Fair Value Accounting and Financial Crises: An Actor-Network Study

Stephen Haswell

Submitted to

Macquarie University

Faculty of Business and Economics

Department of Accounting and Corporate Governance

For

Doctor of Philosophy

Contents

Declaration

The work presented in this thesis is my original work and has not been submitted for a higher degree at any other university or institution. The source of information used and the extent to which the work of others has been utilized is acknowledged in the thesis.

September 16, 2015

Sydney

Stephen Haswell

Acknowledgements

I would like to thank my principal supervisor, Dr Elaine Evans, for her untiring efforts in helping me with this study. There are many others whose assistance was invaluable in helping me to discover a way to write and complete this thesis, especially Professor Mike Page of the University of Portsmouth, and Professor James Guthrie of Macquarie University. For general inspiration I am indebted to the late Dr Jill McKinnon. I am indebted to others for their comments on various drafts of material; these include Ian Langfield-Smith, James Lau, and anonymous reviewers of the journal *Accounting, Organizations and Society*. I am grateful to Amanda He for helping me to code data in the letter analysis. I am also grateful to Sara Haddad of the Editorial Collective, Sydney, for her painstaking corrections of my many grammatical errors. Any remaining deficiencies of this work are my own responsibility.

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List of Abbreviations

ABC	Activity-based Costing
AICPA	American Institute of Certified Public Accountants
ANT	Actor-Network Theory
CAQ	Center for Audit Quality
CCA	Current Cost Accounting
CDO	Collateralized Debt Obligation
CFMA	Commodity Futures Modernization Act (US)
CIAH	Comparative International Accounting History
CME	Coordinated Market Economies
ESMA	European Securities and Markets Authority
FASB	Financial Accounting Standards Board (US)
FVA	Fair Value Accounting
GAAP	Generally Accepted Accounting Principles
IAS	International Accounting Standards (products named before 2001)
IASB	International Accounting Standards Board
IC	Intellectual Capital
ICAEW	Institute of Chartered Accountants in England and Wales
ICGN	International Corporate Governance Network
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
PCAOB	Public Company Accounting Oversight Board (US)
PwC	PricewaterhouseCoopers
SEC	Securities and Exchange Commission (US)
SPE	Special Purpose Entities

Abstract

Using actor-network theory, this thesis charts the translation of fair value accounting (FVA) technology. Although FVA had been discredited for over-inflating profits and thereby leading to the 1929 economic collapse, academics of the 1960s resurrected it as a potential complete science of financial reporting. Regulators of the 1990s then reintroduced FVA into both US and International Financial Reporting Standards in an attempt to combat reporting malfeasance by the financial industry. This reintroduction was performed in a piecemeal manner. In the 1990s, FVA was manipulated by the financial industry it was supposed to regulate. After the crash of Enron Corporation in 2001, standard setters realized that FVA had to be toughened. The result was a neoliberal and puritan version of FVA that emphasized 'mark-to-market' accounting; but this swiftly became a supposed cause of the global financial crisis of 2008–9. After a fierce trial of strength with the financial industry, standard setters and regulators were forced into reinstating a weaker and more malleable version of FVA that liberally permitted 'mark-to-model' accounting, a model that persists in the present day.

The thesis explores the forces that have enabled FVA to be translated so that it serves the financial industry and other interests simultaneously. The thesis concludes that the FVA network itself is now a single actor capable of translation.

Chapter 1: Introduction

Contents

1.1 General introduction

This thesis critically examines the development of fair value accounting (FVA), from the 1960s to the present day. FVA shifted initially from an academic theory of the 1960s—intended to be a complete science of financial reporting—into a piecemeal regulatory device of the 1990s, designed only to combat specific financial reporting problems. In the 1990s, FVA significantly failed in the latter intention; instead, it was appropriated by the financial industry to perform misuses of financial reporting linked to financial asset trading. This misuse coincided with, and partially led to, two recent international financial crises, both with their origins in North America: the collapse of Enron (and other companies) in 2001–2, and the global financial crisis (GFC) of 2008–9. Both of these crises, in turn, had a profound effect on the development of FVA. The focus of this thesis is on FVA and these two financial crises.

The thesis will argue that, in 2001, FVA was poorly understood by political bodies, regulators and commentators and was, at the time, never sufficiently attributed as a significant cause of the collapse of Enron and other corporates. The US Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) came eventually to understand these FVA issues and took steps to strengthen the reporting standards, in order to prevent such misuse in the future. To determine asset values, the strengthened standards sought to minimize the use of management's subjective FVA 'estimates' ('mark-to-model' accounting) and to rely primarily on 'objective' quoted market prices ('mark-to-market' accounting). But the strengthened standards were based upon a neoliberal belief in the purity of markets and of market measurements. Some commentators saw this belief as ideological, unrealistic or doctrinaire (e.g. Benston, 2008; Ravenscroft & Williams, 2009; Whittington, 2008).

During the GFC in 2008, the financial industry blamed mark-to-market FVA for its application of short-term market prices, which meant that financial assets had to be marked down at the prices of that moment, even if it was believed that prices might recover when the crisis was over. It was further claimed that these FVA markdowns largely caused the crisis itself (American Banking Association, 2008). This claim has been investigated, but to this day the role of FVA in the downward spiral of financial asset prices, and the resulting frozen liquidity of banks, is unclear (e.g. Allen & Carletti, 2008; Amel-Zadeh & Meeks, 2013; Badertscher, Burks, & Easton, 2012; Bignon, Biondi, & Ragot, 2009). However, the FASB and IASB lost the public relations battle over their FVA technology. Both bodies were forced to reinstate a more malleable mark-to-model version of FVA, similar to the version that prevailed, and was misused, in the 1990s. This malleable version, though it was intended to be an emergency fix during the GFC, subsists to the present day, six years after the crisis 'ended'. There is no indication that the FASB or IASB now wish to restore the primacy of quoted prices to FVA standards, nor is there any indication that they wish to withdraw the malleable version, despite its problems.

This thesis seeks to explain how the FASB and IASB, their regulatory associates, professional accounting constituents and other supporters have become so dependent on FVA technology. The methodological perspective used in this study, actor-network theory (ANT) (Callon, 1986; Latour, 1987; Law, 2009), looks behind the apparent political machinery to discover a web of allegiances and dependencies that revolve around a technology that is mutable. In ANT parlance, FVA has been *translated*, altered from its original objectives and appearances in order to serve the needs of a multitude of different actors. These actors are bound together in a network, one that also includes the financial industry itself. The thesis finds, as do many ANT studies, that the network itself is a single actor, capable of translating others.

1.2 Background—Fair value accounting and financial crises

FVA, a system of constantly re-measuring assets to revise their values, was re-introduced into US and IASB accounting standards in the 1990s. Following the stock market crash and subsequent economic depression of the 1930s, for 60 years FVA had scarcely been practiced. The 1930s crash had been partially blamed on the overvaluation of assets by FVA, which had been practiced haphazardly (Barlev & Haddad, 2002; Georgiou & Jack, 2011; Healy, 1938; Zeff, 2007). Between the 1930s and the 1990s, the US, UK and most other countries relied almost completely upon historical cost accounting, a traditional conservative method, in which upward revaluations of assets were prohibited or strictly controlled. If they were allowed at all, upward revaluations were generally not recorded as period income, but needed to be sequestered in an owners' equity reserve. By the 1990s, accounting visionaries had pinned their hopes on a new, more 'scientific' version of FVA that would lead the way to producing accurate valuations of businesses' performance in the global economy (Barth, Beaver, & Landsman, 2001). To date that re-introduction has not completely supplanted historical cost accounting, but many financial assets and liabilities have become subjected to FVA.

Arguably, FVA has, since the 1990s, been implicated in two North American financial crises, both of which had global consequences. These outcomes for FVA were rather against the original hopes of its supporters, who believed that FVA would help to provide more useful decision-making information. In the first of these crises, led by the collapse of Enron Corporation in 2001, FVA had been central to a developing corporate outlook of improperly escalating the amount of profits (and therefore bonuses and dividends) that corporate managers could book in the short term (Benston, 2006). The second financial crisis might be characterized as a continuation of the first. In 2008, the global financial economy ground nearly to a halt in the 'sub-prime' episode of failing banks (Nanto, 2009), in what is now known as the GFC. Banking groups claimed that mark-to-market accounting, a rigorous form of FVA, had distorted financial assets by marking them down too severely at market value, when the asset market itself was thinly traded (American Banking Association, 2008). Fair value supporters were quick to point out that the claims of bankers amounted to excuses, or an attempt to deploy a scapegoat. According to FVA's supporters, fair valued assets have been unfairly blamed for the banking collapses; in fact, the financial collapses were caused by the poor lending policies of banks (Laux & Leuz, 2010). Supporters of FVA lost this argument. In October 2008, then in March 2009, new protocols were introduced amid high political drama. These changed the FVA rules in both US Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS) (FASB, 2008, 2009; IASB, 2008). These changes are discussed in Chapter 2, but in summary, the rigorous mark-to-market version of FVA was watered-down. Instead of primarily requiring objective inputs based on quoted market prices, the watered-down version could utilize instead, more easily, subjective management estimates of asset values based on financial mathematics models; or, FVA could be switched selectively for historical cost. In the accounting and financial reporting world, these changes were controversial. Supporters of FVA argued that the changes would enable corporate managers to 'hide' non-performing assets (Laux & Leuz, 2009).

Since the sub-prime crisis 'ended' in 2009, the US, UK and many European economies have limped on, perhaps with marginal improvements here and there, but still amidst a strained atmosphere of desperation on the part of treasuries and central banks (De Vita & Abbott, 2011; Hudson, 2015; Joyce *et al.*, 2012). The US in particular has experienced historically high unemployment and low growth, and authorities have taken a number of unusual urgent measures to boost the economy. The US and the UK have both resorted to 'quantitative easing': a euphemism for injecting liquidity into the economy artificially, in a way that resembles printing money, albeit a more sophisticated and specifically directed 'electronic' way. This procedure has stimulated these economies but has resulted in currency devaluation, particularly in the US. These controversial measures are thought by many to have been partly responsible for the tepid recoveries that have been followed by relapses. At the time of writing the US and some European economies are in a period of apparent economic recovery, though, according to the International Monetary Fund (IMF), these are not by any means strong recoveries (ABC News, 2014; Bloomberg, 2014; Reuters, 2014).

Indeed, many observers question whether these economies are entering a period of prolonged stagnation, rather like the Japanese experience since its bubble burst in 1990 (Garside, 2012; Hutchinson, Ito, & Westermann, 2006; Palley, 2012). One of the primary causes attributed to Japan's stagnation is the 'non-performing assets' that were allowed to remain hidden on Japanese balance sheets. During the economic boom of the 1980s in Japan, assets had become excessively overvalued, leading to a sharp correction and economic recession. The Japanese accounting rules at that time allowed business conglomerates to ignore non-performing financial assets selectively. Government ministries tacitly approved this avoidance behaviour in order to prevent businesses from reporting large amounts of losses, to avoid the appearance of failure en masse. The result, however, is that Japanese business has carried substantial amounts of losses for more than 20 years. Economists believe this has had a negative effect on the Japanese business sector, preventing a proper rationalization of investment, and hampering economic growth (Economist, 2012).

In the US, UK and Europe, there may also be trillions of dollars of non-performing financial assets, measured at fair value. In assessments of financial stability, the Bank of England (2012) and the European Central Bank (2012) have specifically pointed to the issue of unrecognized losses within the financial sector as having a major slowing effect on the world economy. A possibility is that these losses may, in turn, have remained unrecognized due to recent changes to FASB/IFRS accounting rules that have allowed managers to use FVA more manipulatively: in an upturn, FVA profits are booked; in a downturn, losses are selectively ignored, an outcome feared even by advocates of FVA as being the worst kind of result (Laux & Leuz, 2009). There is a growing body of literature which asserts that the weakened FVA standards of US GAAP and IFRS are being systematically misused to disguise losses, long after the GFC apparently 'ended' (e.g. Bischof, Brüggemann, & Daske, 2010; Glaser, Mohrmann, & Riepe 2013; Jarolim & Öppinger, 2012; Paananen, Renders & Shima, 2012; Milbradt, 2012).

In 2008–9, in the US, UK, Europe and elsewhere, the collapse of financial institutions such as Bear Stearns, Northern Rock and Fortis (Altman, 2009) had resulted in a freeze on the world's capital supply, and dire consequences were predicted for the flow-through effects on business investment and production. It is difficult to know precisely what cause-and-effect relationship the 2008–9 fair value reporting changes might have continued to have on the state of the global economy. Direct cause-and-effect relationships of that nature would be a difficult topic of study. Yet, the issue of hidden toxic assets and stagnating economies has been one of concern to authorities and a source of speculation. At the end of 2008 and at the beginning of 2009, the world's media were gripped with hysteria about toxic assets, and sensational predictions were being made. The World Bank warned that in 2009 'a very deep global recession was possible' (World Bank, 2009, p. 2). In April 2009, the IMF reported that, worldwide, there could be conservatively $US 4 trillion of toxic assets, of which 40–60% had not been written down (IMF, 2009, p. 8). These calculations were reported with a high level of interest by all the world's major media outlets, for example, the *Times* (2009). Then there was exposure to 'sub-investment grade' credit derivatives such as credit default swaps. For the 19 largest US banks, for example, derivatives exposure had increased from $1.6 trillion in 2007 to $8.9 trillion for the first quarter 2009 (Congressional Oversight Panel, 2009, p. 31). It is largely a matter of conjecture as to how much of these amounts remain toxic and hidden. The worldwide exposure to credit default swaps in 2008 was estimated to be $60 trillion and the overall value of derivatives contracts in 2014 was around $700 trillion (Bank of International Settlements, 2010, p. 59; 2014, p. A141). These amounts are so astronomical that any measurement issues affecting these products are likely to have serious consequences.

By the end of 2008, global equity markets, dragged lower by the banking crisis, were down approximately 40% on their 2006 values (Bartram & Bodnar, 2009, p. 1246). Commencing in April 2009, the financial sectors of most of these economies staged what appeared to be a remarkable, nearly miraculous recovery. The Dow-Jones industrial index, which had reached 14,093 points in October 2007, fell to a low of 6,547 points on March 9, 2009, but then rallied back to 10,000 points by the middle of October 2009 (Bloomberg, 2009, p. 1).

Did the sudden shift in fair value rules enable many of the world's financial companies to simply 'switch off' the impairment process? If so, did this change (in tandem with stimuli measures) support an artificial recovery in equities markets? The professional accounting literature (Cheng, 2009) and financial industry commentators (Bloomberg, 2009a) anticipated that the FASB/IASB accounting standard changes on FVA would be quickly followed by a nearly immediate, massive reduction in financial asset impairments. In April 2009, and for a few months thereafter, financial journalism and investment industry blogs were virulent with assertions that the changes amounted to a cover-up or fudge of the toxic assets (e.g. Asia Times, 2009; Capital Chronicle, 2009; Financial Times, 2009). These arguments are particularly alarming in light of the evidence earlier presented by authorities such as the IMF, that toxic assets were *already* being hidden, even before the accounting standard changes in 2008–9 that made it easier to hide them. In other words, only some of the toxic assets were ever identified or written down.

Since 2009, the hidden toxic asset issue has continued to reignite periodically, and to embarrass accounting standard authorities. For example, the economy of Greece has hovered near total collapse for the past several years, and in 2011–12, the European economy was stressed by the Greek debt crisis. The European Securities and Markets Authority (ESMA) (2012) expressed concerns that IFRS fair value rules (tweaked in the 2008 showdown) were being misused by banks to avoid large amounts of impairment losses on Greek assets.

To some, the hiding of toxic assets and the insufficiency of proper impairment have been tacitly allowed or enabled by politicians and regulators for a purpose, and carried out by accounting standard setters. Such a deliberate program, to allow, indeed encourage, suboptimal information and asymmetry seems to have been deployed as an emergency measure: the lesser of two evils. By allowing banks to boost their profits artificially in the short term, they have been able to remain in operation. But the longer-term consequences of this asymmetry are troubling. Bischof, Brüggemann, and Daske (2010, p. 2) for example, state that:

> ... the amendment to IAS 39 [the IASB's financial instruments/fair value standard] was politically perceived as a cheap way to put pressure off the troubled banking sector … particularly because it was no longer politically opportune to force banks into bankruptcy after the Lehman experience in September [collapse of the Lehman Bank]. Yet, the perceived consequential benefits, and maybe even more importantly, the potential costs of the politically forced decision to allow the suspension of fair value measurement are largely unknown.

The academic study of FVA has been affected by the financial crises described above. After its initial reintroduction in the 1990s, the focus of FVA was on whether it provided value relevance for report users, a debate that does not seem to have led to a clear outcome. One group, led by US academic and international standard-setter Mary Barth, asserts that FVA is strongly value relevant, that is, its information content to users can be mapped, for example, in securities pricing (Barth, Beaver, & Landsman, 2001). An opposing group asserts that this value relevance cannot be established (Holthausen & Watts, 2001). These debates will be considered in more detail in Chapter 2.

After the financial crises, the academic study of fair value took a new direction, especially following the 2008–9 GFC. Since banking interests claimed that FVA had caused the crisis, FVA's academic supporters were forced to spend considerable effort investigating and commenting on (usually with a view to rebutting) those claims. The academic literature commonly reports that FVA was not the proximate cause of banking failures, but that primarily the banks brought the problem on themselves with poor risk management (e.g. Amel-Zadeh & Meeks, 2013; Badertscher, Burks, & Easton, 2012; Laux & Leuz, 2010). Some authors do, however, report that mark-to-market accounting may have been a contributing factor, exacerbating a ‘pro-cyclical’ effect of write-downs (e.g. Allen & Carletti, 2008; Bignon, Biondi, & Ragot, 2009; Plantin, Sapra, & Shin, 2008.)

Another academic view, the ‘critical perspective’, has different, or additional, concerns. For some time, one bloc of these observers has tried to ascertain that the financial economy threatens the stability of the traditional manufacturing economy (e.g. Dumenil & Levy, 2004; Heise, 2008; Krippner, 2005), a phenomenon they call ‘financialism’. This paradigm or perspective takes a much wider view than the capital markets studies mentioned above. According to the critical perspective, FVA is closely linked to a number of economic developments that these authors find unattractive: an increase in speculative trading in financial assets of dubious economic merit; a decline in manufacturing; an encroaching short-termism characterized by profits boosted by FVA and paid out as short-term dividends; and the successful infiltration of political agencies by the investment banking industry and its allies. These criticisms of FVA are different or broader than some others voiced during the GFC. Fair value might or might not have sparked the crisis itself. However, FVA can be seen as the essential measurement conduit for, and a crucial constituent part of, the financial economy itself—the economy of tradable financial products: shares and futures contracts, ‘securitized assets’, and trillions of dollars of credit default swaps. To some, the main purpose of the financial economy and its tradeable products is to manufacture risks and profits artificially for its participants’ self-interests; as distinct from helping to provide an economically efficient allocation of resources (e.g. Callon, 2007; Davis, 2009; MacKenzie, 2007; Perry & Nolke, 2006; Roberts & Jones, 2009).

In summary, fair value is a controversial topic. It is linked with changes to the Western economy that many find problematic. And it has become embroiled in two recent global financial crises. In response to the first crisis in 2001–2, standard setters attempted to strengthen the fair value rules by emphasizing ‘mark-to-market’. As a result of political pressure during the second crisis, in 2008–9, mark-to-market was reduced and, in essence, fair value standards are probably as manipulable as they were in the 1990s.

1.3 Motivation and research question

The motivation for writing this thesis stems from the importance of financial reporting to the community, and the serious financial upheavals and changes to the economy, detailed above, in which FVA has been implicated. Around the world, billions of individuals have been affected by the GFC, for example, in the loss of their superannuation savings. In a modest way, the thesis hopes to highlight the deficiencies in financial reporting that are linked to these activities.

Research question: How has FVA become entrenched as a technology in US accounting and IFRS despite its problematic history and association with financial crises?

The study of FVA in this thesis spans some 80 years but the focus is on two recent periods of financial crisis, the 2001–2 Enron crisis and the 2008–9 GFC. In Chapter 2 it will be demonstrated that these two crises were pivotal to major episodes in the translation of FVA. In the 1990s, standard setters believed that FVA would be put to work to curb accounting misuse in the investments industry; but this work was largely a failure and one that would eventually be revealed by the collapse of Enron and other companies. This thesis will show that, following Enron, regulators, standard setters and accounting professionals did, for a time in the early to mid-2000s, vehemently protest against the misuse of FVA by the financial industry. On both an ideological and practical basis, they did try to reign in these misuses. But in the showdown during the GFC in 2009, this puritanism was defeated, and in the period since, FVA supporters have accepted the version of FVA accounting technology that best serves the financial industry. The thesis provides an original depiction of fair value actor-networks and translations across time, and postulates an original account of the reasons why standard setters and other authorities seem to have become so dependent on FVA technology. The thesis will demonstrate how each group of actors assisted in the proliferation of FVA and how the technology metamorphosed because of this proliferation.

1.4 Key definitions

Over time, FVA has been the subject of numerous definitions and statements of concept. In FASB accounting standards and IFRS during the 1990s, 2000s and up until recent changes after 2012, **fair value** itself was defined as:

> The amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction.

This was the definition that applied during most of the period under study. This definition was changed in FASB and IFRS standards (e.g. in IFRS 13) taking effect from 2013. The new fair value definition is:

> The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (IFRS 13, Appendix A).

This updated definition seems to take account of a preference that FASB and IASB standard setters claim to have for fair value as an 'exit price', meaning, the amount for which an asset could be disposed on measurement day (Whittington, 2008). In theory, many other FVA fundamental measurement characteristics might be possible instead of exit price. For example, Edwards and Bell (1961) recommended that assets be valued at their replacement costs adjusted for depreciation. While the FASB and IASB have expressed, in general terms and definitions, a preference for exit prices, their actual measurement protocols have been more complex and are, to an extent, ambiguous. Prior to the Enron collapse in 2001, both FASB standards and IFRS were not consistent in their fair value measurement bases that were exhibited across numerous different standards. By 2006, the FASB had developed a new, consistent protocol (announced in their accounting standard FAS 157, *Fair Value Measurements*) that gave a primacy to exit prices measured by means of quoted market values (FASB, 2006). This protocol is called the fair value hierarchy. There are three steps in the hierarchy, as follows:

> **Level 1 measurement**: based on directly observable inputs, (e.g. from quoted market prices).
>
> **Level 2 measurement**: based on surrogates for quoted prices.
>
> **Level 3 measurement**: based on management modelling of expected future cash flows and recoverable amounts.

While Level 1 is clearly an exit price measurement, Level 3 is not, and Level 2 is ambiguous because it could also involve management 'estimates' of surrogate prices. In the literature, Level 1 is referred to as **mark-to-market** accounting. Level 3 is referred to as **mark-to-model** accounting. While Level 2 could be described as a form of mark-to-market, others draw finer distinctions. For example, Jarolim and Öppinger (2012), describe Level 2 as *mark-to-model with market parameters* and Level 3 as *mark-to-model without market parameters*. Both mark-to-market and mark-to-model are 'popular usage' terms that have no consistent, official definition.

In 2006 the IASB had a similarly effective FVA protocol and later, in 2011, it formally adopted the three-tier hierarchy (Ernst & Young, 2011; Journal of Accountancy, 2011). In

FASB and IFRS documentation just prior to the GFC, directly observable inputs (Level 1 in the hierarchy) were the preferred option and were demanded whenever market data were available. (These requirements will be discussed in more detail in Chapter 2.) During the GFC, however, political pressure forced these authorities to make Levels 2 and 3-type inputs much more readily available options. This political pressure is a major subject of the thesis.

1.5 Theoretical lenses

The evidence produced to answer the thesis research question consists, in large part, of a series of historical narratives. The thesis belongs to the recent tradition of histories in finance and accounting that intertwine factual narrative with interpretation (e.g. Carnegie, 2014, 2014a; Carnegie & Napier, 2012; Guthrie & Parker, 1999; Porter, 1981). The specific lens for that interpretation is ANT (Callon, 1986; Justesen & Mouritsen, 2011; Latour, 1987; Law, 2009), which is capable of dealing with the complex interaction of technology, intellectual inscriptions, persons and interest groups.

ANT differs from many methodologies commonly used in economics, accounting or business studies. Methodological approaches such as neoclassical economics, ‘positive accounting’, capital markets research and the like may deploy *a priori* assumptions involving maxims of market behaviour, rational supply and demand (Watts & Zimmerman, 1986). Alternative approaches, such as Marxist inspired methodologies, also make *a priori* assumptions involving, for example, the exploitation of one class of citizen by another (Bryer, 1999). ANT represents an alternative to all of these in that it does not suggest, or require, *a priori* assumptions of behaviour or outcomes (Callon, 1986).

Actor-network studies highlight how linkages between humans and groups are formed and how these interact with technology. Such networks tend to act autonomously: over time, they take on a life of their own. To an extent, this network life seems to exist independently of the human actors who compose the network's elements. Networks enrol new members, new allies, by enticement or persuasion, and once in the network, the new actors may find that their original understanding of its technology, or the purpose to which the technology is put, has changed, has been *translated*. Nonetheless, the actors remain dependent on the network, and on those changes to the technology and its purpose. The narrative that will be revealed about FVA results in such an outcome. Over time, actors with diverse interests—standard setters, accounting professionals and investment bankers—all find themselves dependent on FVA technology. It almost seems that the network itself is in charge, rather than the human actors. Such is the common outcome in actor-network studies. A further important actor-network principle to be studied is that of *purification*: the use of 'scientific' or quasi-scientific argumentation to elevate an impure or politically motivated activity to the status of benign purity (Latour, 1993).

The following accounting studies have used actor-network methodology: Ahrens and Chapman (2007), Ahrens and Mollona (2007), Briers and Chua (2001), Christensen and Skærbæk (2010), Chua (1995), Dechow and Mouritsen (2005), Ezzamel (1994), MacKenzie (2009), Mennicken (2008), Mouritsen, Larsen, and Bukh (2001), Pipan and Czarniawska (2010), Quattrone and Hopper (2005), Skærbæk (2009) and Skærbæk and Tryggestad (2010).

1.6 Research methods

The research uses primary sources to investigate the two periods of special interest: the Enron crisis of 2001–2 and the GFC of 2008–9. The empirical study of Enron is presented in Chapter 5 and the empirical study of the GFC is detailed in Chapter 6.

Chapter 5 presents a series of historical narratives that lead up to and examine the fate of Enron Corporation. Along with the accounting standard inscriptions themselves, secondary sources are also used to examine the development of FVA technology from the 1960s to the end of the 1990s. These developments are subjected, at the same time, to an ANT analysis of translation. The pivotal moment for FVA in this time period is postulated to be the collapse of Enron at the end of 2001 and the post-mortem of that collapse. Primary sources are then used to study this pivotal moment. The main evidentiary vehicle of this section is established from documents relating to US congressional hearings into the Enron post-mortem; these took place between December 2001 and December 2002 (Library of Congress, 2014). Publicly available documentation of the hearings (approximately 16,800 pages of transcript) is used to analyze the way in which FVA seemed to be comprehended by actors at the time. These primary documents demonstrate the extent to which the FASB, regulators and other commentators really understood or misunderstood FVA. The evidence also demonstrates how the public hearings were used to disseminate misinformation about FVA for political purposes. These hearings offer a simulacrum of the translation-in-progress of FVA. The chapter then offers an analysis of the extent to which the Enron episode itself changed US FVA technology, and the impact of this on wider users such as the IASB.

Chapter 6 uses historical narratives to explore the reaction of different sets of actors to FVA during and after the GFC. These narratives are based on the publicly available documentation of accounting standards themselves, congressional hearings transcripts, official reports such as the US Securities and Exchange Commission's (SEC) investigation of mark-to-market accounting (SEC, 2008), published statements from industry groups, newspaper and magazine commentaries, and records from institutions such as the FASB and the IASB. One of these explorations also makes use of content analysis of comment letters (Krippendorff, 2004) sent to the SEC.

1.7 Summary of findings

This thesis makes an original contribution by developing an actor-network schematic to depict the translation of fair value across time. In summary, the thesis finds that there were five main periods of translation from the 1960s to the present day. This schematic represents the principal findings and contribution of the thesis. This schematic is presented in summary form diagrammatically in Figure 1.1, which is located at the end of this chapter. In the schematic, shifts in the technology over time can be labelled for convenience as belonging to a particular 'translation' or to 'translation *n*'. This is not intended to signify a period in which things were static or absolute, because translations are ever changing, and not necessarily successful, or perhaps not stable for long. Nevertheless, this labelling helps us to grasp what was happening during each period. In each of the first four periods, the translation of FVA remained stable for a time and was then pitched in a new direction. The fifth period has so far remained stable.

As can be seen in Figure 1.1, the **prehistory** of FVA, an uncoordinated and largely unregulated period, is followed by a period in which FVA is either proscribed or seldom used after the stock market crash of 1929. The first FVA host that then re-appears is not the financial industry, but the academic world, which sees FVA as a complete science of accounting. This is labelled **Translation 1.**

Translation 2 begins at the point when standard setters and regulators in the 1990s attempt to re-deploy FVA in a limited way. **Translation 3** depicts FVA as the *sine qua non* for the opportunistic booking of unrealistic profits for the short term by the financial industry—the opposite of that intended by standard setters. **Translation 4** sees a partly successful but very temporary translation by the FASB and IASB standard setters back toward a more hard-line incarnation of fair value, designed to alleviate the problems of the previous translation. This phase ends abruptly with the onset of the GFC in 2008. **Translation 5** is the most complex stage. The financial industry seeks to take final charge of the network, to neutralize the hard-line version of mark-to-market FVA presented in Translation 4, and to blame mark-to-market for its own mistakes that led to the GFC. At the same time, the basic FVA edifice is left intact for continued use as a device of malleable measurements. This translation remains stable as of 2015.

1.8 Expected original contributions

The problems associated with FVA are controversial and arguably among the most contentious accounting issues of the present moment. Using an original methodological approach, this study will attempt to explain why a raft of different actors has developed a dependency on FVA technology.

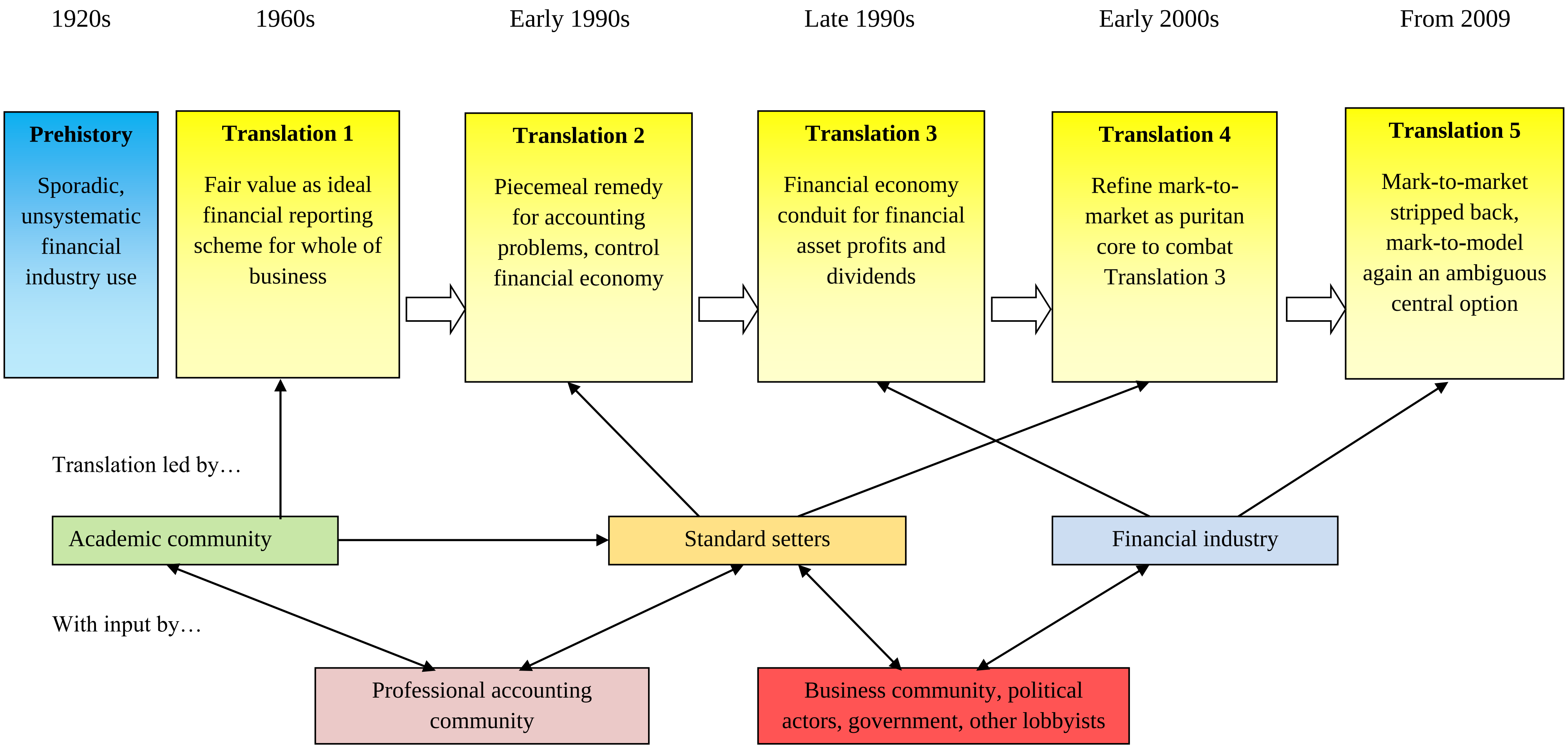
The thesis will piece together knowledge that previously existed in fragments. The exposition of Enron and FVA fits that description. The thesis will point out that a small number of accounting commentators had puzzled over the length of time taken for Enron's fair value story to work its way into the consciousness of accounting academics, let alone of people with less expert acumen. Though the Enron collapse happened over a decade ago, such a process of discovery would seem to be still under way. The thesis will add to this discovery by demonstrating just how difficult it has been for the 'black box' of fair value to be opened for better public view. The thesis will seek to show, in an original way, the extent to which bureaucracies have been unable for both ideological and practical political reasons to understand completely or accept the limits of their own technology.

