fair value is the lack of a clear alternative, and certainly the lack of a coherent approach which can be applied comprehensively to all asset and liability classes.

“... the Alternative View is more difficult to articulate than the Fair Value View because it is drawn from a diverse range of constituents of the standard-setting process who are typically commenting on particular issues from a practical perspective rather than attempting to develop a coherent model of financial statement presentation in the manner of the authors of the Framework” (Whittington, 2008, pg. 158).

The lack of clarity and of obvious, comprehensive applicability of the alternative view can weaken the strength of opposition to fair value.

The description of the divide between different accounting ideologies is borne out by a former IASB board member T. This board member observed that in board meetings, the pro-fair value group would generally sit together on one side of the boardroom. This

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of economic theory may be “cherry-picked opportunistically to suit standard setters’ immediate objectives” (pg. 349).

side of the board table was jokingly referred to by board members as “fair value alley”. Evidence more generally from the interviews I carried out revealed the existence of animosity between those supporting the Fair Value View and those who opposed it, both now and in the past. The language used in arguments between these groups has tended to extend beyond mere technical issues. It was not uncommon to hear interviewees make disparaging remarks about those who support fair value. One interviewee, J, a senior technical partner of a Big Four accounting firm and member of the Financial Reporting Committee, described some of the IASB and FASB board as “fair value space cadets”. In using this term, he appears to suggest that their view was held unreflectively and irrationally. What is more, the discussions of differences in methodological commitments often employ analogies from the language of war. Attempts to introduce standards with fair value components are often described as *fights* or *battles*. In a 90-minute interview, T used the term “fight” ten times when referring to attempts to issue financial reporting standards requiring the use of fair values. It seems that methodological differences between the Fair Value View and the Alternative View encompass issues of identity and group allegiance, as well as technical differences in financial reporting approaches. Such group affiliation is an important factor in explaining the strongly held views of the advocates of fair value and their firm commitment to particular technical approaches.

Given that some IASB board members have a strong ideological commitment to fair value, we would expect to see them make decisions consistent with economic approaches. Moreover, we might expect such advocates of economic representation to view particular circumstances as problematic just because they *are* inconsistent with economic theory, and to favour a particular *type* of solution to these “problems”. For example, whereas the Alternative View accepts a variety of approaches to the measurement of different types of asset or liability, advocates of the Fair Value View claim that a unified approach applicable universally to all accounting items is superior. In an interview in May 2010, a long-serving IASB Board member, identified the kind of standard setter who advocates the application of economic theory for financial reporting:

“Early in the 1980s, I gave a paper in Australia on definitions of assets and liabilities and tried to convince people that these things had to have some meaning — and that the meaning derived from economics. The connection between management accounting and financial accounting had still not been made — yet they are both about resource allocation and therefore about economics. At the first IASB meeting in 2001 in the Swan Inn, the fourteen of us got together and chewed the fat a bit. I remember I said that the reason I was interested in financial reporting was that it had an important role to play from a micro- and a macro-economic perspective through the provision of information for resource allocation. Bob Herz said he agreed - accounting

has to have meaning in the real world in terms of economics.” (Interview with IASB board member H)

Based on evidence from interviews conducted, it appears that the ultimate source of these methodological commitments is often to be found in academe. Influential teachers or professional mentors may have exerted influence on these standard setters early in their careers and in some way played a role in constructing these individuals’ financial reporting ideology. Those who sit, or have sat, in ‘fair value alley’ at the IASB have played a significant role in the introduction of economic representation in financial reporting. Standard setters can thus be seen as a channel through which the academic discipline of financial economics gained access to financial reporting practice.

This effect may be enhanced when particularly persuasive or charismatic teachers or mentors provide the educational experience, with the result that students naturally become strongly imbued with particular academic ideas, which they transfer to accounting practice during their later careers. These ideas may endure and translate later into a strong commitment to one particular paradigm, even in the face of undermining evidence.

A particularly good example is David Tweedie, who was chair of the ASB when it issued FRS 17 (2000) and of the IASB when it issued the pension standard, IAS 19 (2004) and the financial instruments standard, IAS 39 (1998). Sir David, Chairman of the IASB, attributed his ideological commitments to a background in academia and to the influence of a particular part-time academic, Professor David Flint, who had interviewed him for a job at a firm of chartered accountants in Scotland. As David Tweedie explained:

“So I went into see Professor Flint (who was a part-time professor at Glasgow university) and he started trying to pull my PhD apart . . . I started arguing with him — quite loudly, because they could hear it outside [laughs]. The next day I got a handwritten letter offering me a job at £1,000 as his personal assistant. And we’re firm friends. . . . The thing I remember about David is that he took the apprentices out for lunch once a month and we talked about accounting. He asked us once ‘how would you value your house?’ and I told him. He said, ‘so why do you think we value at cost?’ And I had no idea - I’d never thought about these things. It [valuing at cost] was just ‘what you do’. And he got me thinking. And that’s how I got interested in accounting. He was a great man” (Interview with David Tweedie).

It is clear that the influence of Professor Flint was significant, and it is likely that David Tweedie acted as a conduit for his views on the importance of economic approaches to financial reporting, transferring them from the realm of the academic to the front line of financial reporting practice.<sup>16</sup> Such a view is supported by evidence from an interview

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<sup>16</sup>This effect is not limited to the fair value protagonists. In the UK, many who studied under

with a technical staff member at the ICAEW, who described possible motivations of standard setters, as follows:

“You find that some standard setters — I think it’s more to do with the individuals than for institutional reasons — have attachments to particular approaches. Within the ASB, in the UK, there’s been significant support for deprival value and you’ll find that in Australian Accounting Standards Board as well . . . It’s interesting that there are people in the case of the UK still waving the flag for it [deprival value]” (Interview with ICAEW technical staff member, L).

We can see that, according to interviewee L, particular individuals such as Baxter, did indeed exert an influence on groups of professional accountants, who continue to promote, or “wave the flag”, for their theoretical teachings.

These examples give an indication of the kinds of reasons why the pro-fair value board members might have favoured economic approaches to representing business activities. To the extent that these advocates successfully promoted the publication of standards which introduced economic methods, they can be held causally responsible, in part, for opening up financial reporting practice to economic theory. Ultimately, by identifying the sources of influence on these influential advocates, we can trace the history of accounting thought as established in practice. However, as we have seen in earlier chapters, the advocacy of individuals was only one of the CCM’s INUS conditions necessary for the successful outcome of a project.

#### **6.4.2. Professionals and the complexity of techniques**

The presence of dominant professional groups appears to have impacted on the speed with which economic theory penetrated the different areas of financial reporting analysed. This is reflected in the delay in the satisfaction of the INUS condition relating to institutional resistance once a project had been started. In some cases, the more complex the technique for valuation, the greater the power of these groups and the more likely they were to retain control of an area, as extensive training and technical knowledge effectively acted as a barrier to entry. The incentives of dominant professional groups seems to have acted as a force in either hindering or promoting the introduction of economic representation methods, as can be seen in the cases of pensions and financial instruments. What seems to have differentiated these cases is the *type* of opposition raised by professional groups,

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Professor William Baxter at the LSE during the 1950s – 1970s were imbued with a belief in the deprival value approach, which many of them carried with them into their future careers. Particular academic institutions — and particular figures within those institutions — such as Baxter at the LSE, produced accountants who would carry with them a familiarity with economic approaches to resolving accounting issues, and might naturally be expected to affect their approach to interpreting and solving accounting problems.

which might be termed *intellectual*, *operational* or *popular/secondary*. As the names of these types of opposition imply, intellectual opposition refers to institutional objections to technical elements of a standard (such as the use of the PBO rather than the ABO for calculating a pension fund liability). Operational opposition would result from a self-interested motivation to avoid loss of revenue or earnings consequent on the introduction of a new accounting method (as was the case with FAS 133). Popular or secondary opposition would arise as a general response expressed by different institutions to general unease with a standard setter or very simple technical concerns with a proposed standard, such as the Liabilities Project.

### *Pensions*

In this case, opposition from institutional groups can be categorised as *intellectual*. Actuaries played an important role and were motivated to preserve their domination of the market for valuing pension schemes. Moreover, the area of actuarial valuation was reasonably complex, requiring access to databases of longevity, inflation expectations and so on. Interviews with staff members at the FASB and board members at the IASB reveal the importance of working with, and winning over, the actuarial profession to the interests of financial reporting. In particular, the actuarial profession rejected the appeals to financial economics and only after 1997 did they concede to this new approach to pension valuation. Actuaries were hostile to financial economics because its use as a representational approach effectively removed their discretion and thus reduced the value of their technical expertise.

For some time, the actuarial profession retained its position and kept at bay the use of financial economics for pensions valuation. This was partly because the complexity of actuarial models and financial economics approaches to pension valuations meant that few critics to the traditional approach could easily or legitimately articulate the reasons for adopting financial economics in a way that would win over other constituencies. In addition, the fact that the actuaries were able to hold out until the mid-1990s reflects the changing background knowledge about financial economics in the business and accounting arena. The actuarial profession in the UK lost control of the area of pensions valuation when financial economics started to become an acceptable part of business and accounting practice. However, as a result of their initial refusal to accept financial economics as a foundation for valuation, the actuarial profession ultimately lost more ground in the pensions area than they might otherwise have done and they have been forced to cede control to the Financial Reporting Council following the Morris Report in 2005.



### *Financial derivatives*

In this case, opposition raised by banking groups was largely *operational* or based on self interest. Financial analysts had a vested interest in encouraging valuations of financial derivatives using financial economics, mainly so that they could advise on such products or sell them. A complex set of valuation models allowed such analysts at financial institutions to carve out a niche in the market and provide a service. The financial models used were complex and thereby excluded comment on technical grounds from all but those trained in financial economics. However, this is not to say that the complexity proved powerful in this case. The opposition in the case of financial derivatives was operational rather than intellectual. According to a technical staff member of the FASB at the time of the development of FAS 133:

“Many times the staff have seen people argue against what we’re doing citing complexity — but only in the areas that they don’t like. So there’s good complexity and bad complexity. They’re inconsistent in their arguments, but nevertheless that’s the way they choose to argue.” (Interview with FASB technical staff member, R)

Here we see that complexity can be used as a criticism, although this may simply be a disingenuous use of a technical argument to win a battle based on self-interest.

Similarly, when asked whether he felt capable of countering objections about derivatives, a board member of the IASC at the time of the development of IAS 39 who had no training or background in financial economics, argued:

“[A]lthough it is true that there are some pretty complicated things out there, I don’t think you really need to understand all those complicated things to get the basic point that is in IAS39 . . . even [accounting for] derivatives isn’t very difficult because you think of something like a forward dollar contract. What are you going to do with it? ” (Interview with former IASC and ASC board member, V)

According to this ex-board member, the basic conceptual training in accounting, combined with common sense, should enable standard setters to come to correct decisions and respond to technical arguments.

### *Liabilities and contingencies.*

In this case, the type of opposition raised by different interest groups and institutions ranged between *popular* and *intellectual*. The extension of the use of expected value techniques proposed by the Liabilities Project, is simple and easy to understand. This economic valuation technique is well within the basic knowledge of most qualified accountants. Consequently, most of those affected by the proposed extension of the use

of valuation techniques to single cases were able to understand and articulate concerns about their introduction. This can be seen from the copious and negative comment letters received by the IASB in respect of the second exposure draft of 2010. Opponents were apparently capable of raising intellectual criticisms about technical aspects of the project, such as the use of single case probabilities. However, the reason *why* they were raising this concern is more likely to have been a general reluctance to accept a new approach to the representation of contingent liabilities, when the existing one was perceived as being satisfactory (the ‘if-it-ain’t-broke-don’t-fix-it’ argument described in Chapter 5 by Interviewee L). Moreover, their mastery over the technical aspects of the proposals in the project enabled many institutions who were generally dissatisfied with the standard setters to send a message by blocking the success of this project.

### 6.4.3. Conceptual frameworks

Conceptual frameworks in financial reporting have long been hailed as a means of standardising concepts across accounting areas and providing continuity of conceptual approaches over time, in spite of changes in membership of standard setting boards (see Macve, 1997). Practitioners argue for the need for conceptual frameworks along these lines (Boyle, 2010). Admittedly, others have argued that the belief that conceptual frameworks in financial reporting, “form a deductive logical sequence including clear, consistent, ‘high quality’ standards, represents a failure to understand the insights of the modern philosophy of language...” (Macve, 2010; Dennis, 2006, 2008). To those who reject this *definitional* capacity of conceptual frameworks for financial reporting concepts (and consequently the conceptual hygiene of practice), two other purposes have been proposed. The information economics school sees an attenuated role of the conceptual framework as “a set of ground rules that is useful in the regulation of financial reporting” (Christiensen, 2010, pg. 298). Others argue that conceptual frameworks provide the necessary legitimacy for standard setters in the eyes of the financial reporting community<sup>17</sup>, if they are to retain authority over the domain of financial reporting practice. A developed conceptual framework, they argue, suggests the existence of theoretical foundations to the various reporting techniques and approaches, rather than a series of *ad hoc* rules (Hines, 1989).<sup>18</sup>

The three case studies provide evidence that, paradoxically, conceptual frameworks acted as inhibitors of financial reporting change. This in turn may have gone some way to undermining the legitimacy of the standard setters in the eyes of the profession, and the profession in the eyes of the business community and regulators. The development of conceptual framework projects by the FASB and IASB was closely associated with the shift towards a balance sheet focus and an increased emphasis on the provision of

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<sup>17</sup>The financial reporting community contains preparers, users, regulators and politicians.