If the thesis is successful it may eventually inspire further investigations into FVA, or further uses of ANT. There are many other areas of financial accounting in which accounting bureaucracy has become dependent upon mutable technology.

1.9 Organization of the thesis

Chapter 2 reviews FVA technology in the accounting literature. The chapter begins with a history of FVA standards, but focuses on the time when the standards were introduced into US GAAP and IFRS. In separate sections, the chapter reviews the academic literature pertaining to FVA from a positive accounting/capital markets perspective, then from a critical perspective. The chapter then examines the role of fair value in the two recent crises, the corporate collapse crisis of 2001–2, and the GFC of 2008–9. Finally, the chapter summarizes issues unresolved in the literature. Chapter 3 presents the interpretive framework used in this thesis, ANT, and examines its application in the accounting literature. Chapter 4 explains the research methods used in the thesis. The empirical analysis of FVA using ANT is divided into two chapters. Chapter 5 presents the analysis from the time of FVA's re-introduction in the 1990s to the post-mortems following the collapse of Enron Corporation in 2001. Chapter 6 presents the analysis from the time of the GFC until the present day. Chapter 7 assembles the essential points drawn from the empirical material in Chapters 5 and 6 for reassessment using ANT. Chapter 8 contains the conclusions of the thesis and outlines its contribution and its limitations.

Figure 1.1 Translations of FVA



Chapter 2: Fair Value in the Accounting Literature

Contents

2.1 Introduction

This chapter has two main functions. First, it discusses the nature of FVA and gives a brief history of its use. Second, it examines FVA as a subject in the academic literature. This academic literature is divided into two historical periods. The first period concentrates on the efficacy of fair value: the extent to which it provides investors with valuable information. This period of study intensified shortly after fair value was reintroduced into accounting standards in the early 1990s. The second period of academic study starts in the early 2000s, and tends to focus more on the role of fair value during financial crises. This field of study coincides with suspicions over fair value following the spate of corporate crashes in 2001–2; then it escalates during and after the GFC of 2008–9.

Section 2.2 begins with the prehistory of fair value in the early part of the 20th century. Fair value was largely proscribed, as in the US (Zeff, 2005), or seldom used, as in the UK (Georgiou & Jack, 2011) after it was implicated as a partial cause of the global economic depression of the 1930s. Some academics sensed that fair value still had a role to play, and resurrected the technique intellectually in the 1960s and 70s (e.g. Sterling, 1975). The section outlines the influence of that resurrection upon regulators from the 1980s and 1990s onwards. This influence culminated in a partial restoration of fair value principles in US and international accounting standards. The section describes that restoration and follows the history of the FVA standards as they changed during the GFC of 2008–9.

Section 2.3 begins the discussion on academic literature dealing with the efficacy and other effects of FVA. There are two main perspectives. The first deals with the neoliberal view on fair value, which sees accounting standard changes as supply and demand of information necessary for investment decisions and bureaucratic informational requirements. The second type of academic literature, discussed in section 2.4, sees fair value from a critical perspective, in which FVA is linked to changes in the economy itself. These changes describe, in Western economies, a rapid rise in the trading in financial products and a decline in manufacturing. Fair value, in this view, assists in the booking of short-term profits and dividend payments. Some of these latter activities amount to accounting manipulation, the very thing that standard setters tried to prevent with FVA. This inherent conflict—fair value as a control mechanism versus fair value as a manipulation mechanism—is arguably responsible for dilemmas that faced the FASB and the IASB as they headed into the global crisis of 2008.

The two recent financial crises, those of 2001–2 and 2008–9, are considered in separate sections. Section 2.5 examines the collapse of Enron Corporation and subsequent collapses starting in late 2001. Initially, these collapses are ascribed to a range of factors including irrational investment exuberance. Later, researchers and commentators realize the significance of FVA manipulation in these collapses.

Section 2.6 provides an overview of the 2008–9 global crisis in order to appreciate better the academic literature that arose in response. The section examines in detail the sudden change to US standards in October 2008 and the sudden changes shortly after to IFRS; and, finally, the more definitive changes in 2009 that arguably weakened fair value again. The academic literature has studied these events to determine the extent to which fair value was implicated in the crisis, and to determine the effect of the accounting standard changes on financial reporting since 2009.

This chapter's review of the literature is summarized in section 2.7. This summary makes an assessment of questions unresolved in the literature.

2.2 History of fair value standards

Historically, there have been two broad measurement approaches to recording financial accounting data suitable for external reporting to third parties such as shareholders. The first approach is historical cost accounting (Walker, 1992; Watts, 2003; Whittington, 2008), in which the value recorded for assets and liabilities is the amount initially paid for or obligated to those items at the time of their purchase or inception. Generally, this recorded value does not rise over time even if, for example, the sale value or replacement cost of the asset rises sharply from one period to another. There may, however, be diminutions of value over time due to wear, decrease in market value, or other reasons, which are recorded as impairment, depreciation or amortization. In some countries, and in some limited cases under historical cost, an asset's value may be increased (Nobes & Parker, 2012), but traditionally the increase is not regarded as prudently distributable 'income' but is credited only to a reserve. These historical cost measures are regarded as being conservative and reliable, the latter because of the readily verifiable benchmark of the price paid for an asset, or contractually obligated amount for a liability (Watts, 2006). During recent accounting history (over the last century), historical cost has been the accounting system commonly deployed by Western business and mandated by government (Bushman & Piotroski, 2006).

The second approach is FVA, a system in which asset (and sometimes, liability) values are routinely and systematically changed to take account of fluctuations in the value of those same or similar items elsewhere in the economy (e.g. Barth, Beaver, & Landsman, 2001; Francis & Schipper, 1999; Penman, 2007). These measurement changes can be, and have been, regarded as being part of period income/loss. If the changes are income, then typically this income is part of the distributable profit of the firm, even though the asset items have remained in the firm and have not been sold to generate any cash flow. Income can be recorded, and dividend paid based purely on changes to the 'book value' of the item. These features of FVA are controversial: to proponents, the fluctuating values are more relevant (Landsman, 2007); and to detractors, the measurement of these values is unreliable (Watts, 2003).

During the early part of the 20th century, especially in the US, fair value was practiced (Barlev & Haddad, 2002), but haphazardly. It was not really informed by any academic discourse, but was more a product of practical exigencies, including uses that inflated revenues (Zeff, 2007). Fair value procedures were not, at that time, systematized or regulated. After the 1929 stock market crash (Galbraith, 1961), FVA was blamed for helping to promote overvalued and fraudulent securities activity, one of the causes of the asset bubble and subsequent crash (Healy, 1938). Interestingly, this claim remains controversial. More recently, some capital markets researchers have claimed that capital regulatory requirements and not accounting were to blame for the 1930s episode (Dillon, 1984), but others dispute this (Bryer, 2014). In any event, in the US, the great depression of the 1930s ushered in an era of ultra-conservatism in accounting matters. In 1933 in the US, the SEC was formed in response to the stock market crash to better regulate the financial industry. One of the responses of the SEC was to mandate ultra-conservative historical cost accounting and to prohibit FVA (Zeff, 2005). This prohibition lasted until the 1980s, after which time, as described below, fair value made a slow, partial comeback into regulated practice. Initially, some fair value information was allowed as 'additional disclosure', but was not part of the actual financial accounting balances. Later, in the early 1990s, fair value measurement was allowed in the income statements and balance sheets.

Ideologically, the US and other English-speaking (Anglo) countries such as the UK are part of a bloc of countries whose business culture has traditionally favoured 'optimistic' accounting measures (Gray, 1988). Anglo business culture has emphasized a more open approach to corporate ownership: the investor pyramid is broader, and business has a greater reliance on investors and less reliance on internal financing such as bank loans. This culture is exemplified by the individualistic culture of the US in the 20th century (Hofstede, 1983). According to Gray (1988), this environment promoted an accounting culture in which higher reported profits and book values were beneficial to many expanding businesses—because they helped to attract shareholders. For this reason, FVA, with its often higher reported profits, was more attractive to and largely developed by, the Anglo-American countries. This attraction, naturally, resulted in conflict with those sections of the political and regulatory environment that had seen the damage caused by over-optimistic accounting in the 1920s (Barr, 1965).

In the UK, the country with an active capital market most likely, other than the US, to employ FVA, Georgiou and Jack (2011) report that, even after the episodes of the 1920s and 1930s, there never was any strict legislative ban on using FVA. However, the authors also report that, as a matter of practice, conservatism generally held sway at the times when it held sway in the US.

The re-acceptance of FVA in the West began first as an intellectual edifice in the US and some other Anglo countries. By the 1960s, academics were starting to ask if fair value could be revived and if, in fact, it could be a useful financial reporting system if properly developed (Burton, 1971; Sprouse & Moonitz, 1962; Wyatt, 1963). Fair value has never been one single 'measurement system' or even one single intellectual idea, but rather a vast constellation of competing ideas and possible practical applications for the use of re-measurement values. In the intellectual revival of the 1960s, academics proposed systems of fair value that would completely replace historical cost accounting. Note that the term 'fair value' itself was not necessarily in use very much before about 1990, but that older, analogous terms, and schemes that connoted systematic re-measurement of assets were used instead. These schemes were to be the centrepiece of a new, modern, 'scientific' world of accounting (Sterling, 1970). Accounting scientists hoped to distinguish this 'new world' from the outdated and rigid bean counting of historical cost accounting practice that then prevailed (Sterling, 1967). In the proposed new scientific world, fair value-like schemes would provide continual up-to-date re-measurement of microeconomic inputs and outputs that affected firms' reported profits. According to Sterling (1975, p. 30):

> Defining accounting as an art is, unfortunately, a fairly accurate description of the current condition … This is not the way that things *ought* to be, however … the objectives of accounting ought to be identical to the objectives of any of the sciences.

Some of these scientific schemes were elaborate. Edwards and Bell (1961) and Chambers (1966) both proposed accounting models that would constantly re-value every item of a firm's asset, liability, revenue and expense at fair value. For Edwards and Bell, the relevant accounting measurement was the price that would be (hypothetically) expended to replace all the firm's assets (the assets are not actually being replaced; it is just a measurement price). This measurement system is called ‘replacement cost’ FVA. For Chambers, the better measurement was the price for which any asset could be sold for on balance day each accounting period. This measurement system is a version of ‘exit price’ FVA. These are just two of many possible methods that academics suggested could be used to develop a system of FVA.

Standard-setting bureaucracies, the FASB and the IASB never processed fair value in the ideal way proposed by accounting academics of the 1960s and 1970s. In the 1970s and 1980s, standard setters and regulators did flirt with variations of these academic schemes that were designed to combat the inflation that was then affecting Western and other countries. However, these inflation accounting measures were little more than experimental schemes that, in most countries, were never made compulsory in the long term. For example, in the UK and other countries there was experimentation with a variant of the Edwards and Bell-style measurement known as current cost accounting (CCA). This experiment failed due to a lack of compliance by companies and doubts over the effectiveness of the measurements (Carsberg & Page, 1984). However, it would not be accurate to say that the schemes of Edwards and Bell or Chambers were merely ‘inflation accounting’ systems. The scientific objectives were much more all-encompassing and, in fact, these schemes were developed in a low inflation environment in the 1960s. The experimental CCA inflation measurement schemes faded out and were not incorporated into standards permanently by UK, US or IASB authorities. Inflation in many countries then dropped away through the 1980s, making CCA redundant for the time being (Baskerville, 1996).

Instead of all-encompassing schemes, fair value, when it was finally introduced definitively, came in bits and pieces, piecemeal fix-ups for perceived problems in specific areas of historical cost. In the 1990s, the issues that provoked this were not issues of ‘general inflation’. One emergent issue at the time was the series of US savings and loan scandals in the 1980s. These scandals had been blamed for the misuse of historical cost accounting. Insolvent financial institutions hid their losses on tradable securities by using the historical cost accounting method of amortized cost. Paper losses were not booked and could be ignored as long as those securities were still held, but profits could be booked on those that had risen in value if they were sold (Johnson & Swieringa, 1996). FVA was proposed as a remedy in the early 1990s, to bring losses as well as profits to account in a timely way. In addition, regulators had noticed the rise of financial instruments and sought a way to measure more reliably financial assets that were being rapidly traded (Heaton, Lucas, & McDonald, 2010). The result was US standard FAS 115, A*ccounting for Certain Investments in Debt and Equity Securities* (FASB, 1993). Following pressure by conservative banks, the standard only required some investments, those intended for sale in the short term, to be fair valued through the profit statement (Schultz & Hollister, 2003). The requirements of FAS 115 are presented in Table 2.1. These requirements remained largely unchanged from their inception in 1993 until after the GFC in 2009. At that time, they were incorporated into a new FASB-codified standards regime. Other standards, also of mixed measurement, soon followed. These included FAS 123, *Accounting for Stock-Based Compensation* (1995), and FAS 133, *Accounting for Derivative Instruments and Hedging Activities* (1998). These were attempts to provide fair value measures for the profit statement in selected, limited circumstances.

In 1998, an IFRS equivalent to FAS 115 was created. IASB standards at that time were called International Accounting Standards (IAS) so the FAS 115 equivalent was IAS 39, *Financial Instruments: Recognition and Measurement* (Dewing & Russell, 2008; Hodges & Woods, 2004; IASB, 1998; Walton, 2004). This standard was similar in its application to FAS 115 in that it was a mixed approach of fair value and historical cost.

IAS 39 underwent numerous minor changes after its inception, due to complaints about its over-complexity and efficacy (Haswell, 2006; Haswell & Langfield-Smith, 2008). Table 2.2 depicts, in summary form, the requirements of IAS 39 in 2008 as they appeared in January 2008.

Table 2.1 Classification of securities under FAS 115 (1993)

Type of security	Classification	Treatment
Debt securities that enterprise has the positive intent and ability to hold to maturity	Held-to-maturity securities	Amortized cost
Debt and equity securities that are bought and held principally for the purpose of selling in the near term	Trading securities	Fair value, with unrealized gains and losses included in earnings
Other debt and equity securities	Available-for-sale securities	Fair value, but unrealized gains and losses excluded from earnings and reported in a separate component of shareholders' equity

Table 2.2 Classification of securities under IAS 39 (at the beginning of 2008)

Type of security	Classification	Treatment
(a) Financial assets (non-re-classifiable)	Financial assets at fair value through profit or loss	Fair value, with unrealized gains and losses included in profit or loss
(b) Financial securities intended to be held until expiry date	Held-to-maturity securities	Amortized cost
(c) Other loans and receivables	Loans and receivables	Amortized cost
(d) Securities held for trading purposes (non-re-classifiable)	Available-for-sale financial assets	Fair value, with unrealized gains and losses included in other comprehensive income

The description and treatment of items in FAS 115 and IAS 39 were not exactly the same. In IAS 39, there were four categories of items. Items (a) and (d) in the table, measured at fair value, were meant to be non-re-classifiable, meaning that managers would be forced to classify items in that way, at fair value, permanently. Later, during the GFC, this became a controversial issue when, to placate oppositional banking interests, the IASB was forced in October 2008 to remove the non-re-classifiable badges of these items (Andre´ *et al*., 2009; IASB, 2008, 2008a). These interests, pressuring the IASB, wished to reclassify troubled assets away from fair value, as discussed in section 2.6.

During 2005–6, the FASB finalized a new fair value protocol that standardized these measurements in any FASB accounting standard that deployed fair value. The resulting pronouncement was FAS 157, *Fair Value Measurements*, which was operational from 2007 (FASB, 2006). This standard made changes that would become crucial to fair value measurement during the GFC (Song, Thomas, & Yi, 2010) and its protocols were later adopted as standard in IFRS (IASB, 2011). FAS 157 did not expand the coverage of fair value, but where fair value was used, FAS 157 insisted that **observable inputs** be used as the primary measurement tool. FAS 157 stipulated a three-tier hierarchy of preferred measurements. Level 1 measurement, the most preferred, is based on directly observable inputs (e.g. from quoted market prices). Level 2, used when Level 1 is not available, is based on surrogates for quoted prices. Level 3, the least preferred, is based on unobservable inputs, such as modelling of expected future cash flows. Level 3 was an inferior fall-back position, to be used only when Levels 1 and 2 are not available.

Which of the levels is ‘**mark-to-market**’ and which is ‘**mark-to-model**’? In the actors’ pronouncements studied in this thesis, the terms are not used consistently; indeed this is part of the translation process. For academics who write on the subject, by the time of the GFC anyway, Level 1 is ‘mark-to-market’, Level 3 is ‘mark-to-model’ and Level 2 is ambiguous (Jarolim & Öppinger, 2012). Some authors also describe Level 2 as mark-to-model, but distinguish this from Level 3 by the degree of management estimates used in each measurement. For Jarolim and Öppinger (2012), Level 2 is *mark-to-model with market parameters.* Level 2, for example, may use discounted cash flow analysis, or option pricing, as long as the parameters are based on market inputs. This outlook on Level 2, as a mark-to-model hybrid, is supported by Meder *et al.* (2011, p. 565). For Jarolim and Öppinger, Level 3 is *mark-to-model without market parameters*. Level 3 by contrast may use inputs solely determined by management estimates. This thesis adopts the Jarolim and Öppinger/ Meder *et al.* approach, but it will often be necessary to point out that other actors appoint different meanings to the terms. For non-academics, or non-experts, ‘mark-to-market’ and ‘mark-to-model’ are poorly differentiated ‘popular usage’ terms.

The FASB implementation guidance on FVA influenced the IASB. During the GFC, a technique similar to the US FAS 157 fair value hierarchy was established as guidance in IFRS (IASB, 2008a), and by 2011, US and IFRS protocols for a three-tier fair value hierarchy were essentially the same (Journal of Accountancy, 2011). These protocols are still the basis of guidance in the present fair value and financial instrument standards except that the application guidance for Levels 1, 2 and 3 changed crucially in early 2009 at the height of the GFC. These changes are an important matter for consideration in this thesis because they reflect the political pressure placed upon standard setters.

In the original 2006–7 FASB version of the three-tier fair value hierarchy, Level 1 was given the highest degree of importance; standard setters intended that fair value measurements be made using the most verifiable data. FAS 157 made it clear that FVA was intended to be an exit-price, observable inputs measurement even when markets are thinly traded. The standard did mention the problem of forced sales (FAS 157, paragraph 7), but thin trading does not itself amount to a forced sale. It is not necessary for a market in financial assets of the same description to exist in order to obtain market prices for those assets. Instead, these can be inferred from an orderly market of similar assets (FAS 157, paragraphs 28–31). In summary, income valuation models, or unobservable Level 3 inputs, generally could not be used if quoted prices, or quoted prices of surrogates, were available at all. The standard, therefore, prioritized short-term market measurements and did not generally allow the company to take a modelled longer-term view that 'assumes' the assets will necessarily recover their sale price potential. The SEC had supported this emphasis on observable inputs as a matter of policy. Even prior to the development of FAS 157, the SEC had made it clear in an earlier accounting and auditing enforcement release that observable inputs, assessed in the immediate term, were the preferred measure (SEC, 2004). These requirements were to have far-reaching consequences when, in 2008, the US financial system started to freeze, and banks refused to trade in each other's financial assets, thus creating thin or non-existent markets (Nanto, 2009). Whether or not report preparers had actually complied with the apparently stringent mark-to-market requirements is a topic of controversy and, as regards compliance during the 2008–9 GFC, is a topic considered in section 2.6.

Similarly, at the beginning of 2008, IFRS also emphasized observable input mark-to-market, where FVA was required or chosen, and downplayed the use of management modelling of financial assets. The fair value measures outlined in paragraph 48A of IAS 39 were consistent with the FASB equivalent to the extent that:

> The best evidence of fair value is quoted prices in an active market. If the market for a financial instrument is not active, an entity establishes fair value by using a

valuation technique ...

And:

> Fair value is estimated on the basis of the results of a valuation technique that makes maximum use of market inputs, and relies as little as possible on entity-specific inputs.

At the beginning of 2008, these requirements favoured observable inputs above modelled inputs, as did the US protocol. During the GFC in 2008 and 2009, as will be discussed later, these US and IFRS accounting requirements were suddenly modified. There were two main effects of these modifications. In summary, the first effect was to reduce the primacy of Level 1 inputs and to give management greater opportunity to select more subjective inputs. The second effect was to enable easier switching from fair value measurement options back to historical cost measurement; or to enable fair value losses to be sequestered from the period income statement into the reserves of an ancillary statement. The political motivations and pressures behind these developments, and their apparent effects on financial reporting in the economy, are considered in section 2.6.

2.3 Fair value and the economy: The market efficiency perspective

There is a substantial literature on the effect of FVA upon financial reporting. Broadly, this literature can be divided into two types. The first is concerned with evaluating FVA in terms of its effectiveness in providing information to markets and investors. The second type of literature takes a wider, more critical view of fair value's relationship with changes in the capital economy, such as the tendency towards trading in financial instruments at the expense of the development of manufacturing (this critical view is considered in section 2.4).

The first research type, dealing with market efficiency, does not have any universally used label. To some it is 'positive accounting theory' (Watts & Zimmerman, 1986), or perhaps ‘capital markets research’ (Kothari, 2001). To those observing these areas from the outside, they might all stem from a neoliberal perspective. However, this might not be a term that ‘positive accounting’ researchers or capital markets researchers would necessarily understand or use themselves. ‘Neoliberal’ depicts Western economic policies from the 1980s that stress the primacy of private market mechanisms and globalization; these might contrast, for example, with earlier ‘Keynesian’ decades of more active government intervention in the national economy (Dumenil & Levy, 2004; Heise, 2008; Krippner, 2005).

Often, market efficiency research employs statistical analyses of financial reporting information’s content, as illuminated by comparisons with stock price movements or other market measurement attributes. During the 1990s in particular, fair value information was studied intensively in this way. However, these studies tended to have disparate subject matter, with a series of different micro focuses: particular elements of financial statements were investigated. As examples, Venkatachalam (1996) studied fair value of risk management derivatives; Barth, Beaver, and Landsman (1996) studied financial instruments’ fair value estimates; Choi, Collins, and Johnson (1997) studied fair value relating to pension requirements; Petroni and Wahlen (1995) studied fair value relating to debt and equity instruments; and Nelson (1996) studied fair value relating to bank loans. There are perhaps hundreds of such studies, each with a different micro focus; this makes it difficult to develop any overall conclusions about the efficacy of fair value’s information content to report users.

At the beginning of the 2000s, however, several studies did attempt to assess the overall conclusions of this literature. The result was a ‘value relevance’ debate in which there were two opposing points of view. One review, led by Holthausen and Watts (2001) asserted that the literature had not been able to make a clear case about the value relevance of FVA. The opposing view, led by Barth, Beaver, and Landsman (2001), asserted that the case for fair value relevance was manifest. These authors also pointed out that a number of studies were prepared directly for the benefit of standard setters' decision-making. In the mid-2000s, these studies may have helped standard setters in their decisions: to stress the primacy of Level 1-type inputs on the grounds that modelled information was less accurate. However, it could also be argued that emergent circumstances, the crash of Enron, and a large number of other company collapses and their mal-use of mark-to-model were equally influential to the standard setters. These effects are discussed in section 2.5.

Mary Barth, who was a board member of the IASB, has been a particular advocate of FVA. In the early to mid-2000s, Barth and her followers continued to press for the expansion of FVA in accounting standards (Barth, 2004, 2006, 2007). Her 2004 paper is particularly relevant to the GFC because it tackles the issue of volatility in fair value reporting. Volatility is prevalent in FVA because of the frequent changes in measurement indices such as stock prices. The paper identifies three sources of fair value volatility: estimation error volatility, inherent volatility and mixed-measurement volatility. Estimation error volatility is minimized by adhering wherever possible to directly observable inputs, hence the attraction of the 'Level 1' measurement inputs to standard setters. Mixed measurement volatility is eliminated by removing historical cost from any of the measurement options. Such elimination is always a theoretical attraction to fair value advocates but has never been achieved in regulatory practice. Inherent volatility is, to fair value purists, the whole point of the measurement system and is not seen as an 'error'. During the GFC, inherent volatility would be viewed by accounting standard leaders as 'telling it like it is', while opposing interests would view the volatility merely as distortion (e.g. Tweedie, 2008; Herz, 2008; American Banking Association, 2008).

While fair value proponents see fair value as superior to historical cost, the quality of Level 3 inputs (and some Level 2 estimates) is viewed ambiguously. Barth (2006) herself makes the case that, in financial statements, estimates of the future may be more reliable than statements of the present time. Others disagree. Heaton, Lucas, and McDonald (2010) make a contrary case that management estimates of future cash flows may be too subjective.

Barth (2004) had stated that mixed measurement volatility was a problem. In Barth (2007, p. 7), however, it is stated that the IASB:

> ... has concluded that in some cases fair value meets the conceptual framework criteria better than other measurement bases considered. It is not because the board has a stated objective of changing accounting measurement to fair value for all assets and liabilities. Fair value is not a panacea and other measurement bases also have desirable characteristics.

This position is a retreat from those 1960s arguments that fair value should be used to measure all items in financial statements. But exactly how far should fair value be taken? Since the 1990s, standard setters seem not to have produced anything resembling a definite long-term policy of fair value measurement and implementation, and development of fair value seems to have been simply incremental. Tarca (2005) argues that IFRS seems to have had the greater reputation for interest in fair value. But, when addressing this assertion, Cairns (2006, p. 6) finds that only 10 of 40 IFRS standards required fair value as an initial and subsequent measure of assets or liabilities: far less than the pervasive use of FVA by IFRS that is commonly implied in some literature—or what seems to be a matter of folklore (Barth, 2007). Even in 2013, the current chairman of the IASB needed to deny this misapprehension, pointing out that, in IFRS, fair value is largely restricted to financial assets and liabilities (Hoogervorst, 2013). This limited application or restricted area of fair value is an important matter for this thesis. As will be depicted in later sections of this chapter, use of fair value has been driven, in reality, not just by universal, abstract theoretical measurement imperatives, but also by the particular demands of the US and European financial industry.

The new fair value protocols under FAS 157 and IAS 139 had barely been in place for a year when, in 2008, the GFC started to cause concern over accounting measurements. Proponents of fair value were, therefore, forced almost immediately to address claims that FVA exacerbated the financial crisis. These are considered in section 2.6.

2.4 Fair value and the economy: A critical perspective

An alternative view to the capital markets/positive accounting research perspective is the 'critical' view in the accounting literature, and specifically, a literature of 'financialism'. This literature stems from a debate over divergences in the world's capital economies (Hall & Soskice, 2001). This alternative view does not share the capital markets researchers' beliefs in the ability of the market to see through accounting numbers (Ball & Brown, 1968).

Anglo-US liberal market economies can be compared with the coordinated market economies (CMEs) of Germany, France and culturally allied states (e.g. Dumenil & Levy, 2004; Hancke, Rhodes, & Thatcher, 2007; Heise, 2008; Krippner, 2005; Perry & Nolke, 2005, 2006; van Treeck, 2009). In the Anglo-US liberal market economy, companies are said to be more concerned with the generation of profits in the short term: the holding of large portfolios of financial assets, and the payment of dividends and management bonuses from short-term profits to the maximum extent. In this model, accounting measurements are orientated toward higher or 'optimistic' profit and asset measurements. By contrast, the CME model depicts more consensual relations between capital and labour, social responsibility of companies, willingness to re-invest profits in long-term development rather than take short-term dividends, and a relatively long-term perspective that is labelled as ‘patient capital’. In the CME model, accounting values are orientated toward conservatism as lower asset and profit values fit with the need to re-invest profits rather than appropriate them.

Proponents of ‘financialism theory’ seem more favourably disposed to the CME model on the grounds that it provides superior outcomes for employment stability, income distribution and social justice. This perspective differs markedly from, for example, positive accounting theory viewpoints (Watts & Zimmerman, 1986) that stress the economic marginalities of self-interest in the supply of and demand for accounting regulations. In the political science literature, political actions are sometimes said to take place from altruistic motives rather than the immediate and narrow financial self-interests of the players (Crick, 2002). By contrast, demand and supply perspectives commonly view political interaction as no more than a product of rational bargaining over economic interests (Watts & Zimmerman, 1978, 1979) and these theorists believe they are neutral in their study of these outcomes. The CME model applies particularly to European industry, but less so to European banks which, under increasing foreign ownership, have experienced greater financialization, and incurred large losses during the GFC (e.g. Hardie & Howarth, 2009; Altunbas, Gambacorta, & Marques-Ibanez, 2009).

A common financialism theory theme is the assertion that, in the Anglo-US-type economies, income derived from financial assets is displacing traditional ‘production’ to a significant degree. In the US, Krippner (2005, p. 181) reports that manufacturing as a proportion of GDP has fallen from around 33% in 1950 to 17% in 2001. By contrast, the ratio of financial to non-financial profits among US corporations has risen from 0.1 to 0.5 during the same period (p. 197). Atkinson (2012) confirms a continuation in this pattern of declining manufacturing. This pattern suggests a growing dependency on financial asset income even among non-financial corporations. Dumenil & Levy (2004, p. 99) calculate that the US financial sector (where incomes are derived exclusively from non-tangible products) now represents about 30% of the net worth of the non-financial sector, compared with about 18% in 1950.

This financialism argument has been extended to the debate on political pressure and FVA standards. In particular, Perry and Nolke (2005, 2006) have taken up this argument. The authors make a case that FVA is at the heart of the emerging financialism in the Anglo-US set of economies; FVA is its *modus operandi* because of the heightened demand for accounting standards that can be used to accentuate profits. The ability to re-measure periodically financial assets at market value is, therefore, an integral feature of this economic ideology. Their 2005 paper empirically tests the thesis that the financial sector is driving the demand for FVA rules ('investment funds, their fund managers, and the analysts which support them' (2005, p. 30)). Financial corporations are those that do not significantly 'produce' or deal directly with tangible products such as commodities, manufactures and the like.

2.5 Fair value accounting and the corporate collapses of 2001–2

Of the two recent periods of world corporate collapse (2001–2 and 2008–9) only the latter was immediately associated with FVA problems. The earlier round of collapses was attributed to a number of causes; FVA was not immediately prominent among them, but became a later subject of suspicion and investigation (Benston, 2006). This delayed reaction is quite important to this thesis. By the 1990s, fair value was already a prominent feature of corporate malfeasance, but accounting authorities seemed less aware of the problem than might have been expected. An important feature of the thesis' argument in Chapter 5 is to try to account for this lack of awareness.

Perhaps the most useful example of a financial corporation would be Enron, one of the first large corporations to collapse (very visibly) during the 'dot.com' crisis in the early 2000s. Enron, though it started out in the 1990s as an energy producer, near the end of its life owned few physical assets and was little more than a financing company. While Enron itself was not strictly a 'dot.com' company (though it did make a large amount of booked profit on broadband services) it is all the same a prime example of the 'financialization' of companies at that time and, like the dot.com companies, it collapsed when perception of its profit making abilities far exceeded reality. Much has been written in the academic literature about Enron's use of special purpose entities and complex contracts designed to disguise non-existent booked revenue, and its relationship with auditors (Abdel-Khalik, 2002; Benston & Hartgraves, 2002; Demski, 2002; Revsine, 2002). Enron also made extensive use of modelled fair value measurements in order to manipulate asset values. Benston (2006) believes that even in the mid-2000s, manipulation of fair value assets, such as by Enron, was an issue under-studied in the academic literature. Other manipulations, for example, manipulation of accruals, or manipulation of capitalized items that should have been expensed, had been commonly studied. During the 1990s, Enron and other companies had manipulated significant amounts of revenue using fair value. These techniques of manipulation seem to have gone unnoticed for too long:

> Although Enron's failure in December 2001 had many causes ... there is strong reason to believe that Enron's early and continuing use of level 3 fair-value accounting played an important role in its demise. It appears that Enron initially used level 3 fair-value estimates (predominantly present value estimates) without any intent to mislead investors, but rather to motivate and reward managers for the economic benefits they achieved for shareholders. Enron first revalued energy contracts, reflecting an innovation in how these contracts were structured, with the

> increase in value reported as current period earnings. Then level 3 revaluations were applied to other assets, particularly what Enron termed “merchant” investments. Increasingly, as Enron’s operations were not as profitable as its managers predicted to the stock market, these upward revaluations were used opportunistically to inflate reported net income. This tendency was exacerbated by Enron’s basing managers’ compensation on the estimated fair-values of their merchant investment projects (Benston, 2006, p. 467).