<sup>18</sup>See also Abbott (1988) for a sociological approach more generally to the need for professional legitimacy.

decision-relevant information (as discussed in earlier chapters). Possibly, this served at one point in time as a proxy for the shift in the reported aims of financial reporting. However, while the framework may indeed be one source of evidence of such a shift, particularly in the mid-1970s, it seems to have hindered changes in knowledge in financial reporting. The conceptual framework projects are now over two decades old, and reflect the form of knowledge that existed at a time before the rapid rise of financial economics and the proliferation of financial economics related products in the financial markets. What might have been considered a force for change at one point in time, now acts as a reminder of the radical thinking of a long gone era, in which the reasonable test item for an accounting rule was whether it applied to physical items such as fixed assets, rather than a long term pension liability or a non-traded derivative instrument.

Nor is its existence sufficient for the introduction of economic representation techniques, for at best it represents just one of the five INUS conditions identified as jointly necessary for the introduction of financial economics-based techniques in financial reporting practice. According to a technical staff member who worked on the FAS 87 (1985) project, the Conceptual Framework “showed the influence of economics” and “a conceptual mindset” but was practically difficult. He argues that, “pensions accounting tells us about the limitations of the conceptual approach rather than its power” (Interview with C). In this case then, the INUS condition for a pro-economics conceptual approach in financial reporting was satisfied, but the best result that could be achieved was a shift to semi-economic representation. This is consistent with the notion that an important INUS condition for a move towards fuller economic representation was an earlier successful move towards economic representation.

However, the FASB did acknowledge that the Conceptual Framework acted as something of an obstacle to the introduction of economic methods in the case of FAS 158. In the *Basis for Conclusions* section of the standard, the FASB explained that:

“Many respondents, whether or not they supported a phased approach, considered the projected benefit obligation to be an inappropriate measure of the liability for pension benefit obligations because they believe it does not meet the definition of a liability under FASB Concepts Statement No. 6, *Elements of Financial Statements*” (FAS 158, 2006, ¶B20).

In the case of the Liabilities Project, the IASB Conceptual Framework also proved to be a hinderance to the successful completion of the project. The Conceptual Framework definition of assets and liabilities in terms of probabilities directly contradicted the requirements of the Exposure Draft (2010). This Exposure Draft proposed the removal of the probability criterion for recognition and its replacement by a *stand-ready obligation*, which would be valued in accordance with expected values. The obvious inconsistency between the aims of the LP and definitions of accounting concepts contained within the

Conceptual Framework led the project team into difficulty, as constituents who objected to the Project pointed to the inconsistency with the Conceptual Framework as a weakness and as a factor which reduced the legitimacy of the LP. In response, the project team claimed that the Conceptual Framework was out-of-date and that they were thus justified in making ad-hoc amendments in advance of any revisions to the Conceptual Framework. A conceptual framework should not be confused with a form of knowledge. The experience of the Liabilities Project shows that standard setters' perceptions of the meaning of accounting concepts, such as *liability* had evolved, leaving the Conceptual Framework as an outdated document which failed to reflect current accounting norms.

Evidence from the three cases suggests that the ideological commitments of board members have been extremely important in explaining the success of projects to introduce or extend the use of economic methods. We have seen that where the economic methods required by a standard are complex, the development of democratic and popular opposition may be restricted. In cases where a simple economic valuation method was used, the kind of resistance offered to the standard was widespread. Finally, the effectiveness of the conceptual framework in constraining standard setters, if it operates at all, seems to do so by allowing critics to cite conceptual inconsistency. There is, however, evidence that technical staff and board members are not strongly constrained by the conceptual framework.

## 6.5. Conclusion

The main thrust of this chapter has been to analyse the episodes of regulatory change in the three case studies as part of an overall sequence. When the projects in the three areas of accounting are viewed in this way, the significance of causal interactions between them becomes apparent. These interactions can be seen to be partly responsible for the dynamism observed in the set of INUS conditions for sequential projects. In particular, those conditions concerning *favourable institutional attitude* or *influential advocates on standard setting boards* may be subject to the influence of earlier, successful projects.

By considering the chain of individual projects, starting with the early US pensions project resulting in FAS 87 through to FAS 158, we see how earlier standards affect later ones. We also see how that effect may be mediated, and amplified, through high-profile fair value standards in other areas, such as FAS 133 (1998) and IAS 39 (1998) for derivatives. What becomes evident is that through their influence on future INUS conditions, past successes help to explain the changing form of knowledge in financial reporting. Success tends to build on previous success, but does not always do so. Seen in this way, initial success in introducing or extending economic representation at one point in time, or in one accounting jurisdiction, represents a condition of possibility for success in future projects.

Other causal factors exist, which affect the status of INUS conditions in the CCM.

These include the ideological commitments of standard setters, the role of valuation professionals, and the impact of the conceptual framework projects. Often, board members (or indeed technical staff) at standard setting institutions approach issues with a particular methodological framework in mind and this guides the solutions they find appropriate. The factors which have forged these individuals' methodological commitments can often be traced back to academic influence. Given this, these standard setters who argue for a particular view, such as fair value, may be seen as providing a bridge between academia and practice. Not surprisingly, it appears that the importance of the role of professional valuation experts increases in line with the complexity of valuation techniques, as technical knowledge is delegated to them leaving preparers and other institutional groups reliant on their expertise. This is reflected in the dominant position held for some time by pensions actuaries and derivative pricing experts. By contrast, where simple techniques exist, such as the expected value calculations required by the Liabilities Project, individual preparers can easily articulate their concerns and feel confident in lobbying standard setters and other institutions. Conceptual framework projects are intended to provide conceptual coherence between projects and over time, but in fact it appears that the role played by conceptual framework projects appears to have had the effect of hindering financial reporting change.

Overall, the speed and pattern of the adoption of economic methods for different kinds of accounting item can be seen, in simplistic terms, as an evolutionary response by standard setters to an environment in which the provision of economic information constitutes the best way of *doing financial reporting*. This kind of explanation might, at first glance, be seen as consistent with a functional approach to explanation. However, closer examination reveals that this is not the case. In cashing out the term *environment*, into a set of INUS conditions, I have suggested that it should not be assumed to be exogenous. It is composed of several components which are not independent of each other, nor of the standard setters' interventions. More specifically, the environment reflects a particular *form of knowledge* whose dynamism is, in part, endogenous. Thus, the explanation for the particular pattern of increase in the use of financial economic methods is more complicated than an explanation in terms of functional benefits would suggest. The complexity stems from the existence of dynamic feedback loops between financial reporting practice and the environment in which it operates and also causal interactions between INUS conditions.

Moreover, other environmental factors have also played important roles. First, competing interest groups have been able to shape and constrain the development of projects to introduce economic methods (actuaries, banking groups, IOSCO and the EU for example). Second, contingent events, such as the occurrence of the financial crisis of 2007/2008, or the timing of board changes at the IASB, changed the course of development of particular standards through direct effects on particular INUS conditions, or through indirect effects

on the form of accounting knowledge.

The sequences of change we have seen in financial reporting standards lead to changes in the form of accounting knowledge, which since the 1970s, has shifted towards a more economic mode of representation. However, there is no reason to believe that the trend towards economic methods will not reverse at some point as environmental conditions change. Just as the notion of good accounting over the last century has varied from an emphasis on historical cost (see Paton and Littleton, 1940) to the current fair values, the pendulum may well swing back again towards what standard setters currently consider to be non-economic methods (see Penman, 2010).

# Chapter 7

## Conclusion

The original puzzle I sought to solve was how tectonic shifts in accounting knowledge have occurred since the 1980s, such that accounting has metamorphosed into “what it was not” (Hopwood, 1987, pg. 208). Several questions motivated this study. The main research question was: *Why did financial economic theory influence financial reporting from the 1980s, leading to the emergence of accounting standards which required the use of financial economic methods?*

Following this, supplementary research questions emerged. For instance, *Why has the adoption of economic methods not been uniform across different types of accounting items and across different jurisdictions?* In other words, *why have some projects succeeded, whereas others have not?* More generally, *How did these episodes of change within particular areas cascade into a more fundamental shift in the basis of financial reporting?* And, *Why did financial economics become the foundational theory for determining accounting representations, where once legal considerations had provided the conceptual basis?* The attempt to address these issues raised methodological questions, for instance *What social scientific methodology and which research methods are best suited to such a research problem?* And, *To what extent might the explanatory form chosen yield a template facilitating understanding of other instances of change in accounting practice?* In this thesis, I have aimed to provide answers to these questions.

I argued in chapter 1, that the impact of economic theory on financial reporting merits research attention because issues of change in financial reporting regulation currently affect a significant, and growing, number of companies across the world. What we have seen in the last two decades, and in a more pronounced fashion since 2005, is a significant consolidation in standard setting and a commensurate reduction in permissible modes of representation for companies, as standards become increasingly harmonised. We have witnessed the emergence of a virtual cartel in standard setting as two private standard setting institutions have come to dominate the regulation of financial reporting, determining what, how and for whom corporate information is reported.

In particular, I noted that standard setters have prioritised the balance sheet over the profit and loss account as the principal accounting report. As we have seen in the case studies, they have adopted economic modes of representation. Increasingly, standard setters' interpretations of economic theory have led to them to require uncertain items to be recognised more readily on the balance sheet and valued using economic methods. The consequences of these changes in reporting requirements have been the subject of copious inquiry in the academic literature. However, what has been less subject to scrutiny are the *origins* of this shifting pattern of regulation.

To answer the research questions, I constructed a qualitative causal model, which I named the Causal Constellation Model (CCM). I developed this model using empirical data from the US pensions project for FAS 87 (1985) and identified the necessary and sufficient conditions for its success (see chapter 2). In addition to a review of publications by standard setters, academic publications and publications in the financial and business press, I also carried out ten interviews with eight individuals who were either experts in pensions accounting or had direct experience of the introduction of FAS 87.

As a first step in developing the CCM, I had to find the reasons *why* standard setters launched the FAS 87 project. I established which types of events or cases of conceptual change acted as catalysts, such as the introduction of new laws, or changes in the interpretations of certain social phenomena such as employers' obligations to their employees. Once a project had been undertaken, I found that the choices standard setters could reasonably make about how to represent accounting items were constrained by the set of environmental conditions they faced. The initial catalyst combined with a specific set of background conditions to generate conditions of possibility for the success of the project. Subsequently, I applied the CCM to other projects in the the area of pensions (FRS 17, 2000; IAS 19, 1998), and thereafter, to the area of financial derivatives (FAS 133, 1998; IAS 39, 1998) and contingencies (the IASB Liabilities Project). I found that the model provided a good explanatory account of the influence of financial economics and the necessary and sufficient conditions for the adoption of economic methods in practice.

## **7.1. Key findings and contributions**

### **7.1.1. The Causal Constellation Model as an explanatory tool**

I found that the CCM provides a plausible explanation for the cases of regulatory change analysed in the three case studies of pensions, derivatives and contingencies reporting. Specifically, I identified five INUS conditions as necessary for the success of regulatory projects which aimed to introduce or extend economic methods in financial reporting. These are (1) the shift towards a pro-economics aims of financial reporting practice, (2) the legitimacy of economic methods, (3) the existence of favourable economic conditions,



(4) the existence of a favourable institutional attitude towards the standard and (5) the presence on standard setting boards of influential advocates of the use of economic representation methods. The model appears to explain the dappled influence of financial economics across different accounting items and jurisdictions.

A change in accounting practice is associated with a change in the form of knowledge. For instance, in this study I identify a move away from a legal interpretation of the concept of ‘accounting reliability’ and towards the notion of reliability as consistency with an economic model (Power, 2010). I also determine the origin of certain accounting concepts which are constitutive of current accounting practice and trace the route by which these concepts entered financial reporting practice.

Having developed the model, I applied it to standard setting projects in other areas of financial reporting, specifically pensions, financial derivatives and contingent liabilities. I aimed to test the retrodictive capabilities of the model and found that its retrodictions were consistent with the evidence from the different case studies, both for the projects which introduced or extended economic methods (pensions and derivatives) and the project which has failed to do (contingent liabilities). The ability to explain both cases of success and cases of non-success suggests that the model is robust.

Through this research project, I have attempted to provide both an empirical and a conceptual contribution to academic accounting research. In empirical terms, I have been able to tap a rich source of evidence relating to financial reporting change in the three areas studied. In particular, I have been able to gain interview access to current and former board members of the FASB, IASB and ASB, as well as technical staff and experts in the different areas. My theoretical contribution is the development of the CCM model. I believe that this model strengthens the New Accounting History approach, with its emphasis on genealogies of accounting and political economy explanations of accounting change, by drawing on work from the philosophy of causation. By supplementing this approach with causality, I have tried to render the notion of a *constellation* of factors more precise. I have done this by specifying the particular set of factors which is causally responsible for a successful project outcome. The model is capable of accommodating interacting causal factors and causal factors whose joint satisfaction determine the outcome of the project.

As set out in chapter 2, in developing the model, I was operating within a social scientific tradition which treats causal explanation as being compatible with the provision of reasons for action (Weber, 1978). This requires two main methodological commitments concerning the contextualised meanings and causal explanation where a constellation of causal factors exist. The first methodological commitment identifies that the meanings of actions and facts are dependent on the historical and cultural context and carve out possibilities for social action. For example, standard setters working at the FASB in the early 1980s perceived as a problem the non-disclosure of pensions obligations and their

valuation using non-economic methods. At the same time, in the UK, standard setters did not view a non-economic approach to the representation of pensions as a problem. In this way, the reasons why the standard setters in the two accounting jurisdictions acted as they did is explained, in part, by the form of knowledge under which they operated. This form of knowledge determines the perception of a particular state of affairs as a problem (or not) and affects what kind of solution is considered to be appropriate. This contextual approach, based on the work of Hacking (1991, 2002) is consistent with, and supplements, the use of political economy models of explanation (Perry and Nölke, 2006), because the interests of particular institutions can themselves be thought of as products of a particular history and social context. It is also consistent with the *New Accounting History* approach to explanations of change in accounting practice through the identification of constellations of contextualised factors.

The second methodological commitment relates to the nature of causal explanation and stems from the work of Mackie (1974). Mackie argues that a causal explanation which identifies just one causal factor is inadequate because: “we expect causal regularities to involve both assemblages of conditions and a plurality of causes” (Mackie, 1974, pg.69). Consequently, he eschews the identification of *cause* with the occurrence of one particular action or event and points instead to a whole *constellation* of causal conditions. These conditions may be stable background conditions or specific events. According to Mackie, an adequate explanation of a particular outcome must identify not just one catalyst, but instead a whole set of individually necessary and jointly sufficient conditions or “INUS” conditions. The conditions are jointly sufficient, but according to Mackie, the whole set is ‘unnecessary’, by which he means that it need not necessarily have been the way that the particular outcome occurred. Other sets of factors might have brought about the same outcome. I find that the notion of a constellation of causal factors is corroborated by the evidence available for the three case studies.

In chapter 3, I found that the CCM provided a good explanatory account of the emergence of economic representation methods for employers’ defined benefit pension obligations. Following the enactment of pensions legislation in the US (ERISA, 1974) and in the UK (Pensions Act, 1995) for the UK jurisdiction, standard setters were faced with the problem of valuing a new accounting concept, the *pension liability*. I argued that the outcome of the project was determined by the joint satisfaction of the set of INUS conditions. By 1985, when the project was voted in, all the INUS conditions were satisfied. Actuaries came round to a resigned acceptance of financial economic approaches to valuing pension liabilities and without their opposition, the standards were passed by the FASB and later, the ASB. The IASC standard was less problematic because at the time of its publication, no mandatory adoption was required in the EU. I found that FAS 87 had introduced a weak form of economic representation (with a minimum liability on the balance sheet but full disclosure in the notes). The IASC standard, IAS 19 (1998)

was based on the US standard. The UK standard, FRS 17 (2000) was a stronger form of economic representation, and the chairman of the ASB, David Tweedie, subsequently moved to the IASB where he oversaw the revised IAS 19 (2004). In the US, the actuaries began to accept the introduction of financial economics in the early 2000s and by 2006 the FASB had published an economics-based standard, FAS 158 (2006).

In chapter 4, I found that conspicuous cases of corporate bankruptcy linked to the use of derivatives led to the start of the project to improve the reporting of derivatives in the US. This was also the ultimate causal antecedent for the IASC project, which was driven proximately by the demands of IOSCO to develop a set of IASC core standards including one on financial instruments. As with the pensions case, I found that all five INUS condition were satisfied. In spite of tough opposition from banking and political institutions, the FASB managed to publish FAS 133 and implement it with only a short delay. The IASC copied the FASB standard in order to meet a deadline imposed by IOSCO and had no difficulty publishing IAS 39 (1998). However, when it came to introducing the standard to EU listed companies from 2005, the new IASB faced intense political pressure to dilute some of the fair value requirements, in particular, portfolio hedging. After the carving out of some of the requirements, the standard was endorsed by the EC and implemented across the EU, bringing derivatives at fair value, onto the balance sheet for the first time. The valuation of such derivatives was at the market price, the price of a reference asset/liability or by marking-to-model. The case of derivatives served as a test case for the introduction of strong economic principles in representation, with financial instruments lending themselves particularly well to valuation using economic models.

In chapter 5, I analysed the case of the reporting of contingent liabilities and the attempt to amend the existing standard, IAS 37 (1998) through the Liabilities Project to increase economic representation. One feature of the LP was that no specific exogenous factors drove the IASB to launch it. Rather it emerged as a result of perceived inconsistencies and intellectual concerns about the existing standard, IAS 37. The LP differed from the two earlier cases in that the project was not a success and, consistent with the CCM's prediction, only two of the INUS conditions were satisfied while three remained unsatisfied. First, the financial crisis developed, thus rendering the INUS condition for *favourable economic conditions* unsatisfied. Second, with increased complaints about the pro-cyclical effects of the IASB's requirements for the use of fair values, governance issues came to the fore and the IASB was subject to increased scrutiny of its due process. Some institutions exploited this development and raised complaints about process issues regarding the development of the standard. Thus, the *institutional attitude* INUS condition failed to be satisfied. Third, the board term of three of the strongest advocates of economic representation came to an end before the project team could get the second exposure draft to a vote, and the INUS conditions for *influential advocates on the board* failed to be satisfied. The Liabilities Project did not progress to a vote on the second exposure

draft and was unofficially removed from the standard setting agenda in 2010.

In chapter 6, I drew together the evidence from the three case studies. This confirmed that the degree of economic representation within these areas of financial reporting had indeed increased over the period. Economic representation could be observed to have increased monotonically over time since the issuing of FAS 87 in 1985, but with particular instances of rapid change since. FAS 87, while only introducing weak economic representation, nevertheless introduced important economic concepts and served as a test of the new methods. An instance of rapid change identified was that of the publication and implementation of the derivatives standards, FAS 133 and IAS 39, which transformed the accounting form of knowledge dramatically. Although the analysis of each case in isolation provided a good explanation of why change occurred, or did not occur, an analysis of the interplay between the cases *over time* strengthens the explanation significantly. I then analysed interactions between the three case studies and between projects, finding that the projects interacted through three mechanisms, which I discuss in section 7.1.2 below.

What is noteworthy in this research is that it uses thematically connected case studies, combined with archival research and interviews, to distill an overarching model which provides a causal explanation for why these instances of success and non-success happened at the time that they did, and in the way that they did. Particularly, a surprising result of this research has that individual factors on their own, such as the actions of particular individuals, are insufficient to ensure the success of particular accounting policies. Rather what we find is that significant changes to accounting policy require the fortuitous co-occurrence of certain environmental conditions with strong individual proponents at the time when certain issues were recognised as problems that required attention. Furthermore, the model has the potential to be applied and generalised beyond that which I have considered and hence provides the opportunity for further work, involving both historical and contemporary projects.

However, the model that I have developed is subject to limitations both in terms of evidence and methodology. First, the risk of biased evidence exists. Interview-based research can be problematic because statements made by interviewees may reflect the view of the institution to which the individuals are affiliated, rather than the true experience they had or the facts of which they are aware. I tried to control for this by assuring the interviewees that they would remain anonymous. The fact that they were anonymous may then have made it possible for them to make statements which reflected their own views, rather than the view favoured by the institution to which they were affiliated.

Many of the interviewees appeared to feel comfortable identifying specific individuals involved in the standard setting processes, providing frank assessments of what they believed to motivate these individuals. Moreover, because of the reasonable number of individuals interviewed (twenty in total, of whom thirteen spoke about pension reporting, seven about derivatives reporting and nine about the IASB Liabilities Project), I am

confident that I was able to triangulate on the facts of each case and thereby minimise potential biases which may otherwise have arisen as a result of any subjective or misleading statements made by interviewees.

The combination of interview-based evidence supplemented the archival sources by providing a social and personal context to the institutional reasons given in such texts. Moreover the risk of selection bias is addressed by ensuring I interviewed at least one board member and one member of technical staff for two of the projects (no technical staff member was willing to be interviewed for the case of the Liabilities Project at the IASB). In addition, for each case I interviewed institutional agents, academics or former academics who were from non-standard setting backgrounds.

Having addressed possible concerns about the limitations of evidence, let me turn now to limitations in methodology. These relate primarily to issues of categorisation and sample size. Given the dynamic concepts being analysed, carrying out a longitudinal study may be considered problematic due to the changing nature of particular factors included in the model. However, the CCM does not identify particular institutions or individuals across all cases, but rather identifies the fact that *some* relevant institutions or *some* relevant individuals must be favourably disposed towards the project if it is to be successful.

Sample size is a limitation for this kind of early-stage research. However, I have tried to approach the case studies in a scientific way, by which I mean that I have tried to analyse each project as if it were an experiment and to retrodict the outcomes using the CCM. By selecting case studies for different accounting items, in different jurisdictions and for projects which were successful and another which was not, I increase the robustness of the model. Inevitably, when developing a new model and testing it initially, problems arise due to the limited data available. This can be overcome in the future by extending the model in the ways discussed below.

An interesting finding is the role played by other factors which do not exhibit sufficient regularity in their impact on the outcome of projects to merit inclusion as INUS conditions in their own right. However, these factors highlight salient features of some of the INUS conditions. The first of these is the fact that the taken-for-granted, deep-seated methodological commitments of influential individuals on standard setting boards are often determined by their educational background and the influence of early career mentors, that impact and are a source of the ideological views of particular standard setters. I found that, in many cases, the theoretical commitments of these individuals were imbued in them during the early stages of their academic life or career. This was often the result of their interactions with teachers or mentors they found intellectually impressive.

The second factor is the impact of the complexity of the economic method on the likely success of the project. I found that the complexity of the method affected the institutional response. A more complex technique, such as an option pricing model, would be more

likely to attract either intellectual or operational resistance, but often from a small group of agents and institutions with the necessary technical knowledge. By contrast, the less complex techniques, such as the use of expected values for contingencies, appeared more likely to be met with popular opposition, as the power to articulate concerns was not concentrated in a small number of technical cognoscenti.

The third factor is the impact of the conceptual framework in determining the aims of financial reporting and thereby in determining the status of the INUS condition *pro-economics aims of financial reporting*. One might expect a strong positive correlation to exist between the conceptual framework and the satisfaction of the INUS conditions for *pro-economics aims of financial reporting*. However, I found that the conceptual framework projects, while often cited in standards as a justification for a particular representational approach (for instance in the case of pensions and derivatives) was not always adhered to. In the case of the Liabilities Project for instance, it even appeared to constrain the development of the project.

### **7.1.2. Sequences and interactions over time**

An unexpected finding was that regulatory change occurs in sequences. A cascading effect can be seen as a result of interactions *between* the projects. These interactions shape possibilities for the outcomes of future projects. The inter-temporal issues related to the success of accounting projects enriches the explanation of accounting change by identifying the causal pathways for epistemological shifts, such as the influence of successful projects on future projects. What became evident was that sequences of change occur, due to interactions between projects. I showed that these interactions were characterised by three different mechanisms.

The first mechanism involves the direct influence of one standard on another. What I found is that standard setters tended to copy fundamental structures and ideas from existing standards where possible, either because it was expeditious or because increases in the internationalisation of capital markets and business generally meant that different standard setting jurisdictions faced similar exogenous shocks, albeit at different times. We saw this clearly both in the case of pensions (FRS 17, 2000), which drew on the market-based elements of IAS 19 (1998), and to a lesser extent on FAS 87 (1985), in the case of which, initially external factors led to legal regulation, which generated a perceived need for new accounting standards. An enabling factor for such mimicking behaviour was the similarity in structure and aims of standard setting institutions, as well as the opportunity for standard setters to work together in joint committees and other fora.

The second mechanism operates via indirect influence on the status of one or more INUS conditions of a future project. Such influence can exert an effect in two ways. It can increase the confidence of individual members of a standard setting board that they

will be able to complete a project successfully. Or it can soften the oppositional attitudes of institutions, that begin to view economic methods as legitimate or may view their introduction as inexorable.

The third mechanism operates by affecting the form of knowledge of financial reporting and thereby indirectly affecting the conditions of possibility for future projects. What seems reasonable as a mode of representation at one point in time, may change to become a problem which needs to be solved at a later time when the form of knowledge has shifted. The effect of these shifts in epistemological concepts is a feature which is often overlooked in the accounting literature on standard setting.

## 7.2. Possibilities for future research

Given the limited number of standard setting projects aimed at introducing or extending the use of economic methods analysed in my research to date, statistical analysis was not possible. However, as further projects are initiated in the future, and the potential sample size grows, the possibility of developing a statistical model may usefully suggest causal factors not revealed in this qualitative analysis. However, it is likely to be some time before a sufficient number of cases can be identified to enable a statistically meaningful analysis. However, as an interim measure, the addition of a few further case studies would permit other forms of qualitative causal analysis consistent with the case-study method, which have been developed for use with small data sets, for example Ragin (1987).

I have stated that the CCM has the potential to be applied to financial reporting and other instances of regulatory change beyond the case of the adoption of financial economic methods. To further test the model, the application could be extended to the adoption of other methods as a result of different inter-disciplinary influences. For instance, as theories of behavioural economics gain legitimacy as part of mainstream economic thought, we might expect financial reporting practice to adopt elements of these new theories. Applying the model to different strands of theoretical influence with different practical implications for accounting, we might be able to ascertain whether or not the same generic constraints on adoption apply as they did with the influence of financial economics.

The focus in this work is on the change in the form of knowledge and the tracing of the history of accounting thought. Future research based on social network analysis aimed at identifying the specific mechanisms through which ideas are transferred may be fruitful (White, 1988; Granovetter, 1983). An analysis of the interactions between individuals who carry ideas from one social domain to another might enhance the tracing of changes in accounting thought by analysing the *routes* taken by new ideas and the structural factors in the space of financial reporting regulation which enhance or inhibit change in beliefs and knowledge.

In this research study, I have reviewed written historical sources, such as publications

by standard setters and practitioner groups, academic research and press coverage, in the light of the current views of individuals involved in the standard setting process. In so doing, I have effectively been trying to reconcile the historical writings about the projects being studied, written at the time, with the more recent perspectives on those episodes. The evidence collected for the development of the CCM model may be treated as the source for an analysis of the historiography of accounting thought relating to these episodes of change.

Another option is to apply the model to other episodes of accounting change, since it has been successful in explaining three particular episodes of change. I could thus try to retrodict other past episodes of accounting change. For example, I might employ the CCM in trying to answer the question, why did the pensions accounting standard FRS 17 succeed while the UK standard for Inflation Accounting, SSAP 16, did not? Another possibility is to apply the model to current projects, for example the joint FASB/IASB projects for insurance contracts and leases.

Finally, since the cascading effects identified between past INUS conditions and future ones may increase the chance of predicting the satisfaction of particular INUS conditions in the future, the model may offer some scope for predictions about outcomes of regulatory projects. I could thus use the model to try to predict the outcome of projects which are currently underway, or which are about to be initiated. Although prediction in the social sciences is necessarily imperfect, because it uses indistinct categorical variables and tendency laws, the extent to which prediction using this model is possible in the future remains an open research question.