In the late 1990s, Enron booked billions of dollars in non-existent revenue (Partnoy, 2002). At the same time, management salaries and bonuses based on these profits increased exponentially; the top 200 employees took home $193 million in 1998, $402 million in 1999 and $1.4 billion in 2000 (i.e. an average $7 million each), just before the company collapsed (McLean & Elkind, 2003, p. 241). Enron’s collapse was the beginning of an avalanche. Many other corporate collapses followed at the beginning of the 2000s. These companies included WorldCom, Global Crossing, Tyco, Sunbeam, Parmalat and many others (Chorafas, 2006; Clark, 2007). There is a capital markets research viewpoint that accounting numbers do not ‘fool’ the market (Ball & Brown, 1968; Kothari, 2001; Lev & Ohlson, 1982). Despite years of Enron’s and other companies’ financial reports being accepted by financial analysts, investors, authorities and the ‘market’, their failure presents a challenge for that viewpoint. Perhaps these market failures, on such a gross scale, present a significant challenge.

These criticisms of fair value reporting form the backdrop to standard setters’ attitudes and activities in the lead up to the GFC in the early 2000s, in particular, their desire to make it more difficult for managers to use Level 2 or 3-type modelled fair value inputs. These activities are considered further in Chapter 5.

When the GFC occurred in 2008, the subject of manipulated financial products also returned to the attention of commentators. Although the products manipulated during the 2008–9 GFC were often different to those manipulated by Enron and other dot.com companies involved in the earlier crisis, the same basic principles of manipulation would apply to many companies: management estimates would be used to value products initially. But as managers became dependent on the inflated amounts to pay bonuses, changes to the estimates would not be recognized as losses. Generally, the products involved were trading contracts involving third parties; the present value of revenues was overestimated using Level 2 and 3-type 'management-estimate' calculations. These are considered in section 2.6.

2.6 Fair value accounting and the global financial crisis of 2008–9

The accounting literature on the GFC has already made extensive investigations into the role of fair value. A brief historical introduction to the events inspiring this literature is as follows. By mid-2008, rising interest rates in the US had caused a financial crisis in the wake of a collapsed housing bubble. Banks had been trading in 'monetized' loan products, which had been bundled into complex tranches and on-sold to financial institutions around the world. It now seems apparent that many such institutions did neither sufficiently understand these products nor accurately assess their risks: a mass phenomenon of market failure not previously accepted as plausible under mainstream neo-liberal financial economics (McSweeney, 2009).

The 2008–9 crisis might be seen in many ways as a continuation or relapse of the 2001 dot.com crisis. In 2001, Internet stocks had formed a bubble that then burst following the collapse of Enron and other companies. The macro-economic response of regulators in the US was to drop interest rates to nearly zero and, in the ensuing housing boom, to encourage a proliferation of investment and money market activities. 'Sub-prime mortgage-backed securities' were eventually the financial products most closely implicated in the global crisis (Blundell-Wignall & Atkinson, 2009). These were mortgages that were evaluated as having greater risk of default, but they were bundled together with securities of lesser risk and on-sold in huge tranches as securitized assets (Caballero & Krishnamurthy, 2009). These instruments were measured in a variety of ways, depending on the circumstances. The initial loans were measured by the originating banks at historical cost, not at fair value. However, securitized assets arising from these loans could be measured at fair value when they were later sold on to other parties. These investment vehicles were known as collateralized debt obligations (CDOs): layered investments made up of underlying fixed interest securities, including the sub-prime mortgages (Roberts & Jones, 2009). The risk of these mortgages was not properly assessed by the issuing banks and not properly governed by regulators. The risk of the composite CDOs was in turn not properly assessed by credit rating agencies. CDOs were on-sold by investment banks and the international money market, to reside potentially in the portfolios of any large institution around the world, including, for example, local government authorities in provincial Australia (Cole, 2008). In both US GAAP and IFRS, it was possible to measure these tradable CDOs using FVA and, as the price of these rose in a buoyant market, to book the increases as period profits.

In June 2007, several of Bear Stearns' mortgage funds collapsed; this was the first major indication of the extent of an impending credit disaster (Economist, 2007). According to the IMF, US and European banks lost more than $1 trillion during the period January 2007 through September 2009 (Reuters, 2009). UK and US banks started to fail from mid-2007. These included Northern Rock, Bear Stearns, Lehman Bros, Merrill Lynch, Citigroup and American Insurance Group (AIG). These banks were subject to drastic restructuring or fire sale takeovers by other institutions (Altman, 2009).

By mid-2008, FVA had become embroiled in a major international political storm. The contentious point was not fair value in general, but the particular version, which had become operational in recent accounting standard changes: mark-to-market accounting. Political actors, whether on their own behalf or acting for the financial industry, had demanded remedial action on mark-to-market accounting, saying that it had exacerbated the financial crisis badly by helping to cause banks to over-report losses, thus contributing to a snowballing or 'contagion' effect (American Banking Association, 2008; Institute of International Finance, 2008; International Banking Federation, 2008; Schor, 2008). The over-reporting of losses was claimed to be due to accounting standard directives to report tradable financial assets at their Level 1 values. This meant that reporters had to use amounts quotable from the market. This was the general complaint: if only financial institutions could be allowed to wait until the market had recovered, they would not need to mark down investments, and there would not be so much reported volatility.

The response of authorities to these demands is given in more detail in Chapter 6. In brief, the FASB and the IASB were placed under enormous political pressure during mid- to late 2008. The outcome was a series of corrections to the accounting standards in order to placate these political demands. The FASB issued its first correction on 10 October 2008 (FASB, 2008). FAS 157 was modified to require 'judgment' to determine if a market was 'dislocated'. In effect, this meant that forced liquidations and distressed sales did not necessarily need to be measured by Level 1 or even Level 2 inputs. The IASB responded just a few days later with its own correction to IAS 39 (IASB, 2008). This correction was slightly different; while the IASB also endorsed the new FASB viewpoint on thinly traded markets (IASB, 2008b), the IASB changes additionally enabled businesses to switch some financial assets out of fair value and back to historical cost; a procedure that had been previously prohibited. The IASB corrections, as described further in Chapter 6, along with UK and European bank-bailout schemes (Quaglia, 2009) seemed to placate political complainants of FVA for the remainder of 2008. In the US, however, complaints continued that the FASB changes had not gone far enough; business representatives complained that the ‘dislocated market’ guidelines were not at all clear (Chamber of Commerce, 2008). On September 20, 2008, US Congress had introduced a bailout bill for failing banks, which also mandated a study of mark-to-market accounting to be done by the SEC (House of Representatives, 2008). When the study was released at the end of that year, the SEC’s report rejected the claims that fair value was the main cause of the credit crisis (SEC, 2008). The SEC found instead that most banks that had failed had done so because of poor lending policies, which led to failures of loans measured at amortized cost. The SEC, therefore, continued to support mark-to-market accounting. The lack of ‘closure’ on the FVA issue seemed to disturb large elements of the US political body. Eventually, and as a result, the House of Representatives Committee on Financial Services (Congressional Hearing, 2009) held a public hearing on mark-to-market accounting in March 2009. This hearing gave US politicians the opportunity to air their grievances on mark-to-market accounting in a highly publicized forum. During the hearing, FASB chairman Robert Herz was given an ultimatum by the committee. Herz was told that the FASB could either reduce mark-to-market requirements in US accounting standards, or face restructuring by Congress (2009, p. 29). The FASB rapidly complied. Five days after the House hearing the FASB called for comments on the proposed new staff position on FAS 157, with a comment deadline of April 1, 2009. This action then resulted in a further modification of FAS 157 (FASB, 2009). The proposal gave definite guidelines as to when a market could be considered ‘inactive’ and, therefore, when mark-to-market could be avoided in favour of mark-to-model. The guidelines were broad: evidence of inactivity could include few recent transactions, price quotes that varied, and FVA prices that did not correlate with other indices. When markets were deemed ‘inactive’ under these guidelines, easier use could be made of Level 2 and Level 3 modelling. The guidelines seem to offer a more general escape from quoted-trade mark-to-market for financial institutions caught up in the GFC. It was a much clearer and definitively usable escape route than that offered by the October staff position. In summary, the stringent mark-to-market requirements that were fresh in standard setters’ products in 2007 were, at least on paper, significantly watered down during the 2008 and 2009 changes. This watering-down moved the standards significantly away from mark-to-market and back in favour of ‘mark-to-model’, much against the initial wishes of the standard setters and their supporters.

In the period since mid-2009 to early 2015, both IFRS and FASB protocols on FVA have undergone further changes. However, the three-tier fair value hierarchy, with the easier to apply mark-to-model changes, instituted during the GFC in mid-2009, has largely remained unchanged. After 2009, the IASB and FASB pursued a convergence programme of FVA and, by 2011, the fair value guidance and protocols in US GAAP and IFRS were virtually identical (Journal of Accountancy, 2011); this remains unchanged at the time of writing (IASB, 2014). The 2009 fair value standards themselves have disappeared, at least in name. FAS 157 content has been incorporated into the new US codified accounting standard regime. This new regime combines the contents of numerous, previously stand-alone accounting standards, into a single, long, continuous document, that is divided up by topic numbers. The content of the old standard, FAS 157, now occupies Topic 820 in the new system. Attempts continue to expand the coverage of fair value to other assets and, particularly, to liabilities (FASB, 2013). The application of the three-level fair value hierarchy is, however, unchanged by the new protocol itself. The fair value measurement techniques in IAS 39 have also been placed in a new standard, IFRS 13, *Fair Value Measurement* (IASB, 2011a) and that part of the content is now the same as for the US topic 820.

In the late 2000s, the accounting literature became rapidly engaged in analyzing these politically inspired events and the accounting standard changes. One strand of literature examines the contention that mark-to-market accounting was a significant cause of the global liquidity crisis. A second strand analyzes the effects of the accounting standard changes on corporate reporting.

2.6.1 Strand 1: Did fair value accounting cause the global crisis?

In the first strand, evidence about fair value as the cause of the crisis is mixed. There are two main banking industry arguments, as reported above. The first claim is that mark-to-market accounting caused unnecessary impairments that do not reflect valuation fundamentals. The second accusation is that mark-to-market accounting use is pro-cyclical and caused a 'contagion' or meltdown of confidence that resulted in the liquidity freeze.

The first argument is dealt with by Laux and Leuz (2010, p. 101), who discovered that a number of the prominent banks, such as Bear Stearns, Merrill Lynch, Lehman Bros and BNP Paribas, had not marked down their sub-prime investments. However, some of these banks had shut down investor withdrawals during the crisis, using the excuse that, as the investments were not much traded, 'they had no price'. According to Laux and Leuz, the problematic sub-prime investments were, in fact, likely recorded *above* market value at the time of the crisis—they were not *below* value, and had not been marked down severely by an accounting technique. Had they been recorded at historical cost rather than fair value, the issues regarding impairment would have been the same; therefore, there was no particular importance to the measurement system about impairments during the crisis. This point of view is consistent with that pronounced in the SEC's report at the end of 2008.

The pro-cyclical argument is, however, supported by several academic authors. In Allen and Carletti (2008), and Plantin, Sapra, and Shin (2008) fair value losses cause a spiral in which banks have to liquidate more assets in order to cover the losses, which in turn reduces the market price further, which in turn exacerbates the losses even further, and so on. This argument was also put forward by Bignon, Biondi, and Ragot (2009), Hellwig (2009) and, in the financial press, by journals such as the *Economist* (2008). More recently, a study of asset write-downs in the period 2007–10 does find clear evidence of the contagion effect using mark-to-market exit values (Dontoh *et al.*, 2012).

Badertscher, Burks, and Easton (2012) explore both the above mark-to-market criticisms with an empirical study of 150 bank holding companies. On the first question, extent of fair value losses, the authors discovered that bad debts expense (not measured at fair value) dwarfs the mark-to-market write-offs in the 2007–8 period by more than 10 times. In the sample:

> Quarterly bad debt expense averaged $6.7 billion from 2004 to 2006. From September 2007 to December 2008, quarterly bad debt expense averaged $35.7 billion for a total of $214.2 billion, compared to a total of only $19 billion of OTTI [other than temporary impairment, fair value] charges over the same time period (2012, p. 15).

In other words, simple impairment on failed loans, measured at amortized cost, was more significant than any fair value impairment issue. This claim is consistent with the findings made in the SEC's report at the end of 2008; the latter performed with a much smaller sample, and is consistent with the earlier Laux and Leuz (2010) study. On the second question, pro-cyclical contagion, Badertscher, Burks, and Easton (2012, p. 18) find that:

> The level of quarterly selling during the crisis period of 2007 and 2008 averages ... 1.3 percent of average liabilities for the full sample, and appears in line with the levels of selling seen from 2004 to 2006. Over the entire sample period, the quarter with the least amount of selling ends in June 2008 ... In other words, the crisis period was not characterized by abnormally high levels of sales of securities.

This observation seems to contradict the theory that there is a contagion effect: banks were not selling securities to cover their fair value losses. Amel-Zadeh and Meeks (2013) report similar empirical results. Overall, however, while many academic studies dispute the contagion theory, opinions are divided. Also, the 'contagion theory' and 'excessive write-down theory' are not contingent upon each other. The contagion theory might be right or wrong, but this does not imply that the excessive write-down theory is right or wrong. Even if contagion were a factor, there still might not have been 'unrealistic' write-downs. Indeed, a recurrent theme in the thesis is that, in fact, the diametric opposite of excessive write-down was the case: instead, large amounts of impairments were not recorded, the exact opposite of the banking industry claims. This nuance is important for the ensuing discussion.

2.6.2 Strand 2: Effect of the 2008–9 FVA changes on corporate reporting

The FASB and IASB changes to FVA standards made in 2008–9 have been the subject of intense academic study. What has been the effect of these changes on financial reporting? Have report preparers misused the changed requirements to underreport losses arising from the GFC or after? The researchers in strand 2 claim that the problem is that fair valued assets were in fact *not* written down, but *should* have been.

Bischof, Brüggemann, and Daske (2010) studied a global sample of 302 IFRS-reporting banks. They discovered that more than one third of these banks took the reclassification option offered during the 2008 IFRS change. This change resulted in an aggregate profit increase of €22.7 billion, an economically significant amount, and a 44% profit increase on average for these banks. The banks more likely to reclassify in this way were the ones facing bankruptcy. Therefore, the authors conclude, the reclassification option helped these banks avoid bankruptcy in the short term, but with a long-term cost of increased information asymmetry. The authors say 'this evidence supports the IASB's and investor advocates' fear that transparency of financial reporting suffers when fair value information is reduced' (2010, p. 4).

Glaser, Mohrmann, and Riepe (2013), in a similar study to that of Bischof, Brüggemann, and Daske (2010), analyze 750 banks in the US and Europe between 2008 and 2012. They state that:

> In times of tight capital ratios and unfavorable conditions on the market for new bank equity, as in the crisis period from 2007 to 2012, an extensive use of accounting discretion, e.g., within mark-to-model valuations, provide a tempting way to ease regulatory constraints ... On the one hand, this might be part of a regulatory forbearance strategy to calm down capital market pressure on troubled financial institutes ... On the other hand, this forbearance enables undercapitalized banks to survive for longer periods. Other banks might even circumvent regulatory risk limits and take on excessive risks (2013, p. 1).

The authors are particularly motivated to study the long-term consequences of the rule changes: 'the use of accounting discretion might not be limited to the direct post-crisis period but might become a phenomenon, which can prevail for many years' (Glaser, Mohrmann, & Riepe, 2013, p. 3). The authors show that use of Level 3 assets is a persistent phenomenon, not just limited to the sub-prime crisis, and that use of Level 3 is a good predictor for default risk in banks. These effects are supported by the analysis of Paananen, Renders and Shima (2012). Likewise, Jarolim and Öppinger (2012), in a sample study of 52 banks using IFRS, discovered that average losses of €863 million per bank were avoided by taking advantage of the FVA to historical cost switching procedure enabled from October 13, 2008.

What was the role of auditors in approving the above described switches and changes? Compared with the 2001 episodes involving Enron-like debacles, in the 2009 round the role of deficient auditing was largely downplayed. Instead, ratings agencies were severely criticized for over-valuing suspect financial assets (Reuters, 2012). The effect of inadequate auditing or collusion with clients was also suspected by some but in the second crisis had not, in 2009, been a pressing matter of attention (Humphrey, Loft, & Woods, 2009; Sikka, 2009; Woods, Humphrey, Dowd, & Liu, 2009, pp. 125–6). In 2012, however, the US Public Company Accounting Oversight Board (PCAOB) reported a serious escalation of fair value audit deficiencies (Acuitas, 2012).

2.7 Summary and discussion of questions unresolved in the literature

In the 1990s, standard setters and their academic allies acted to reintroduce FVA into US GAAP and IFRS. They did so knowing that previous experiments with FVA had led to significant over-valuations, in particular, in the lead up to the 1929 stock market crash. In the 1990s, however, fair value had been revitalized as a mechanism intended to *prevent* misreporting in the financial industry. Instead, and almost immediately upon its reintroduction, the financial industry set upon misusing ‘revitalized’ fair value, to over-inflate profits and to pay management bonuses. The accounting literature was slow to recognize the full extent of fair value’s role in these misuses. Standard setters could, perhaps, have abandoned their experiment with fair value at that time, in the early 2000s. Instead, they sought to strengthen the technique by introducing a fair value hierarchy that mandated an emphasis on the less manipulable Level 1 inputs system known as mark-to-market accounting.

During the GFC, banking interests sought to use mark-to-market as a scapegoat for failed loans. This ploy was politically successful: the accounting standards were modified according to their demands. Manipulable management modelling was once again made easier to use. The accounting literature has demonstrated that while mark-to-market accounting may or may not have sparked the liquidity crisis of 2007, mark-to-model accounting has since been consistently and significantly used to hide non-performing assets.

According to one high-profile critic, Professor Ross Watts, historical cost is the only measurement system likely to be accepted in the long-term, by innately conservative shareholders (Watts, 2006). Watts stated (just before the GFC) that the most likely result of continued interest in FVA would be for US Congress to dissolve or restructure the FASB. This comment proved to be prophetic. In 2008, Congress threatened to do exactly that.

The research question for the thesis was foreshadowed in Chapter 1:

Research question: How has FVA become entrenched as a technology in US accounting and IFRS despite its problematic history and association with financial crises?

If this thesis had been written, say, in the 1980s, these activities might have been regarded as an episode of regulatory capture by the financial industry (Walker & Robinson, 1993). This thesis attempts to take a more holistic view. Rather than see these activities merely as capture, the thesis attempts to show more completely the nature of dependency that the accounting world has obtained with FVA. The methodological device chosen to do so is ANT, which is expounded in the next chapter.

Chapter 3: Interpretive Framework

Contents

3.1 Introduction

This chapter provides a review of ANT and its suitability as the interpretive framework for the narrative in this thesis. The ANT interpretive lens has worked effectively in conjunction with historical research in recent accounting papers (Justesen & Mouritsen, 2011). Following this chapter, the ANT relationship with historical research methods is discussed in Chapter 4.

3.2 Interpretive framework: Actor-network theory

From Chapters 1 and 2, it is evident that the FVA narrative is one of organizational change, involving political hostility, disparate actors, unlikely allegiances and disputed measurement technology. ANT has been chosen as the interpretive framework because of its powerful abilities; ANT helps us to see how networks of allegiances are formed or dismantled, and how this impacts on technology.

ANT is traced to foundation works by Callon (1986, 1986a, 1987) and Latour (1986, 1987, 1988, 1993). These works were originally designed to explore the co-dependency of society and engineering or scientific technology, but have since been expanded to social science areas including accounting technology (see e.g. Ahrens & Chapman, 2007; Ahrens & Mollona, 2007; Briers & Chua, 2001; Christensen & Skærbæk, 2010; Chua, 1995; Dechow & Mouritsen, 2005; Ezzamel, 1994; MacKenzie, 2009;

Mennicken, 2008; Mouritsen, Larsen, & Bukh, 2001; Pipan & Czarniawska, 2010; Quattrone & Hopper, 2005; Skærbæk, 2009; Skærbæk & Tryggestad, 2010).

Callon (1986) outlines three fundamental methodological principles of ANT. The first principle is a reaction against conventional sociological practice that marginalizes the viewpoints of the actors under study. Callon (1986, p. 200) states that:

> Not only is the observer impartial towards the scientific and technological arguments used by the protagonists of the controversy, but he also abstains from censoring the actors when they speak about themselves or the social environment.

Callon's second fundamental principle is one of a generalized symmetry. The social and the natural are given equivalence in explanatory power, and the researcher must choose a particular explanatory vocabulary and dynamic from the many that are available. While '… we know that our narrative is no more, but no less valid, than any other' (Callon, 1986, p. 200), the success of the research depends on having made the right choice. ANT is more concerned with the researcher's intuition of the 'right interpretation' than with, for example, statistical proofs based on *a priori* theory. It is not assumed that the outcome must be characterized in a particular way, such as market product/market failure (neo-liberal) or as the oppression of classes/liberation of the proletariat (Marxian). Callon's third fundamental principle, free association, leaves the researcher unencumbered by previously established hypotheses; hitherto unknown relationships between actors can instead be considered.

ANT does not maintain rigid methodological instructions; it is, rather, a loose assemblage of principles and approaches, continually evolving. Law (2009, p. 1) likens ANT to a 'Diaspora' of common elements, a '... disparate family of material-semiotic tools, sensibilities and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located'. Actor-network researchers study this 'continuously generated effect' without *a* *priori* judgements or predictions of social outcomes (Latour, 1986); the researcher remains neutral, and the focus tends to be on the actors themselves: ANT gives voice to these actors. In many other methodological approaches, the actors' own beliefs are subsumed in sociological or economic 'process' (Latour, 2005, pp. 141–56).

The main ingredients of the fair value story in this thesis—a technology that mutates from its original purpose, and actors who remain dependent on that technology despite its mutation—suggest a focus on the core concept of ANT, *translation* (Callon, 1986; 1986a; Latour, 1987). Systems of technology are built by networks, webs of actors; translation is about obtaining control. But other actors are also needed, allies who are 'enrolled' to help build a network. The dominant actor who successfully translates will hold together a network whose interests may be heterogeneous. These efforts, in turn, may alter the way the technology is used, or alter the technology itself. These effects are well known to actor-network accounting studies (e.g. Chua, 1995; Ezzamel, 1994; Mennicken, 2008; Quattrone & Hopper, 2005; Skærbæk, 2009).

One of the earliest studies dealing with translation of accounting process is Robson (1991). In that paper (p. 566), can be seen the nascent implications of an ANT perspective upon the importance of accounting information:

> In examining accounting change, it was argued that it is necessary to attend to the process through which particular accounting statements, calculations and techniques are subject to a translation into wider social, economic and political discourses not normally associated with the apparently neutral, technical discourse and practices of accounting. The significance, role or meaning of accounting is subject by translation to a new interpretation in accordance with such ideals, discourses, bodies of knowledge. Such discourses intersect with accounting to suggest new problems and priorities for accounting practices and stimulate the process of accounting change. Attending to the discursive translation of accounting techniques and the terms and ideals of non-accounting rationales suggests one strategy for conceptualizing accounting's connectivity to the social context, and operationalizing the concept of the arena.

The author notes that the final outcome can be ‘worlds apart’ from its initial causes or origins; a sentiment in which this thesis is thoroughly in agreement.

The actors in this fair value network include regulators and accounting standard setters; professional accountants, their large influential firms and representative accounting bodies; national politicians; banks and their representative organizations, including both traditional ‘conservative’ banks and more risk-taking investment banks; individual corporations and report preparers; individual investors and investor groups; financial commentators and journalists; academics and think-tanks; and, at the height of the global crisis, even consumer groups. As will be shown in Chapters 5 and 6, each of these actors enrolled themselves, or would be enrolled by others, into the fair value network, for a time at least. Over time, membership of an actor network expands, contracts, splits into new networks, and metamorphoses its purpose. One objective of this thesis is to show how each actor contributed to the proliferation of FVA and how fair value changed as a result. Of particular importance is the identification of dominant actors and how they have performed the translation of others. A particular focus of the thesis is how actors become embedded in the network even after the technology alters its original direction. According to Callon (1986, p. 214), translation functions by altering subordinate actors’ perceptions of their own interests. This alteration may be done by seduction, persuasion, transaction, trickery or brute force. These have the effect of rendering the subordinate actor *dependent* on the network.

During the translation, the identities of actors change (Callon & Latour, 1981, p. 286). Actors switch from ordinary (micro) citizen to powerful (macro) actor; this is a network effect. The macro actor:

> … defines space and its organizations, sizes and their measures, values and standards, the stakes and rules of the game—the very existence of the game itself. Or else it allows another, more powerful than itself, to lay them down.

These forces invoke a 'trial of strength' (Callon 1986, 1986a). According to Latour (1988, p. 158) 'There are only trials of strength, of weakness.'

Latour (1987) expands the principles of translation forces outlined in Callon's work. For dominant actors to obtain and keep control over a technology, they may need to influence their allies in ways that cater to more than just explicit interests. This need may mean channelling people in new directions, redirecting their interests, organizing them into different groups and convincing them to take detours before they reach their goals. In Latour (1988, p. 154), the pressures upon actors are described as Aristotelian forces (that seek to realize their inner shape), Darwinian forces (that seek exponential growth), Newtonian forces (that travel straight until disturbed), Nietzschean forces (that have wills of power) and Freudian forces that 'do not know what they lust for—displacing, substituting, metamorphosing, or paralysing themselves as the need arises'. This depiction will be useful in Chapter 7 to help identify the forces acting upon fair value inscriptions.

An actor-network story may ultimately be unique, but prior accounting studies give valuable insights into the interpretive framework. Chua (1995) chronicles an attempt by Australian authorities to use accounting information to 'define' the product output of hospitals. In this story, there were four major groups of actors: academics, hospital personnel, and two groups of bureaucrats from state and Commonwealth departments. According to Chua (1995, p. 122), the academic group acted as the obligatory point of passage (Callon, 1986), a conduit through which all other interests must pass: the academic members were seen as trustworthy mediators. Chua (1995, p. 125) says that:

> In this case, the practice of government was mediated, assisted and ultimately legitimated by the authority of external experts. But for a new technology of surveillance to be institutionalized in organizations, that was only the beginning of a long battle. To achieve victory, new converts would need to be formed, critics silenced, competitors overcome, sceptics convinced and the technology shown to work in many, diverse workplaces.

These actors discovered that initial attempts to convert patient illnesses and recoveries into statistical data that would service as a cost model, suffered from a gross lack of comparability. However, these limitations were swept aside (subsumed as ‘good enough approximations’) as different actors discovered that they ‘belonged’ to the project and depended upon it for their own progress. Chua (1995, p. 138) argues that:

> People persisted with the Model not because they knew with great certainty that, compared with rival technologies, it gave closer approximations to reality, but because they decided that the numbers generated were consistent/factual enough to hold together diverse purposes.

The present fair value story covers a longer time span than the period examined in Chua (1995). In this fair value story, academics are also progenitors of the technology, but the question to be explored is whether they also acted as the obligatory point of passage, or if the regulators who created accounting standard inscriptions fulfilled this role instead. It is necessary to investigate the attempts to silence fair value critics and sceptics, while a powerful competitor to fair value remains in historical cost accounting. It is necessary to see the extent to which ‘approximations’ given by fair value are a cardinal feature of the translation.

As Chapters 1 and 2 have indicated, the dominant fair value (human) actors shifted around over time. In the beginning, academics were dominant, reviving fair value intellectually; by the time of fair value’s partial re-introduction, standard setters and regulators became dominant; after a time this dominance was ambiguously lost, and it is difficult to tell who were the dominant actors.

The existence of non-human actors is a novel feature of ANT. In the first ANT studies, the non-human actors were animals or machines, for example shellfish, the scallops in St Brieuc Bay (Callon, 1986), who initially mobilized scientists, fishermen and bureaucrats into a technology experiment. However, the shellfish decided to defect from their own actor network by refusing to perform according to the scientists' predictions. In Callon's electric car study (1986a), the actors were non-human, non-living electrons, which refused to behave as forecast in the politics of electric car development.

Non-human actors have featured prominently in ANT accounting studies. In Mouritsen, Larsen, and Bukh (2001), the actor under investigation is 'intellectual capital' (IC), which mobilizes inscriptions, as could a human. In the 1990s, IC began as a nebulous concept that describes the difference between market capitalization and book value. This difference, or ratio, became enormous in certain technology companies, which relied upon non-physical assets such as Internet services. IC seems to describe an invisible value above assets recorded under traditional recognition rules. Crudely, it might be regarded as 'internally generated goodwill', which cannot be recorded. After firms started to 'account' for these amounts in their reports, IC reporting seemed to take on a life of its own. These IC reports attempt to link together human knowledge, skills, processes, outputs and resultant 'values' using colourful imagery, sketches, stories and descriptions that are not exactly traditional in the accounting world. The authors describe a kind of growing dependency upon this reporting. Once established, the reports became essential for internal management purposes, the assessment and management of employees as 'team players', as well as communicating the real value of the firm to outsiders. Ultimately, these reports came to fulfil many functions not originally intended, as if they had a mind of their own, as if they had become an actor capable of making others depend on them, capable of mobilizing others. The IC statements construct ‘a new power relation’ and serve as a centre of translation, which constructs ‘ ... hiring policies, organisational competency centres, new organisational vocabularies and languages, and mechanisms for productivity enhancement’ (Mouritsen, Larsen, & Bukh, 2001, p. 758). The authors argue that without the IC statement, these further activities would not have developed as they did; therefore, the IC statement is an actor in its own right. The implications for the fair value story are serious: over time, fair value takes on a life of its own, becomes an actor in its own right, transforming others.

In Jones and Dugdale (2002), the actor is activity-based costing (ABC), which transcends all of its individual, heterogeneous academic and industrial progenitors to become created by the actor-network itself. ABC begins with an academic project to see if overhead costs can be successfully allocated to individual products. In field studies conducted by academics, this appears to work, is given a general theory, and is promoted by consulting firms. Later, the original authors of ABC (Kaplan and Cooper) recant on their initial claims that ABC’s cost allocations have such general applicability across industry. By then, however, the technology itself has translated the users, and the technique is being adopted to assess management performance, rather than its original objective, to assess the marginal performance of products. In the 1990s, this translation worked well in the prevailing economic environment of drastic downsizing based on cost performance. Jones and Dugdale (2002, pp. 153–9) state that some expressed scepticism about the accuracy of ABC for this task, and that ‘it is an untrustworthy expert system with immense force that we are powerless to resist’. They conclude:

> What of the question of whether ABC was *invented* by academics, or whether it was *discovered* in companies? Our analysis suggests that this distinction is not meaningful. What we conclude is that ABC was created in the heterogenous network that enrolled, translated and transformed all of its various human and nonhuman elements ... The term ABC now covers a melange of competing, and

> often contradictory, ideas and practices that may appear to be without authors, or authors so multiple that no clear guiding intelligence can be identified ... Despite this, or because of it, ABC became aggrandized into a 'management philosophy'.

Fair value, likewise, begins as an academic theory, is transformed by regulators and standard setters, and then transformed again by industry. As with ABC, it seems that fair value too has multiple authors: does it also have 'no clear guiding intelligence' that can be identified? And, how, like ABC, did fair value become a juggernaut that the accounting world is powerless to resist? We can also go a step further and ask if fair value is, ultimately, itself the translator. Pipan and Czarniawska (2010) take this step and not only name the actor-network after the accounting technology—management accounting—but also inscribe it as 'an entity in its own right, a single actor' (p. 243). Management accounting is capable, or so it seems, of a life of its own, of translating human actors just as humans may be capable of translating accounting technology.

Who then are the dominant actors in this fair value story? It is possible to assign individual human actors (academics, standards setters, bankers) and their organizations to that role, and to say that these gained control or lost it to others at various times. Initially, these explanations will seem convincing, but as the fair value story progresses towards the present day, the dominance of human actors and their institutions becomes less apparent. In its conclusion, the thesis argues that fair value technology itself has become a significant translator within its own actor-network. To study an actor-network means to study all of its constituent elements, how these form and reform the network, and how they strive for stability.

A network consists of both actors and intermediaries. As with actors, intermediaries may be non-human. An intermediary is 'anything passing between actors which defines the relationship between them' (Callon, 1991, p. 134). These may be documentary inscriptions, technical machinery, human persons and money. This fair value story examines the accounting standards themselves and the tangle of official reports on them, some of the human leaders, as well as interest group behaviour, political activity and academic studies. While the thesis discusses both the US and Europe, there is more emphasis on the US, mainly because events in the US seem so often to determine changes to the network. Commentaries from the blogosphere (used particularly in Chapter 6) are useful in a different way; the professional gut-feel of these intermediaries is more spontaneous and detached than some of the actors within the network. Additionally, the blogosphere's influence has to be negotiated by the network. The trail of money is particularly relevant to actors and intermediaries connected with the financial industry.

While translation is the main ANT focus, this thesis maintains an important secondary ANT focus, the practice of *purification* (Latour, 1993, p. 78). This practice seeks to have technology that is, or has become, disreputable, 'purified', in such a way that it is acceptable for use. MacKenzie (2005) provides an example in the purification of financial derivatives, which had fallen into disrepute as a sophisticated kind of 'gambling'. According to MacKenzie, use of the Black Scholes option-pricing model helped to purify derivatives by providing a supposedly scientific, therefore respectable, basis for calculating their financial statement amounts. The Black Scholes technology, to an extent, was able to replace more disreputable human elements. Christensen and Skærbæk (2010, p. 527) explain that while translation is about rhetoric, persuasion, force and so on:

> ... in practice translation and purification become blended such that purification can be seen as a subset of translation. But it is a subset which becomes characterized as an activity which is mainly ... carried out by experts with a certain scientific affiliation to help purify the focal network by providing not values but hard facts that lay people cannot easily question.