# Appendix A

## Appendix for chapter 2

### A.1. Interviews conducted

No.	Name*	Area**	Position	Interview date
1	A	P	Professor of Accounting	July 2009, October 2010
2	B	P	Former IASC senior staff member	December 2009
3	C	P, D	Technical staff FASB (Project Manager, FAS 87)	January 2010 by phone
4	D	P	Partner, major accounting firm, specialist in pensions	January 2010
5	E	P	Former ASB Technical Director and IASC Secretary	January 2010
6	F	P, D	Former IASB and ASB board member and Emeritus Professor of Accounting	February 2010
7	G	P, D, C	ASB senior technical staff	February 2010
8	H	P, D, C	IASB board member	March 2010, May 2010

\*Interviewee names have been replaced with codes to preserve anonymity

\*\* Areas: P = pensions, D = derivatives and C = contingencies

<b>No.</b>	<b>Name*</b>	<b>Area**</b>	<b>Position</b>	<b>Interview date</b>
9	J	C	Financial Reporting Committee (ASB) and technical partner of major accounting firm	August 2010
10	K	C	CFA analyst	August 2010
11	L	C	ICAEW technical staff	August 2010
12	M	C	CRUF (European analysts group)	August 2010
13	N	P	Qualified actuary, former president of the Institute of Actuaries	November 2010
14	P	P	Qualified actuary, Managing Principal at an international actuarial firm specialising in pensions	November 2010
15	Q	D	FASB board member, worked on FAS 133	November 2010
16	R	D	FASB technical staff, worked on FAS 133	November 2010
17	S	D	Analyst	November 2010
18	T	P, D, C	Former ASB and IASB Board Member	January 2011
19	V	P, D, C	Former IASC and ASC board member	May 2011
20	W	P, D, C	Technical staff IASB	August 2011

\*Interviewee names have been replaced with codes to preserve anonymity

\*\* Areas: P = pensions, D = derivatives and C = contingencies

# Appendix B

## Appendices for chapter 3

## B.1. The standards

In this section I provide a very brief summary of the economic methods introduced or extended by the standards introduced between 1985 and 2006 by the FASB, IASC (and later IASB) and the ASB. I provide a more detailed account in Appendix B.4. A shift towards increasingly strong economic representation is observable over time. It is this introduction, which the CCM aims to explain.

**FAS 87 (1985).** This standard introduced weak economic valuation for pensions into US GAAP for the first time. It required the recognition on the balance sheet of some elements of the pension obligation (based on the difference between the fair value of fund assets and the present value of the accumulated benefit obligation). However the disclosures in the notes to the financial statements were sufficient for users to infer what the balance sheet entries would have been and included information on the fair value of pension fund assets, the projected benefit obligation and discount rates used. Changes in actuarial assumption were heavily smoothed through income.

**IAS 19 (1998).** This later version of the IASB standard (following IAS 19 (1983) and IAS 19 (1993)), closely resembled FAS 87 (1985) with a market based pension asset and a AA-rated bond discount rate. One important difference was the inclusion of salary increases in the cash flows used for calculating the pension liability. Smoothing mechanisms, including the ‘corridor’ were used to minimise volatility in the income statement. The standard was adopted throughout the EU for listed companies from 2005. However, when it was published this was not yet known, and so at this stage, it did not present an immediate concern for preparers or institutional groups.

**FRS 17 (2000).** This standard introduced economic representation of pensions to UK GAAP, where previously a cost-focused accruals approach had been in force. The standard required immediate recognition on the balance sheet of the difference between the fair value of fund assets and the projected benefit obligation (discounted using a bond rate). Changes in the pension asset or liability would be reflected immediately in the statement of total recognised gains and losses. Although published in 2000, the standard was not implemented fully until 2005. Before this time, companies had the option of disclosure in the notes to the financial statements.

**FAS 158 (2006).** This standard replaced FAS 87 and required recognition of the pension liability (or asset) on the balance sheet with changes reflected immediately in other comprehensive income. In addition to these standards, FAS 132 (1998), and

subsequently, FASB (2003), required disclosure concerning the pension plan investments, and its 2000 revision enabled users to infer an appropriate discount rate for the fund.<sup>1</sup>

## B.2. Chronology of publications in the development of FAS 87

<b>Date</b>	<b>Publication</b>
December 1974	Interpretation No. 3 <i>Accounting for the Cost of Pension Plans Subject to the Employee Retirement Income Security Act of 1974</i>
April 1977	Exposure Draft <i>Accounting and Reporting by Defined Benefit Pension Plans</i>
March 1980	Statement No. 35 <i>Accounting and Reporting by Defined Benefit Pension Plans</i>
February 1981	Discussion Memorandum <i>Employers' Accounting for Pensions and Other Post-employment Benefits</i>
November 1982	Preliminary Views Paper
April 1983	Discussion Memorandum <i>Employers' Accounting for Pensions and Other Post-employment Benefits</i>
March 1985	Exposure Draft <i>Employers' Accounting for Pensions</i>
June 1985	Exposure Draft <i>Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits</i>
December 1985	FAS 87 <i>Employers' Accounting for Pensions</i>

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<sup>1</sup>Kiosse and Peasnell (2009) provide a useful review of the literature on the impact of pension accounting changes on US and UK pension provision. In particular on page 263, a discussion of Amir and Benartzi (1999), concerning the impact on investment strategy and the shift to equities. for a discussion of the factors affecting pension fund investment decisions.

### B.3. Chronology of publications in the development of FRS 17

<b>Date</b>	<b>Publication</b>
June 1995	Discussion paper. <i>Pension Costs in Employer's Financial Statement</i>
July 1998	Discussion paper on IAS 19 (1998) <i>Aspects of Accounting for Pension Costs</i>
November 1999	FRED 20 <i>Retirement Benefits</i>
November 2000	FRS 17 <i>Retirement Benefits</i>
November 2002	Amendment to FRS 17 for smaller entities
December 2006	Amendment to FRS 17 replacing disclosure requirements with those of IAS 19 (2004)

## B.4. Details of US FAS 87 and UK FRS 17

I detail below some of the important technical elements of the two standards, FAS 87 and FRS 17. I include later, Appendix B.5 a table taken verbatim from Appendix 2 of a discussion paper by the Pensions Institute (Amir et al., 2007) as it provides an extremely clear summary.

### B.4.1. Disclosure and recognition requirements of FAS 87

#### *Disclosures relating to the pension obligation*

As set out in ¶54 of the standard, for the balance sheet liability, a reconciliation schedule should be disclosed which includes, among other items, the fair value of plan assets, the projected benefit obligation, the accumulated benefit obligation, the vested benefit obligation, the weighted-average discount rate, and the assumed rate of compensation increase.

#### *Minimum additional liability*

In addition to the normal accrual for net periodic pension cost, a forward-looking liability is also recognized. The standard states that a liability called the “unfunded accumulated benefit obligation” should be recognized in the balance sheet to the extent that the “accumulated benefit obligation exceeds the fair value of the plan assets” (¶36). If such a liability is recognized, the debit side of the entry is shown as an intangible asset (¶37). The calculation of the value of the accumulated benefit obligation (ABO) and the plan assets are set out in paragraphs 44 to 53 of the standard.

**Measurement of plan assets.** The investments constituting the plan assets should be valued at “fair value” which is “the amount that the plan could reasonably expect to receive for it in a current sale between a willing buyer and a willing seller, that is, other than in a forced or liquidation sale” (¶49). This means using market price if an active market exists for the specific investment. However, where no active market exists for an investment, prices of similar investments “may be helpful in estimating fair value” (¶49). If no market exists for similar investments, the fair value can be estimated by reference to a “forecast of expected cash flows” in which case the cash flows should be discounted to take into account the risk involved (¶49). The measurement date should be no more than three months prior to the date of the financial statements (¶52).

**Value of the Accumulated Benefit Obligation (ABO).** The discount rate used for the calculation of the pension liability “shall reflect the rates at which the pension benefits could be effectively settled” for instance those rates implicit in current prices of

annuity contracts (¶44). The standard suggests employers refer to “rates of return on high-quality fixed-income investments currently available and expected to be available during the period to maturity of the pension benefits” (¶44). The ABO is calculated using the “employees’ *history* of service and *compensation* without an estimate of future compensation levels” (¶47). It ignores changes in compensation levels and also it excludes “indirect effects of future changes such as increases in the social security wage base” (¶47).

#### **B.4.2. Disclosure and recognition requirements of FRS 17**

##### *Recognition of pension liability on the balance sheet*

A shortfall between the fair value of the plan assets and the present value of the scheme liabilities should be recognised in the balance sheet (¶37). The standard imposes certain limits on the amount of a pension asset which can be recognised (¶41).

##### *Valuation of the net pension liability (or asset)*

**Measurement of plan assets.** Assets are measured at fair value at the balance sheet date. For quoted securities, the market price (mid-market value) should be used and an estimate should be used for unquoted securities (¶16). Other assets such as property should be valued at “open market value or on another appropriate basis of valuation determined in accordance with the Appraisal and Valuation Manual published by the Royal Institution of Chartered Surveyors and the Practice Statements contained therein (¶17).

**Valuation of pension liability.** The “scheme liabilities” are calculated by estimating the “future cash flows arising under the scheme liabilities based on a number of actuarial assumptions such as mortality rates, employee turnover rates and salary growth” (¶24). These assumptions should reflect both legal and constructive obligations to which the employer is committed (¶27). The cash flows should be discounted “at a rate that reflects the time value of money and the characteristics of the liability” and this would normally be expected to be the rate of return on a “high quality corporate bond of equivalent currency and term to the scheme liabilities” (¶32) which will be “at the level of AA or equivalent status” (¶33).

##### *Recognition of changes in the pension liability (asset) in the income statement*

Actuarial gains and losses are recognised immediately in the statement of total recognised gains and losses. They are not recycled into the profit and loss account in subsequent periods (¶57). Such gains and losses may comprise the difference between the expected



return and the actual return on plan assets or actuarial assumptions concerning the pension obligation.

*Disclosures relating to the pension obligation*

The standard requires preparers to disclose: the nature of the scheme, the date of the last actuarial valuation, the assumed rate of inflation, of salary increase and the discount rate used for calculating the present value of the scheme liabilities (¶76 – ¶78). In addition, ¶80 requires preparers to disclose the fair value of assets analysed into equities, bonds and other types of investment. ¶88 requires a reconciliation of the funded status of the scheme and the balance sheet item recognised.

**Differences between FAS 87 and FRS 17** There are three major differences to be noted between FAS 87 (1985) and FRS 17. First, the US standard allows for the use of an actuarial discount rate for calculation of the accumulated benefit obligation. Second, the US standard requires only partial balance sheet recognition to the extent that the ABO exceeds the present value of the plan assets. Third, the US standard allows for significant smoothing of actuarial gains and losses, such as differences between the expected returns on plan assets and actual returns (Amir et al., 2007, pg. 4).

## **B.5. Details of the development of the pension standards**

	<i>FRS 17</i>	<i>SSAP 24</i>	<i>SFAS 87</i>	<i>SFAS 158</i>	<i>IAS 19</i>
<b>Valuation of Pension Asset</b>	Market value	Actuarial basis	Market value	Market value	Market value
<b>Discount Rate for the Valuation of Pension Liability</b>	Return on AA corporate bonds	Long-term actuarial assumptions	Long-term actuarial assumptions but possible to use the rate on AA corporate bonds	Long-term actuarial assumptions but possible to use the rate on AA corporate bonds	Return on AA corporate bonds
<b>Actuarial Gains/Losses</b>	Recognized immediately in the statement of total recognized gains and losses (comprehensive income)	Amortized and spread forward over a number of years and recognized through the profit and loss account	Deferred and amortized over employee average remaining service life, subject to corridor method. Amortization is included in periodic pension cost (P&L)	Recognized immediately in comprehensive income	Choice between amortizing gains and losses based on the corridor method, or immediate recognition in the statement of recognised income and expenses (comprehensive income).
<b>Surplus/Deficit in the Pension Fund</b>	Recognized as an asset or a liability on the balance sheet	Disclosed in the notes	Disclosed in the notes; Unfunded ABO is recognized on the balance sheet as additional minimum liability (against intangible pension asset or shareholders' equity)	Recognized as an asset or a liability on the balance sheet	Recognized based on the corridor method in case actual gains and losses are deferred and amortized or fully recognized in case actuarial gains/losses and past service costs are fully recognized in shareholders' equity.

Figure B.1: Summary of technical components of the main pension standards. Reproduced directly from Appendix 2, Amir et al. (2007)

### B.5.1. US GAAP: Development of FAS 87

**FAS87: a weak version of economic valuation in the face of resistance.** Before FAS 87 (1985), pensions were accounted for in a non-economic manner with only a focus on funding and annual costs. The 1985 standard changed this by challenging “off-balance sheet financing that used to occur when the employer was able to avoid reporting the pension liability” (Miller, 1987, pg 91). However, FAS 87 only went part-way in representing pensions in an economic way as it compromised by requiring only a minimum liability rather than full recognition of the projected benefit obligation and the fair value of plan assets.

FAS 87 was viewed as “complex” in technical terms, “not only because of the complexity of the underlying economics being described in the financial statements, but also because the political process led to so many compromises among the board members and between the board and its constituencies” (Miller, 1987, pg. 94). The process leading to its introduction was long and tortuous reflecting its perception as controversial in the community of practitioners, academics and business people. In fact the standard was, “11 years, 3 discussion memoranda, six exposure drafts, four public hearings and six standards” in the making (Zeff, 2005, p. 25). In the summary statement of FAS 87 (1985), the FASB concedes that pension accounting in the US had always been controversial and that earlier attempts at improving accounting for pensions had failed because they were, “beyond what was considered practical at those times.” FASB made clear that it did not intend FAS 87 to be in any way a final document on pensions reporting, stating that “the provisions of this Statement as a whole represent an improvement in financial reporting” (FAS 87, 1985, pg. 36).