So, compared with the ‘dirty’ and political process of translation, purification is held out to be the ostensibly noble, distanced, ‘scientific’ other face of the process, though ultimately it serves the same end as translation.

Purification has been the particular focus of a number of ANT accounting studies, notably in Tryggestad (2005), Skærbæk (2009) and Christensen and Skærbæk (2010). In the latter study, accounting firms acted as consultants to Australian governments. Accounting firms tried to introduce accrual accounting technologies into government reporting. In that translation, government officials were enrolled into the network because the appearance of accrual accounting enhanced their sense of prestige and importance. Previously, the same officials had been sceptical about accrual accounting because government finances and reporting were based mainly around projections of cash flow. The accounting consultants presented accrual accounting as scientific and modern even though measurements of non-saleable assets—and ‘profit’—were more applicable to private sector enterprises. Once accrual accounting had been established, the same consulting firms offered their services to help engineer the system for governments.

Purification is ‘processes that progress ideas toward acceptance and agreement where those ideas were previously impure’ (Christensen & Skærbæk, 2010, p. 525). In the case of accrual accounting, the purification is performed by ‘experts’ whose independence allows them to make superior truth claims. In this fair value story too, there is a progress towards ‘purifying’ a revised version of FVA that does not seem to fit with its original or ideal form. Chapter 2 argued that fair value reached its ideal form, in the view of intellectuals and standard-setting authorities, in the mark-to-market version that was meant to correct the deficiencies that led to the collapse of Enron and other companies. In the 2009 crisis, this version was drawn back towards mark-to-model, which then needed to be ‘purified’ for continued use. An objective of the thesis, then, is to explain how this purification happened.

Translation may be a continuous process, and it may be difficult to establish points at which the network is formed and re-formed. At certain points though, the network has the appearance of solidity; it operates as a ‘black box’ with its real internal operations opaque to the casual observer. These operations are possibly different in purpose and behaviour to the technology’s external appearance, or claims made of it by ‘official’ inscriptions (Dechow & Mouritsen, 2005; Latour, 1987; MacKenzie, 2009; Quattrone & Hopper, 2005). The challenge is to identify points of stability or change. This thesis identifies, in the end, that there were five main phases of translation during the period 1960 to 2015. In each of these, the translation remained briefly stable and was then, each time, pitched from that stability into a new direction (see Figure 1.1).

3.3 Summary

This chapter has examined the suitability of ANT as the interpretive framework for this thesis. ANT has been extensively used in the accounting literature. ANT is especially suitable for a study of FVA because of that technology’s capacity to mutate in its appearance in the face of political activities. ANT also dovetails well with the historiography of financial accounting research; this aspect is considered further in the next chapter.

Chapter 4: Research Method

Contents

4.1 Introduction

This chapter begins with a discussion of historiography in the accounting literature and the interpretation of narrative. Sections 4.3 and 4.4 outline the approach to collecting the historical research data, sources employed, and the methods of analysis and presentation. While most of the analysis is qualitative, to support the empirical analysis in Chapters 5 and 6 there are also content analyses of transcript documents and comment letters. Section 4.5 canvasses the limitations of methods used in this thesis. Section 4.6 summarizes the approach to dealing with empirical evidence, in conjunction with the interpretive framework of ANT that was presented in Chapter 3.

4.2 Historiography

This thesis presents a series of narratives of historical events and interprets these events within the narratives. Within the academic accounting community, this interpretive approach is recognized as part of the interdisciplinary tradition (Carnegie, 2014, 2014a; Carnegie & Napier, 2002, 2012; Guthrie & Parker, 1999; Parker & Guthrie, 2014). For instance, Carnegie (2014, p. 1242) writes that:

> The key interdisciplinary focus in historical accounting research derives from the application of an array of theoretical perspectives drawn from other disciplines, such as sociology, political and organisational theory, law and education. Such theories appeal to scholars from social science backgrounds and to other researchers who were open to the notion that accounting is social practice, with consequences for human behaviour, rather than merely technical practice.

This trend also results in a move away from neoclassical economics and towards the introduction of sociological or political theories as the means of interpretation. Some authors have described this shift as 'new' accounting history research (Carnegie & Napier, 2012, p. 334). This discipline has many branches, which include, but are not limited to, the study of accounting records and business history, biography, public sector accounting, institutional history and comparative international accounting history (CIAH). To a large extent this thesis belongs to the CIAH sub-discipline. Carnegie and Napier (2002, p. 694) describe this sub-discipline as 'the transnational study of the advent, development and influence of accounting bodies, conventions, ideas, practices and rules'. Carnegie and Napier (2002, pp. 700–702) identify seven factors or dimensions that might be associated with a typical CIAH study. These follow.

Period. ' ... studies are likely to be either synchronous, at a particular point in time, or parallel, taking a particular period in several locations. The date or period selected may impose unarticulated cultural assumptions as to key "turning points" in broader political, social and economic history on to the comparative study' (Carnegie and Napier, 2002, p. 700).

In this thesis, the period of time under study is the 20th century generally but more particularly the 1960s to the present day, with a specific focus on two key turning points: the financial crises periods of 2001–2 and 2008–9. These key turning points are in parallel in the US, the UK and Europe (and other affected countries).

Places. The research question, in part, seeks to establish the place(s) where FVA has been developed dominantly and the influence of these places on its proliferation. FVA has been predominantly a product of Anglo-American cultures and economies and the thesis seeks to demonstrate this proliferating influence internationally, for example in Europe.

People. The dominant interpretive research lens, ANT, seeks to understand the relationships between people that have led to the embedding of FVA technology.

Practices. CIAH suggests a study of accounting practice, how it is prepared and used. This thesis is not primarily a study of practice but a study of technology, so diverges from CIAH on that point. This may be seen as one of the limitations of the thesis, which is discussed in the concluding chapter.

Propagation. The spread of technology—how it propagates—is one of the principal themes of the thesis.

Products. As the thesis is a study of technology, it conforms to this CIAH attribute. Carnegie and Napier (2002, p. 701) ask ‘did a demand for accounting generate any supply of accounting services, or was it met from within’. In this thesis, the technology metamorphoses to perform roles not intended by its original creators.

Profession. This thesis studies the extent to which the accounting profession itself has been responsible for technological change.

Guthrie and Parker (1999) discuss the need to interpret historical narrative. They adopt the perspective of Porter (1981), who occupies a middle ground along the historiography spectrum. At one end of this spectrum are those who collect facts and then interpret the past; at the other end, there are those who explain present day objects by reference to the past. In the middle ground, Guthrie and Parker (1999, p. 306) state that the explanatory narrative has a dual nature:

> ... providing both 'story' and 'explanation'. Porter states that historical events should not simply be understood as objects, but rather as forms of temporal process that explain the conditions from which they arose. This approach implies that the temporal derivation and development patterns of historical events is best captured in narrative form. Thus, for Porter, narrative and interpretation are intertwined and mutually contributing, rather than separate and distinct approaches to historical analysis.

The thesis also adopts this middle ground. Historical events affecting FVA are understood as processes that need to be interpreted during the presentation of narrative. A further précis of relevant parts of Porter's work follows. Porter, (1981, p. 87) states that narrative tends to focus on the explication of 'historical events':

> The historian's task is to explain how the pattern of elements displayed by the final form of the event emerged from the indeterminate conditions displayed by its antecedent world. To do this, it is first necessary to construct a hierarchy of elements, according to their respective levels of abstraction.

Porter's 'hierarchy of abstraction' represents a way to understand how the elements of a narrative discourse are pieced together to form a case. Porter's first level of abstraction is an initial awareness of the whole event itself, a 'synoptic judgement', in which the 'form of the whole event overrides the particular relationships in it' (p. 88). Porter's example is the awareness of the Factory Act of 1838 (UK), an important reform bill. Examples in this thesis of first-level events would include the introduction of FAS 157 (FVA standardization) in 2006, or the controversial changes to that standard following the congressional hearing in 2009. As with Porter's example, the importance of the event is recognized immediately, but its constituent elements and antecedent factors will be opaque at this stage of the enquiry.

Porter's second level of abstraction depicts the events brought into focus by individuals. Each person studied brings a different experience of what happened. Study at this level may amount to biography. Porter (1981, p. 90) regards biography as valuable, but:

> Care must be taken ... that no single individual be represented as the full expression of any other element in the hierarchy. The individual perceives aspects, not wholes, just as the actual event incorporates only aspects of that individual's experience.

In this thesis certain individuals are studied biographically, in particular, US political actor Barney Frank (in Chapter 6). The analysis of Frank helps to reveal contemporaneously the beliefs that were held about FVA. This biographic analysis reveals the action of powerful individuals such as Frank upon actual events, as well as being a simulacrum of behaviour exhibited by a particular type of actor (in Frank's case, left-liberal advocates of financial deregulation; an important antecedent aspect of the bipartisan course of such deregulation).

Porter's third level of abstraction is focused on groups, where group dynamics replace individual behaviour. Here, Porter distinguishes between groups and institutions, the latter being the fourth level of abstraction. An institution might be an officially designated body, but within it there might be various different, less official, 'groups', for example a radical group and a conservative group. In the thesis, institutions and groups are both important. The FASB and IASB are institutions but within these there are numerous, less official 'groups', for example, a pro-FVA group and a more conservative group. Porter (1981, p. 92) explains that:

> The idea behind the hierarchy is that analyses of an event on one level should proceed from elements of the next highest level. Thus, an individual experience can be examined by reference to certain aspects of groups to which that individual belongs. The groups function institutionally, and the institutions reflect aspects of prevailing concepts. To explain individual experiences solely on the basis of

> conceptual elements, without the intermediate group and institutional levels, would be a distortion of reasoning and of the historical process.

In the thesis, for example, we proceed from an analysis of Barney Frank as an individual proponent of financial deregulation, to Frank’s reaction to the role of FVA in the GFC, and from there to an analysis of different beliefs of groups within institutions, the FASB, the Congress, and finally to the institutional directives of the Congress and the FASB. But a study of those directives alone would not have told us about their genesis.

Conceptual elements are Porter’s fifth level of abstraction. These are complex elements that ‘move people to act and to make sense from their experience in the everyday world’ (Porter 1981, p. 93). These experiences are not universal. In Chapter 5 of the thesis, the meaning of the concept of FVA, in the early 2000s, seems to vary among actors; some experience it as the selling price of an asset; for others it is a management estimate; other actors still are not able to make any distinction, or are unaware of the distinction.

A sixth abstraction level contains ‘forces’ used by historians in their particular field: ‘economic, political, technological, religious, philosophical, physical or physiological, geographical, aesthetic, psychological, social’ (Porter 1981, p. 94). This thesis enquires particularly of economic and political forces, and FVA itself is regarded as a philosophical (perhaps nearly religious) force by its devotees.

The seventh level of abstraction (Porter, 1981, p. 95) is the ‘universal’:

> Such terms as ‘justice,’ ‘space,’ ‘reform,’ and ‘deference,’ belong at this level. As universals, they have potential to be included in any and all events. But the historical meaning is determined by how they are included in this or that particular event.

In this thesis, terms such as ‘relevance’, reliability’ and ‘manipulation’ have specific meaning in the context of FVA.

Narrative explanations are appropriate for historical events because they can show the event arising from temporal continuity. Without temporal continuity and a coherent scheme with which to study it, narrative interpretation is thwarted. But the arrangement or study of elements within that continuity is a matter of choice for the historian (this thesis presents temporal continuity within the timeframes indicated in Figure 1.1). According to Porter (1981, pp. 119–21), the historian will choose to emphasize certain elements within the narrative (another historian may choose differently); but science (including social science) progresses as a matter of refinement of different views, the ‘friendly-hostile cooperation’ among competing authors (Popper, 1969, p. 489).

4.3 Conduct of the research: Document analysis

For analysis, this historical thesis uses a variety of primary and secondary sources. The primary sources are publicly available documents. These documents include the accounting standards themselves, public statements, published interviews, press releases, commissioned studies, professional product guides, commentary articles, public hearings and comment letters. The limitations of using only publicly available documents and other limitations of the primary sources used are considered in section 4.5. Secondary sources are taken from existing academic studies of FVA. The empirical study sections of the thesis are located mainly in Chapters 5 and 6. Chapter 5 is concerned substantially with FVA and the failure of Enron and similar companies, while Chapter 6 examines the GFC and after. Chapter 6 employs more varied historical sources than Chapter 5; this is because Chapter 5 examines one main historical event, the collapse of Enron Corporation. By 2008, there is a greater degree of interest in and awareness of the effects of FVA on the financial economy. This means in turn that there exist a greater number of sources of actors’ voices and greater divergences of these voices. Chapter 6 examines each group of actor-networks in turn and, to study each, there is a varied set of historical sources.

Predominantly, the empirical component of this thesis is an analysis of primary source documents. Research involving document analysis may entail a selective discovery of beliefs, occurrences of actions and activities, exhibited from the documents (Bowen, 2009) through to a more systematic analysis of repeated patterns of material. The latter type of study is called *content analysis* (Krippendorff, 2004), which in itself divides into a statistical analysis of repeated words or phrases, or a qualitative analysis of repeated material. Substantially, this thesis employs the more general qualitative document analysis described by Bowen (2009), but there are two instances of the type of content analysis described by Krippendorff (2004). Of these latter two, the first is a word search, presented in Chapter 5, and the second is a qualitative content analysis of comment letters, presented in Chapter 6. These content analyses are described in section 4.4.

Principles of method relevant to document analysis are provided by Porter (1981, pp. 55–61) who articulated four phases of historical writing. These are: (1) assimilation of data; (2) symbolic transformation; (3) formal resolution; and (4) articulation. These phases were used to guide the development and production of the empirical section of this thesis.

4.3.1 Assimilation of data

Porter (1981, p. 55) regards this as the research phase. For readers, it means 'the receptive attention to narrative'. In the narrative itself, it is the 'the initial exposition of characters and conditions'. For the researcher, this is a phase of accumulating data and considering them initially.

The primary source documents used offer a large volume of opinions, ideas and assertions of fact. Sorting through them initially gives the researcher an idea of the empirical scenery. Care must be taken that any characterization of the material is an accurate reflection of belief or fact exhibited by actors within the material or by the material's author(s). When analysing and presenting documentary evidence, care must be taken not to cherry-pick the material in a way that would introduce bias into the argument (Bowen, 2009, p. 28). Ultimately, it is the skill of the researcher that may provide objectivity, rather than statistical 'proofs' of fact.

The primary source documents used are now described.

Accounting standards. These were obtained from the FASB/IASB websites. The standards themselves tell a story. Often, changes in the standards can be interpreted as reflecting 'political' decisions by the standard setters, though this would not be evident merely by reading the standard setters' accompanying public relations material. Analyses of changed accounting standards are made to compare the reality of these changes with the claims made of them by the standard setters, or by activists and commentators.

The standards of particular interest are those dealing with fair value; these were the US standards FAS 115, *Accounting for Certain Investments in Debt and Equity Securities* (1993); FAS 157, *Fair Value Measurements* (2006); and the international standard IAS 39, *Financial Instruments: Recognition and Measurement* (1998).

Public hearings. A large amount of this material is dedicated to enquiries into accounting procedures. At first, the location or existence of some of this material, which was relevant to the thesis, was not obvious. This certainly was the case with the congressional hearings into Enron (Library of Congress, 2014). The transcripts of these hearings were downloaded from the US Congress website. These were examined following Benston (2006), who suggested that the relationships of FVA and Enron may have been critical to one another, but had been grossly under-reported in the literature. At first glance, these Enron hearings contain only a small amount of material concerning FVA. These hearings, however, conducted between December 2001 and December 2002, were voluminous, with 16,800 pages of transcript material. Though the portion of that material relating to FVA is small, it is still large enough to provide insights into the misunderstood nature of FVA at that time. Indeed, the fact that ‘misunderstood FVA’ was overlooked as a cause of Enron’s failure is actually the salient point. Rather more obviously, at the height of the GFC, the US House of Representatives (2009) held an enquiry into mark-to-market accounting. Unlike the Enron enquiries, FVA was the specific focus of attention.

Commissioned studies. The most significant of these was the US SEC’s commissioned study on mark-to-market accounting (SEC, 2008). This study provides an analysis of US banks’ exposure to FVA during the GFC, but is prepared from the point of view of the SEC, which has been supportive of FVA. As with many studies, these points of view, or potential biases, need to be triangulated carefully with others. Other commissioned studies include the study by ESMA (2012) into the misuse of FVA during the Greek debt crisis.

Public statements, interviews and press releases. These were generally discovered using keyword searches on the Internet. Statements provided by important public figures often give insights into beliefs or actions during a spontaneous moment. Examples include the public statements of FASB chairman Robert Herz, and IASB chairman David Tweedie, at the height of the mark-to-market crisis in 2008 (Herz, 2008; Tweedie, 2008).

Commentary articles. These generally were newspaper, magazine and professional associations' journal articles that commented on FVA. These were obtained from the Internet, usually by using keyword searches. There are myriad such articles on the subject of FVA. The sentiment expressed in such articles may be diverse or contradictory. The main purpose of quoting from these articles is to provide evidence or examples of belief, sentiment, action and assertions of fact. While 'belief' may ultimately be different for each individual commentator, a sufficient triangulation of articles and objective canvassing of different viewpoints may be able to at least give some indication of prevailing groups of thought (Denzin, 1970; Eisner, 1991; Patton, 1990).

Industry and professional product guides. Chapter 6 in particular considers changes in support of FVA by the large professional accounting firms (e.g. Deloitte, 2012; KPMG, 2013; PwC, 2013). This method involved a qualitative study of public statements and resource advisories issued by these large firms. These resources are asserted to be part of the 'purification' of FVA.

4.3.2 Symbolic transformation

Symbolic transformation involves structuring the raw data. According to Porter (1981, p. 57):

> In this phase, the forms and feelings of elements are sorted, contrasted, harmonised, and integrated to form ever more complex and comprehensive patterns of meaning. The historian labours to construct an intelligible account of his material and, if skilful enough, composes a narrative that leads the reader through an analogous process of mental composition.

During the assimilation of data phase, and the symbolic transformation phase, it was possible to make a 'synoptic judgement' (Porter, 1981, p. 88) about where the research enquiry would be headed. After some 'labouring', as instructed by Porter, it was possible to structure the raw data into a narrative composed of specific time periods. This construction assists the reader greatly in being able to compose the story mentally as they read. This process resulted, eventually, in a basic idea of the five stages of *translation*, described in Figure 1.1. While this staging represents part of the thesis' main discovery, it also represents a transformation of the data into periods that aid the intelligibility of the story for readers.

4.3.3 Formal resolution

In this phase (Porter, 1981, p. 60) the direction of the narrative itself is constructed from the elements of structured data:

> The historian's task is to adopt a consistent perspective and level of abstraction, so that readers can follow his reconstruction of the past and so that other historians and philosophers can critically compare this account with others.

Following the chronological staging, the main direction and themes of the story were developed: FVA was transformed, from an academic theory, to a regulatory tool, to a conduit of misuse, to a representation of a Fair Value World View, and finally to an amorphous device of multiple authorship. This schema is put forward as a consistent perspective for other researchers to consider.

4.3.4 Articulation of the narrative

This is the writing phase. According to Porter (1981, p. 20), the quality of a narrative is judged by the coherence of the argument: by how well the antecedent conditions explain the historical 'event', and by how well the latter explains its sequel of effects. In this thesis, the antecedents, historical events and sequels can be characterized according to the time frame in Figure 1.1.

4.4 Conduct of the research: Content analysis

Chapters 5 and 6 each include an example of the more specific type of document analysis known as *content analysis*, which is described by Guthrie, Petty, Yongvanich, & Ricceri, (2004, p. 287) as:

> ... a technique for gathering data … [which] involves codifying qualitative and quantitative information into pre-defined categories in order to derive patterns in the presentation and reporting of information. Content analysis seeks to analyse published information systematically, objectively and reliably.

Content analysis can be undertaken by studying the frequency of key words or by a qualitative analysis of meanings (Krippendorff, 2004). Chapter 5 includes an example of the former, and Chapter 6 an example of the latter.

Chapter 5 includes a statistical analysis of the Enron hearings (Library of Congress, 2014), namely, a keyword search (Bloor & Wood, 2006) of 16,800 pages of transcript for the terms 'fair value' and 'mark-to-market'. These searches are intended to indicate the extent of FVA discussions held during the year of hearings. These searches are presented in summary form in Table 5.1. Excerpts of the hearings are then analyzed qualitatively throughout the chapter, as described in section 4.3.1.

The Chapter 6 content analysis is more elaborate, and involves an analysis of comment letters sent to the SEC pursuant to its study on mark-to-market accounting (SEC, 2008). The background and purpose of this content analysis are as follows.

The GFC was a turbulent period in which attitudes toward, and allegiances to, FVA shifted rapidly. It was at this point, in mid-2008, when FASB/IASB standard setters decided to remain enrolled in the fair value network, but with the core of their fair value beliefs altered by political demands. At the height of the crisis, the standard setters believed, for a time, that their hard-line version of mark-to-market FVA had the support of accounting professionals, regulators, financial experts and other commentators.

Chapter 6 will attempt to show that, in the end, standard setters could not garner enough support from their supposed allies to maintain this hard-line view.

How exactly did the FASB and IASB miscalculate so badly the degree of support available for mark-to-market? Were the standard setters really just outmaneuvered by their financial industry opponents? Or had the standard setters, as some have suggested (Whittington, 2008), already embarked on a hazardous FVA ideological tangent by themselves? A more rigorous study of beliefs held about FVA by these protagonists will be useful to answer these questions. A unique avenue exists for such a study when, at the height of the GFC, in late 2008, the SEC was mandated to perform a study on mark-to-market accounting (SEC, 2008), and obtained comment letters on the subject of mark-to-market.

On 8 October 2008, the SEC called for comments on its *Study on Mark-to-market Accounting* (SEC, 2008a), which was intended to investigate the effects of mark-to-market on a financial institution's balance sheet, its impacts on bank failures in 2008, and its impact on the quality of financial information available to investors. The due process used by the FASB to create accounting standards was also to be investigated, along with possible modifications to mark-to-market standards. The SEC received 186 comment letters by 13 November (SEC, 2008, pp. A1–A28). The full text of these letters is freely available for download at the SEC website.

The strength of belief of both the allies and opponents of mark-to-market is illuminated by these comment letters. These letters in particular are valuable because they demonstrate, under pressure from the crisis, the attitudes of protagonists towards hard-line mark-to-market. A systematic academic study of such letters was performed for this thesis using content analysis. Section 6.3.1 presents the results of the content analysis of these letters. The content analysis examines two themes. First, that banking interests were against mark-to-market accounting but not necessarily against fair value in general. Second, that support for mark-to-market was driven more by an antipathy towards banks than by affirmative support for the standard-setters' hard-line depiction of mark-to-market accounting. Consistent with the approach of several prior studies of lobbying on accounting issues, the qualitative analysis approach was adopted (Hill, Shelton, & Stevens, 2002; Macarthur, 1996; Saemann, 1999; Tandy & Wilburn, 1992). This approach entailed coding the content of the letters into categories and comparing the responses of groups of respondents.

Guthrie and Abeysekera (2006, p. 120) outline the reliability requirements for this kind of content analysis:

> First, the categories of classification must be clearly and operationally defined, that is, the units of analysis. Second, data capture must be systematic – it must be clear that an item either belongs or does not belong to a particular category. Third, content analysis must demonstrate some characteristics for reliability and validity.

Owing to the open nature of the call for comments, the letter writers varied greatly in their approach to discussing mark-to-market issues. A simple for-or-against dichotomy in the classification of lobbying letters can mask the intentions of respondents (Tutticci, Dunstan, & Holmes, 1994). Conversely, the SEC's own coding dissected responses into some 20 overlapping descriptive categories, not cross-matched with the respondents' affiliations: this made the results too complex to interpret for the purpose of this study. However, a preliminary analysis of the letters revealed that the respondents' main arguments could be depicted reliably by one or more of the three responses reported in Chapter 6, Table 1:

1. Respondent believes that mark-to-market accounting is/*is not* appropriate in the present inactive markets.

2. Respondent believes that mark-to-market accounting should/*should not* be suspended.
3. Respondent supports/*does not support* fair value as a general accounting principle.

'Mark-to-market' in the context of the first two responses, means the techniques intended by FAS 157 at the time, which emphasized observable inputs to determine an exit price, not modelling measurements. Respondents coded to these categories either used the term 'mark-to-market' itself or made it clear that such a meaning was intended. Perhaps the meaning of mark-to-market to the respondent cannot be assumed conclusively for every comment letter, but the 'quoted-trade effect' of mark-to-market on impairments was well publicized at the time. Therefore, it is reasonable to conclude that when a respondent writes, for example, 'mark-to-market causes valuations that are unrealistically low in market turmoil' the meaning of the comment is clear enough to code for the first response. However, responses for 'mark-to-market' were only coded when it was clear that the respondent meant that and not some more general or conflated depiction of fair value. Respondents also made many other arguments concerning individual technical aspects of fair value standards that were of concern to them, but these myriad other variations could not be coded in a practicable way and were not separately mapped. To strengthen the reliability of coding, Milne and Adler (1999) recommend the use of a second coder. For this thesis, an independent second coder was used to verify the coding procedures. This second coder was an honours student (Ms Amanda He) who was herself involved in data collection for a thesis and was familiar with the techniques of data analysis. Ms He re-examined 100% of the respondent letters cited in Table 6.2. Of 148 coded letters there were only five inconsistencies between the primary and second coding. These inconsistencies were resolved with a face-to-face meeting with Ms He and a discussion. In each case the letter concerned was highly ambiguous, and a consensus decision was made on the final coding. However, the number of disputed codes was only 3% of the sample anyway, so not a material issue.

The SEC had sorted the comment letters into nine categories of respondent including two large categories of institutional respondents: preparers of financial statements and professional groups. Banking and related financial industry organizations (banks, credit unions and advocacy groups representing these) were spread across these two categories. These categories were not suitable for the present study because these categories mix together groups of actors who are considered antagonists. It was therefore necessary to isolate financial industry interests by sorting them into a new category. Two institutional categories with one and eight letters respectively were discarded as being too small to analyze and the other categories were merged to produce the four-category result shown in Table 6.1, which analyzes 148 usable comment letters of the original 186 comment letters sent to the SEC. The unusable letters generally made arguments that would be considered incoherent or irrelevant.

4.5 Limitations of method

The thesis relies upon publicly available documentation. Other data sources are available, for example, interviews, laboratory studies, or fieldwork. These latter methods were not used. Interviews with standard setters would have meant travel to the US and UK and many of these authorities were no longer in office. Instead, the thinking of such authorities was gleaned from a large assortment of documentation. The thesis does not report any access to privileged or previously unpublished documents. The limitations of the thesis, owing to these choices, are discussed in more detail in conjunction with the thesis' final conclusions in Chapter 8.

Content analysis of comment letters has many limitations (Gray, Kouhy, & Lavers, 1995). Comment letters are not a random sample of opinion. They only measure the responses of those who chose to write letters. Unknown biases are possible, but the same is true of non-response bias in sample surveys. Some caution should be taken in particular with the investor comments; unlike the other respondent categories the *bone fide* identities of the individual commentators are not proved or easy to check, nor is it certain how many of them are actual securities markets investors. However, there does not seem to be any indication that the SEC was inundated with multiple disingenuous or politically motivated letters from anonymous sources; the wording of the comment letters from individuals was generally dissimilar.

4.6 Summary: Application of framework and methods

This chapter has detailed the historiography needed to develop a set of temporal narratives, as explicated by Porter (1981). Within these narratives, historical events are interpreted with reference to their antecedent factors. The particular interpretive lens adopted for this temporal narrative approach is ANT, as delineated in Chapter 3. In common with many ANT studies, the thesis will first present historical evidence in a narrative style that has minimal initial intrusion of methodological theory or analysis. Following these presentations, the subject matter will then be re-assessed in a separate chapter under the principles of ANT. In the thesis, the temporal frame is divided into two large empirical chapters. Chapter 5 deals with the temporal frame from the beginnings of FVA until the post-mortem of Enron. Chapter 6 deals with the temporal frame from the introduction of the FVA standard FAS 157 in 2006, through the GFC, and onwards to the present day. The empirical findings are then assessed more thoroughly, in the ANT context, in Chapter 7, which compares theoretical assertions with empirical reality.

Chapter 5: Fair Value Accounting and the Enron Post-Mortem

Contents

5.1 Introduction

This chapter narrates the story of how FVA proliferated and was transformed following its reintroduction in the 1990s. The nature of that proliferation did not start to become evident until the post-mortems that accompanied the collapse of Enron Corporation. Those post-mortems, and their later consequences, are therefore the main focus of this chapter. The chapter makes the case that FASB and IASB standard setters largely did not recognize, until after the Enron collapse, that they had supplied the financial industry with an FVA conduit for boosting profits manipulatively. At that time, the standard setters appear to have hidden their concerns about mark-to-model FVA in order to escape complicity for the Enron failure. The chapter makes the case, however, that Enron led directly to the standard setters' implementation of mark-to-market accounting to try to mitigate the emerging problems of mark-to-model FVA.

In section 5.2, the chapter amplifies the contention of Chapters 1 and 2 that in the 1990s, FVA was translated, first to ideal academic scheme, then into piecemeal remedy. The latter transformation was designed to combat certain historical cost accounting problems of the 1980s, as well as deal with the emerging use of financial instruments.

Almost immediately upon its reintroduction, elements of the financial industry began to re-translate FVA into a conduit for booking profits in the short term and, ultimately, into a mechanism of manipulation. The main part of the chapter, section 5.3, deals with the post-mortem of the Enron event. In section 5.4, standard setters realize that they need to effect a new translation of FVA to try and prevent Enron-like abuses from happening again. In the mid-2000s, this continuation is accompanied by a shift towards fair value as a new approach to the elements of financial reporting generally: a Fair Value World View.

5.2 Development of a network: Re-introduction of FVA in the 1990s

Chapter 2 explained that, in the 1990s, standard setters incorporated fair value into statements such as FAS 115 and IAS 39. These partial re-introductions of fair value did not at all resemble the ideal intentions of 1960s accounting theorists such as Chambers (1966), Sterling (1970), or Edwards and Bell (1961). Those authors argued for a holistic approach to financial statements: all items in the statements would have been fair valued. Nor was the partial reintroduction inspired by the problem of 'general inflation' accounting, an issue that in Western countries had largely declined by the end of the 1980s. Instead, the piecemeal reintroduction was designed to combat specific reporting problems in the financial industry. In the 1990s incarnation, a few select items were fair valued, and even some of these were optional. At this point, the standard setters appear to have had no intention of going much further with fair value. SEC director Richard Breeden was thought to be the most prolific regulatory advocate of fair value at that time (Johnson & Swieringa, 1996). Breeden's many public comments focus on the use of fair value to control the investments industry, but do not suggest any interest in grand schemes of pure fair value for all assets (e.g. Breeden, 1990). For pro-fair value academics and standard setters, FVA was supposed to correct the limitations and misuses of historical cost and provide more reliable financial information. This initiative did not seem to arise from any concerns held by the professional accounting community itself. Shultz and Hollister (2003) report very little interest in fair value by the professional accounting community in 1990, nor was there much interest from investor representative groups or financial commentators. The main protagonists in building the network, in 1990, are those in the regulatory world: standard setters, bureaucratic officials, and their academic supporters and allies. By the time of the GFC in 2008, as depicted in Chapter 6, accounting professionals and other allies would then reveal themselves as having been enrolled in the FVA network; but in 1990 this was not the case. What played out in the 1990s therefore, was a struggle for control of the network between two main rival groups: the standard setters and their allies versus elements of the financial industry.

The translations identified in this thesis were foreshadowed in chapter 1 and were presented diagrammatically in Figure 1.1. In Translation 1, FVA is an ideal scheme of the academy, and in Translation 2 it has shifted to being a bureaucratic device, a piecemeal remedy for certain problems: the mal-use of historical cost in certain environments, such as in the US savings and loan issue (Johnson & Swieringa, 1996), and the developing use of financial instruments (Heaton, Lucas & McDonald, 2010). The transition between these phases seems to have been a fluid one. The trial of strength that would characterize the later translations is not yet obviously present in Translation 1, or even in Translation 2. Perhaps, in Translation 1, journal editors acted as the obligatory point of passage, but in a diffuse way, or perhaps this was manifest in the inscriptions themselves. There seems to have been little protest from academics over the piecemeal adoption of selected FVA principles. In hindsight it is easy to see the reasons: it was simply not possible to predict that the technology would be misused. The misapplication of the technology to products such as financial derivatives was both too complicated and unforeseeable. Instead, it seems likely that academics welcomed the opportunity for any implementation of their ideal scheme, however partial and rudimentary.

It was noted in Chapter 2 that, once FVA was made available, the financial industry began to manipulate it (Translation 3). This issue should be seen in context with malfeasance issues affecting other financial accounting standards at the time. The 1990s was a period of economic boom and an atmosphere of unusually fast-and-loose corporate behaviour had crept in to Western economies. Regulators soon noticed that accounting rules were being manipulated in order to book profits (Bolton, Scheinkman, & Xiong, 2006; Burns & Kedia, 2005; Cheng & Warfield, 2005; Coles, Daniel, & Naveen, 2006; Sanders & Carpenter, 2003; Sunder, 2002). The response to these issues, particularly in the US, was an ever-burgeoning increase in the complexity of accounting rules (Haswell, 2006). This later became known (derisively) as the 'rules-based solution'. Accounting standards had blown out to hundreds of pages of implementation guidance, yet corporate managers still were manipulating the standards' intentions. Regulators and corporations became bogged down in endless litigation over the alleged abuses. FVA was eventually to join this list of recognized abuses, but it was not recognized immediately as a problem. This chapter will argue that, although regulators and standard setters were well aware of other manipulations, such as manipulation of revenue recognition, or of accruals, they seemed strangely unaware of, or unresponsive to, fair value manipulation until sometime after the Enron crash. Essentially, this lack of awareness contributed to the ease with which the financial industry performed its metamorphosis of FVA into Translation 3.

5.3 The Enron post-mortem

The collapse of Enron Corporation is a pivotal episode in attempting to understand the translation of FVA. Enron demonstrates that misuse of FVA was overlooked, not just by authorities, but also by highly paid analysts along Wall Street: because of its black-boxed complexity. But Enron is much more than simply representative or symbolic of corporate accounting malfeasance in the 1990s. An argument will be made that Enron itself led to the changes in FVA standards in the early to mid-2000s: that Enron is what finally rendered the financial industry translation of the network visible to the standard setters and their allies. Even then, this visibility was experienced selectively; it does seem that only a few initially understood the importance of Enron and FVA. There was also a considerable delay before this understanding filtered through to the academic world.

In 2006, George Benston produced an article that seems intended to startle the academic accounting establishment. Benston (2006, p. 466) wrote that ‘Enron’s use of fair-value accounting is substantially responsible for its demise’. The article had come five years after Enron’s collapse, and three or four years after a plethora of post-mortems designed to get to the bottom of what happened. That Enron (and other companies) had crashed because of FVA seemed to be new information. Benston writes that ‘few, if any’ authors have described ‘ ... how fair-value numbers not grounded on actual market prices have been misused and abused’ (2006, p. 466). Such a claim might seem surprising today, given the large amount of literature, available certainly since 2008, concerning manipulation of mark-to-model measurements, which were assessed in Chapter 2. To what extent is Benston’s claim true, and what does it imply about the state of knowledge concerning FVA prior to the Enron crash, and indeed for some time after?

Sporadic mention of Enron and fair value can be found in the professional literature of the mid-2000s, just before Benston's article. Flegm (2005, p. 5) writes in December 2005 of Enron that 'Surprisingly, no regulatory body, including Congress or the SEC, has criticized the FASB for its part in enabling frauds'. Flegm writes that misuse of fair valued derivatives was central to the accounting frauds of Enron, QWest, Global Crossing and Parmalat, and gives a brief illustration of one of the Enron mis-measurements. A year later, in November 2006, apparently inspired by Benston's and Flegm's articles, Haldeman (2006) provides a more extensive analysis of Enron's FVA for the professional literature. These articles seem to represent the beginning of an examination of fair value problems in the accounting literature. These authors note and express surprise that the fair value issues of Enron were not greatly recognized or discussed at the time of the Enron post-mortem in 2002. Haldeman (2006, p. 4) writes, for example, that 'Despite its likely overstatement of fair asset values, Enron's use of fair value accounting was never an issue in the criminal case against [Enron executives] Lay and Skilling'.

Benston's article, and its surrounding, if scant, professional literature on the same topic, leave a number of questions unanswered. How exactly did the FASB 'escape criticism' for Enron, as Flegm suggests? If this was, partly, a matter of being able to 'understand' FVA, what really was the extent of this understanding held by regulators, political actors and other commentators at the time? Answers to these questions will help to explain how the interpretation, and ultimately the translation, of fair value standards were enabled by the financial industry. The vehicle for such a study readily exists in the vast documentation of Enron post-mortem. After the collapse of the company in late 2001, US Congress became, for a time, obsessed with the issue. Between December 2001 and December 2002, US congressional committees examined the Enron disaster in

42 separate hearings (Library of Congress, 2014). These hearings are summarized in Table 5.1 (located at the end of the chapter). The hearings were all of a large-scale and in each of them Enron was either discussed extensively or was the only topic of discussion (in almost all the hearings 'Enron' is part of the title). Transcripts of these hearings run to some 16,800 pages and involve the testimony of hundreds of expert witnesses from the highest levels of accounting, finance, legal and bureaucratic establishments. Given the massive scale of these hearings, the diversity of the committees and congressional persons in charge of them, it seems evident that beliefs held towards Enron, in 2002, are fairly well represented within the transcripts of these hearings.

The analysis of Enron hearings reveals that, even in the hearings supposedly dealing specifically with accounting issues, fair value was not widely mentioned or discussed. The focus was, instead, on Enron's use of Special Purpose Entities (SPE), loopholes that avoided consolidation, intra-group booking of fictitious revenue not remedied by consolidation, and audit malfeasance. Overall, in 22 of the 42 hearings, the terms 'fair value' (or 'mark-to-market') are not mentioned at all, that is, there is completely no discussion of that topic. So, in hearings with titles such as 'Oversight of investment banks' response to the lessons of Enron' (two volumes, December 11, 2002) and 'The Enron collapse: implications to investors and the capital markets' (February 4, 2002) the issue of FVA is not discussed at all (the former hearing has 1,700 pages of transcript; the latter has 500 pages). In the 20 hearings where fair value or mark-to-market are mentioned, in some of these mentions (five hearings) the term 'fair value' is observed once or twice in passing, but with no elaboration. In the remaining 15 hearings, fair value is discussed to a varying extent, but as the following analysis will show, it is only discussed in any detail in seven of the 42 hearings.

The hearings in Table 5.1 are presented in date order. As the presentation of material at one hearing might have influenced the next, discussion of the hearings in date order will be useful. In the first hearing on December 12, 2001, 'mark-to-market' was discussed briefly (Congressional Hearing, 2001). It should be noted that, throughout all the hearings, the terms 'fair value' and 'mark-to-market' are used without rigour or precise distinction, and the terms seem to be more or less interchangeable in their intention. The difference between mark-to-market and mark-to-model types of fair value is a subtlety that gained popularity for discussion only in the late 2000s (and even then, the nuanced difference was only observed by some people).

In the following analysis, actors' stated beliefs about fair value are presented. What is clear from the analysis is that whatever actors state they believe about fair value is usually suffused with an atmosphere of hesitation, contingency and anecdote; little elaborate detail is supplied. That observation is not meant to criticize the actors themselves, only to illustrate the poor state of knowledge about fair value that prevailed at that time. It could be argued that as these were public hearings, off-the-cuff remarks, rather than a level of expert detail, are to be expected. In fact, in congressional hearings, expert witnesses are additionally invited to enter prepared statements or expert reports into the record. But in the Enron hearings, these reports suffered the same paucity of rigorous detail, despite the high level of importance, and length, given to the hearings.

The first discussant of fair value issues was SEC director Robert Herdman. His testimony begins:

> I don't know that there's any evidence to indicate that mark-to-market accounting has led to misleading information to investors. The broker-dealers in this country have used mark-to-market accounting to account for their activities for many, many years. They have sophisticated financial instruments that aren't quoted on exchanges that need to be accounted for at market value. And so estimates need to be made of value in order to accomplish the mark-to-market process ... we haven't

> seen any indication that the mark-to-market accounting has caused problems for companies within the energy industry. If we do, we would certainly expect that there might be a need to tighten up the accounting rules here (Congressional Hearing, 2001, p. 24).

Later in the hearing, an expert representing investment banking was more circumspect:

> ... it was becoming increasingly difficult to understand how Enron was achieving its revenue growth and profitability. Extensive use of derivatives, particularly when the company is using mark-to-market accounting, is extremely difficult in the best of situations (Congressional Hearing, 2001, p. 50).

But the discussions, or prepared statements provided, never went beyond this level of generality. The January 29, 2002 hearing was about Enron's manipulation of energy prices. There was a more extensive discussion of Enron's accounting procedures, but the material on fair value was, while 'alarming', very cursory:

> Equally dangerous was Enron's use of mark-to-market revenue and earnings accounting. Enron apparently calculated the proceeds from multi-year transactions based on values from forward markets that are thin at best and non-existent at worst. One industry pundit called depending on forward markets in electricity as pricing by rumor. If mark-to-market is used, the assumptions behind the calculations must be open for review (Congressional Hearing, 2002, p. 41).

The February 6 2002 hearing, titled 'Lessons learned from Enron's collapse: Auditing the accounting industry', discusses fair value in a similar way to the January 29 hearing, and never gets beyond the level of summary generality about the possible dangers of 'mark-to-market'. For example, one witness (an accounting professor, Bala Dharan of Rice University) remarked that:

> Enron's revenue recognition from SPE transactions often depended on the so-called mark-to-market accounting rules which gave Enron the ability to assign arbitrary values to its energy and other business contracts (Congressional Hearing, 2002a, p. 93).

But there is no specific detailed analysis of Enron's financial position; there is little more than suspicion or hearsay. This is the common theme for most of the hearings, even though these hearings lasted a year, and there was time to develop such detail. In the February 7 2002 hearing before the House committee, many of the Enron executives were brought in to testify. Congressman Waxman said:

> According to press accounts, Enron pushed the limits of mark-to-marketing accounting, which allows a company to recognize all revenues upfront on a long-term contract. In order to determine the profitability of a contract, Enron had great leeway to make assumptions about future energy prices, energy use and other factors. The New York Times reported that Enron Energy Services, or EES, deliberately used questionable revenue assumptions to inflate its profits, and the vice chairman of EES at the time that these questionable practices were occurring was Thomas E. White, who became the secretary of the Army in May 2001. A former EES employee called this accounting practice a license to print money. Mr. Olson, did Enron abuse market-to-market accounting, in your view?
>
> Mr. OLSON. I am not an accountant, Congressman. From what I read in the press as well, there was certainly—they were stretching the limits, and I think what you are alluding to is what is called a variation on that mark-to-model accounting, where you go out and make these assumptions which may or may not work out (Congressional Hearing, 2002b, p. 88).

Olson was a securities expert, brought in to give advice to the committee. The Enron executives were asked similar questions but gave vacuous and evasive answers, and were not pressed on those. The hearings on 'Accounting reform and investor protection' beginning on February 12 have the largest mention of fair value issues. Richard Breeden, the SEC Director most credited with sponsoring fair value in the early 1990s, was an early witness. Breeden did not mention fair value issues regarding Enron at all (Congressional Hearing, 2002c, pp. 16–19). By contrast, Walter Schuetze, the chief accountant of the SEC at the time of Enron, gave an extensive and vivid description (around 20 pages) of the importance and high value of FVA, and the great degree of interest and regard held to it by the SEC. He said:

> The only objective way that the true economic financial condition of a corporation can be portrayed is to mark-to-market all of the corporation's assets and liabilities ... The various proposals that have been made to cure Enronitis will not cure the problem. The only cure, in my opinion, is mark-to-market (Congressional Hearing, 2002c, pp. 191–2).

It is not clear if Schuetze meant that Enron's use of fair value was not sufficiently extensive or that it was extensive but the wrong type of fair value (mark-to-model rather than mark-to-market). Several years later, a commentator remarked that Schuetze 'pioneered new ground for evading responsibility for financial statements' (Haldeman, 2006, p. 9). Through his strong advocacy for maximum use of FVA, the accuracy of which would be determined not by management, or auditors, but by 'outside experts', Scheutze was said to have made a recipe for endless blame shifting. In the hearing, he went on to complain that private standard setting, such as in the FASB, was a failure, and that Congress should mandate uniform mark-to-market accounting, to relieve FASB of that responsibility. 'Mark-to-market is extremely simple' he said (Congressional Hearing, 2002c, p. 204). Denis Beresford, a former chairman of the FASB, stated that:

> Mark-to-market generally means that amounts recorded as assets or liabilities in the balance sheet are adjusted at the end of each accounting period to the estimated fair value at that date. The above items were either omitted from Enron's financial statements or incorrectly shown as assets and equity rather than being offset.
>
> On the other hand, Enron did use mark-to-market accounting in connection with its energy and other trading activities. To the best of my knowledge, no one has suggested that Enron was not following Generally Accepted Accounting Principles in doing so. However, I understand that for many of these contracts the estimates of period end values involved predictions of energy and other prices several years into the future. While mark-to-market accounting is considered by many accountants to be the most relevant way to report contract positions, others point out that the resulting values may not be very reliable in some cases (Congressional Hearing, 2002c, p. 270).

This theme is crucial. Some experts questioned the looseness of FVA measurements, but the experts were not at all sure that these measurements were done improperly or done outside of accounting standards' intentions. In the February 13 hearing (Congressional Hearing, 2002d), expert witnesses observing the energy industry argued that mark-to-market accounting allowed Enron to book revenues prematurely, though no specific details were supplied. In the February 14 hearing, Edmund Jenkins, chairman of the FASB, clarified the FASB's position on FVA and Enron. The position was identical to that taken by the chairman of the SEC, namely, that there was no evidence that mark-to-market accounting had caused any problems (Congressional Hearing, 2002e, p. 25). Jenkins did, however, clarify the FASB's understanding of 'mark-to-market', quoting from FAS 107, paragraph 11:

> Quoted market prices, if available, are the best evidence of the fair value of financial instruments. If quoted market prices are not available, management's best estimate of fair value may be based on the quoted market price of a financial instrument with similar characteristics or on valuation techniques (for example, the present value of estimated future cash flows using a discount rate commensurate with the risks involved, options pricing models, or matrix pricing models).

Under this depiction, all three levels of the fair value hierarchy in use today are equally described as 'mark-to-market'. In the same hearing, other witnesses flatly contradicted the assertion that the fair value standards were unproblematic. Congressman Radanovitch said, in a prepared statement:

> The Enron Special Investigation Committee uncovered dozens of transactions with special purpose entities effectively controlled by the company to hide bad investments. In California, Enron used one of their SPEs to form Azurix, a water trading company that dissolved this year, but not before a handful of executives made millions. In aggregate these transactions were used to report over $1 billion of false income through mark-to-market accounting and hide the decline in Enron's asset value. Such transactions should reflect true market conditions, and not false prediction made up of twenty-year forecast (Congressional Hearing, 2002e, p. 9).

The Special Committee mentioned by Radanovitch was an internal investigation by Enron directors. 'Mark-to-market' is mentioned six times in that 218-page report, but not in a way that ties it to overstatement of income (Enron, 2002); that claim seems to be an interpretation of the Congressman. But the SEC and FASB representatives were never challenged rigorously over these claims anyway. There were a few further polite, very general, enquiries made by committee members about fair value, which engendered responses (brief denials that fair value was a problem) only at the most general and perfunctory level. After this hearing, and for the rest of the year, FVA was scarcely mentioned during the remaining Enron hearings.

To summarize the Enron hearings, there was certainly a sense from some of the expert witnesses that Enron and other companies were mal-using FVA in a highly problematic and significant way. These witnesses struggled to make any impression upon the committees. The SEC and FASB witnesses were easily able to deflect the fair value issue onto other accounting, corporate governance or regulatory issues. Whether they did so in a genuine belief that fair value was unproblematic is open to question. What comes across strongly, especially from Walter Schuetze's vivid and detailed testimony, is the extent to which fair value had become a *cause celebre* within the SEC, following Richard Breeden's term of office. But the level of technical detail provided to any of the committees was very superficial. While such committees are not composed of accounting experts, perhaps it might have been expected, in around 17,000 pages of testimony, and during the course of one year, to see at least one commissioned technical report, one report that probed Enron's use of fair value numbers in an academically or technically rigorous way. There was none. We are left with the impression that, in 2002, the technicalities of fair value measurement, those being actually carried out in the workplace, were not well understood by many authorities. Perhaps the same might be said for large portions of the professional and academic accounting environment.

To recapitulate the actor-network issue identified at the beginning of the chapter: certain companies, as exemplified by Enron, Parmalat, QWest and others, began to mis-use mark-to-model accounting almost as soon as the technology was made available in the early 1990s. The thesis has earlier labelled this phase Translation 3. The misuse of FVA (it was misuse from the point of view of standard setters) in this translation either went unnoticed or, to the extent that it was noticed, standard setters and their allies were unable to deal with the issue sufficiently at the time. The financial industry had managed to 'black-box' the technology for its own use. The derivative instruments themselves, it might be argued, became an essential intermediary in this translation, enabling and encouraging the investment industry to act. Even after the Enron collapse, the few commentators who did understand the technology issues were unable to open the black box for public display. This poor understanding included a near absence of discussion of mark-to-model malfeasance by the academic community, as suggested by Benston (2006).

The poor understanding of FVA's role in these corporate collapses perhaps helps to explain the tangent that preoccupied the literature in the early 2000s. Instead of seeing Enron as a fair value problem, accounting issues were summarized as a 'rules versus principles problem' (Nelson, 2003). The IASB had taken the high moral ground after Enron by insisting that its standards were superior because they were based on 'principles' rather than rules (Tweedie, 2002, p. 110). In prior decades, the IASB had been seen as less powerful, and subservient to the FASB (Flower, 1997; Haswell & McKinnon, 2003; Zeff, 1998). After the Enron scandal, US accounting lost a large part of its prestige and credibility. The FASB was forced into a cooperative pact with the IASB in which, officially at least, the two were more or less equal collaborators. Announcements were periodically made of intentions to 'harmonize' the two regimes (Bhimani, 2008; Carmona & Trombetta, 2008; Chiapello & Medjad, 2009; Chua & Taylor, 2008; De Lange & Howieson, 2006). After a short time, some commentators were pointing out a phony aspect to the rules and principles debate, as rules and principles were not that easy to distinguish (Schipper, 2003). IFRS also had standards that were full of voluminous implementation guidance, or 'rules'. The financial instruments standard, IAS 39, with several hundred pages of fair value guidance, and the subject of numerous complaints about its over-complexity (Bryer, 2004), was a prime rules-infested suspect (Nobes, 2005).

The warnings about fair value and related accounting issues, given by some securities experts from 2002 (as evidenced at the Enron hearings), soon appeared in bestselling ‘popular’ books about Enron (McLean & Elkind, 2003; Partnoy, 2003) and, eventually, trickled through to detailed investigation by academic and professional accounting writers. McLean and Elkind (2003, p. 39) write:

> Even before joining Enron, Skilling had made a very strange demand. His new business, he told Lay, had to use a different type of accounting from the one ordinarily used by the natural gas industry. Rather than use historical cost accounting like everyone else, he wanted Enron Finance be able to use what is known as mark-to-market accounting. This was so important to him – “a lay-my body-across-the-tracks issue,” he later called it – that he actually told Lay he would not join Enron and build his new division unless he could use mark-to-market accounting.

Skilling was adamant about this particular accounting method because:

> He’d never let go of the consultant’s conceit that the idea was all and the idea, therefore, should be the thing that was rewarded. He felt that a business should be able to declare profits at the moment of the creative act that would earn those profits. Otherwise businessmen were mere coupon clippers, reaping the benefits of innovation that had been devised in the past by other, greater men. Taken to its absurd extreme this line of thinking suggests that General Motors should book all the future profits of a new model automobile at the moment the car is designed, long before a single vehicle rolls off the assembly line to be sold to customers. Over time this radical notion of value came to define the way Enron presented itself to the world, justifying the booking of millions in profits on a business before it had generated a penny in actual revenues (2003, p. 40).

McLean and Elkind report that, in 1992, Enron actually sought and obtained the SEC’s approval to use mark-to-model-type calculations (the authors use the term ‘mark-to-market’ in a non-rigorous manner), on booking income in advance from natural gas futures contracts; Enron was therefore the first company to deploy this type of accounting in the energy industry (2003, p. 41). By 1997, Enron was using FVA in every aspect of its business (2003, p. 127). McLean and Elkind make it clear that mark-to-model FVA was the essential accounting conduit for Enron’s measurement malfeasance. They provide general descriptions of these accounting procedures and the Enron activities, along with some headline profit and loss numbers, but the material would not be described as a technical accounting analysis. It does seem hard to explain why another three to four years would go by before academic accountants would pick up this theme, to present reports on it in more detail.

Benston's article then appeared in 2006. Benston provides a detailed technical analysis of Enron's use of fair value in numerous of its projects. For example, in 2000, Enron announced a 20-year project in conjunction with Blockbuster Video to supply TV movies:

> However, Enron did not have the technology to deliver the movies and Blockbuster did not have the rights to the movies to be broadcast. Nevertheless, as of December 31, 2000, Enron assigned a fair value of $125 million to its Braveheart investment and a profit of $53 million from increasing the investment to its fair value, even though no sales had been made. Enron recorded additional revenue of $53 million from the venture in the first quarter of 2001, although Blockbuster did not record any income from the venture and dissolved the partnership in March 2001. In October 2001 Enron had to announce publicly that it reversed the $110.9 million in profit it had earlier claimed, which contributed to its loss of public trust and subsequent bankruptcy.
>
> Andersen [the auditor] assumed the following: (1) the business would be established in 10 major metro areas within 12 months; (2) eight new areas would be added per year until 2010 and these would each grow at 1% a year; (3) digital subscriber lines (DSLs) would be used by 5% of the households, increasing to 32% by 2010, and these would increase in speed sufficient to accept the broadcasts; and (4) Braveheart would garner 50% of this market. After determining (somehow) a net cash flow from each of these households and discounting by 31–34%, the project was assigned a fair value (Benston, 2006, pp. 474–5).

The revenue was booked, in other words, by making assumptions about trading activities that might or might not happen years into the future. Benston's point is that it would have been very difficult to book these unrealistic revenues without the aid of FVA. While historic cost can also be misused, it is a question of degree; and Enron's abuses were exceptional. In hindsight the Enron and related episodes might be termed the **first fair value crisis,** but at the time fair value was only one of numerous factors attributed to these collapses. The GFC, discussed in Chapter 6, would therefore be the **second fair value crisis**, in reality, a continuation of the first.

What effect did Enron have on FASB and IASB plans for fair value in the future? There is no evidence that the rollout of these programs was 'deterred' by Enron; but it can be argued that Enron seriously affected the *way* in which the fair value programs were further developed. In 2008, Gwilliam and Jackson write that:

> IAS 39 in its present form, ... SFAS 157 and the joint IASB/FASB projects relating to both fair value accounting and the underlying conceptual framework all postdate Enron, although the extent to which they have been directly influenced by the Enron saga is open to debate (2008, p. 256).

Certainly the internal processes of the FASB and IASB are opaque to an extent, but, in fact, there is sufficient evidence to draw a direct link between Enron and FAS 157 and the later convergence projects. In March 2003, Robert Herz, chairman of the FASB, appeared before a US House congressional hearing titled 'A review of FASB action post-Enron and Worldcom' (Congressional Hearing, 2003). Most of the discussion was about SPEs that had been mis-accounted (had been deliberately omitted from consolidations) by Enron, and for which the FASB had already approved a new set of rules called FIN 46 (Haswell, 2006). There was very little discussion about FVA itself, but buried in Herz' statement (2003, p. 8) was the advice that:

> FASB staff observed that no enterprise should recognize an up-front gain at the inception of entering into certain financial contracts unless the fair value of those contracts is clearly evidenced by observable market transactions or market data.
>
> We also have a current project on our agenda to improve the existing accounting requirements for measuring and disclosing the fair value of essentially all financial instruments.

In the excerpt's latter section, Herz is referring to the exposure draft 'Fair Value Measurements' (FASB, 2004) that appeared the following year in June 2004, and which later became FAS 157. Therefore, the linkage of that standard with Enron is quite direct. The first part of the excerpt is also an oblique reference to Enron. As McLean and Elkind (2003) and Benston (2006) had discovered, most of the controversial accounting at Enron was about 'up front' fair value recognition of revenue. Plainly FASB was concerned about mal-use of mark-to-model estimates that derived this recognition of revenue amounts. The next part of the statement, 'observable market transactions or market data', though it went unremarked and made no obvious impact upon the congressional hearing, was to become the *sin qua non* of the FASB's approach to fair value as the world went into the next financial crisis. In essence, the response of the FASB to Enron and other episodes of accounting malfeasance was not to question the suitability of FVA itself, but simply to revise and toughen the allowable methods. As reported in Chapter 2, FAS 157, with the SEC's active support, would all but disallow mark-to-model accounting, and would stipulate that *observable market transactions* be used whenever possible. In a later interview in 2007 (just before the GFC controversy over fair value), Herz said that:

> People who don't like fair value accounting usually cite Enron as a reason. Enron is an example of what I'll call "unfair value," using "mark-to-model" accounting without further adjustments to properly reflect fair value (Kranacker, 2007, p. 6).

The evidence seems definitive. The FASB had learned from Enron that mark-to-model accounting was extremely problematic. The FASB had obviously realized that they were losing control of their own technology, so had developed a new incarnation of that technology. As described in Chapter 2, this new technology emphasized mark-to-market accounting as a hard-line response to mark-to-model misuses. Ideologically speaking, this new incarnation would come to represent the high point of standard setters' neoliberal belief in the market mechanism. In terms of inscriptions, US standard FAS 157 would embody this attempted translation of the technology and IFRS would follow. Observable market prices became the panacea for problems with financial reporting deficiency. Perhaps this translation could even be described as the standard setters' puritan core. The translation, labelled by this thesis as Translation 4, arrived in conjunction with the Fair Value World View of the mid-2000s, described in the next section.

5.4 The Fair Value World View in the mid-2000s

There was very little time for anyone to digest and comment upon the new FAS 157 fair value regime, between its implementation at the end of 2006, and the controversies that escalated in 2008. These controversies tipped the whole debate in a new direction, as will be discussed in Chapter 6. Commentators thought that the new regime had been rushed. Cataldo and McInnes (2007, p. 5) write:

> Rather than allow needed debate, SFAS 157 seems to have been rushed into introduction in service of FASB's broader fair value ambitions. The Financial Executives International (FEI) Committee on Corporate Reporting, among the most engaged and assertive of participants in the U.S. accounting policy debate, in a letter dated March 16, 2006, called on FASB to re-expose the proposed standard. This came on the heels of a thoughtful and essentially critical assessment of the exposure draft by the AAA Financial Accounting Standards Committee (*Accounting Horizons*, July 2005). Previous to that, several companies submitted letters to FASB questioning and challenging most of the tenets of the exposure draft (e.g., Pfizer, Microsoft, Lockheed-Martin). Despite this criticism, FASB issued SFAS 157 on September 15, 2006 ...

During 2005–08, these commentators and several others questioned the FASB's fair value programme, describing it as doctrinaire and unresponsive to criticism. Flegm (2005, p. 5) said that:

> Through its standards, FASB gave the individuals behind these four major frauds–Enron, Q West, Global Crossing, and Parmalat–the tools to defraud their stockholders. FASB is part of the problem when it should be part of the solution. Derivatives are extremely complicated to evaluate under the best circumstances, but when such assets are required to be written up to a presumed 'market value', or 30 year executory contracts are required to be discounted to present value, abuse is almost inevitable.

Flegm's conclusion is that 'FASB pursues the fair value measurement base out of hubris' (2005, p. 6). Benston (2008, p. 104) asked of FAS 157: 'Does the FASB really understand what it adopted?'.

By 2008, whether from hubris, ideological advancement or practical necessity, the FASB and IASB had arrived at what Whittington was able to call a ‘Fair Value World View’ (Whittington, 2008), a view held predominantly (if not universally) by board members and technical staff. Under this World View, FVA concentrates on serving capital market investors, seeks forward-looking accounting information, and focuses on future cash flows not specific to the entity. There is also an embedded assumption that capital markets are complete and competitive, in other words, perfectly accessible markets. The ‘Alternative View’, which might be depicted as a more traditional view, gives priority to existing shareholders and promotes stewardship. While forecasting of cash flows is also relevant, the alternative view assumes that investors’ valuation models will deal with information needs that are entity-specific, rather than generalized to markets. The alternative view assumes that imperfect markets are common or usual (Whittington 2008, p. 160).

The Fair Value World View seems to be the culmination of standard-setting trajectories in train for several decades. Flegm (2006, p. 1) writes that:

> In 1976, FASB published three documents for discussion: “Tentative Conclusions on Objectives of Financial Statements of Business Enterprises”; “Scope and Implications of the Conceptual Framework Project FASB Discussion Memorandum”; and “Conceptual Framework for Financial Accounting and Reporting: Elements of Financial Statements and their Measurement.” Although the nature of the proposals was downplayed as not being revolutionary, many people thought otherwise, notably Robert K. Mautz, who taught at the University of Illinois for 25 years before joining Ernst & Ernst. Mautz tried to rally the business world to what he termed a revolution in accounting, in which the income statement would no longer be the focus of financial reporting and the matching of costs and revenues concept would be phased out as the balance sheet became the basis for determining income ... That the debate continues 30 years later is, I believe, because FASB has turned a deaf ear to the real users of financial data on a day-to-day basis—that is, the owners and managers of a company who use the accounting data for controlling the operations of the company, for protecting the assets, for evaluating employees and granting pay raises or bonuses, for judging the success of a new product or advertising program, and so on.

Ravenscroft and Williams (2009, p. 770) write similarly that:

> ... financial reporting has reached a state of near-total incoherence ... a source of this incoherence is the transformation of the US accounting academy into a sub-discipline of financial economics, a transformation in which accounting became a servant of the imaginary world of neoclassical economics ... we describe the displacement of accounting's centuries-old root metaphor of accountability by the metaphor of information usefulness, and situate that displacement within neoliberalism ... The Financial Accounting Standards Board's (FASB) attempts to make the imaginary world of neoclassical economics real have resulted in rules which are not defensible.

As a seeming culmination of this trend, the IASB and FASB, in their revamp of the conceptual framework, are seeking to jettison much of the requirements of prudence and reliability in favour of relevance. The move has been criticized by accounting professionals (ICAEW, 2013).

During the 2000s, another group of critics led by Watts point out that conservative stewardship is ultimately more important to investors than earnings numbers (Basu, 1997; Bushman & Piotroski, 2006; Holthausen & Watts, 2001; Watts, 2003, 2006). To Watts, conservatism represents the 'long term political equilibrium' (2006, p. 56) of financial reporting, and grand experiments with fair value have positioned standard setters dangerously. According to Watts, movements toward this equilibrium are largely driven by litigation against auditors and corporate managers who have overstated assets and profits. Given the size of litigation in the US, accounting statements 'are likely to continue to be conservative regardless of the standards introduced by the FASB' (2006, p. 56). The production of these sentiments and temperature of discussion on fair value, in the mid-2000s, was brought to an abrupt conclusion, and spun in a new direction, by the GFC, as will be discussed in Chapter 6.

Table 5.1 US congressional hearings concerning the collapse of Enron Corporation

Name of hearing	Committee	Date	Fair value mentions	Mark-to-market mentions	Transcript pages
The Enron Collapse: Impact On Investors And Financial Markets	House. Committee on Financial Services	2001, Dec 12	2	17	162
An Overview Of The Enron Collapse	Senate. Committee on Commerce	2001, Dec 18	1	0	94
Destruction Of Enron-Related Documents By Andersen Personnel	House. Committee on Energy and Commerce	2002, Jan 24	0	0	183
The Fall Of Enron: How Could It Have Happened?	Senate. Committee on Governmental Affairs	2002, Jan 24	0	0	151
Enron Corporation's Collapse	Senate. Committee on Energy and Natural Resources	2002, Jan 29	2	6	82
The Enron Collapse: Implications To Investors And The Capital Markets	House. Committee on Financial Services	2002, Feb 4, 5	0	0	511
The Financial Collapse Of Enron—Part 1	House. Committee on Energy and Commerce	2002, Feb 5	0	0	82
The Enron Collapse And Its Implications For Worker Retirement Security	House. Committee on Education and the Workforce	2002, Feb 6	0	0	315
Lessons Learned From Enron's Collapse: Auditing The Accounting Industry	House. Committee on Energy and Commerce	2002, Feb 6	0	23	207
Accountability Issues: Lessons Learned From Enron's Fall	Senate. Committee on Judiciary	2002, Feb 6	0	0	74
Protecting The Pensions Of Working Americans: Lessons From The Enron Debacle	Senate. Committee on Health, Education, Labor, and Pensions	2002, Feb 7	0	0	92
The Financial Collapse Of Enron—Part 2	House. Committee on Energy and Commerce	2002, Feb 7	2	16	486
Collapse Of Enron	Senate. Committee on Commerce	2002, Feb 12	0	0	76

Name of hearing	Committee	Date	Fair value mentions	Mark-to-market mentions	Transcript pages
Accounting Reform And Investor Protection Vol. 1	Senate. Committee on Banking, Housing, and Urban Affairs	2002, Feb 12–27	73	63	504
Enron And Beyond: Enhancing Worker Retirement Security	House. Committee on Education and the Workforce	2002, Feb 13	0	0	139
The Effect Of The Bankruptcy Of Enron On The Functioning Of Energy Markets	House. Committee on Energy and Commerce	2002, Feb 13	2	17	150
The Financial Collapse Of Enron—Part 3	House. Committee on Energy and Commerce	2002, Feb 14	6	6	322
Are Current Financial Accounting Standards Protecting Investors?	House. Committee on Energy and Commerce	2002, Feb 14	22	23	77
Collapse Of The Enron Corporation	Senate. Committee on Commerce, Science, and Transportation	2002, Feb 26	6	2	106
Enron And Beyond: Legislative Solutions	House. Committee on Education and Workforce	2002, Feb 27	0	0	129
Retirement Security: Picking Up The Enron Pieces	Senate. Committee on Finance	2002, Feb 27	1	0	87
The Watchdogs Didn't Bark: Enron And Wall Street	Senate. Committee on Governmental Affairs	2002, Feb 27	1	0	170
Accounting Reform And Investor Protection Vol. 2	Senate. Committee on Banking, Housing, and Urban Affairs	2002, Mar 5–21	8	1	1169
The Financial Collapse Of Enron—Part 4	House. Committee on Energy and Commerce	2002, Mar 14	0	0	447
The Corporate And Auditing Accountability, Responsibility And Transparency Act Of 2002	House. Committee on Financial Services	2002, Apr 9	1	0	500
Examining Enron: Electricity Market Manipulation And The Effect On The Western States	Senate. Committee on Commerce, Science, and Transportation	2002, Apr 11	1	5	150
Accounting Reform And Investor Protection Vol. 4	Senate. Committee on Banking, Housing, and Urban Affairs	2002, Apr 16–Jul 25	4	0	2291

Name Of Hearing	Committee	Date	Fair value mentions	Mark-to-market mentions	Transcript pages
Corporate Governance And Executive Compensation	Senate. Committee on Finance	2002, Apr 18	0	0	204
Corporate Accounting Practices: Is There A Credibility GAAP?	House. Committee on Financial Services	2002, May 1, 14	6	4	294
Examining Enron: Developments Regarding Electricity Price Manipulation In California	Senate. Committee on Commerce, Science, and Transportation	2002, May 15	0	0	145
Examining Enron: The Consumer Impact Of Enron's Influence On State Pension Funds	Senate. Committee on Commerce, Science, and Transportation	2002, May 16	0	0	80
The Financial Accounting Standards Board Act	House. Committee on Energy and Commerce	2002, Jun 26	7	2	72
Wrong Numbers: The Accounting Problems At Worldcom	House. Committee on Financial Services	2002, Jul 8	0	0	328
Accounting Reform And Investor Protection Vol. 3	Senate. Committee on Banking, Housing, and Urban Affairs	2002, Jul 8–25	2	0	1651
The Role Enron Energy Service, Inc. Played In The Manipulation Of Western State Electricity Markets	Senate. Committee on Commerce, Science, and Transportation	2002, Jul 18	0	13	51
Retirement Security For American Workers	House. Committee on Education and Workforce	2002, Sep 10	0	0	159
Asleep At The Switch: FERC's Oversight Of Enron Corporation—Vol. I	Senate. Committee on Governmental Affairs	2002, Nov 12	0	0	857
—Vol. II	Senate. Committee on Governmental Affairs	2002, Nov 12	0	0	880
—Vol. III	Senate. Committee on Governmental Affairs	2002, Nov 12	0	0	870
—Vol. IV	Senate. Committee on Governmental Affairs	2002, Nov 12	0	0	786
Oversight Of Investment Banks' Response To The Lessons Of Enron—Vol. I	Senate. Committee on Governmental Affairs	2002, Dec 11	0	0	702
—Vol. II	Senate. Committee on Governmental Affairs	2002, Dec 11	0	0	1012

Chapter 6: Global Financial Crisis and After

Contents

6.1 Introduction

Following the collapse of Enron, and as discussed in Chapter 5, standard setters tried to reclaim the translation of FVA with toughened fair value rules. The standards intended that the mark-to-model abuses that characterized Enron should be curtailed. During 2008, it became clear that the accounting world was facing a major new accounting crisis. As described in Chapter 2, the banking industry looked for something to deflect responsibility from its own failure to see the risks involved in sub-prime mortgages and from the questionable speculative proliferation of instruments such as credit default swaps. This chapter describes how mark-to-market accounting became that convenient deflection and how, at the same time, the financial industry seized the opportunity to have fair value remade again in a more palatable version.