Interviewee, C, a FASB technical staff member, who worked on the FAS 87 project, statement believed that this was a “a good example of evolutionary change in accounting where progress was made in small steps”. However, it is interesting that the terms “gradual” and “evolutionary” are used to describe changes in pensions accounting, given that FAS 87 (1985) marked a distinct shift in measurement scheme and introduced a new accounting concept. It suggests the extent to which the Board would like to see pensions accounting develop and hints at the restrictions placed on standard setters which was the result of resistance from the business community.<sup>2</sup>

Although FAS 87 did, for the first time, calculate net pension liabilities based on the expected future payments, it was a long way off the aspirations of the FASB staff. The pension liability (or asset) calculated using economic methods, was disclosed rather than recognised on the face of the balance sheet. Moreover, there was significant smoothing of

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<sup>2</sup>In terms of evolutionary change, the concept of the ‘minimum pension liability’ was discussed earlier in *Accounting Research Bulletin No. 47* (CAP, 1956) and the “growth in vested benefits was explicitly considered in the determination of minimum pension expense in the Accounting Principles Board’s Opinion No. 8 *Accounting for the Cost of Pension Plans*” (Bline and Skekel, 1990, pg 206).

income statement amounts. According to Bline and Skekel (1990), the Board rejected the PBO as the basis for the liability because of arguments that, “ it involves the subjectivity of estimating future salary levels.” (*ibid*, pg 206). In an interview, a member of the FASB technical staff concurred with the view that compromise was necessary, saying that:

“Pensions is a good example of evolutionary change in accounting where progress was made in small steps. Initially there was disclosure and now the [pension] assets and liabilities are on the balance sheet — although only from 2007 — but (1) still netted off and (2) put to Other Comprehensive Income rather than through income. [...] I wanted less compromises made in the standard. In particular I would have liked to see improvement in the balance sheet, although I had to wait a long time for pension obligations to be reflected in the balance sheet and the assets and liabilities are still not shown separately. And less smoothing, which was not possible because of the view that it would result in volatility. This was especially a problem if shown in income. But we did try to make the smoothing transparent” (Interview with C).

The limited introduction of economic methods by the project may not have been due to specific technical reasons but because of a need to introduce new approaches to financial reporting gradually.

**The slow process of gaining acceptance for FAS 87.** The project for pensions leading up to the publication of FAS 87 took eleven years. Appendix B.6 on page 207 below provides a chronology of the extensive consultation process, including indications of levels of responses and comment letters. The significant number of consultations, revisions and publications combined with the extremely high level of responses from the public leaves little doubt that the development of accounting standards in the US was highly contentious. Therefore, it seems reasonable to argue that the ultimate approval of FAS 87 was dependent in part on the resolve of board members to resist pressure from special interest groups and push through these apparently controversial changes (Wyatt, 1990).

If the volume of comments from respondents demonstrated that the standard was controversial, the differing views of board members provided further evidence. The standard passed by four votes to three and of the three board members who voted against the standard, two argued that it was too radical (Brown and Sprouse) whereas the third (Wyatt) argued that it was insufficiently radical.<sup>3</sup> However, it is likely that the narrowness of the vote results from Wyatt’s desire to have his reservations about the published standard included within the standard itself, in a section reserved for dissenting board

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<sup>3</sup>B has suggested in a comment on an earlier draft of this paper that Brown’s view probably reflected the views of the preparer community as he was the business member of the FASB.

members' views. Board members who voted in favour of approving the standard were not afforded this opportunity.

According to interviewee C of the FASB:

“A lot has been made of the narrowness of the vote but frankly a 5-2 vote isn't much different from a 4-3 vote. I believe that none of the board members would have voted to stop it going through.”

The board members did express disagreement on issues such as smoothing. The view of Arthur Wyatt is represented in the standard as follows:

“...on an overall basis, the conclusions in this Statement will lead to improvements in accounting for and understanding of pension costs. He believes, however, that the degree of improvement is modest when related to the improvement that he believes should have been achieved. Thus, in his view the Statement's deficiencies represent a lost opportunity for improvement in financial reporting” (FAS 87, 1985, pg. 28).

However, in the end, board members who advocated a shift towards greater economic valuation chose to compromise and accept some small step towards their goal which was to introduce economic valuation and in so doing provide pre-conditions for future change, which contributed to factors which made possible the publication of strong representation with the publication of FAS 158 (2006).

The evidence from the development of FAS87 shows that fundamental changes to pensions accounting were watered down because the board felt that such changes would prove too onerous or controversial for practice or the business community. It seems fair to conclude that the composition of the FASB board and the persuasiveness of board members in favour of economic valuation methods were a necessary factor making possible significant conceptual change. A weaker board may well have failed to pass the standard. On the other hand, *ceteris paribus*, a stronger board might have achieved a more consistent standard.

### **B.5.2. ]**

UK GAAP: from SSAP 24 (1988) to FRS 17 (2000) A similar pattern of change in pensions reporting can be seen in the UK as in US GAAP but in the UK the process took place more than a decade later.<sup>4</sup> From 1988 until 2000, UK pension accounting had

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<sup>4</sup>The UK standard FRS 17 (2000) was not fully adopted until 2005 (although disclosure was required in the interim). The ASB initially required adoption of FRS 17 for periods ending after June 23rd 2003, but in 2002 they revised the required date of adoption of the full standard to accounting years starting on or after 1st January 2005. This meant that UK companies effectively had to move straight to adopting the IASB standard, IAS 19. However, during the transitional period from 2001 to 2005 companies were required to make detailed disclosures in place of recognition.

focused on cost rather than the liability for pension payments. This was evident in the UK's first pension standard, SSAP 24 (1988), which adopted accrual accounting, such that the pension liability simply amounted to the difference between periodic cost and payments made into the fund. Variations in actuarial gains or losses were to be spread over the remaining service lives of current employees in the scheme. The requirements of SSAP 24 bear a remarkable similarity to those of APB No. 8 in the US which preceded FAS 87 (Napier, 2009).

The replacement of SSAP 24 (1988) by FRS 17 reflected a significant shift towards economic representation through the removal of many of the smoothing options. Nevertheless FRS 17 still allowed companies to net off pension obligations and fund assets. It required the pension liability to be valued using the yield on AA-rated corporate bonds as a discount rate. The standard represented a stronger form of economic representation given that balance sheet recognition reflected the difference between the PBO and the fair value of the pension fund assets without any

### **B.5.3. International standards: IAS 19 (1993), IAS 19 (1998), IAS 19 (2004)**

The IASC first added pensions to its agenda in 1977 (Camfferman and Zeff, 2007, pg.129) at a time when only the US had any kind of accounting standard for pensions accounting (APB Opinion No. 8) although the development of FAS 87 was already underway. Before the publication of the US standard, the IASC published its first pension standard IAS 19 (1983), which was actuarial in nature and focused on cost rather than the balance sheet. The shift towards a balance sheet approach became evident in the later version of IAS 19 (1993) which introduced a pension liability. This version of IAS 19 took a balance sheet approach but allowed smoothing in the income statement. It was not until 2005 that it was subject to mandatory adoption by EU listed companies and consequently was not subject to the same scrutiny and opposition as were the US and UK standards. In 1994 the IASC agreed to reconsider the issue of smoothing, but, in the end, agreed to a 'corridor' approach. Finally, in 1998 another revised version allowed companies to elect to use the corridor method.<sup>5</sup>

## **B.6. The consultation process for FAS 87**

In what follows I set out the chronology of the consultation process for the development of the US standard.

In December 1974, following the enactment of ERISA (1974) the FASB Board issued Interpretation No. 3, "Accounting for the Cost of Pension Plans Subject to the Employee Retirement Income Security Act of 1974". This interpretation attempted to clarify the

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<sup>5</sup>The corridor method gave the option of recognising an actuarial gain or loss only if it exceeded 10% of the larger of the present value of the benefit obligation or of the fair value of the plan assets.

implications for financial reporting, pending completion of the major project on employers' accounting for pensions. Subsequently, task forces for both projects were formed in early 1975 and an FASB Discussion Memorandum, "Accounting and Reporting for Employee Benefit Plans", was issued later the same year.

In April 1977, FASB issued an Exposure Draft, "Accounting and Reporting by Defined Benefit Pension Plans", as a result of which the Board received approximately 700 comment letters. This high volume of responses reflected a level of concern among users and preparers of accounts which led the Board of FASB to believe that further work was necessary if an acceptable standard was to be developed.

In March 1980, FASB issued Statement No. 35, Accounting and Reporting by Defined Benefit Pension Plans, which addresses financial reporting by plans rather than by sponsoring employers. In the same month, FASB also published "Accounting for Pensions by Employers: A Background Paper" which discussed the pension environment and contemporary accounting practices.

In February 1981, the Board issued a Discussion Memorandum, "Employers' Accounting for Pensions and Other Post-employment Benefits" which considered basic issues related to accounting and reporting requirements. One hundred ninety-three letters of comment were received in response. In July 1981, the Board held a public hearing on the issues covered in the February 1981 Discussion Memorandum. Thirty-seven presentations were made at the hearing. In November 1982, the Board issued Preliminary Views on the issues addressed in the February 1981 Discussion Memorandum before proceeding to an Exposure Draft.

In April 1983, the Board issued a Discussion Memorandum, Employers' Accounting for Pensions and Other Post-employment Benefits, on additional issues not addressed earlier. Over 500 comment letters were received in response. The Board then consulted with the Financial Executives Institute's Committee on Corporate Reporting, and following this, published a special report of the results in October 1983. In January 1984, the Board communicated the results of this consultation along with the issues covered in Preliminary Views and the April 1983 Discussion Memorandum in a public hearing. Fifty-nine presentations were made at the hearing. Following this, a year later in March 1985 the FASB Exposure Draft, "Employers' Accounting for Pensions" was issued as a precursor to the full standard and attracted over 400 comment letters.

An Exposure Draft, Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits, was issued in June 1985. The Board received over 100 comment letters. In July and August 1985, the Board held a public hearing on the issues covered in the March 1985 and June 1985 Exposure Drafts. Fifty-six presentations were made at the hearing (FAS 87, 1985, pg. 94-96). While comparisons based on the volume of responses alone can be misleading and are at best a guide, the level of responses to the pensions consultation papers exceeds those of the



consultation processes of other FASB standards at around this time. For standards issued between 1985 and 1986, the level of responses mostly attracted less than 200 letters.<sup>6</sup>

### B.7. US FAS 87: Educational background and subsequent university experience and publications of certain influential individuals in standard setting for pensions

Name	Role	Academic experience
Frank E Block	FASB board member	Yale, London University and University of Georgia
Victor H Brown	FASB board member	Professor of Accounting, George Mason University (Fairfax VA); academic publications including <i>Present Values: A proposed concepts statement</i>
Donald J Kirk	FASB board member	Undergraduate degree in history, CPA and MBA (Columbia); academic publications
Tim Lucas	Project manager FAS 87	Undergraduate economics
Robert Sprouse	FASB board member	Undergraduate San Diego State College, MBA and PhD University of Minnesota; Lecturer University of California, Berkley; extensive academic publications
Arthur Wyatt	FASB board member	PhD University of Illinois and subsequently professor of Accounting there; extensive academic publications

<sup>6</sup>Two standards did however attract high levels of responses. These were FAS90, *Regulated Enterprises: Accounting for Abandonments and Disallowances of Plant Costs* which attracted over 1,400 letters — although many were ‘multiple’ letters — and FAS89, *Financial Reporting and Changing Prices*.

**B.8. UK FRS 17: Educational background and subsequent university experience and publications of certain influential individuals in standard setting for pensions**

Name	Role	Academic experience
Allan Cook	Technical Director, ASB and Secretary, IASC	BSc LSE (Econ)
Bryan Carsberg	Board member, ASB	MSc LSE (Econ); University positions Chicago, LSE, Manchester, UC Berkeley; extensive publications including <i>Economics of Business Decisions</i> (Carsberg, 1979) faculty)
David Tweedie	Board member, ASB/IASB	Undergraduate Accounting, Edinburgh, PhD Edinburgh, Lecturer in Accounting; academic publications
Geoffrey Whittington	Board member, ASB	Undergraduate degree in economics, LSE; PhD Cambridge 1966; academic positions at Bristol University, Director of Studies in Economics, Cambridge and Professor of Accounting Cambridge and Edinburgh

# Appendix C

## Appendices for chapter 4

### C.1. Technical details of derivatives accounting in FAS133 and IAS39

**Recognition.** Both IAS 39 and FAS 133 defined a derivative as possessing three characteristics. First, a derivative has at least one underlying and at least one ‘notional amount’. The notional amount is a nominal face amount which determined the payments made on the instrument. Second, a derivative has either no initial cost, or an initial cost which is small relative to the resulting value of the instruments.<sup>1</sup> (FAS 133, ¶255, pg. 115). Third, a derivative could be settled easily, and in ways not specifically contracted for. Under FAS 133 (1998) and IAS 39 (1998), all derivative instruments were recognised at fair value excluding transaction costs, with the result that the initial value would be zero if no premium had been paid. Thereafter, the derivative would be revalued at fair value. Fair value for an instrument not traded would be market price (bid price for a derivative asset and asking price for a derivative liability). For a non-traded derivative, fair value would be ascertained by reference to a similar class of instruments. If no similar classes of instrument existed, valuation would be made according to an economic model (*mark-to-model*).

**Valuation.** FAS 133 sets out in general terms the acceptable valuation methods for derivatives in ¶17, but refers primarily to the valuation requirements of FAS 107. According to this earlier disclosure-based standard, quoted market prices are the “best evidence of the fair value of financial instruments.” However, in cases where market prices are not available, the standard recommends that management provide an estimate based on an instrument from a similar reference class or by using “valuation techniques” such as discounted cash flows, option pricing models or matrix pricing models (FAS 107, ¶11). FAS 107 also links the “relevance of measures of financial assets and liabilities based

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<sup>1</sup>This feature offers investors “the opportunity to participate in the price changes of an underling without actually having to own an associated asset or own an associated liability.”

on fair values” to the FASB Conceptual Framework. Specifically, the valuation basis proposed derives from FASB Concept Statement No.1, *Objectives of Financial Reporting by Business Enterprises* which asserts that information provided in financial statements should be “useful to present and potential investors, creditors, and other users in making rational investment, credit and similar decisions” (FAS 107, 1991, ¶39). However, valuing financial derivatives was problematic, given the difficulty of finding reliable market prices for underlyings, the complexity of derivatives structures generally and their tendency to volatility in value.

Of the valuation options set out in IAS 39 (1998), two were applicable to financial derivatives. The first of these was the use of a price “in an active public securities market for that instrument”. The second was the use of an “appropriate” valuation model “for which the data inputs to that model can be measured reliably” (¶96). Moreover, “Valuation techniques should incorporate the assumptions that market participants would use in their estimates of fair values, including assumptions about prepayment rates, rates of estimated credit losses, and interest or discount rates” (¶97). Companies using models to value financial instruments were required to disclose “the methods and significant assumptions applied in estimating fair values” (¶167a).

The objective was to establish a proxy for the transaction price on the measurement date in an arm’s length exchange motivated by normal business considerations. A valuation technique should aim to incorporate all factors that market participants would consider in setting a price through the application of an accepted economic method for pricing financial instruments.

Valuation models used for options are known as stochastic volatility models — in other words, models which determine value according to probability distributions of volatility. These include Black-Scholes, binomial tree pricing, Monte Carlo models and finite difference models. According to the IASB,

“ A valuation technique (a) incorporates all factors that market participants would consider in setting a price and (b) is consistent with accepted economic methodologies for pricing financial instruments ” (IAS 39, 1998, ¶18).

**Changes in Value.** Both standards required immediate recognition in the profit and loss account for periodic changes in the fair value of derivatives. However, they recognised that such an accounting treatment could lead to an asymmetric reporting of transactions using derivatives, if the underlying were to be valued at amortised cost rather than at fair value, as any change in the derivative would fail to be offset by an equivalent, but opposite movement in the value of the underlying. Given this treatment, the act of trying to insure or ‘hedge’ against variability in an underlying might lead to the reporting of artificial volatility in net asset or liability values. This would result from fact that the underlying would be valued at cost whereas the value of the derivative would be

reported at current value and would be likely to change over time. Such financial reporting treatment, standard setters realised, might fail to reflect management intention to hedge rather than speculate.

### *Hedge accounting*

To address this problem of asymmetry, the FASB and IASB permitted special accounting for hedging transactions. As FASB stated in FAS 133 (1998, ¶18): “The accounting for changes in the fair value (that is, gains or losses) of a derivative depends on whether it has been designated and qualifies as part of a hedging relationship and, if so, on the reason for holding it.” The intention of the management in designating hedges for risk-management could determine the way they were accounted for.

Hedge accounting effectively applies the matching concept to ensure consistent treatment of hedged items to the extent that a hedge is effective. For fair value hedging, entities can use derivatives to fix the fair value of assets on the balance sheet, and thus net off the value of the derivative against the carrying value of the asset.<sup>2</sup> Cash flow hedges allow a company to reduce variability in future cash flows by contracting forward or by buying an interest rate swap, by charging the change in value in the derivative to an equity reserve rather than straight to the profit and loss account. Any ‘ineffective’ portion of the derivative, for which movements in the underlying and derivative are not symmetrical, must be charged immediately to the profit and loss account. Foreign exchange hedges also permit changes in value in the effective portion of derivatives to be shown in an equity reserve. The rules on hedge accounting are notoriously complex, both in terms of the categorisation rules and the treatment of changes in hedged derivative values. Appendix C.2 summarises the basic hedge accounting rules according to IAS 39. US GAAP hedging rules are broadly similar in principle.

**IAS 39** According to IAS 39, hedge transactions were intended to designate, “a derivative or (in limited circumstances) a non-derivative financial instrument as an offset, in whole or in part, to the change in fair value or cash flows of a hedged item” (IAS 39, ¶21). IAS 39 goes on to specify the circumstances under which hedge accounting is permitted, that is when, “the hedging relationship is clearly defined, measurable, and actually effective” (¶22).

FAS 133 states that in order for a hedging relationship to qualify for hedge accounting, it must be “highly effective in offsetting changes in fair value or cash flows for the risk being hedged” (FAS 133, 1998, ¶386), although the FASB acknowledges, later in the same paragraph, that they have provided no specific definition of “effectiveness” although the method of assessing effectiveness should be “reasonable” and that “the same method be

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<sup>2</sup>This does result in a carrying value which is neither cost nor fair value and it is unclear what underlying economic reality it represents.

used for similar hedges unless different methods are explicitly justified". Moreover, hedge accounting was allowed under both standards for hedges of portfolios or debt portfolios, but not held-to-maturity portfolios.

Both standards specified three categories of hedging: fair value, cash flow and foreign exchange. An example of a cash flow hedge is that of an interest rate swap in which two parties contract to exchange interest cash flows. Consider a case in which Party A has exposure to variable interest rate payments but receives fixed income from debt, whereas Party B has fixed rate exposure and variable rate interest income. This case offers an opportunity for both parties to minimise the risk to their performance of interest rate volatility.

**Definition of effectiveness.** According to IAS 39, ¶146: "A hedge is normally regarded as highly effective if, at inception and throughout the life of the hedge, the enterprise can expect changes in the fair value or cash flows of the hedged item to be almost fully offset by the changes in the fair value or cash flows of the hedging instrument, and actual results are within a range of 80 per cent to 125 per cent. For example, if the loss on the hedging instrument is 120 and the gain on the cash instrument is 100, offset can be measured by  $120/100$ , which is 120 per cent, or by  $100/120$ , which is 83 per cent. The enterprise will conclude that the hedge is highly effective."

## C.2. Summary of hedge accounting options under IAS 39 and FAS 133

	Fair Value Hedge	Cash Flow Hedge	Foreign Exchange Hedge Accounting
<b>Reference in FAS 133</b>	¶22–23;	¶30–31	¶37–42
<b>Reference in IAS 39</b>	¶153–157	¶158–163	¶164
<b>Description</b>	Hedging against changes in the fair value	Hedging of variable cash flows	<ol style="list-style-type: none"> <li>1. hedging of forex exposure to investments</li> <li>2. of an available-for-sale security</li> <li>3. a forecast transaction</li> </ol>
<b>Accounting Treatment</b>	Mark-to-market with gains to P&L	Mark-to-market with the ‘effective’ part of the gain/loss reported in the <i>Statement of Changes in Equity</i> (IAS 39) or <i>Other Comprehensive Income</i> (FAS 133) initially and then recycled to income and the ‘ineffective’ part of the gain/loss reported in income immediately	<ol style="list-style-type: none"> <li>1. Mark-to-market with gain/loss to Statement of Changes in Equity or Other Comprehensive Income</li> <li>2. as fair value hedge</li> <li>3. as cash flow hedge</li> </ol>

### C.3. Chronology of publications in the development of FAS 133

<b>Date</b>	<b>Publication</b>
December 1981	SFAS 52 <i>Foreign Currency Translation</i>
August 1984	SFAS 80 <i>Accounting for Futures Contracts</i>
May 1986	Start of Project on Financial Instruments
March 1990	SFAS 105 <i>Disclosure of Information about Financial Instruments with Off-balance sheet Risk and Financial Instruments with Concentration of Credit Risk</i>
September 1991	FASB Research Report <i>Hedge-accounting: An Exploratory Study of the Underlying Issues</i>
November 1991	FASB Discussion Memorandum <i>Recognition and Measurement of Financial Instruments</i>
December 1991	SFAS 107 <i>Disclosures about Fair Value of Financial Instruments</i>
May 1993	SFAS 115 <i>Accounting for Certain Investments in Debt and Equity Securities</i> , effective December 1993
October 1994	SFAS 119 <i>Disclosure about Derivative Financial Instruments and Fair Value of Financial Instruments</i>
October 1995	FASB Staff Report published jointly with UK, Canadian, Australian standard-setters and IASC <i>Major Issues Related to Hedge Accounting</i>
June 1996	ED, <i>Accounting for Derivative and Similar Financial Instruments and for Hedging Activities</i>
December 1996	SFAS 126 (S) <i>Exemption from Certain Required Disclosures about Financial Instruments for Certain Nonpublic Entities — an amendment to FASB Statement No. 107</i>
August 1997	Draft Statement FAS 133 made available to the Financial Instruments Task Force and other interested parties for comment
June 1998	SFAS 133 <i>Accounting for Derivative Instruments and Hedging Activities</i>
June 1999	SFAS 137 <i>Accounting for Derivative Instruments and Hedging Activities — Deferral of the Effective Date of FASB Statement No. 133 — an amendment of FASB Statement 133</i>



History of FAS133 — continued from previous page

<b>Date</b>	<b>Publication</b>
June 2000	SFAS 138 (S) <i>Accounting for Certain Derivative Instruments and Certain Hedging Activities — an amendment of FASB Statement No. 133</i>
September 2000	SFAS 140 (S) <i>Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities — a replacement of FASB Statement No. 125</i>
April 2003	SFAS 149 (S) <i>Amendment of Statement 133 on Derivative Instruments and Hedging Activities</i>
May 2003	SFAS 150 (S) <i>Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity</i>
March 2006	SFAS 156 (S) <i>Accounting for Servicing of Financial Assets — an amendment of FASB Statement No 140</i>
September 2006	SFAS 157 (S) <i>Fair Value Measurements</i>

## C.4. Chronology of publications in the development of IAS 39 to 2006

Date	Publication
October 1984	<i>Exposure Draft 26 Accounting for Investments</i>
March 1986	IAS 25 <i>Accounting for Investments</i>
September 1991	Exposure Draft E40 <i>Financial Instruments</i>
January 1994	Modified E40 and published as ED 48
June 1995	IAS 32 adopted (being the presentation and disclosure parts of E48)
March 1997	Discussion Paper, <i>Accounting for Financial Assets and Financial Liabilities</i>
June 1998	Exposure Draft E62, <i>Financial Instruments: Recognition and Measurement</i> published
December 1998	IAS 39 <i>Financial Instruments: Recognition and Measurement</i> (Adopted from E62)
January 2001	Effective date of IAS 39
August 2003	Exposure Draft, <i>Fair Value Hedge Accounting for a Portfolio Hedge of Interest Rate Risk (Macro Hedging)</i> issued for public comment
December 2003	Revised IAS 39
March 2003	IAS 39 revised to reflect <i>Macro Hedging</i>
December 2004	Amendment to IAS 39 for transition and initial recognition of profit or loss
April 2005	Amendment issued to IAS 39 for cash flow hedges of forecast
June 2005	Amendment to IAS 39 for fair value option
August 2005	Amendment to IAS 39 for financial guarantee contracts
September 2007	Proposed amendment to IAS 39 for exposures qualifying for hedge accounting
May 2008	IAS 39 amended for <i>Annual Improvements to IFRSs 2007</i>
July 2008	Amendment to IAS 39 for eligible hedged items
October 2008	Amendment to IAS 39 for reclassification of financial assets
December 2008	Proposed amendment to IAS 39 for Embedded Derivatives Assessment
March 2009	Amendment to IAS 39 for embedded derivatives on reclassifications of financial assets
April 2009	IAS 39 amended for Annual Improvements to IFRSs 2009
November 2009	Proposed amendment to IAS 39 for impairment of financial assets measured at amortised cost
November 2009	IAS 39 replaced by IFRS 9 (not yet endorsed by the EC)

## C.5. Technical criticisms of the hedging derivatives standards

**Hedging and effectiveness.** In addition to concerns about volatility, the hedging requirements of FAS 133 and IAS 39 attracted negative comments. Many criticisms of the FASB Exposure Draft focus on hedge accounting, in particular the required characteristics of allowable hedging activities. For instance, the following hedges would not be open to hedge accounting rules: (1) the use of ‘stacked futures’ which have different maturity dates from the underlying item to be hedged, (2) derivatives which are not intended to set off all of any future price changes in the underlying and (3) stand-alone hedges which are not originally part of an overall hedge strategy (Boyd et al., 1996, pg. 245). In addition, criticisms were made of the proposed cessation of ‘basis adjustments’ to the value of underlying assets or liability and their replacement with hedge accounting rules. Boyd et al. (1996) found that 60% of respondents to the 1996 FASB exposure draft disagreed with this policy. For example, in a comment letter on this issue, the company Philip Morris argues that:

“We strongly disagree with this fundamental and somewhat excessive change in approach. Recording the differences in fair value as an adjustment to the basis of the transaction has been, and continues to be, the best way to reflect the economics of the hedge . . . Unwarranted income or equity volatility on an interim basis will result” (FASB comment letter no. 221, quoted in Boyd et al., 1996, pg. 254).

Inconsistencies in representation due to categorisation were raised as a concern by 43% of respondents, and in particular the potentially arbitrary distinction between hedging arrangements for interest rate swaps designated as either *fair value* or *cash flow* features in 28% of letters. For example, many firms complained about the perceived inconsistency in the fact that the accounting for a fixed-rate debt issue would be different from that for a floating rate issue with a floating-to-fixed interest rate swap (which although synthetic, would be equivalent). Federal Farm Credit Banks Funding Corporation wrote to the FASB saying:

“Synthetically linked transactions, having economically identical characteristics, would receive significantly different accounting and financial reporting treatment” (FASB Comment letter no. 89, quoted in Boyd et al., 1996, pg. 254).

In addition, Boyd et al. (1996) found that 49% of respondents — particularly financial companies — criticised the requirement to have matching maturity dates for hedge derivatives and hedged items thus ruling out hedge accounting for the rolling over of shorter term contracts. Hershey Foods Corporation wrote that:

“Such curtailment will increase the risk inherent in our business because we are precluded from using the most cost effective means of managing commodity price risks” (FASB Comment letter no. 176, quoted in Boyd et al., 1996, pg. 254).