When the financial industry started to attack mark-to-market accounting, its supporters rallied in its defence. What ensued was a struggle for control of the fair value network. Basically, one group of actors, led initially by the standard setters, wanted to maintain *observable inputs*-type mark-to-market as the essence of fair value. On the other hand, the financial industry wanted *management modelling*-type fair value to be more easily enabled. To many observers from outside the network, these nuances must have seemed complicated, if not completely opaque. Both of the main protagonist groups in the network made use of this opacity to try to garner favour from external political forces.

Compared with that analyzed in Chapter 5, the network in the period presented in this chapter is more complex, with many more enrolments and allies. Therefore, the methodology of study becomes more complex. To examine the network's struggle for control, ANT suggests 'follow[ing] the actors' (Latour, 2005, p. 68). The following analysis finds it fruitful to follow certain influential individuals, for example, US political leader Barney Frank. As the overall framework though, the thesis chooses to follow groups of actors within the fair value network.

An anti-mark-to-market group, led by the investment banks, remained relatively cohesive and managed to enrol a large number of political actors. The pro-mark-to-market group consisted of a number of volatile components that lacked cohesion. One by one, most of these groups abandoned the pro-mark-to-market stance, which was initially led by the standard setters. After political pressure, the standard setters deserted the mark-to-market cause and that cause was taken up by the accounting profession. When the accounting profession silenced itself, a raft of accounting commentators briefly entered the protest, and after them, the academic community and investor groups were those that remained. From 2009 to the present, with the defection of most pro-mark-to-market protagonists, emergency measures installed during the GFC became permanent, thus sealing the translation for the time being.

6.2 The investment industry

By mid-2008, the banks, especially investment banks, had made themselves unpopular with the general public. There was outrage at the amount of taxpayer money transferred to bail out failed financial institutions (Shear & Kane, 2009). Politicians therefore supported these bailouts with a degree of political risk. The literature puts forward two reasons for this political support for the banks. First, there was an economic argument that banks had to be supported because their failure would have meant the collapse of the whole economy (Financial Times, 2009a; Wall Street Journal, 2009). The second argument suggests the prior existence of an unhealthy relationship between the investment banks and governments (Hendrickson, 2001; Roberts & Jones, 2009). During the crisis, banks relied on this unhealthy relationship, especially the financial support of politicians, to satisfy their needs. The narrative that follows describes how, during the crisis, political actors were embroiled in the banks' depiction of the fair value network and its requirements. This narrative is, in fact, a complex one that entails a considerable back-story, one that involves a bipartisan enrolment into the 'deregulated financial economy' view.

While many conservatives might be expected to support a deregulated financial economy, there is now a literature on the (to some, seemingly strange) conversion of left-of-centre political actors to financial deregulation (Cioffi & Hopner, 2006) in the US, UK, Europe and many other countries. In the UK, for example, this was evident in the ‘New Labour’ phenomenon in which previously sacred positions on a protected economy were discarded in favour of an embrace of business and deregulated financial markets (Cerny & Evans, 2004). In the US, certain types of financial deregulation also received strong bipartisan support through the 1990s. These efforts culminated in one episode particularly relevant to the fair value discussion: the US *Commodity Futures Modernization Act, 2000 (CFMA Act).* This legislation came about because of uncertainty over the legal status of certain instruments such as credit default swaps.

A credit default swap is a bilateral contract. In exchange for a regular stream of premium payments, one party buys from another ‘protection’ from the debt default of a third entity. If the third entity defaults, the seller of protection must supply the full face value to the buyer of protection (MacKenzie, 2012). In the late 1990s, regulators debated the merits of bringing these novel instruments under regulated control. A strong argument against regulation was put forward by the then Federal Reserve chairman, Alan Greenspan, who, at the time, was regarded as a financial ‘oracle’ (Urban, 2009, p. 51). Despite warnings by some regulators, Greenspan’s plan was put into effect in the *CFMA Act*, which recognized the legal existence of instruments such as credit default swaps (previously they could have been regarded as ‘illegal gambling’), but did not regulate them or require them to be traded on a (monitored) exchange (Sherman, 2009). As a result, securities such as credit default swaps could continue to be traded over-the-counter (OTC), meaning, traded directly between parties without use of an exchange. This facility was to have far-reaching consequences. The amount of these financial instruments, the manner of their accounting and reporting, their existence on or off balance sheets, their goodness or ‘toxicity’, all were hard to assess (Baily, Litan, & Johnson, 2008; Brunnermeier, 2009; Stulz, 2010).

In the early 2000s, the fair value network seemed to emerge unscathed from the spate of disastrous corporate collapses around it, and was about to assist the financial industry (one of its most important enrolments) in a dramatic uptake in profit making from financial asset trading. At this time there was an (human) actor whose own story seems central to, and indeed embodies, many of the events surrounding control of the fair value actor-network during the 2000s. That individual is US congressman Barney Frank, who galvanized activity on behalf of the investment industry. It is not suggested that Frank achieved heroic status by altering world events single-handedly; but his activities are important actual events and are representative of his type of political actor. Frank was not a banker himself, but over time he does seem to have been enrolled into the banking point of view. Democratic Party Representative Frank was, in 2008, chairman of the House of Representatives Committee on Financial Services. This committee's public hearing on mark-to-market accounting in March 2009, discussed below, was a watershed moment for accounting standard setting, not just in the US, but because of its repercussions around the world.

Not only did Frank become a principal supporter of the investment banks, he was also a high-profile, hard-line, left-liberal (Weisberg, 2009). This is not as contradictory as it might seem. Although a left-liberal, Frank had been one of the principal architects of financial deregulation, which was instrumental in making available sub-prime mortgage-backed financial assets (Calomiris & Wallison, 2008; Hendrickson, 2001; Omarova, 2011). Frank had supported this lending, apparently with the objective of making mortgage loans more affordable to ordinary working people via state-supported agencies (Freddie Mac and Fannie Mae), but with the backfire effect of allowing these over-valued securities to be traded by investment banks. Other liberals had also supported financial market deregulation. When the *CFMA* bill was introduced in 2000, to allow credit default swaps to be legalized, it passed with strong support from both parties (Greenberger, 2010). The *CFMA Act* was one of the last administrative Acts presided over by President Clinton, another liberal. In the GFC, all of this unravelled suddenly. Frank and his many fellow ideological travellers may have found this reality difficult to face.

While the investment banks may have been the architects of their own failures, a catchcry soon arose in mid-2008: the existence of these banks was too important to the economy and the banks themselves were ‘too big to be allowed to fail’ (Wall Street Journal, 2008). Political figures, for the most part, neither sympathized with public antipathy to the banks nor adopted a populist reaction against the premise that the banks ‘could not fail’ (Hutton, 2010; New York Times, 2009; Online Journal, 2008; Poole, 2009; Shear & Kane, 2009; Wall Street Journal, 2009).

In terms of size, and potential failure, the sheer amount of derivatives themselves was the problem. In 2014, the worldwide gross value of derivative instruments was estimated to be approximately $700 trillion (Bank of International Settlements, 2014). In 2008, the worldwide gross amount of credit default swaps alone was estimated to be $60 trillion (Bank of International Settlements, 2010). By 2014, this amount had fallen to about $13 trillion, apparently because more recent attempts to regulate the instruments through an exchange had reduced their attractiveness (Bloomberg, 2014a). To put these amounts in perspective, the US’ total public federal debt (which has reached a controversially high amount, and is of concern to economists) was about $17 trillion in 2014 (CNN, 2014). The use of derivatives has become controversial because only some of the instruments are used for actual ‘financing’ such as hedging. The instruments are also traded among banks and other parties for speculative purposes

(Gorton, 2010). Given these amounts, and the facility to book revenues obtained from their short-term trading using FVA, it is not difficult to see the degree of investment in that accounting technology by the derivatives industry.

In mid-2008, it could be argued that the functioning of the derivatives market had become a thing so powerful in itself that its protection took precedence over anything else happening in the world economy. The situation persists. One commentator suggested in 2010 that:

> Officially, roughly $604.6 trillion in OTC derivative contracts, more than 10 times world GDP ($57.53 trillion), hang over the financial world like the sword of Damocles, but to the average investor the derivatives bubble is invisible. From the perspective of those outside the bubble, the explosion of OTC derivatives is a mania (Hera, 2010, p. 1).

In other words, the 'black box' of OTC derivatives is so opaque that it cannot be understood by the average investor, let alone the average voter. In derivatives contracts, the gross amounts are, in normal circumstances, only notional amounts that, in the end, are designed to close out against each counterparty (MacKenzie, 2012). The cash amounts that actually trade hands are a much smaller stream of premium payments that represent the cost to one party of risk minimization, and the profit to the other party that is taking on the risk of a third party default. The argument put forward during the crisis was that this normal functioning was about to fail. Counterparties who would normally guarantee risks might instead all simultaneously fail as a result of the massive amount of risk events being triggered all at once. It was argued that these risk events were triggered because of mark-to-market write-downs. This simultaneous failure would have meant that the notional gross amounts of the contracts would have been invoked and would have required more cash than existed in the world to pay them out:

> The suspension of the US Financial Accounting Standards Board (FASB) mark-to-market rule in 2009 preserved the value of bank balance sheets, i.e., of their mortgage portfolios, but what was of far greater importance was that it prevented

> triggering the conditions of thousands of OTC derivatives contracts, such as credit default swaps (CDS), that would have wiped out virtually all of the largest banking institutions in the world ... leaving governments to deal with the depositors and investors (Hera, 2010, p. 1).

Was this claim real, or hyperbole? It remains one of the great conjectures of modern financial history that does not have a definitive conclusion. According to MacKenzie (2012), while the valuation of real-estate-backed credit default swaps did indeed bounce back from an apparently artificial low in 2008, what would have happened to the securities or their owners had the investment banks not been bailed out is an open question.

Given the high stakes being played out in the financial industry, it is not surprising that banking organizations would do whatever was necessary to obtain the support of political actors. Some claim that Barney Frank had simply been purchased by the investment banks: according to Connor (2009), Frank's ability to attract campaign donations immediately increased after he became the most important Democrat on the Financial Services Committee in 2002; he was able to raise $1.4 million for the next election, about half of that from investment banks (the most obtained by any Democrat). Some of Frank's staffers have since become lobbyists for the investment bank Goldman Sachs.

Aside from spending on Frank, financial industry firms had spent around $US 27 million in lobbying activities to induce Congress to act against FAS 157 (Wall Street Journal, 2009). While money might have been involved, this view seems too simple. It is evident that Frank and others like him had become invested in the 'deregulatory' view that a 'more efficient' financial sector was socially useful in creating income and was therefore consistent with left-liberal ideologies. This may have been a positioning from which, ideologically, mentally and in practical politics, Frank and his followers were unable to disengage from easily.

Frank's involvement in the financial industry came to a head in the March 2009 congressional hearing on mark-to-market accounting (Congressional Hearing, 2009). This hearing had been organized (Frank was the chairman) in response to a period of inertia during the crisis in the latter part of 2008. The scene of this inertia was described in Chapter 2: banking and political interests had demanded remedial action on mark-to-market accounting, claiming that it had exacerbated the financial crisis by helping to cause banks to over-report losses; the standard setters had stonewalled on such action. US Congress then introduced a bailout bill (House of Representatives, 2008); $700 billion of taxpayer money was diverted to assist failing banks. The fair value rule changes sponsored by standard setters in October 2008 were deemed insufficient by US politicians. By March 2009, US politicians had evidently had enough of what, during the hearing, they obviously thought were delaying tactics.

The public hearing on mark-to-market accounting was, by all appearances, organized in the service of the investments industry, that is, it was orchestrated by an anti-mark-to-market group. The opening remarks of the subcommittee chairman are basically synonymous with the financial industry position and are presented as if there was no dispute about its truth claims regarding economic reality:

> Previously, I have taken the position that the Congress should not interfere [with] specific accounting rules ... We can, however, no longer deny the reality of the procyclical nature of mark to market accounting. It ... has exacerbated the ongoing economic crisis. If the regulators and standard setters do not act now to improve the standards, then the Congress will have no other option than to act itself ... [The standard setters] must also tell us precisely when they will act. In my view, we can no longer wait 15 years, 15 months or even 15 weeks for change.
>
> To say that the Congress will have to act is not to advocate an outright suspension of mark-to-market accounting. If we do away with this standard entirely,

> accounting will revert to the very kind of subjectivity and sleight-of-hand that made mark-to-market necessary in the first place. The standard does not provide transparency for investors, but its strict application in the current environment is, in too many instances, distorting rather than clarifying the picture (Congressional Hearing, 2009, pp. 1–2).

The congressman has an awareness of a pre-FVA valuation regime. Absence of a fair value standard is tied to sleight-of-hand, but 'mark-to-market' is the present problem. These relations are part of the translation that is underway. There is no mention (perhaps no awareness) of mark-to-model being the problem under any previous regime. The congressman's argument accepts as fact that observable inputs mark-to-market was 'procyclical'. The chairman's opening remarks might be compared pro-forma with the remarks of the American Banking Association (2008, p. 1):

> Typical sellers are not selling and typical buyers are not buying in meaningful volumes. Many holders of assets are restrained from selling, because they know the economic values of their assets are greater than the distressed sale values they are seeing in the marketplace. Both buyers *and* sellers are "market participants", yet they are not participating, and there are either no trades or insufficient trades in order to estimate fair value under SFAS 157 and other literature.

These themes were repeated by congressional speakers *ad nauseam*, for example, by Representative Bachman:

> I, along with 60 other Members, wrote the SEC and asked them to suspend mark-to-market and replace it with a form of mark to value that could accurately reflect the true long term value of institutions' assets. More than 6 months later, we have seen some action on this issue but not enough (Congressional Hearing 2009, p. 13).

There were 71 members of the House Committee on Financial Services; 24 of these spoke at the hearing (12 Democrat and 12 Republican) and 23 of those 24 spoke negatively of mark-to-market, asserting its role in causing or exacerbating the financial crisis, and demanding fast amendments by the FASB. As it was a political meeting, a certain amount of hyperbole was involved. Yet, if some of the committee members were to be believed, mark-to-market accounting was then the greatest security threat to America. Congressman Ackerman claimed that such was its obvious financial effect on everyday life that anti-mark-to-market sentiment was rife within the general public in his constituency (2009, p. 29). Barney Frank himself said:

> I will tell you as I walk around the Capitol, increasingly trying to avoid conversations with people, I am most often ambushed by people who want to complain about mark-to-market (2009, p. 24).

Representative Manzullo asserted that his constituents:

> ... cannot get money to run their factories because of mark-to-marketing, and yet some of them die and the IRS says, oh, this is worth "X" amount, and they ignore those same rules. It is the inconsistency of the message. It has resulted in the fact that, gentlemen, we could lose hundreds of factories, thousands of factories, that are hemorrhaging, that simply cannot get money (2009, p. 14.)

Congressman Manzullo later asserted that, as a result of the FASB's inflexible accounting rules, US manufacturing was being forced offshore to China and Korea:

> I am talking about the destruction of manufacturing in America that will push this Nation into the deepest recession the world has ever seen. If we do not make things, we will collapse. That is the impact of the mark to market rule. (2009, p. 44).

According to Congressman Manzullo, mark-to-market, not the previous 20 years of economic policies that favoured a financial economy, forced American manufacturing offshore. Instead, the argument here seems to be that banks, frozen by mark-to-market accounting, were starving the economy of capital. There were numerous similar anecdotes usually involving troubled banks or other failed businesses in house members' constituencies. Mark-to-market was 'implicated' every time. Representative Perlmutter said:

> We have known now for at least 6 months, since September, this has been an issue as to whether mark-to-market type accounting, fair value accounting, was exaggerating and multiplying the cycle that we are in. And whether it is the Comptroller of the Currency or FASB or the SEC, we have—the SEC did a wonderful study, it is about 300 pages long already. We have been dithering while this patient has been sick, and I think giving the medicine that has been making the patient sicker. And I know the chairman does not want us to be doing this in terms of sound bites but the problem has been apparent now for at least 6 months (2009, p. 9).

In fact, the SEC claimed the exact opposite of this, that mark-to-market accounting *had not* caused the financial crisis. Perlmutter, and other representatives who mentioned the SEC's report, presented it instead as ammunition *against* mark-to-market accounting. The SEC's chief accountant, James Kroeker, and the FASB chairman Robert Herz, spoke next. Both made an attempt to correct the committee's understanding of what the SEC's mark-to-market report actually said, namely that fair value did not cause the banks to fail. This seemed to annoy a number of congressional committee members. The committee chairman then said:

> What I am worried about, let me center it on both Mr. Kroeker and Mr. Herz, I still hear a little tinge in your testimony that somebody else has to do something, either FASB has to do something before SEC does it or SEC has to do something before FASB. Can we say that that is no longer applicable, that concept and that now you are going to take it upon yourselves to do something and even to do something that is not common in this City, pick up the telephone and communicate directly with one another. Do not be passing a lot of paper back and forth. That can follow the conclusion. But if we can get you either in the same room or on the same communication by telephone or otherwise, I really believe that this is a solvable problem. The people on the extremes, that is the purists who are in favor of mark-to-market, they are not going to be happy. The people on the other side who want us to do totally away with the rule of protecting transparency for investors, they are not going to be happy. But we may help save the jobs of several million Americans and keep the whole country out of a worse economic situation than what we presently coming or potentially coming (2009, pp. 21–22).

It is not hard to see how such a middle course, as recommended by the chairman, could be served by a return to mark-to-model FVA. Compared with the Enron hearings in 2002, the atmosphere at this hearing, and the attitude toward accounting representatives, could hardly have been more different. It is perhaps best summed up by Representative Manzullo:

> But I think here is the problem, I can quote from Ms. Fornelli's statement [Cynthia Fornelli, Executive Director, Center for Audit Quality, an accounting profession think-tank], she says, "The crisis has been caused by loan losses and runs on the bank, not fair value accounting." And then I quote from the man on the street over there, Mr. Bailey [a representative of the Independent Community Bankers of America], he says, "The application of mark-to-market in frozen markets is the heart of the problem." I mean either mark-to-market is a problem or it is not a

> problem, and I see two planes of very honest, distinguished, dedicated people and you are simply not connecting. But let me tell you where the connection comes in, mark-to-marketing is destroying manufacturing in America. Let me say it again: Mark-to-market is destroying manufacturing in America. Let me say it 3 times (2009, p. 82).

Manzullo equates the banking representative with 'the man on the street', but the accounting profession think tank seems to be judged to have no credibility. A token defender of mark-to-market was allowed from among the committee members. This was Congressman Grayson, who occupied the last speaking slot of the session. He said:

> There seems to be a clamoring for changing the mark-to-market rules that seems to come largely from institutions that may be insolvent, and that is the pattern that I am seeing ... Mr. Herz, what you are saying is that the stock market in its infinite wisdom is telling us not that mark-to-market rules have made companies mark down their book values too much but maybe the accounting rules have made them not mark down their book values enough, is that what the stock market is telling us right now? (2009, pp. 53–54).

Herz readily agreed. Of the dozens of congressional speakers, only Grayson was able to pre-empt what much of the academic literature would eventually assert as being the truth, which was the opposite of most of the arguments presented at the hearing. As discussed in Chapter 2, the real truth may be that businesses required to mark-to-market had not written down failed assets *enough*, a truth that seemed to be entirely unpalatable to all the other congressional speakers.

These political activities in 2009 were followed by a sequel in which Barney Frank was, again, the leading actor. Frank cosponsored a new bill that became the Dodd-Frank *Wall Street Reform and Consumer Protection Act*. The Act, with approximately 900 pages and 1500 provisions, was described as the broadest financial reform legislation since the Great Depression of the 1930s (USA Today, 2013). The bill was responsible for one of the most extraordinary lobbying activities seen in the US Congress. The financial industry, reportedly, sent about 3000 lobbyists (six lobbyists for every member of Congress) to Washington to try to have the bill stopped or modified; this lobbying, which was carried out over several years, reportedly cost more than $1 billion (Nation, 2013). The Act has been criticized for its over-complexity (Washington Post, 2013), while another commentator described it as ‘too big not to fail’ (Economist, 2012a). The Act has, however, successfully introduced changes, including the creation of a new Consumer Financial Protection Bureau. The political battle, however, was not centred on the original content of the bill, but on two ad hoc amendments (Sweetland Edwards, 2013). The first, called the ‘Volcker rule’, would have restored a firewall between investment banking and commercial lending; this firewall had been removed in the 1990s during the Clinton presidency. The passage of the Volcker rule is a masterpiece of politics. The back and forth progress of the bill, and amendments attempted upon it, could be considered byzantine, and a clear assessment of its constantly switching allegiances is difficult to make. Sensing defeat at the hands of banking reformists, Barney Frank was enlisted by the financial industry to support the Volcker amendment, but then to emasculate it with exceptions and exemptions, such that it was an empty shell. The second amendment was the ‘Lincoln rule’, which would have banned commercial banks from trading in derivatives. According to one commentator:

> Barney Frank came out and voiced opposition to the rule, saying it “goes too far.” He trotted out Wall Street’s lame, catchall justification for unfettered speculation: Banks need derivatives to balance their portfolios and “hedge their own risk.” Not long after, a group of 43 conservative House Democrats calling themselves the “New Democrat Coalition” refused to support the reform bill unless the toughest part of the Lincoln rule – section 716 – was gutted (Taibbi, 2010, p. 3).

These activities also indicate that the fair value network has worked in the service of other networks. Perhaps it would be appropriate to say that the fair value network intersects with a larger ‘investment bank–derivatives’ network. These relations are considered in more detail in Chapter 7. As will be discussed further in the next section, the standard setters were unable to make any impression of their point of view on national political actors, a diametric turnaround on their experiences during the Enron post-mortem.

6.3 The standard-setting and regulatory groups

By mid-2008, the FASB and the IASB found themselves in an awkward position. They had just made a major series of reforms to fair value, and had implemented these little more than a year previously. The reforms were intended to try and prevent fair value from being abused by another 'Enron'. These same reforms were now being denounced and blamed for a global crisis. In reply, the standard setters would have to try to convince the public and the political arena about the correct cause-and-effect of fair value and banking losses. Before they could do that, however, it would be necessary to actually make the world understand what fair value really *was*. After the Enron collapse, the standard setters, particularly the FASB, had deliberately chosen to keep the black box closed and to use that to their benefit. Mark-to-market and mark-to-model had been conflated, to the standard setters' advantage. In 2002, a flummoxed political world seemed to understand FVA technicalities barely at all, and the role of FVA in Enron and the other collapses remained under the radar. In 2008, however, this same conflation would work against the standard setters. This time, it would be the financial industry, which would use fair value's complexity to its advantage, as the following discussion will show. The story to emerge here is not a clear case of one set of actors being 'right' or 'wrong' about their interpretation of fair value and the GFC. Instead, the interpretations given by the financial industry and by the groups initially led by the standard setters are both problematic, though in different ways.

Standard setters initially resisted the complaints about fair value. IASB and FASB leaders, backed by the large accounting firms, including PricewaterhouseCoopers

(PwC) replied that mark-to-market was not the problem and was being used as a scapegoat for poorly managed investment products (Herz, 2008; PwC 2008; Tweedie, 2008). In an interview on July 10, 2008, IASB chairman Sir David Tweedie said, 'We are certainly not thinking of any emergency measures to change what we do at present ... I think the commentators are largely backing that, including the regulators, that this is not the time to make drastic changes quickly' (Reuters, 2008, p. 1). On September 18, 2008, two days before the introduction of the US bailout bill in the House, but during the period when its appearance had been foreshadowed by Treasury, FASB chairman Herz, in a strategically timed conference speech, defended mark-to-market rules in FAS 157. Is the alternative, he asked, 'not to try to be truthful about the current value of your assets, to use original cost or some other smoothed value that ignores current market conditions? Yet, in some cases, that is what some people have asked us to do – suspend the bad news for a while, until things get better' (Herz, 2008, p. 14). The draft bailout bill was immediately followed by strongly worded public statements in opposition to the prospect of 'suspending' mark-to-market. These included the American Institute of Certified Public Accountants (AICPA) via their research organization, the Center for Audit Quality (CAQ) (2008), the Financial Accounting Foundation (2008), and in a joint statement led by the CAQ, the Consumer Federation of America, the Council of Institutional Investors and the Institute of Chartered Financial Analysts. The latter statement expressed:

> ... grave concern regarding recent calls for the SEC to override guidance issued by the Financial Accounting Standards Board (FASB) and the Commission's staff that would effectively suspend fair value or mark-to-market accounting. We believe such urgings are decidedly not in the public interest. (CAQ, 2008a, p. 1).

Mark-to-market was thus extensively defended by a cross section of US society, some of whom, like the Consumer Federation, may not have had a great deal of prior exposure to the concept at all (though the Consumer Federation does have an interest in advising consumers on retail financial products). In September–October 2008, mark-to-market activists, now headed by the accounting profession, began serious attempts to enlist others. It is not clear that all of the signatories to these protest letters would have been in a position to understand the technical differences between mark-to-market and mark-to-model and their complex economic effects. Instead, the enlisted actors seemed to trust the accounting profession's view that mark-to-market was being 'nobbled' in some way for political purposes. Given that on the opposing side to the argument were investment banks, who were publicly unpopular, enlistment in the accounting profession's view seemed to provide these peripheral actors with the basis for a moral high ground. This view is examined further in section 6.5 on the 'commentariat'.

Although the SEC and FASB would continue to defend mark-to-market, both had been compromised by the banks' lobbying activities on mark-to-market directed against them. The SEC and FASB's public statements in defence of mark-to-market suddenly became less vigorous than those of the accounting profession and actors it had sought to enlist. Twelve days after Herz's September 18, 2008 speech, the SEC and FASB issued a joint clarification statement of FVA (SEC & FASB, 2008). The content of the statement was plainly at odds with Herz's speech. The statement clarifies that Level 3 inputs may sometimes be preferable and that these usages require 'considerable judgement'. This was the first indication of a retreat from the strict preference presumption of observable inputs and was the precursor to the more formal staff position statement issued on October 10, 2008. The standard setters were about to defect from the mark-to-market network they had created.

The FASB suddenly amended FAS 157 on October 10, 2008, after a comment period of one week (several months or generally much longer is usual for significant proposed changes to accounting standards) by means of a ‘staff position’ document (FASB, 2008). The key element is found in paragraph 9 (a):

> Even in times of market dislocation, it is not appropriate to conclude that all market activity represents forced liquidations or distressed sales. **However, it is also not appropriate to automatically conclude that any transaction price is determinative of fair value.** Determining fair value in a dislocated market depends on the facts and circumstances and may require the use of significant judgment about whether individual transactions are forced liquidations or distressed sales (emphasis added).

The presumptive default position had been altered. Prior to the change, thinly traded sales were not inconsistent with fair value. After the change, judgement could be used to determine that consistency. The term ‘dislocated market’ did not appear in FAS 157 itself and appears to be a new characterization of the financial securities market in light of the GFC. The staff position was met with confusion. Six major business organizations headed by the US Chamber of Commerce jointly complained to the SEC that their statement with the FASB ‘repeatedly uses the term “judgment”, while the term is almost absent in the FASB guidance [the staff position]. These different tones further cloud fair value accounting during the current crisis’ (Chamber of Commerce, 2008, p. 1). In fact, the word ‘judgment’ appears only once in the staff position—where shown in the above quoted passage.

Debate on the staff position continued throughout 2008. The SEC had asked for comments on its proposed mark-to-market study (SEC, 2008a). According to the SEC’s own analysis of these letters (SEC, 2008, pp. A1–A28), banking interests and many report preparers thought that the changes did not go far enough and that mark-to-market should be suspended or further modified (e.g. American Banking Association, 2008a).

6.3.1 *Content analysis of comment letters*

Tweedie, quoted above (Reuters, 2008), believed that commentators and regulators generally supported standard setters' views on mark-to-market. A closer examination of comment letters sent to the SEC is revealing of actors who chose to enrol themselves in the competing points of view. (Chapter 4 provided the methodological details of a content analysis of these letters.) The SEC received 186 letters, of which 148 were analyzed. A summary of these letters and the coding of their analyzed contents are provided in Table 6.2 (located at the end of this chapter). The analysis of comment letters shows, above all, that support for mark-to-market from many important groups, assumed to be standard-setter allies, was in fact lukewarm at best. Tweedie, Herz and the other standard setters and SEC regulators had seriously miscalculated. The comment letters were generally written just a few weeks after the issue had come to a head in early October 2008, but already the tone of many responses had changed markedly. As Chapter 4 explained, the comment letters are divided into four categories of author, as shown in Table 6.1.

Table 6.1

Content analysis of comment letters on SEC mark-to-market study

	Banking organizations and related advocacy groups	Preparers of financial statements, consultants, preparer organizations and their advisors	Investor organizations, individual investors and other individuals	Professional organizations, auditors and non-banking advocacy groups
1. Mark-to-market is appropriate in the present inactive markets				
Yes	0	3	13	4
No	21	12	52	1
Not stated	5	2	22	13
Total	26	17	87	18
2. Mark-to-market should be suspended				
Yes	6	4	32	0
No	1	5	16	6
Not stated	19	8	39	12
Total	26	17	87	18
3. Support fair value as a general accounting principle				
Yes	9	8	30	10
No	0	1	9	0
Not stated	17	8	48	8
Total	26	17	87	18
Note: In each of the above tables the Pearson chi-square statistic based upon cross-classifying the affirmative respondents versus the remaining respondents was significant at the .01 level.				

Of the 18 letters sent by professional representative bodies and advocacy groups, only four made any statements that might be considered an affirmative defence of mark-to-market accounting. The strongest of these defenders was the accounting firm PwC. (The accounting firms are discussed further in section 6.4.) The other three affirmative defenders might be labelled 'lukewarm'. The most interesting feature of the other affirmative defence letters, and indeed of the letters that support the FASB's accounting protocols generally, is that they make minimal use of the term 'mark-to-market', even though the term itself was highly publicized at the time, was the actual title of the SEC's study, and was the supposed technical focal point for comments. The letters prefer to use, though with less accuracy, the umbrella term 'fair value', as if the term 'mark-to-market' is already laden with too much trouble or had brought about too much public distaste. (It will be recalled from Chapter 4 that the coding of responses in Table 6.1 is based on the letters' actual descriptions of accounting procedures rather than on their simple use of fair value terms. Generally, these letter writers, other than individual investors, were able to make more sophisticated arguments about fair value than, say, some of the politicians discussed in section 6.2.) Of the other three affirmative defence letters, the CAQ was responsible for two. In the letter that represents the CAQ by itself:

> … the CAQ believes that (1) the current use of fair value measurements for financial instruments in the financial statements should not be changed at this time; (2) the definition of fair value and basic objectives of fair value measurements under FAS 157 are appropriate; and (3) neither currently required or permitted fair value measurements nor FAS 157 should be suspended (CAQ, 2008b, pp. 1–2).