The experience of the IASC was not significantly different from that of the FASB. The project team admitted in a 1997 staff discussion paper that, “Hedge accounting proposals in E48 were severely criticised by many respondents”. The complaints concerned: (1) a reliance on management designation of hedge items which potentially reduced comparability, (2) complexity of accounting guidance (3) “the deferral of realised and unrealised losses and gains on the balance sheet that cannot be justified as assets or liabilities within the IASC Framework” (IASC, 1997, ¶4.16).

## C.6. The development of standards for derivatives

### C.6.1. FAS 133

In the US, the financial instruments project began in the early 1980s with the publication of standards in 1981 of FAS 52 and in 1984 of FAS 80. The FASB subsequently launched the financial instruments project in May 1986. Rather than aiming at one standard for all types of financial instrument, the FASB developed different standards for each type. The project was divided into three parts which addressed issues of: (1) disclosure, (2) recognition and measurement, and (3) distinctions between debt and equity instruments. The first part of the project on disclosure led to the publication of two standards.

**March 1990:** FAS 105, *Disclosure of Information about Financial Instruments with Off-balance-Sheet Risk and financial Instruments with Concentration of Credit Risk* required increased disclosure to reduce the risk of accounting loss due to off-balance sheet financial instruments. The FASB published a discussion memorandum, *Recognition and Measurement of Financial Instruments* in November 1991 which addressed the recognition of financial instruments, their initial and subsequent measurement and finally their de-recognition. In December 1991, the publication of FAS 107 (1991) addressed the valuation of disclosures about derivatives and other financial instruments, and provided the basis on which those financial derivatives were to be valued. In addressing the third part of the project, in August 1990, the FASB published a discussion memorandum, *Distinguishing between Liability and Equity Instruments and Accounting for Instruments with Characteristics of Both*. Hedging was regarded as a particular difficulty with accounting for derivatives, and in September 1991, the FASB published *Hedge Accounting: An Exploratory Study of the Underlying Issues*.

**June 1993:** The Board published *A Report on Deliberations, Including Tentative Conclusions on Certain Issues, related to Accounting for Hedging and Other Risk-adjusting Activities*. FAS 115 was published in 1993 as a stop-gap, while further deliberations on the measurement of financial instruments were underway (Camfferman and Zeff, 2007, pg.36). FAS 115 proposed a mixed-measurement scheme which was considered controversial by many as it allowed management discretion over categorisation of financial instruments and thereby exert indirectly over their representation.

Statement 115 permitted amortized cost for debt securities held to maturity, but the FASB argued that it was not suitable as a measurement for derivatives. The FASB Board was uncomfortable with the application of this standard to derivatives for two reasons. First, they argued that amortized cost was not a suitable measure for derivative instruments. The interim losses and gains resulting from their volatile fair values should not be treated as unrealised — as they would have been for debt instruments — but reflected in either income or in comprehensive income. Second, since derivatives could usually be settled or transferred at any time before maturity, interim losses or gains would be likely to be realised — unlike changes in the market value of debt instruments — and could not be assumed to reverse by the time the derivative is sold.

**October 1994:** The FASB published FAS 119 to amend FAS 105 and FAS 107. FAS 119 extended disclosure requirements regarding derivatives, and also required the distinction to be drawn between traded and non-traded portfolios of derivatives.

**October 1995:** A report written by FASB staff was published jointly with accounting standards setters from UK, Canada, Australia and the IASC set out the issues relevant to hedge-accounting (FASB Joint Report, 1995).

**June 1996:** The FASB published an Exposure Draft, *Accounting for Derivative and Similar Financial Instruments and for Hedging Activities* which resulted in FASB receiving comment letters from approximately 300 organizations.(FAS 133, BC ¶214).

During the period between 1992 and 1996 the FASB engaged in a consultation programme which involved 100 public meetings (of which 74 were board meetings) as well as visits by board members and staff to “numerous companies in a variety of fields”(FAS 133, ¶210).

**April to May 1997:** Between April 24th and May 9th, eighteen members of the House of Representatives sent letters to the FASB complaining about the proposed standard, citing concerns over potential income volatility and negative effects for investors resulting from the new requirements (Hayt, 1997). In response, Arthur Levitt, the Chairman of the SEC, delivered a speech in Detroit rejecting those concerns as having been raised in order to undermine the standard setting process rather than contribute to the technical debate. In July, the International Swaps and Derivatives Association (ISDA) wrote to the FASB raising implementation concerns about implementation if the standard were to become operational in 2000 due to the perceived software problems known as the *Y2K*.

**July 1997:** Alan Greenspan wrote to the FASB rejecting the new standard’s requirement of recognition rather than disclosure. Ed Jenkins, Chairman of the FASB responded to this complaint during a Senate Banking Committee hearing on October 9th, 1997, claiming that the objective of the Federal Reserve Board was to, “replace existing reporting practices for derivatives and hedging activities with an unspecified ‘simple’ approach to reporting certain derivative transactions that are deemed to be abusive. Larger market participants but only those participants would be required to supplement the basic financial statements with a balance sheet and an income statement based on reporting all financial instruments at fair value.”(Senate Banking Committee, October 9th, 1997). Jenkins argued that the FASB proposal is, in fact, not significantly different from the Federal Reserve Board’s ‘simple’ approach, except that the Federal Reserve prefers the provision of supplemental fair value financial statements for certain institutions, and doubted that, “those institutions would look forward to that.”

On the same day, the Chief Executive Officers of 22 US listed companies wrote to the FASB to express their opposition often referring to the need for re-exposure of the standard (Hayt, 1997, pg.139). In the October 9th Senate Banking Committee hearing, Jenkins rebutted this complaint saying,

“ In an attempt to discredit the proposed standard on derivatives and hedging, some have criticized the absence of due process. That is nonsense. The due process that led to the proposed standard included all of the usual steps plus others. For example, we have requested comments from interested parties on five separate occasions, four more than our Rules of Procedure require.”(Senate Banking Committee, October 9th, 1997)

Jenkins’ vociferous defence of the FASB’s due process is striking — particularly when viewed in the light of the subsequent failure by the IASB to manage due process complaints made against the IASB Liabilities Project to revise IAS 37 (1998). See Chapter 5.

**August 1997:** The FASB published an Exposure Draft and made examples available to the Financial Instruments Task Force “and other interested parties” for “comment on its clarity and operationality” (FAS 133, BC ¶215). The technical concerns raised in the 150 comment letters received in response to this draft were discussed in 10 open board meetings, some of which led to amendments to requirements.

Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities*” was finally published in 1998.

**May 1999:** the FASB was forced to postpone the implementation of FAS 133 for a year as a result of complaints from preparers that they had not had enough time to preparation for possible logistical problems by training staff and preparing the necessary data. In addition, preparers complained that the timing coincided with the turn of the new millennium; many preparers were worried that “Y2K” would cause computer problems and were loathe to begin any new systems at this time (See Financial Times, Jim Kelly, May 20th, 1999, pg. 4). The standard finally came into effect for all fiscal periods starting after June 15th 2001

**June 2000:** The FASB issued FAS 138, *Accounting for Certain Derivative Instruments and Certain Hedging Activities* as an amendment to FAS 133 as a response to technical concerns relating to interest rate and cross currency hedges. The standard which preparers would have to adopt (which for many preparers would be January 1st, 2001) would take into account these changes.

### C.6.2. IAS 39

In describing the development of IAS 39 (1998), I rely heavily on the detailed history of the IASC by Camfferman and Zeff, according to whom:

“The project on financial instruments was unquestionably the most challenging on the IASC’s history. It would also become the most controversial element on the legacy of standards bequeathed to the IASC’s successor, the International Accounting Standards Board” (Camfferman and Zeff, 2007, pg. 361).

**1970s:** The Basel committee which requested that the IASC consider accounting for financial institutions in the 1970’s. IASC consequently started a project on financial disclosures for banks.

**1988:** The project stalled after the IASC published the second draft of ED34 in 1989 and the development of technical standards on financial instruments was taken up by a new project started in 1988 (Camfferman and Zeff, 2007). The financial instruments project was initiated jointly with the Canadian Institute of Chartered Accountants (IAS 39, 1998, ¶2)

This new project took its lead from work on financial instrument reporting undertaken by FASB, and was no doubt also influenced by demands made by the Joint Working Group in 1988. In addition, the Basel Committee promoted the development of standards for financial instruments and was keen to maintain some influence, given the impact of such standards on capital adequacy ratios for banks (Camfferman and Zeff, 2007, pgs. 361–367) Thus the two leading standard-setters faced a variety of institutional pressures while developing standards for derivatives, which included their own relationship which involved elements of mutual competition on certain issues combined with the requirement for mutual cooperation on others.

**Early 1990s:** The IASC aimed to develop a broad scope standard encompassing definitions of financial assets and liabilities and recognition and measurement criteria. In 1990 and 1991, the FASB had issued standards on disclosure, but by the time the IASC issued its first exposure draft, ED 40, in 1991, the FASB had not issued a standard on recognition and measurement. This exposure draft was poorly received by the FASB and the SEC who were increasingly committed to a full fair value standard and viewed the IASC approach as potentially subjective, since it allowed the categorisation of certain derivative products according to management intentions.

Following the publication of Exposure Draft 26 *Accounting for Investments*, the IASC started to develop an exposure draft for financial instruments specifically. However, the IASC Board was unfamiliar with this complex and rapidly evolving area. The Board issued ED 40 in 1991 but was unsure of the response that it would receive from different constituents globally. The FASB had already made significant progress in developing a standard for financial instruments and made it clear that it did not want the IASC exposure draft to conflict with their approach which tended towards less discretion at the entity level over the choice of measurement scheme.

Other reactions to exposure draft ED 40 were also negative, with 192 comment letters received from (including 118 from Canadians which were collected by CICA (Camfferman and Zeff, 2007, footnote 82, pg 621). However, the IASC board decided to continue and make necessary modifications to the existing exposure draft rather than re-start the process. Controversially the Board released an unofficial statement of propose changes to ED 40 in an issue of *IASC Insight*. IOSCO put pressure on the IASC to approve a standard for financial instruments before the IOSCO Annual Conference was held in October 1994 in order that it could potentially be endorsed. Following more negative feedback from Japan (who

had not been provided with a Japanese-language version of the *IASC Insight* statement of proposed changes to ED 40, the IASC relented and agreed to publish a new exposure draft.

**January 1994:** The IASC published ED 48 which allowed for derecognition, excluded insurance contracts and required the specific designation of hedge instruments. While this may have satisfied some constituents in practice, the IASC board was no longer unanimous in its approval (see IASC Board minutes 2-5 Nov 1993 minute 7) with the German and Japanese contingents uncomfortable with a move towards fair value, especially if changes in fair value were recognized in income.

**January 1994:** The IASC board met with representatives of national standard setters (some of whom were already board members). Two main themes were raised. First, representatives questioned the legality of including unrealized gains or losses in income, given that this was restricted by the European Fourth Directive. Second, the risk of rushing through a defective standard was raised by Jim Leisenring of FASB and Allan Cook of the ASB. The FASB were particularly dissatisfied with the categorisation of financial instruments by management, even though this was the approach taken by FAS 115.

In the next IASC board meeting, held in November 1994, the two main criticisms of ED 48, as too controversial technically and too radically different from current practice led to the decision to divide the project into a standard on definitions and disclosure and another on recognition and measurement.

**January to June 1995:** Following the collapse of Barings in 1995, the IASC decided to split the project and publish the IAS 32 which dealt with the more straightforward area of definitions and disclosure, publishing IAS 32 in June 1995. Although the IASC had not intended to split the project, its actions were seen as a reasonable response to the risk of financial failure

In January 1995 the IASC decided to change the members of the steering committee for ED 48 and start anew on developing a new exposure draft. The new committee, headed by Alex Milburn, resisted pressure to deliver quickly and restarted the process by starting work on a comprehensive discussion paper, published in March 1997<sup>3</sup> which proposed fair value for all financial instruments, a controversial decision in terms of current practice but one which avoided problematic categorisation issues. This was supported by the UK and Australian delegations (Camfferman and Zeff, pg. 374 and IAS 39, ¶7.

The IASC admitted that it faced, “controversies and complexities in seeking a way forward”. However, it was under pressure to complete the standard quickly as a result of an agreement made with IOSCO, in 1995, to complete a set of IOSCO core standards, including a standard on financial instruments (IAS 39, ¶6.

According to Warren McGregor, former executive director of the Australian Accounting Research Foundation, and later an IASB board member,

“There is no doubt that the IASC has performed a small miracle in completing its core standards program in the short period of time it allowed itself. And it is fair to say that the body of standards now comprising IASs is a significant improvement over those in place prior to the commencement of the improvements program. However, are they of sufficiently high quality to be acceptable to IOSCO? Who will be the key players in deciding this issue?” (McGregor, 1999, 160)

**1997/8:** A working group, the ‘Joint Working Group’ (JWG) was established in 1997 by the IASC to explore the possibility of full fair value accounting and included standard setters from 13 nations.

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<sup>3</sup>*Accounting for Financial Assets and Financial Liabilities*



The IASC chairman, Sharpe, tried to develop a composite of the existing FASB standards on financial instruments as an IASC standard, as an interim solution. Jim Leisenring and IASC staff member Paul Pacter — who himself was a former FASB staff member — completed this task within five months for submission to the board at its meeting in Paris at the end of October 1997. According to Camfferman and Zeff (2007), the result was:

“a voluminous draft standard, longer by far than any draft standard the IASC had ever considered, in which the relevant sections of many different documents from the body of US GAAP were copied almost verbatim. Pacter’s editorial work was limited to rearranging, cross-referencing to other IAS, and bringing the text into line with the IASC’s customary style” (Camfferman and Zeff, 2007, pg. 372).

Interviewed by Accountancy Age online, Pacter admitted that, “I literally cut and pasted and presented our board with a 500-page draft of a standard on financial instruments — literally taken word for word from the US standard” (Accountancy Age, <http://www.accountancyage.com/aa/interview/1807957/profile-paul-pacter-international-standard-setter>, 15th April, 2010).

**2000:** In 2000, the JWG published a report (Joint Working Group, 2000) in the form of a draft standard. The JWG argued for fair value for all entities, for all financial assets and financial liabilities, recognising all changes in fair value in the profit and loss account and disallowing hedging. The JWG recommendations suggest that a pro-fair value sentiment existed throughout the standard-setting community, even if other institutional and political interests would make it impossible to implement.

**April 1998:** The IASC board considered several versions of a new exposure draft, ED 62 - a summarised and modified version of the proposed standard based on US GAAP, and which was re-worked several times by Paul Pacter during the six-day meeting. The modifications were to make allowances for mixed-measurement as had been proposed in ED 48 and this brought the IASC ED 62 more closely into line with the FASB standards on financial instruments.

**December 1998:** The board approved the new standard, IAS39 *Financial Instrument: Recognition and Measurement* by only a majority of twelve votes, being the minimum number possible and with a planned effective date two years ahead.

Year	“financial economics”	“derivative”	“banking”	“finance”	“classified”
1965	1	2	663	2660	1665
1970	2	3	809	2189	1082
1975	0	1	848	2375	1071
1980	5	14	1011	2431	867
1985	11	5	785	1991	814
1990	21	18	762	2116	1319
1995	17	62	834	2132	1531
2000	34	32	716	2324	2019
2005	25	11	701	1831	1340

Figure C.1: Annual frequency of specific terms used in the Economist between 1965 and 2000 (every 5th year)

## C.7. The increasing legitimacy of financial economics: articles in the Economist

Figure C.1 on page 226, shows that between 1965 and 1975, very few references are made to the terms “financial economics” and “derivative”, but that after 1980 the number of references increases significantly in relative terms (although not in absolute terms given the small starting point). In 1960 no results were returned for the search term “financial economics”.

**In 1980:** The Economist contained an advertisement for a stockbroking firm looking for, “a specialist in monetary financial economics” (The Economist, January 12th, 1980, 108). In order to try to control for other factors which might have caused the increase in the frequency of the term, I also obtained frequency data for the number of items published containing the term ‘derivative’. What I would expect to see, if this term, like the term ‘financial economics’ reflected an increased public awareness and probably legitimacy of financial economics, was a correlation with the term ‘financial economics’. In other words, I would expect to see a significant relative increase after 1980 but a very low frequency before then. I found that, with the exception of one year, 1985, the use of the term did indeed increase, with a maximum citation frequency of 62 in 1995.

To try to control for the possibility that the increase in references to the two terms reflects merely an increase in the number of finance or banking articles from 1980, or an increase in the number of classified advertisements, I obtained frequency data for the number of articles containing the terms ‘banking’ or ‘finance’ and found that these did not show a similar increase from 1980.<sup>4</sup>

<sup>4</sup>In order to control for the possibility that the increase in classified advertisements accounted for the increase in the number of items containing the search terms, I obtained data for those categorised as classified advertisements.

The number of items categorised as classified advertisements did increase between 1985 and 2000, which might suggest that some of the items were for advertisements. However, if an increased number of classified advertisements referred to derivatives or financial economics, that would provide corroboration for the hypothesis that the legitimacy of financial economic techniques was increasing over this period.

**In 1990:** There were 21 results for ‘financial economics’, 18 of which were recruitment advertisements for positions requiring a knowledge of financial economics. The remaining three references to ‘financial economics’ were included in articles, one of which reported the award of the Nobel Prize in economic sciences to three financial economists (Harry Markowitz, William Sharpe and Merton Miller). The article states that, “None of the laureates is a household name; unlike some recent winners, all three deserve to be. Between them, they have had a profound effect not only on the way economists think about financial markets, but also on the way financial market practitioners think about themselves” (The Economist, October 20th, 1990, pg. 145). In a “Schools Brief” section entitled “Unlocking corporate finance”, in December the same year, an article about the Miller Modigliani theorem, refers to Robert Merton’s view which it describes as marking a “watershed between old and new finance”. The article notes that:

“[o]ld finance analysed accounting rules and was rich with anecdotes. New finance is mathematically rigorous; its theorems are proved true under certain conditions, and are tested by econometric models” (The Economist, December 8th, 1990, pg. 117).

This article presumably reflects the increasing legitimacy from the 1980s of financial economics as a finance and business tool.

**C.8. US FAS 133: Educational background of individuals at the FASB**

<b>Name</b>	<b>Position</b>	<b>Academic experience</b>
Joseph V Anania	FASB board member	BBA University of Pittsburgh
Anthony T Cope	FASB board member	MA Cambridge University
John M Foster	FASB board member	BA Economics, Colorado College
Edmund L Jenkins	FASB board member	BA Albion College, MBA University of Michigan
Gaylen N Larson	FASB board member	BA Northern Illinois University, courses from Harvard Business School
James J Leisenring	FASB board member	BA Albion College, MBA Western Michigan University, faculty member Western Michigan University
Gerhard G Mueller	FASB board member	BS, MBA and PhD from University of California Berkeley; professor of accounting, University of Washington
Paul Pacter	FASB technical staff	BS in Accountancy Syracuse University, PhD in Accounting, Michigan State University

Figure C.2: Educational background of key FASB individuals involved in the development of FAS 133.

**C.9. IAS 39: Educational background of influential individuals  
at the IASB during the period 2002 to 2005**

<b>Name</b>	<b>Previous affiliations</b>	<b>Academic experience</b>
Hans-Georg Bruns	German ASC	MBA University of Münster, PhD University of Mannheim, Lecturer at the University of Stuttgart
Anthony T Cope (board)	FASB board	MA Cambridge University
David Tweedie (board)	ASB board, G4+1	BSc, PhD and Lecturer in Accounting, Edinburgh
Gilbert G�elard (board)	French standard setter	HEC business school
Jim Leisenring (board)	G4+1	BA Albion College, MBA and Faculty Western Michigan University
Geoffrey Whittington (board)	ASB	BSc in economics, LSE, PhD Cambridge, academic positions at Bristol University, Cambridge and Edinburgh
Mary Barth (board)	FASB	AB Cornell, MBA Boston University, PhD Stanford, Professor of Accounting at Stanford University
Patricia O'Malley (board)	G4+1, JWG	
Warren McGregor (board)	IASC board, G4+1	
Tatsumi Yamada (board)	IASC	Visiting lecturer on IAS at Seijo University 1997-98
Wayne Upton (technical staff)	FASB	BS Regis University, Denver, academic publications

<sup>a</sup> FASB Emerging Issues Task Force

<sup>b</sup> FASB Derivatives Implementation Group

Figure C.3: Education and previous affiliations of IASB board members and staff.

# Appendix D

## Appendices for chapter 5

### D.1. Chronology of IAS 37 and the Liabilities Project



August 1997	Exposure Draft E59 Provisions, Contingent Liabilities and Contingent Assets
September 1998	IAS 37 Provisions, Contingent Liabilities and Contingent Assets
July 1999	Effective date of IAS 37 (1998)
May 2003	Discussed at IASB meeting
May 2004	Discussed at IASB meeting
September 2004	Discussed at IASB meeting
October 2004	Discussed at IASB meeting
December 2004	Discussed at IASB meeting
May 2005	Discussed at IASB meeting
June 2005	Exposure Draft of substantial revisions to IAS 37
February 2006	Discussed at IASB meeting
March 2006	Discussed at IASB meeting
May 2006	Discussed at IASB meeting
June 2006	Discussed at IASB meeting
July 2006	Discussed at IASB meeting
September 2006	Discussed at IASB meeting
October 2006	Discussed at IASB meeting
November and December 2006	Round-table discussions
January 2007	Discussed at IASB meeting
March 2007	Discussed at IASB meeting
April 2007	Discussed at IASB meeting
May 2007	Discussed at IASB meeting
July 2007	Discussed at IASB meeting
October 2007	Discussed at IASB meeting
December 2007	Discussed at IASB meeting
February 2008	Discussed at IASB meeting
April 2008	Discussed at IASB meeting
May 2008	Discussed at IASB meeting
December 2008	Discussed at IASB meeting
April 2009	Discussed at IASB meeting
June 2009	Discussed at IASB meeting
July 2009	Discussed at IASB meeting
October 2009	Discussed at IASB meeting
November 2009	Discussed at IASB meeting
December 2009	Discussed at IASB meeting
January 2010	Re-exposure of proposed revisions to Exposure Draft
March 2010	Discussed at IASB meeting
April 2010	Staff paper on application of Re-exposure draft to law suits
June 2010	Discussed at IASB meeting

Figure D.1: Chronology of IAS 37 1997 to 2010

## D.2. History of IAS 37 and the Liabilities Project

### D.2.1. Revising IAS 37: The development of the Liabilities Project

In 2005, the IASB issued its first exposure draft on proposed revisions to IAS 37 (1998).

**Recognition.** The exposure draft states that liabilities should be recognised if they exist unconditionally, irrespective of the cash flows likely to be associated with them: “. . . only present obligations (rather than possible obligations) of an entity give rise to liabilities” and “that liabilities arise from unconditional obligations.” (pg. 14) The exposure draft illustrates the notion of an unconditional liability which it labels a “stand ready obligation.” (pg. 16). A later staff paper (IASB Staff Paper, 2009) admits, “Many people dislike the term ‘stand-ready obligation’. Some think it is redundant and implies a new type of obligation, when in fact stand-ready obligations are just one form of unconditional obligation.” The staff paper tries to distinguish between an unconditional obligation (such as a warranty or awareness that the entity had committed an act of “wrong-doing”) from normal business risk using several thought experiments involving hamburger vendors who poison diners and hospitals who negligently kill patients during routine procedures.<sup>1</sup> The *stand ready* obligation is unconditional and should therefore be recognised, irrespective of the probability of future cash outflows, thereby eliminating the need to apply the *probability recognition test*: a probable outflow of resources is not necessary for the recognition of a liability. (IASB Exposure Draft IAS 37, 2005, ¶BC40)

**Measurement.** The exposure draft removes the distinction between large populations of future events and single events. The exposure draft states, “. . . an expected cash flow approach can be used as the basis for measuring a non-financial liability for both a class of similar obligations and a single obligation” and explains that, “measuring a non-financial liability for a single obligation at its most likely outcome would not necessarily be consistent with the Standard’s measurement objective.” (pg. 16). Therefore, in both types of situation the expected value (discounted to reflect timing of cash flows) should be used. The exposure draft states:

“The basis of estimating many non-financial liabilities will be an expected cash flow approach, in which multiple cash flow scenarios that reflect the range of possible outcomes are weighted by their associated probabilities. An expected cash flow approach is an appropriate basis for measuring both liabilities for a class of similar obligations and liabilities for single obligations. This is because it is likely to be the basis of the amount that an entity would rationally pay to settle the obligation(s) or to transfer the obligations(s) to a third party on the balance sheet date. In contrast, a liability for a single obligation measured at its most likely outcome would not necessarily represent the amount that the entity would rationally pay to settle or to transfer the obligation on the balance sheet date” (¶31).

The *most likely* cash outflow is thus contrasted with the expected value, the latter being seen as the economic amount that a *rational* person ought to pay, taking into account the probability distribution of outcomes. This analysis relies on the notion of rational behaviour by managers in their decision-making and provides an interesting blend of normative and descriptive elements. This ‘rational’ approach to

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<sup>1</sup>The staff paper states that a stand-ready obligation in the hamburger example exists even if the customer has not yet developed symptoms because at the point of sale, “the event on which the obligation is conditional (the customer becoming sick) is a future event. Therefore from the moment of delivery, the vendor would have an obligation to stand-ready to pay compensation.”

being relieved of a liability is reminiscent of the notion of *relief value* for valuing liabilities which is part of the deprival value approach to valuation.

The exposure draft was passed with only one dissenter, board member F.<sup>2</sup> The alternative view, which is included within an appendix to the exposure draft, acknowledged the improvement over the existing standard but questioned what level of element uncertainty would preclude recognition.”<sup>3</sup> The IASB received a moderate level of comment letters after the publication of the 2005 exposure draft (123 letters), but almost all of these opposed the Project. The comment letters raised concerns about both the recognition and measurement of uncertain obligations. With regard to recognition, the removal of the probability of outflows and associated notion of a *stand ready* test (which mean recognising a liability even if it was more likely than not to result in no outflow of benefits) proved unpopular. The measurement proposals attracted much negative comment (with the consequence that these were re-exposed in 2010). Many letters question why revisions to IAS 37 were necessary given that it was perceived as a well-functioning standard by most in the accounting and business community.

### **D.2.2. Exposure Draft (2010) and responses**

In 2010, the IASB issued a second exposure draft which addressed only issues about measurement. The main revision was the use of expected values for single cases. In addition, the exposure draft proposed the inclusion of a profit margin and a risk adjustment in the measurement of a liability. The exposure draft was controversial internally within the IASB with nine of the fifteen Board members voting against it. The resulting narrow majority reveals an uncomfortable lack of cohesion among the Board on issues relating to this project.

In total, the IASB received 210 comment letters concerning the Exposure Draft published in 2010, after extending the comment period. The concerns raised were broadly as follows: (1) the lack of reliability of expected values for single events; (2) the problem of revealing privileged information while a lawsuit is still pending; (3) the inclusion of profit and risk margins in the measurement of the liability; (4) the existence of inconsistencies with the IASB conceptual framework, and (5) the logical flaw in ‘copying’ the valuation of liabilities from that used for valuing liabilities in a business combination.

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<sup>2</sup>Although the board member’s name is not disclosed in official IASB documentation, personal communication with the current project leader revealed that board member F had discussed his views voluably at an EFRAG meeting in front of the previous project leader.

<sup>3</sup>See (Napier and Power, 1992) who question the assumption that identification and measurement are independent concepts for non-physical assets and liabilities.

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