But the term 'mark-to-market' does not appear in that headline summary. Apart from the headings near the beginning of the 13-page letter, the term mark-to-market appears only once, somewhat buried in the CAQ letter's detail:

> The greater use of fair value measurements for financial instruments in the financial statements, also called "mark-to-market" accounting, along with related disclosures, has been a key part of the movement toward greater relevance,

> usefulness, and transparency in financial reporting that has taken place over the last thirty years (CAQ, 2008b, p. 3).

By contrast the term 'fair value' is mentioned 86 times in this letter. The second CAQ letter, an omnibus submission on behalf of the Chartered Financial Analyst Institute, the Consumer Federation of America and the Council of Institutional Investors, written on October 15, uses the term 'mark-to market' only in the introductory paragraph and thereafter only uses the term 'fair value accounting':

> A move by the SEC to suspend fair value accounting would be a disservice to the capital markets, would be inconsistent with the views of investors, would harm the credibility and independence of the standards setting process, and would run counter to fundamental notice and comment principles (CAQ, 2008a, p.1).

The letter picks up the point about the independence of standard setters (a common theme) but plays down the mark-to-market issue itself. A later letter only makes an oblique assertion about the validity of mark-to-market data when it warns us not to:

> ... imply that the current economic crisis can be alleviated by simply de-recognizing economic events from financial statements (CAQ, 2008c, p. 1).

The fourth affirmative defence letter, by the International Corporate Governance Network (ICGN), likewise uses the term 'mark-to-market' only once in its substantive three-page discussion of the details of the SEC's proposed study, but 'fair value' is used 10 times (ICGN, 2008).

Thirteen of the other 18 respondents from professional and advocacy groups were mark-to-market fence sitters, meaning that they neither defended the concept of mark-to-market itself, nor did they explicitly defend the definition of fair value or basic objectives of fair value measurements under FAS 157. Instead, these respondents gave only 'general' support for FVA. These fence sitters even include the AICPA itself, who said that:

> When setting or changing an accounting standard, the FASB, as a matter of standard procedure, calls for and considers the views of all participants in the

> overall financial reporting system. The notion of *transparency* is a guiding principle of accounting standards. Financial information must be presented neutrally, without regard to whether the information is good news or bad news for a company at a given point in time (AICPA, 2008, p. 1).

This could be seen as diplomatic support for individual members such as PwC who wrote in the context of ‘interference’ in standards, but the letter does not come straight out and support mark-to-market itself. Likewise, the second omnibus letter written later (on November 14) by the CAQ on behalf of five institutional groups, was only about preserving standard setting by bodies that are ‘truly independent’ and that:

> … investors require an accounting standard that reports a relevant and useful value of financial instruments regardless of the direction of markets. Fair value accounting with robust disclosures provides more reliable, timely, and comparable information (CAQ, 2008c, pp. 1–2.).

This is a weaker case than the one made in the October 15 CAQ letter (2008a); it seems that support for mark-to-market had deteriorated in the space of a month. Although these letters appear to be strongly worded, in fact these bodies studiously avoided offering any support for mark-to-market itself. Yet many respondents were prepared to make statements generally in favour of FVA—nine of the 26 banking respondents did so—while no banking respondent made any explicit case that fair value was unacceptable in principle.

Banking and related advocacy groups were consistently hostile towards mark-to-market accounting. Preparers of financial statements and their advocacy groups were more divided on the issue; the majority thought mark-to-market was inappropriate in times of illiquid markets. But respondents of banking, and preparer categories mostly did not call for an actual suspension of FVA: in both categories only 23% argued for this, probably because suspension itself would have been a clumsy instrument that does not solve the problem of how fair value should be otherwise performed.

Letters from investors were the most demanding of the extreme remedial action of suspending FAS 157 immediately: 37% argued for this. Banks had not argued as strongly for this, presumably because the suspension option was lacking in sophistication. A suspension of FAS 157 would not actually suspend FVA in other standards; it would merely remove the implementation guidance, leading probably to a kind of financial reporting vacuum. Moreover, the investment banks were not necessarily opposed to all fair value, only to the mark-to-market version, so a suspension of all fair value was definitely not in their interests. Rank-and-file investors, perhaps unaware of these nuances, were looking for simpler solutions. The tone of some letters was simplistic. An individual investor wrote to the SEC that:

> Mark to Market valuation is useless and dangerous in an illiquid market. It should be suspended immediately for a year or more while new rules that both protect investors and don't endanger the financial system are drawn up and enacted. Unfortunately, this rule has greatly contributed to the ongoing destruction of our economy (Quigley, 2008, p. 1).

Another wrote:

> Please work to suspend the Mark-to-Market rule under FAS 157. This will provide liquidity in the credit markets that we need to relieve this crisis. Why shouldn't these so-called toxic debts be valued pursuant to a more realistic discounted cash flow analysis? Let the banks assume for valuation that they will be held until maturity (as they may ultimately have to). Mark-to-Market is an artificial creation that causes a terrible unintended consequence. Please suspend it immediately (Davis, 2008, p. 1).

These positions are remarkably similar to the statements made by congressional politicians, for example, in the 2009 mark-to-market hearing. It is not hard to see how the pro-fair value group (as distinct from the pro-mark-to-market group) enlisted both individual investors and political representatives. The latter would have garnered support from the individual investor community.

6.3.2 Developments in Europe and IFRS, late 2008

While the US developments described above played out in late 2008, similar activities occupied the regulatory authorities in Europe. Political pressure to reduce mark-to-market requirements had come, for example, from the International Organization of Securities Commissions (IOSCO, 2008), and the Financial Stability Forum (2008), a bank regulatory body headquartered in Switzerland. The IASB responded by setting up an Expert Advisory Panel to investigate the issue. But before the Panel could conclude, the IASB was severely compromised by independent activities of the French Government. European leaders meeting in Paris resolved to demand changes to IAS 39, such that investments held for trading at fair value could be re-classified as held-to-maturity and valued at amortized cost, the switching procedure that had been prohibited by the IASB. A communiqué was issued on October 4 which said that 'We will ensure that European financial institutions are not disadvantaged vis-a-vis their international competitors in terms of accounting rules' (European G8 Members, 2008, p. 1). This referred to a technical difference between IAS 39 and FAS 115; in the latter, switching could be made among financial asset classification categories 'in rare circumstances', for example, trading assets could be switched to held-to-maturity assets, which would mean that fair value measurement would be switched to amortized cost (FAS 115, paragraph 15). Was this a real comparison of differences or a disingenuous excuse to try to have IFRS changed? IASB staff thought the latter: 'Based on discussions with US accounting firms, some US regulators and FASB staff, it is the staff's understanding that "rare", in practice, means never' (IASB, 2008c, paragraph 14). Laux and Leuz (2010, pp. 106–7) agree that very limited use, if any, had ever been made of this rare circumstances switching, largely because the SEC had suppressed it with its earlier enforcement releases. The rare circumstances difference in the US standard was really a non-issue or a distraction, a supposed ‘comparative disadvantage’; it was seized upon by European activists to help make their case. The Economic and Financial Affairs Council of the European Union meeting on October 7 (ECOFIN, 2008) then decided that the reclassification issue must be resolved quickly. According to Andre´ *et al*. (2009, p. 116) the driving force behind this was French President Sarkozy, who with other EU leaders’ consent pressured EU authorities to prepare a carve-out of IFRS rules that would benefit the banking industry. The IASB was taken completely by surprise. The threatened carve out would have meant that IFRS fair value requirements would not apply to EU members: a situation that endangered the entire global harmonization project. To circumvent this threat, the IASB convened an emergency meeting on October 13 to rush through the demanded changes to IAS 39 (IASB, 2008c). These changes were made within five days of the IASB being made aware of the political threat, whereas significant changes to accounting standards would normally follow a due process of months or years. The changes had come just three days after the FASB October 10 staff position alteration to FAS 157, described in the previous section.

The changes meant that financial assets measured at fair value could now be reclassified as held-to-maturity investments in ‘rare’ circumstances (IASB, 2009, paragraphs 50, 54), thus avoiding re-measurement at fair value. It was plain that ‘rare’ was not to mean ‘almost never’ but was in fact a green light to avoid write-downs of assets made toxic during the banking crisis. In the commentary to the standard it is clear that the ‘rare’ circumstances envisaged are consistent with events during the GFC and that these are designed to provide ‘short term relief for some entities’ (IASB, 2009a, paragraph BC 104E). As indicated in Chapter 2, later studies demonstrate that these reclassifications have resulted in significant accounting manipulations and opportunistic uses (e.g. Bischof, Brüggemann, & Daske, 2010.) In addition to the reclassification measures, guidance was given similar to that for FAS 157, to allow an easier pushdown to measurement inputs resembling the FASB's Level 3 distinction, which was specifically mentioned in the IASB's Expert Advisory Panel report (IASB, 2008a), issued on October 31. New IASB guidance made it clear that quoted prices should not be used in an inactive market, the existence of which, in thin trading, is a matter of 'judgement' (IASB, 2008b, paragraph 10). Chapter 2 also mentioned the empirical evidence that mark-to-model has been used to avoid losses as a result of this change (e.g. Glaser, Mohrmann, & Riepe, 2013). In its public relations statements on these October changes, the IASB argued that the greater flexibility introduced by the FVA alterations improves the quality of financial information (IASB, 2008); but clearly the changes were unwanted and politically inspired. The initial FASB changes in 2008 were different, and only allowed an ambiguous modification to the Levels 1, 2 and 3 fair value hierarchy. The consequence of all this, politically speaking, was that the 2008 changes to IFRS seemed to placate banking interests (there is no evidence of further banking industry calls for emergency changes to IFRS FVA in 2008), whereas the 2008 FASB changes were not enough, and led to further activities, including the 2009 congressional hearing.

6.3.3 The SEC's mark-to-market report and the congressional hearing

The SEC published its mandated report on mark-to-market accounting at the end of December 2008. The SEC's report concludes that mark-to-market was not a primary cause of the GFC (SEC, 2008, p. 97). Of the 22 US banks that had failed as at the end of December 2008, 20 reported no assets at all that were measured by fair value, such that any mark-to-market losses would be reported in the income statement. The causes of these bank failures were not mark-to-market losses, but credit losses on loans measured at cost. Only the two largest failed banks, Washington Mutual and IndyMac, reported losses on any such fair value items at all, but even these banks held low levels of financial assets marked-to-market, that is, 2% and 13% of financial assets respectively (2008, pp. 105–13). Even these were not the cause of failure because:

> Market concerns about these companies, as evidenced by their share price, appear to indicate that the marketplace factored in losses for these banks that had not been recognized in U.S. GAAP reported income (2008, p. 97).

It was therefore concluded that mark-to-market had little relevance as far as the proximate cause of bank failures was concerned.

The SEC's report only studied actual failures; it did not study write-downs of fair value assets by financial institutions that were still operating but suffering from the liquidity freeze. The SEC's staff reported that it was not easy to assess amounts of impairment relating to assets at fair value. This is because the accounting disclosure rules do not require, in a consistent way, disaggregated information about how FVA items are classified (p. 86). As discussed in Chapter 2, fair value impairments that were *not* made may be those more problematic for the economy: these result in hidden toxic assets. The SEC's report did not address this issue directly.

The report does provide some quantitative evidence about the amount of fair value impairments in a sample of 50 financial institutions (that were still trading), but because of the heavy aggregation of these results it is difficult to isolate the exact effect of mark-to-market losses. Only three of 50 institutions in the SEC's sample reported recurring fair value measurements that resulted in losses of more than 5% of equity (p. 89). In the sample, 45% of assets belonging to the institutions were reported as using some kind of fair value measurement (p. 46). Interpretation of these SEC findings is difficult. The low level of fair value impairments in the sample obviously conflicts with claims made by banking organizations. As indicated in Chapter 2, there is a literature that suggests that fair value impairments actually have been manipulated and avoided, the opposite of banking industry claims. The SEC's report does not investigate this manipulation and avoidance.

The SEC's report recommended against any suspension of mark-to-market or of FAS 157. The report did, however, make a number of other recommendations, most significantly that standard setters address the issue of clarifying what was an 'inactive' market, such that report preparers may have a clearer idea of when to use modelling inputs rather than quoted amounts (2008, p. 9). This recommendation does not seem to flow logically from the finding that mark-to-market had little relevance to the cause of the crisis. If mark-to-market was not the significant issue after all, then why does it need fixing? The SEC staff made no attempt within the report to explain the linkage, except to say that:

> ... in developing SFAS No. 157, the FASB set out to create an objectives-based standard that would allow for the use of judgment in determining fair value. The Staff found that issuers and auditors have faced challenges with the application of the standard in the current global economic crisis (SEC, 2008, p. 203).

Following the publication of the SEC's report, politicking continued intensively on the mark-to-market issue during the early part of 2009. These activities led to the US congressional hearing on mark-to-market accounting, introduced earlier in the chapter.

The congressional hearing, from the point of view of the FASB standard setters, is described as follows. FASB chairman Herz sought to remind the hearing that the SEC had found no fair value linkage with banking failures. Herz discovered that House members were consistently unable or unwilling to acknowledge this point in regards of banking anecdotes about their local communities. They evaded this point every time as if Herz had said nothing. Eventually Herz retorted:

> At the risk of sounding a little argumentative, but the SEC did a study and if you go past the very largest banks and look at smaller banks and community banks and all that, most of their assets, the great preponderance of their assets are not subject to fair value (Congressional Hearing, 2009, p. 54).

But two issues seemed to be confused together. One issue was banks that had actually failed. The other was the problematic use of FVA everywhere else. In response to a question about providing more guidance during illiquid markets, Herz said:

> That has been one of the kind of frustrating issues in this because I said a standard tells you not to look to distress sales or forced liquidations, it asks you to get a lot of data if many cases, in these kind of conditions what you ought to be doing is doing cash flow projections ... yet somehow the way it is being implemented is kind of on a last trade basis. **And that is not the intent**. The intent is to try to get a reasonable valuation. And so we are going to keep on putting more guidance out there. I do not know whether at some point we are just basically going to have to say for certain situations, do not use a market based fair value, just do cash flow projections (2009, p. 22) (emphasis added).

Not the intent? All the evidence about FAS 157 implementation seems to suggest that quoted-last-trade mark-to-market *had been* the general intent. Herz's statement, in a spontaneous moment during the hearing, indicates much about the confusion in which the FASB found itself. The illiquid markets problem, and 'write-down contagion', appears to be something unforeseen that had caused it great difficulty. A major problem with mark-to-market would be very upsetting to the Fair Value World View that had developed by the mid-2000s.

This lack of clarity appeared to irritate some of the committee members, who did not 'buy' the story and began to attack Herz vigorously, often abusively, apparently anxious to make sure that some of the blame for the financial crisis fell upon the standard setters. Congressman Sherman said to Herz:

> ... your present system is indefensible and ... your international process [IFRS convergence] is probably not going to yield any results any time, which is why if you guys cannot act quickly and logically, perhaps the regulatory accountants need to act and depart from what is a somewhat illogical and certainly slow process that you have (2009, p. 47).

There were numerous complaints that the FASB was acting too slowly (taking months rather than weeks) to issue the illiquid markets guidance. Some congressmen had apparently decided among themselves that the FASB was going to produce amended illiquid markets guidance within three weeks, irrespective of any time that might normally apply for alteration of accounting standards (generally months or years rather than weeks). This timeframe was forcibly suggested to Herz by Congressman Price:

> Mr. PRICE. I understand that, Mr. Herz, you said that within 3 weeks, you will be able to issue new guidelines, is that correct? I am over here.
>
> Mr. HERZ. That is what I am going to go back and talk to my board members about, remember I have one vote of five. But, clearly, I will take back your clear, very clear message from today, but I cannot myself do it. I have four other very conscientious board members.
>
> Mr. PRICE. Do we need to bring the other four in here? (2009, p. 33).

This interchange with Herz was preceded by a comment from the hearing chairman: ‘there are three pieces of legislation presently pending in the Congress in the House. I guarantee you one of those pieces of legislation is going to become law before early April’ (2009, p. 29). Herz was being threatened. The chairman was referring in particular to the *Federal Accounting Oversight Board Act* of 2009, which was introduced after lobbying by the banking and financial industry (Barlas, 2009), and intended to end the SEC’s statutory authority to set accounting standards. Since the SEC had delegated standard setting to the FASB, the Act, in effect, directly threatened the FASB’s existence. This threat remained a serious one throughout 2009. The proposed five-member new board would have reduced the SEC’s powers to merely one vote in five and would have brought in the Federal Reserve chairman and the Treasury secretary as standing members. This was seen by some as a blatantly political attempt to reduce the influence of those sympathetic to mark-to-market, in the supervision of accounting standard making (CFO Magazine, 2009). Even after the FASB surrendered to demands to modify FAS 157, as reported below, House members persisted with the bill until finally it was watered-down in November 2009 such that the proposed new board would be an advisory body only. The AICPA and other professional bodies lobbied Congress throughout 2009 to try and ensure that the original proposal was defeated (Accounting Today, 2009).

The hearing was then rapidly followed by accounting standard changes, which were demanded by Congress. Five days after the House hearing the FASB called for comments on a proposed new staff position on FAS 157, with a comment deadline of April 1. As described in Chapter 2, the proposal gave very broad and malleable guidelines to determine an ‘inactive’ market, in which mark-to-market could be abandoned and mark-to-model used instead (FASB, 2009a).

During the comment period, letters were sent to the FASB and analyzed as part of its exposure draft. The FASB’s own summary of the comment letters indicates a polarity identical with comment letters provided to the SEC for its report (FASB, 2009b; SEC, 2008). In general, banking and financial institutions, and preparers of financial statements, were hostile to mark-to-market accounting and applauded the proposed changes. Accounting bodies and advocacy groups generally supported mark-to-market accounting and were hostile to the FASB proposals. Despite this, the FASB issued the staff position with only minor changes (FASB, 2009).

An additional staff position for FAS 115 was posted on April 9, 2009 (FASB, 2009c). The changes to this standard dealt with impairment of debt securities held as assets. Before the changes, securities in the held-to-maturity and available-for-sale categories had to be assessed for impairment according to whether the losses were permanent or temporary. The staff position altered the requirement in favour of easier presumption of temporary impairment. Under the prior rules, report preparers could only avoid permanent impairment when they had ‘both the intent and the ability to hold a security for a period of time sufficient to allow for an anticipated recovery in its fair value to its amortized cost basis’ (paragraph 7). The new staff position changed the criterion to a ‘more likely than not’ estimation of whether the security would be sold before its expected recovery of value. In addition, impairment is now divided into ‘credit losses’ and losses due to other factors, which could include ‘adverse conditions’ affecting the industry or region (paragraph 25). Credit losses are now deducted from period earnings but the staff position has switched other losses into other comprehensive profit; these are isolated from the more visible period earnings number. Little guidance is given to distinguish credit losses from other losses, which, presumably, could be attributed by management to the GFC.

After these legislation changes, the FASB and the IASB had defected from the hard-line mark-to-market positioning they had created, though they remained in the FVA network. What was announced as an emergency measure during the GFC then became permanent. Since 2009, many banks and other corporations appear to have been using mark-to-model to measure their troubled assets, according to the accounting literature discussed in Chapter 2. The outstanding example is the Greek financial crisis.

6.3.4 Developments after 2009 and the Greek IFRS crisis

During 2009 and 2010, the standard setters sought to consolidate their positions by completing their convergence programs on fair value measurement guidance. As described in Chapter 2, this convergence was completed by early 2011. For the IASB, this resulted in a new standard, IFRS 13, *Fair Value Measurement* (IASB, 2011a), which contained the US-IFRS standardized measurement guidance (including the three-tier hierarchy), for fair value. In terms of recognition and classification, however, the

IFRS and US standards on financial instruments were still not the same. IAS 39 contained a reclassification device, tweaked in 2008, that was not effectively present in the US equivalent. In IFRS, financial assets could be reclassified from fair value back to amortized cost in 'rare' circumstances, which could then be, in reality, used at the convenience of banks that held toxic assets. Eventually, the IASB decided to overhaul the standard to streamline these classification options; the new standard is IFRS 9, *Financial Instruments* (IASB, 2009b). During the time this standard was being developed, a new financial crisis arose and reignited the financial assets debate for the IASB. This was the Greek sovereign debt crisis of 2010–12. Network actors' responses to this crisis played out in a way very different to the 2008–9 episode. On the surface, it might seem that IASB actors were trying to re-enrol into and re-establish the primacy of *observable inputs* mark-to-market. The reality of this apparent re-enrolment was rather more complex. A brief introduction to the Greek crisis is required.

In April 2010, Greek government debt was downgraded to junk status owing to a perception of likely default (Wall Street Journal, 2010). This was followed by two bailout schemes, in 2010 and 2011, sponsored by the IMF, and worth €240 billion in total (European Commission, 2013). These measures were undertaken because of the fear that a Eurozone domino effect would play out were Greece to default on its sovereign loans. These bailout schemes were required as part of the agreement to restructure the Greek economy, including privatization of government assets which, during 2011 and 2012, the Greek Government found difficult to manage, causing an exacerbation of the crisis and a further downgrading of Greek financial assets held by others.

The accounting controversy was centred not so much on activities within Greece, but on how other parties, using IFRS, would deal with the downgraded Greek debt that was held on their books as assets. Hans Hoogervorst was appointed chairman of the IASB in July 2011. He then became immediately embroiled in the Greek debt issue. Speaking at a conference a few days after his appointment, Hoogervorst appeared to have some sympathy for EU institutions that wanted to minimize their write-downs on Greek debt (Accountancy Age, 2011). Hoogervorst was said to be in favour of early adoption of IFRS 9, so that institutions with Greek debt exposure could use the standard several years before its official implementation date (then scheduled for 2013). The reasoning was that in the new standard amortized cost could be more easily used along with subjective management estimates of impairments, as distinct from observable market impairments (Reuters, 2011). The depiction of this story by a financial journalist gives an indication of the translation of fair value that was in progress at the time:

> IFRS 9 Financial Instruments is made up of three parts, of which impairment accounting is most relevant for sovereign debt. During the financial crisis, the current incurred loss model attracted much criticism, as it was felt only recognising losses after the event crippled banks' ability to make provision for bad assets, effectively meaning there was no early warning system in place.
>
> As a result, some called for a move to an expected loss model, a more forward-looking plan that takes into account current financial positions, as well as what can reasonably be expected to happen in the future.
>
> An IASB spokesman said since the crisis, there has been great pressure on the standard setters to resolve the issue, and Hoogervorst's call for adoption of IFRS 9 is one part of their response (Accountancy Age, 2011, p. 1).

Note that observable inputs mark-to-market impairment is now being described as a 'current incurred loss model' that is deficient because it does not foresee losses, whereas, what is ideally required, according to the commentator, is a future estimate of losses expressed as a current position; in other words, mark-to-model, which has been re-branded with the more scientific-sounding label.

When IFRS 9 was first issued in November 2009, the classification scheme for financial instruments looked to be simpler compared with IAS 39. There were only two classifications for financial assets (instead of the unwieldy four classifications under IAS 39); these would be measured at amortized cost if the objective was to collect cash-flow payments of principal and interest; otherwise they would be measured at fair value, with gains or losses taken to the profit and loss account. However, the new standard also contained a switching procedure between amortized cost and fair value. Entities would need to disclose their 'business model' for financial assets: this would determine if they were intending to collect a stream of payments (which calls for amortized cost). But the 'business model' could be different on a portfolio-by-portfolio basis. According to the November 2009 standard, IFRS 9 says that:

> The entity's business model does not depend on management's intentions for an individual instrument. Accordingly, this condition is not an instrument-by-instrument approach to classification and should be determined on a higher level of aggregation. However, a single entity may have more than one business model for managing its financial instruments. Therefore classification need not be determined at the reporting entity level. For example, an entity may hold a portfolio of investments that it manages in order to collect contractual cash flows and another portfolio of investments that it manages in order to trade to realize fair value changes (IASB 2009b, paragraph B4.2).

As to reclassification, the standard says that:

> Paragraph 4.9 requires an entity to reclassify financial assets if the objective of the entity's business model for managing those financial assets changes. Such changes are expected to be very infrequent. Such changes must be determined by the entity's senior management as a result of external or internal changes and must be significant to the entity's operations and demonstrable to external parties ... [and]
>
> The following are not changes in business model:
>
> (a) a change in intention related to particular financial assets (even in circumstances of significant changes in market conditions).
> (b) a temporary disappearance of a particular market for financial assets.
> (c) a transfer of financial assets between parts of the entity with different business (IASB 2009b, paragraphs B5.9 and B5.11)

Recall that early versions of IAS 39 did not allow reclassification of assets held for trading measured at fair value, but a reclassification option was introduced during the GFC in 2008. The 2008 change was regarded by many commentators as odious for allowing abuses of reclassification; prior IASB chairman Tweedie was reported to have nearly resigned rather than be forced into implementing it (Bloomberg, 2008). It is not certain how auditors and country regulators will eventually interpret the classification requirements of the new standard. IFRS 9 appears to give businesses a wide degree of choice in how different portfolios of their financial assets might be recorded. These choices might change for reasons 'external' or 'internal' to the business, while in the expectation of infrequent reclassification, 'infrequent' is not defined. Certainly, changes to market conditions are not supposed to be sufficient reason for a change to the business model; but unlike IAS 39, 'rare' external events are not the only trigger for change. Overall, a case could be made that the new standard is more malleable than IAS 39 on the subject of switching between valuation models. Hoogervorst's comments on the standard in July 2011 were reported as being in favour of minimizing impairment to lessen the impact of the Eurozone recession, even though many European authorities were sceptical of such an artificial approach (Accountant, 2011). Investor groups, still following the hard-line mark-to-market view, were critical of these developments. The CFA Institute thought the new standard too malleable (Accountancy Age, 2011).

A few weeks after the Zürich conference, Hoogervorst wrote to ESMA to express concern about the accounting practices of European business. The letter seems to contradict his assertions at the Zürich conference. Hoogervorst (2011, p. 2) complains to ESMA that:

> It appears that some companies are not following IAS 39 when determining whether the Greek government bonds that they classify as AFS are impaired. They are using the assessed impact on the present value of future cash flows arising from

> the proposed restructure of those bonds, rather than using the amount reflected by current market prices as required in IAS 39.
>
> In addition, some companies holding Greek government bonds classified as AFS have stated that they are relying on internal valuation methodologies, rather than on market prices, to measure the fair value of the assets as at 30 June 2011. The reason generally given for using models rather than market prices is that the market for Greek government bonds is currently inactive (and therefore, in their view, does not provide reliable pricing information).

Hoogervorst goes on to remind ESMA that a decline in trading does not amount to an inactive market and that the use of modelling for Greek debt is inappropriate. This all sounds like a sudden, unexpected return to mark-to-market puritanism. It is true that Hoogervorst's comments in Zürich were slightly different in subject matter. There, he was talking about different ways to classify financial instruments and their impairment under the new IFRS 9 standard. In the letter to ESMA, the subject matter is the fair value hierarchy, which would come under IFRS 13. But his intentions are evident. For the Zürich conference audience, Hoogervorst was advocating an easier way to minimize impairments by using a subjective amortized cost model. In the EMSA letter, he wanted impairments to be based on the economic reality of observable market prices. What could explain this inconsistency? Perhaps Hoogervorst had a different message for different audiences, or, perhaps attitudes toward FVA within the IASB were in a state of flux.

It is worth noting the circumstances of Hoogervorst's appointment. He is not an accountant, but holds degrees in modern history and international relations and has held several ministries in the Dutch Government (IASB, 2010). At this point in the network's development, it seems that the IASB (and the fair value actor-network) needed a chairman who was adept at dealing with the media, rather than one who was a technical expert.

Hoogervorst's ESMA comments were widely reported. According to the *Financial Times* (2011, p. 1):

> The Greek financial crisis has caused an outbreak of sheepishness within the accounting profession. The embarrassment stems from the way that some European banks and insurers reported losses of 21 per cent on Greek government bonds, while others slashed their value by 50 per cent or so.
>
> Given the fevered and paranoid state of investor sentiment, the inconsistency may well have exacerbated market jitters. "It makes all of us look a little foolish," the chief executive of one leading auditor told me this week.
>
> The uneven writedowns hit the headlines late last month when it emerged that Hans Hoogervorst, chairman of the International Accounting Standards Board, felt that some financial institutions should have reported bigger Greek sovereign debt losses in their first-half results.
>
> By doing so, he was siding with those that used distressed market prices in cutting the value of their "available for sale" Greek debt by roughly half, such as Royal Bank of Scotland, the state-controlled British lender.
>
> He was also setting himself against those that conjured up a milder 21 per cent writedown reflecting the terms of the second bail-out of the Greek state, agreed in July. These included France's BNP Paribas and Dexia, the Franco-Belgian bank.
>
> A non-accountant and former Dutch finance minister, Mr Hoogervorst has headed the IASB since July. His Greek intervention will have helped assuage any concerns that he might sacrifice accounting rigour on the altar of political expediency.

In July 2012, ESMA produced a report, *Review of Greek Government Bonds Accounting Practices in the IFRS Financial Statements*, in which 42 European banking institutions were studied (ESMA, 2012). Gross exposure to Greek government bonds in the institutions studied was around €80 billion, a significant amount for the European economy. Around half of this amount was held in European countries other than Greece. The report asserts materially significant accounting malpractices or questionable accounting. These practices involved inappropriate reclassifications of debt between fair value and amortized cost, inappropriate use of modelling, failure to undertake proper write-downs and insufficient disclosure of accounting techniques. In particular, the report cited use of the fair value hierarchy, in which only three of 19 report issuers used Level 1 observable inputs mark-to-market (ESMA, 2012, p. 17). A year earlier Hans Hoogervorst had written to ESMA pre-emptively to complain about this use of the hierarchy; perhaps he did so to distance the IASB and to blame report issuers or their country regulators instead. One commentator wrote that ‘I wonder if Hoogervorst had considered writing to the Big Four [accounting firms] instead of, or in addition to, ESMA’ (Accounting Onion, 2011, p.1). This comment implies that the IASB was prepared to criticize a regulator with limited power across borders, but not prepared to criticize the big accounting firms who signed off on the financial statements, and with whom the IASB has a close relationship. These firms are the subject of the next section.

6.4 The professional accounting community

During the crisis, standard setters and the large professional firms initially defended mark-to-market, though they never reached the level of vitriol expressed by the financial industry actors described in the section above. They did, however, for a time, write strongly worded messages to regulators and political forums. For example, on October 1, 2008, PwC informed US Congress of mark-to-market’s seemingly omnipotent cleansing features:

> When the late Supreme Court Justice Louis Brandeis wrote that “Sunlight is said to be the best of disinfectants,” he was referring to the need for more transparency in important national matters. Mark to market accounting achieves precisely that transparency (PwC, 2008, p. 1).

Fair value visionaries had staked their credibility on *observable inputs* mark-to-market and suddenly, during the GFC, this had been lost. One might have expected post-mortems, expressions of regret or disgust at the loss, disillusionment, and the like. In fact, the opposite occurred. For the professional bodies, after a brief period of outrage there was little or no publicly discernible soul searching. This is demonstrated by comparing the public comments that ensued, firstly in the immediate wake of the April 2009 US changes, and then just a few weeks later when the IASB called for comments on their own adoption of the same changes. Ernst & Young (2009, p. 1) said that the proposed FAS 157 changes ‘would appear to allow companies to recognize financial assets at amounts that could not be realized in current market conditions, a result that we find inconsistent with the fundamental objective of fair value accounting’. The changes were for Deloitte (2009, p. 1) ‘inconsistent with the underlying principle of fair value’, and according to PwC would ‘depart from the notion of exit price that is fundamental to fair value’ (PwC, 2009, p. 1). For KPMG (2009, p. 1), the changes would create a measurement device ‘other than fair value’. Just a few months later, all of these accounting firms had completely changed their position. By then, the IASB had decided to incorporate the April 2009 FASB fair value guidance into its own new financial instruments exposure draft, virtually unchanged. When commenting on the exposure draft, PwC, for example, had lost all interest in criticizing the inactive markets guidance. Even though it contained the same FASB alterations that PwC had previously argued against, they said of the IASB proposal:

> We believe that the guidance on markets that are no longer active is required to answer the call for more guidance in this regard from both users and preparers. Moreover, it advances the ancillary goal of furthering consistency between practice under US GAAP and IFRS. Overall, we believe that the guidance is sufficient and appropriate (PwC, 2009a, p. 11).

The other large accounting firms responded similarly with bland acceptance of the new mark-to-model regime (Deloitte, 2009a; Ernst & Young, 2009a; KPMG, 2009a). These letters were issued by the UK offices of the Big Four, but a year later the US branches also commented again to the FASB on the issue of fair value guidance and IFRS convergence. These comment letters also make no further general criticisms of the exit price/mark-to-model issue (e.g. Deloitte, 2010). Did the accounting firms suddenly realize that they had been wrong all along about the virtue of hard-line mark-to-market? Or was the change of heart simply an acceptance of political reality and their need to stay in the FVA network? After all, accounting professionals perform consultancy services and receive large fees for performing complex estimations (e.g. Birkett & Evans, 2005; Christensen & Skærbæk, 2010).

Since 2010, the large accounting firms seem to have fallen into line with the new translation. These firms periodically produce advisory material for their clients, versions of which are made public; these include ‘updates’, ‘fact sheets’, ‘how to’ summaries and opinions on recent developments. These products appear to be part of the purification of the technology. By providing technical guides that have a scientific appearance, the technology is legitimized. For example, in June 2011, KPMG issued a technical guide to the new IFRS 13 on fair value measurement (KPMG, 2011). The guide is very elaborate and highly professional in appearance, with around 50 pages of densely packed interpretive material, diagrams, charts and examples, and contains an intensive discussion of the three-tier fair value hierarchy. There is, however, no criticism in the guide of any mark-to-model problems. While a technical guide might not be the right place to discuss political issues, all the same, the guide is a bland, uncritical acceptance of the mixed mark-to-market/mark-to-model regime. Other large firms have produced similar guides (Deloitte, 2013; Ernst & Young 2012; PwC, 2013).

On the other hand, the large accounting firms are amorphous bodies and it might not be expected that all departments within all the firms would have an uncritical interest in fair value. Indeed, KPMG, a year after IFRS 13, issued a report about companies whose market value was less than their book value (KPMG, 2013). The report asserts widespread misuse of IFRS impairment techniques that use modelling. According to

KPMG, failure to provide proper impairments is widespread: in 2008, 30% of European companies on the ST0XX 600 had market value below book value compared with 20% of US companies in the S&P 500 (p. 52). The authors conclude that this is because IFRS-modelled impairment is easier to manipulate. The amounts involved are significant. In 2010, US companies were €193 billion below book value and the European companies were €492 billion below book value. The authors stop short of attributing improper accounting to any particular actors (the corporations, their auditors or the standards themselves). Likewise, regarding the Greek crisis, it is possible to find mention by the big accounting firms of fair value problems. Deloitte, for example, suggest that the crisis may increase the demand to reclassify financial instruments due to 'rare circumstances' (Deloitte, 2012, p. 4).

Overall, it is difficult to assess the professional accounting bodies' attitude to, or case for or against, the mark-to-model standards regime itself. Certainly, though, recent commentaries critical of mark-to-model, whether from the professional bodies or elsewhere, do not seem to have resulted in changes to the FASB/IASB standard setters' acceptance of malleable mark-to-model.

6.5 The commentariat

The defection of standard setters, regulators and the accounting profession from the mark-to-market viewpoint was greeted with dismay by many financial commentators. Starting around April 2009, for a brief time, a disparate and large assemblage of individual protestors wrote in newspapers and elsewhere on the Internet. These included individual columnists, financial journalists, economists, accountants, investment consultants, political scientists or activists even including Marxists and the like (some examples, in the above order, are Norris, 2009; Financial Times, 2009; Economist, 2009; Accounting Today, 2009a; SPG Trend Advisors, 2009; World Socialist, 2009). The editorial of the *CPA Journal* headlined the whole episode as ‘Mark to Madness: The Politicizing of Accounting Standards’ (Kranacker, 2009, p. 80). These strange bedfellows seemed to have found a common cause and seemed to have enrolled themselves, for a time, in the pro-mark-to-market point of view. The bloggers were propelled by a common belief that mark-to-market accounting changes would help to create ‘false’ and dangerous recovery on equities markets.

Daily Markets, despite being a populist blog site specializing in financial ‘street talk’, was not angrier or more cynical than the normally sedate *Financial Times*, when it said that:

> The President, Congress, Fed, and Treasury sure talk about bringing transparency, but actions speak louder than words … Like everything else the government mettles in, the imbalances they create are really opportunities to make money … by banning marked to market you can fully expect the banks to start churning out a couple of profitable quarters. The pundits will proclaim the recovery is on, which is really the ultimate goal of the government. Markets will rally and [President] Obama will say I told you so … This false rally will be a great time to get short the financials. It’s a second chance for everyone who missed the massive downside move the first time (Daily Markets, 2009, p. 1).

Here it is suggested that a conspiracy of authorities wanted to ‘ban’ mark-to-market to allow the banks to profit from short selling during the anticipated false recovery! This conspiracy theory reached its zenith with an enormously publicized article in *Rolling Stone* magazine which claimed that investment banking firm Goldman Sachs had not only engineered this short-selling spree but had organized, in its own interest, every speculative bubble since the Great Depression (Taibbi, 2009).

Financial journalists supported the fudging allegations with micro-analyses of individual companies, for example that Citibank reported US$ 2.5 billion of ‘mysterious’ earnings related to mark-to-market changes (Capital Chronicle, 2009, p. 1).

These articles convey a general suspicion that many corporations had simply marked up their previously written-down financial assets, using the questionable 'assumption' that their mark-to-model cash flow estimates might one day be actually recoverable. Even those industry commentators who were opposed to mark-to-market agreed that the changes to illiquid markets guidance were really behind the 2009 equities rally, at least initially. Industrialist and commentator John Berlau, for example, said the changes would 'allow price discovery to occur' and that:

> The events leading to the Dow's climbing over 8000 today can be properly called the Mark to market Relief Rally. More than any expected action of the bureaucrats and politicians at the G20, the decision today of the Financial Accounting Standards Board (FASB) to relax strict application of mark to market accounting mandates, urged on by members of Congress of both parties, is what's giving investors something to cheer for (Berlau, 2009, p. 1).

In summary, there is a financial industry belief that the 2009 market recovery was (falsely) supported by or even largely dependent upon accounting rule changes.

The commentariat had no direct access to control fair value inscriptions; therefore, its influence must have been limited, except that the support for 'proper' mark-to-market fair value helps to legitimate fair value in general (especially in the eyes of those who do not understand the nuanced difference between mark-to-market and mark-to-model). This legitimation is part of the fair value network's 'purification' as a whole edifice (this theme is examined in Chapter 7). As with the popular commentary responses to Enron in 2002–3, many of the themes espoused by the commentariat in 2009 would find their way into academic writing. Unlike the take-up of Enron themes, which happened with a delay, in 2009 the sentiments of the commentariat and much of the academic community were more or less coterminous.

6.6 The academic community

By and large, the last actor left standing in the pro-mark-to-market group is the academic community, though this community does have a few additional supporters, such as the CFA Institute, in the investment advising industry. Fair value had indeed begun as an ideal scheme promoted by academics. After 30 years, academics are back to square one, promoting the ideal scheme again, but behind them now lies a trail of disappointment. Perhaps pro-mark-to-market academics can appreciate this irony.

Seven years after the GFC began, academic authors are still protesting the negative publicity given to mark-to-market accounting. Articles were produced, and are still being produced, to confirm that mark-to-market accounting did not trigger the GFC (Amel-Zadeh & Meeks, 2013; Badertscher, Burks, & Easton, 2012; Laux & Leuz, 2009; 2010). On the other hand, contrary points of view do assert a role for mark-to-market in causing a pro-cyclical contagion of asset write-downs during the crisis (Allen & Carletti, 2008; Bignon, Biondi, & Ragot, 2009; Dontoh *et al.*, 2012; Hellwig, 2009; Plantin, Sapra, & Shin, 2008). So, the empirical evidence is not clear. The second strand of research, 'mark-to-model continues to be misused', has been explored at length in the thesis. This strand has fallen on deaf regulatory ears. Recently, the mark-to-market hardliners seem to have had little effect on persuading standard setters to return to mark-to-market supremacy.

Would accounting ideologues be better off abandoning fair value altogether, rather than put up with a mark-to-model version of fair value? Or indeed, if the mark-to-market version causes contagion crises during times of stress, are any of the versions of FVA then actually serviceable? In 2006, prominent academic Ross Watts made a dire prediction that standard setters' preoccupation with fair value was so dangerous it might result in the whole US standard-setting enterprise being shut down by the Government (Watts, 2006). In 2009, this prediction almost came true. US Congress threatened to shut down the FASB unless fair value was at least watered-down. Having survived that, there still seems to be no inclination for standard setters to give up on the fair value experiment; and much the same is true of large parts of the academic community.

Table 6.2. Coding for content analysis of letters sent to SEC											
	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
1. Preparers: Preparers, preparer-related professional organizations and advisors to preparers											
BridgePointe Advisors	Nov 13, 2008		1				1			1	3
Cannon Company	Nov 13, 2008		1				1			1	3
Highland Capital Management, LP	Oct 23, 2008		1		1			1			3
Houlihan Lokey	Nov 11, 2008		1				1	1			3
Integrated Planning Strategies, LLC	Oct 30, 2008		1		1					1	3
Massachusetts Mutual Life Insurance Company	Nov 13, 2008			1			1			1	3
MBIA, Inc.	Nov 13, 2008		1			1		1			3
Nationwide Insurance Group	Nov 13, 2008		1				1	1			3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
Providence Health & Services	Nov 10, 2008		1		1					1	3
Sleeping Bear Partners	Oct 1, 2008	1				1				1	3
Xylos Corporation	Dec 5, 2008			1			1	1			3
BankLogic.Net, CPAs & Consultants	Nov 3, 2008		1				1		1		3
Markit Group Limited	Nov 12, 2008	1				1		1			3
New World Actuaries	Nov 13, 2008		1				1			1	3
Partnership Consultants, Inc.	Oct 23, 2008		1		1					1	3
Towers Perrin	Nov 13, 2008		1			1		1			3
Pink OTC Markets Inc.	Dec 10, 2008	1				1		1			3
Totals		3	12	2	4	5	8	8	1	8	51

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
2. Professional associations and advocacy groups											
American Council of Life Insurers	Nov 13, 2008		1				1			1	3
American Institute of Certified Public Accountants	Nov 11, 2008			1			1			1	3
Appraisal Institute and American Society of Farm Managers and Rural Appraisers	Nov 7, 2008			1			1	1			3
CAQ	Nov 13, 2008	1				1		1			3
CAQ, CFA Institute, Consumer Federation of America, and Council of Institutional Investors	Oct 15, 2008	1				1		1			3
CAQ, CFA Institute, Consumer Federation of America, Council of Institutional Investors, and Investment Management Association	Nov 14, 2008			1			1	1			3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
Center for Capital Markets Competitiveness	Oct 14, 2008			1			1			1	3
Commercial Mortgage Securities Association	Oct 22, 2008			1			1			1	3
InFRE Retirement Resource Center	Nov 10, 2008			1			1			1	3
Institute of Chartered Accountants in England and Wales	Nov 13, 2008			1			1	1			3
International Corporate Governance Network	Nov 13, 2008	1				1		1			3
Investment Adviser Association	Nov 13, 2008			1		1				1	3
Investment Company Institute	Nov 14, 2008			1			1	1			3
National Association of State Boards of Accountancy	Oct 27, 2008			1			1	1			3
PricewaterhouseCoopers LLP	Oct 1, 2008	1				1		1			3
Financial Accounting Foundation	Oct 27, 2008			1		1				1	3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
International Valuation Standards Committee	Nov 13, 2008			1			1	1			3
U.S. Chamber of Commerce, Financial Services Roundtable, Property Casualty Insurers Association of America, American Council of Life Insurers, Mortgage Bankers Association, and American Insurance Association	Oct 23, 2008			1			1			1	3
Totals		4	1	13	0	6	12	10	0	8	54

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
3. Banking and finance organizations											
American Bankers Association	Nov 13, 2008		1				1			1	3
Association of Corporate Credit Unions	Oct 28, 2008		1				1			1	3
BAI CFO Roundtable	Dec 3, 2008			1		1		1			3
BNP Paribas	Nov 13, 2008		1				1	1			3
Citigroup	Nov 12, 2008		1				1	1			3
Community Bankers Association of Illinois	Oct 8, 2008			1	1					1	3
Corporate One Federal Credit Union	Oct 28, 2008		1				1	1			3
Credit Suisse Group	Nov 13, 2008			1			1	1			3
Credit Union National Association	Nov 13, 2008		1				1			1	3
Eagle National Bank	Oct 1, 2008			1			1			1	3
Federal Home Loan Bank of Atlanta	Nov 26, 2008		1				1	1			3
Federal Home Loan Bank of Chicago	Nov 12, 2008		1				1			1	3
Financial Services Roundtable	Nov 13, 2008		1				1	1			3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
First Federal of Bucks County	Nov 10, 2008		1		1			1			3
Independent Bankers Association of Texas	Oct 8, 2008		1		1					1	3
Independent Bankers of Colorado	Oct 16, 2008		1		1					1	3
Independent Community Bankers of America	Nov 13, 2008		1				1			1	3
Members United Corporate Federal Credit Union	Oct 17, 2008		1				1			1	3
Missouri Independent Bankers Association	Oct 8, 2008		1		1					1	3
Mortgage Bankers Association	Nov 13, 2008		1				1	1			3
Pennsylvania Association of Community Bankers	Oct 16, 2008		1		1					1	3
Southwest Corporate Federal Credit Union	Oct 24, 2008		1				1			1	3
Square 1 Bank	Oct 8, 2008			1			1			1	3
SunCorp Corporate Credit Union	Oct 27, 2008										
SunCorp Corporate Credit Union	Nov 12, 2008		1				1			1	3
U.S. Central	Nov 13, 2008		1				1			1	3
Western Corporate Federal Credit Union	Oct 24, 2008		1				1			1	3
Totals		0	21	5	6	1	19	9	0	17	78

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
4. Investor and other users: Individual investors and other users, investor groups, investor protection agencies and attorneys representing users											
CFA Institute	Nov 11, 2008	1				1		1			3
Council of Institutional Investors	Oct 29, 2008	1				1		1			3
Investors Technical Advisory Committee	Nov 13, 2008	1				1		1			3
American Investor	Oct 9, 2008			1			1			1	3
Anderson, Arthur T.	Nov 4, 2008			1	1					1	3
Anderson, David V.	Oct 20, 2008			1			1			1	3
Anonymous Citizen	Nov 12, 2008		1			1		1			3
Anonymous Citizen	Dec 10, 2008		1		1					1	3
Armstrong, Ronald	Sep 30, 2008			1	1					1	3
Baldwin, Timothy L.	Oct 8, 2008			1			1			1	3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
Benson, Robert	Nov 12, 2008	1				1		1			3
Bjork, Ruth A	Nov 11, 2008			1			1			1	3
Black, John G.	Oct 28, 2008			1			1			1	3
Boone, Irene	Oct 20, 2008			1			1			1	3
Bucalo, MaryAnn	Nov 7, 2008	1				1		1			3
Carl	Oct 22, 2008		1				1	1			3
Cox, David	Oct 28, 2008		1		1					1	3
Cross, Jeffery	Oct 6, 2008		1		1				1		3
Davis, Kurt E.	Sep 29, 2008		1		1					1	3
Edgtton, Jason	Oct 28, 2008	1				1		1			3
Etheridge, Chris	Oct 22, 2008		1		1					1	3
Evans, Onex P.	Oct 28, 2008			1			1		1		3
Evans, Scott	Oct 29, 2008		1			1		1			3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
Fastiggi, Jason	Oct 29, 2008			1			1			1	3
Fischer, Urs P.	Nov 6, 2008			1			1			1	3
Foster, Marc	Oct 25, 2008		1		1					1	3
Gichini, Brittany	Nov 12, 2008	1				1		1			3
Grossman, Steve	Aug 7, 2008		1		1					1	3
Gueye, Khadid	Nov 12, 2008	1				1		1			3
Hale, Jon	Oct 20, 2008	1					1	1			3
Haley, Jay	Dec 1, 2008		1		1					1	3
Hamilton, Alexandra	Dec 2, 2008	1				1		1			3
Hamilton, Stephen W.	Nov 7, 2008		1		1			1			3
Harmon, David	Sep 29, 2008			1	1					1	3
Haslem, Mark	Oct 11, 2008		1		1					1	3
Hazen, Steven	Nov 12, 2008			1			1			1	3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
Hodge, David	Oct 9, 2008		1		1			1			3
Isaac, William M.	Oct 29, 2008		1		1				1		3
Jeremiah, Roger W.	Oct 30, 2008		1				1		1		3
Keating, Patrick	Sep 30, 2008		1				1	1			3
Kent, David W.	Oct 11, 2008		1				1			1	3
King, William	Oct 13, 2008		1				1	1			3
Knorr, Thomas L.	Oct 9, 2008		1		1					1	3
Lane, Chris	Oct 9, 2008		1		1			1			3
Lane, Fred	Nov 9, 2008			1	1					1	3
Leavitt, Barbara	Oct 20, 2008			1	1					1	3
LeGuyader, Louis	Sep 28, 2008		1			1		1			3
Levin, Douglas K.	Nov 17, 2008		1				1		1		3
Lofgreen, Shad	Nov 21, 2008		1		1				1		3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
McAllister, Teresa	Nov 10, 2008			1	1					1	3
McAllister, Willis C.	Oct 9, 2008			1			1			1	3
Micheletti, Art	Oct 15, 2008		1				1			1	3
Miller, Jeffrey A.	Oct 28, 2008		1		1			1			3
Montroy, Vernon	Oct 24, 2008		1		1					1	3
Morfesis, Alex G.	Oct 28, 2008		1				1	1			3
Murray, Lewis	Oct 14, 2008		1		1					1	3
Nguyen, Dan J.	Nov 23, 2008		1				1			1	3
Olson, Sue	Oct 10, 2008		1		1					1	3
O'Malley, Niall H.	Dec 12, 2008		1				1	1			3
Petersen, John L.	Oct 17, 2008		1				1	1			3
Piper, Jason B.	Oct 9, 2008		1		1			1			3
Poweski, Mark	Sep 30, 2008		1		1					1	3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
Quigley, Peter	Nov 19, 2008		1		1					1	3
Ramin, Kurt Paul	Nov 12, 2008			1			1	1			3
Raz, Sharon, Gutierrez, Isabel, Huesler, Lukas, and Dias, Roy	Nov 13, 2008		1				1	1			3
Rembert, Donald M.	Nov 25, 2008		1				1			1	3
Risgaard, David	Dec 8, 2008		1				1			1	3
Rogers, Vincent	Dec 4, 2008		1				1	1			3
Schneider, Mark	Dec 8, 2008	1				1		1			3
Schryer, Tom	Oct 31, 2008		1				1			1	3
Sconyers, Richard	Dec 2, 2008		1		1					1	3
Sigmon, Michael	Oct 22, 2008		1		1					1	3
Smith, Gregory H.	Nov 1, 2008		1				1		1		3
Smith, Stephen T.	Nov 11, 2008			1			1			1	3
Spicer, Dave	Nov 4, 2008		1		1					1	3

	Date	Mark-to-market appropriate in illiquid markets YES	Mark-to-market appropriate in illiquid markets NO	not stated	Suspend mark-to-market YES	Suspend mark-to-market NO	not stated	Support FVA in principle YES	Support FVA in principle NO	not stated	totals
Steinbacher, Gunther	Oct 20, 2008	1				1		1			3
Steinmetz, Charles T.	Nov 5, 2008		1				1			1	3
Steward, Dan	Oct 24, 2008			1			1		1		3
Straka, Patrick J.	Dec 3, 2008		1				1			1	3
Tarasuk, Brian H.	Oct 30, 2008		1				1			1	3
Tchingambu, Delphine	Nov 12, 2008			1		1				1	3
Urban, Walter	Nov 13, 2008		1				1			1	3
Varley, Philip	Oct 30, 2008		1				1			1	3
Vetter, James	Oct 21, 2008		1				1			1	3
von Kleist, Karsten	Oct 16, 2008			1			1		1		3
Walker, Ray	Sep 30, 2008		1		1					1	3
Younger, Nancy	Oct 2, 2008	1				1		1			3
Totals		13	52	22	32	16	39	30	9	48	261

Chapter 7: Assessment of Actor-Networks

Contents

7.1 Introduction

How do financial accounting theories and practices come into being? The thesis has explored these general questions using one particular phenomenon, FVA. Chapters 5 and 6 considered the empirical evidence of the proliferation of the fair value network. This chapter provides a more elaborate reassessment of FVA using ANT. The FVA edifice that exists in the contemporary world amounts to an abstract system of knowledge, one that has had many authors over the years. To what extent should we put our trust in it? ANT can help us to understand how this system came about and to gain some insights into its weaknesses.

The material in Chapters 5 and 6 can now be reviewed comprehensively as an actor-network that has specific phases of 'translation'. These phases are labelling devices although the translations are not completely sequential. Each segues into another and there is an overlap as two or more parties struggle for control. These relations were depicted diagrammatically in Figure 1.1. Chapter 5 briefly discussed the pre-history of fair value at the beginning of the 20th century: FVA began significantly as a device of manipulation, was branded such in the 1930s, and in the countries studied here was seldom used for 50 to 60 years. Perhaps, then, it would be useful to treat FVA at the outset as an actor in its own right, one that lay dormant, waiting for a new host to proliferate its own network. Surprisingly, the new host that re-appeared was the academic world. This was labelled **Translation 1** since the purpose of FVA envisaged by these academics was clearly different to the practical use (or misuse) made by financial institutions in the 1920s.

In **Translation 2** the limited, focused application of FVA as a mechanism to improve reporting in the financial industry was allowed to deviate from its scientific ideal of being an all-encompassing financial measurement system; this was a detour (Latour, 1987, p. 111). Accounting ideologues shifted into the new mode with apparent ease. FVA was, for the time being, a tool to control the financial economy; not an ideal scheme, but its further potential remained.

In **Translation 3** the detour went wrong almost immediately. During the 1980s and 1990s, a new economic culture arose, particularly in Anglo-American economies, characterized by short-termism, executive bonuses and the outsourcing of manufacturing offshore. Opportunistically, certain actors in the financial industry enrolled themselves in the network and translated its purpose. Industry, particularly the financial economy, seized upon FVA to assist in maximizing profits booked on financial assets. Standard setters' responses around this time had been to increase the complexity of the accounting rules to try to prevent this misuse, a strategy that failed generally. Accounting standard setters, realizing the abusive potentials of mark-to-model accounting and (without openly admitting liability for Translation 3) took steps to translate the network back towards a less manipulative incarnation.

Translation 4, as a response to Enron's misuse of mark-to-model, saw a briefly effected translation by the FASB/IASB into a hard-line version of mark-to-market FVA. This translation was soon terminated by politically inspired activities during the GFC.

Chapter 6 was mostly occupied with **Translation 5**, the most complex stage. It is here that the fair value network can finally be seen as an actor in its own right, one which pursues the common interests of its many constituents: the financial industry, the standard setters and regulators, the accounting profession, and others.

These phases of translation will now be analyzed in more detail and compared with the wider empirical results of ANT in the accounting literature.

7.2 Translation 1: FVA as an ideal scheme of the academy

To what extent is the academic community an author of FVA technology? The influence of academics can be found across the whole period, but it is strongest in Translation 1. In that translation, however, fair value was not operational as a technology in practice. Mainly, Translation 1 was an ideal scheme for the future. In the ideal world, as distinct from the practical world, academics could transform the technology's theory as they wished. This meant that dozens of authors could claim ownership of their own version of the inscription. Is this a successful translation? There seems to have been little trial of strength, and the effect on academic actors' identities is perhaps ambiguous; although the complex technology itself does seem to have encouraged the 'scientific' outlook that came to characterise accounting academia through the 1970s, 1980s and onwards to the present day. There seems to be no obligatory passage point, save for the diffuse operations of editorial gatekeepers. But perhaps this is the essential weakness of an academic network. Jones and Dugdale (2002, p. 156) find in a similar way that academics were important in the initial establishment of ABC, but its transformation and proliferation thereafter was mainly guided by 'consultants'. They write:

> … the formal procedures of the academy, in subjecting claims to knowledge to collective scrutiny, had little salience in the spread of ABC. In particular, ABC was not authenticated through the peer refereeing processes of mainstream accounting journals until after its widespread dissemination and specific implementations. Nor were professional associations a major driving force.

It may be accurate to say that the FVA activities of academics during the period 1960–1990 amounted to a failed fair value translation, although it took a long time to fail. The technology was never implemented in the envisioned way. In fact, this translation failed twice. In the 1970s and 1980s, an earlier translation of fair value, 'accounting for inflation', was put forward by various academic authorities as a cure for measuring rapidly changing asset prices. This was itself a translation of the original systems proposed by authors such as Edwards and Bell (1961); these were developed in a low inflation environment in the 1950s and 1960s. In the 1970s and early 1980s, various inflation accounting schemes were trialled in practice. For example, in several countries, as depicted in Chapter 2, one of the versions, 'Current Cost Accounting', was trialled on a temporary basis alongside traditional accounting reports. This version may have been actually closer to the original Edwards and Bell fair value vision because it subjected the whole of balance sheets to re-measurement. The scheme failed, it can be recalled from Chapter 2, as a result of resistance from business over accounting costs and doubts over its efficacy (Baskerville, 1996).

Both academics and regulatory personnel were enticed by the sense of prestige offered by FVA. Fair value was complex, it required 'scientific' calculations and financial mathematics, and it was dynamic, offering up-to-date changes. Historical cost accounting, by contrast, was seen as little more than a static art that could be deprecated as 'bean counting'. Just as the civil servants in Christensen and Skærbæk's study (2010) were inveigled by the sense of prestige offered by accrual accounting, so were a raft of actors inveigled by the prestige offered by FVA. FVA was put forward to solve problems caused by misuse of historical cost accounting; but this might be seen as part of the enticement. Yet, as long as it remained sequestered in the academic world, FVA had no real power. It was not until the standard setters adopted some of the FVA principles into their financial asset standards that the network really came alive.

While Translation 1 was a failed translation, the academic community would continue to have at least some influence over the subsequent translations, partly in the form of 'negative criticism' over changes. Perhaps, however, the most effective of these influences was to enjoin the standard setters in an ideological 'Fair Value World View' which was at least part of the impetus for Translation 4, discussed below. Translation 1 may also be seen as part of the network's 'purification' of FVA. By applying scientific-looking principles and terminology to the subject matter, fair value was made more respectable. This helped the network to set the ground for future translations.

7.3 Translation 2: FVA as a piecemeal remedy for certain historical cost problems

Translation involves re-aligning the interests of one group so that they serve the interests of the translator. As Callon (1986) states, the translation is successful when the translated group is somehow persuaded that their own interests are served by a mutation of their original beliefs. This seems to have been the outcome of Translation 2, which, as described in Chapter 5, was achieved with little apparent objection from the academic community. Probably, academics saw even the partial introduction as progress toward a more favoured technology. As Benston noted (2006), the academic community did not pay much attention to mark-to-model problems until the mid-2000s, by which time the problems had been long since manifest.

Standard setters, the FASB and IASB, were in charge of the officially mandated inscriptions and became, along with inscriptions such as FAS 115 and IAS 39, obligatory points of passage (Latour, 1993). Standard setters (and the SEC, in the case of the US) became therefore, and more or less instantly, the dominant actors at this point, taking charge of the FVA inscriptions away from progenitors in the academic community, translating them instantly from an ideal scheme of science into a micro-management tool. The academic world's view on this loss of control was not really evident at this time. In a later phase of the translation, reported in Chapter 6, it was revealed that accounting academics had become seriously divided on the issue of fair value.

It is open to question, however, how long the standard setters really remained in charge of the technology. Enron's activities, for example, were nearly co-terminal with the introduction of the new fair value technology in the early 1990s, as will be described in the next section. In reality, neither the FASB nor the US financial industry were able to control fair value completely from this point onwards; so it might be said that the network itself was already in control, and its main goal was to proliferate itself.

7.4 Translation 3: FVA as a conduit for short-term profit measurement

In 1992, with the ink barely dry on the FASB's new fair value pronouncements, Jeff Skilling (CEO at the time) announced that fair value would be an essential part of his raison d'être at Enron. He would reform the profitability of Enron's business model by using FVA and no other means of accounting. Skilling even negotiated directly with the SEC to approve his version of accounting for energy contracts (McLean & Elkind, 2003, p. 41). An inscription cannot be said to be under the control of its apparent author if it is being systematically used in a different way by somebody else. Control of the inscriptions was, in practice, wrested away from the FASB almost immediately. In the end, Enron was not only the pioneer of this technology-in-use, but would be its first great scandal. During the 10 years in between, the black box was so firmly closed that regulators, standard setters, securities analysts and financial commentators did not notice the enormous financial accounting abuse being performed within. This must surely, therefore, have been an effective translation of an accounting technology; at least it was effective up until the point where it started to destroy its hosts. The effectiveness of an inscription, therefore, is also limited by its owner's ability to observe its non-compliance. If the owners are unable to make such an observation, then the inscription might as well belong to those who are misusing it. It may be said that the authorship of this inscription is multiple. None of the authors seem fully aware of the intentions of the others. The network itself is already starting to take charge. Only the network itself, an abstract nonhuman entity, seems fully in command of its own raison d'être.

In actor-network studies, it is common that a translator would have to work much harder to wrest control away from other actors. In Jones and Dugdale (2002) consultants had to work hard to convince the new hosts about ABC. In Christensen & Skærbæk (2010) accounting firms went to considerable lengths to persuade government officials about the relevance of accrual accounting. In Translation 3 of the fair value network, Enron and Enron-like companies needed only to apply their own accounting with an obscure complexity. Enron pioneered the use of obscurantist accounting before the same kind of products it was reporting upon were transformed (translated) into tradable financial market products. Some of these were finally legitimized and, in the US, gained the ability to be sold on the open market after the year 2000 under the *Commodity Futures Modernization Act*. At that time, the actor-network then came more under the influence of the investment banks, as described in Translation 5 below.

The FASB leaders were trusted by the political firmament. After the Enron collapse, these leaders presented their case to congressional committees. The FASB leaders made no mention that FVA was implicated in the Enron and other accounting malfeasances. The standard setters either knew to some extent, or soon realized, that there was a serious problem with mark-to-model accounting. Because the technical accounting issues were complex, the political arena was unable to come to any independent conclusion about fair value malfeasance. The black box could not be opened. By conflating mark-to-market with mark-to-model, these standard setters were able to disguise the problem effectively. The problem was turned on its head. If anything much was said about Enron and fair value at the time it was that, supposedly, Enron had not used *enough* mark-to-market accounting. What the FASB obviously meant, but did not exactly say, was that too much mark-to-model and not enough fair value based on observable inputs had been used. The FASB got away with this conflation; fair value stayed under the radar in 2002, but quietly, efforts were made to re-exert control over the inscriptions by introducing a new fair value hierarchy.

7.5 Translation 4: FVA as a rigorous application of mark-to-market accounting

After the Enron post-mortem, the FASB and IASB found themselves needing to take action on mark-to-model, but they did so discreetly. If the observer looks hard enough, a connection can be made between Enron and FVA, but the standard setters never publicized this fact widely. At the Enron enquiries, they denied any such problem or connection. In the end, this would be their downfall. When the fair value issue escalated again in the GFC, the standard setters made arguments about the deficiencies of mark-to-model. They were unable to make their arguments understood, partly because they had either publicly denied any previous problem with mark-to-model, or at least kept it low-key. Hence, the ground for such an understanding had not been well prepared.

With the emergence of FAS 157, the FASB had arrived at a new translation of fair value, which might also represent the height of their ideal view of the technology, perhaps even its puritan core. This was so at least in its application, if not in its coverage, which still only applied to certain assets, mainly financial. But the insistence of *observable market inputs* indicates an ideological belief in the purity of markets and market measurements, so it represents an attempt to steer the accounting world away from the problems of mark-to-model. This obsession is consistent with the Fair Value World View propounded by Whittington (2008), in which standard setters and their allies have come under a doctrinaire belief in the nearly miraculous powers of FVA.

Whether this puritan translation of fair value ever really remained stable at all is open to conjecture. Certainly, going into 2007, the FASB thought they had a viable product. The rigour of this product was remarked on not only by the standard setters, but also by the financial industry, which fairly soon complained that this rigour, its puritanism and its academic formalism were causing a disaster in the real world of measurement. One of the ironies of this history is that much of the financial industry may, in fact, not have applied the mark-to-market regime in the rigorous form the standard setters required. As described in Chapter 2, whether the financial industry did or did not mark down its toxic assets to market value is an empirical fact that is still subject to debate. But the preponderance of evidence suggests that mark-to-market impairments have been avoided on a large scale; this is the diametric opposite of the banking claims. Even so, the banking world's claims about the mark-to-market 'contagion' might still be true. This would seem to weaken fair value from two directions at once. Not only was the fair value intention to create proper impairments misused, even when the impairment had been done as required, it still caused a (contagion) problem!

How effective was this translation? According to the inscriptions, and the standard setters' intentions, mark-to-market was to be used, on affected assets, whenever available market data made that possible. The reality of this, the extent to which the inscriptions were actually followed, is lost in the claims and counter claims of which actors were responsible for the GFC. To banking interests, the inscriptions were followed to the letter, and this was the problem. To other observers and to some academics, mark-to-market was insufficiently applied and, all throughout the global crisis and afterwards, and even to the present day, material amounts of toxic assets were not and have not been written down sufficiently. If the latter is true, Translation 4 was certainly a failure. In any case, Translation 4 came abruptly to an end during the GFC.

7.6 Translation 5: FVA as a malleable product in service of multiple actors

By the time of Translation 5, a large number of actors had become dependent on FVA technology. Finally in Translation 5 do we see the definitive trial of strength that characterises the struggle for control of a network. In earlier translations, these trials had been more muted, perhaps even clandestine; or at the least, they were less publicly visible. In Translation 3 the financial industry altered the identity of the technology largely without even the awareness of—much less the active resistance of—the standard setters and their allies. Perhaps the earlier trial of strength was simply diffuse: standard setters kept altering their inscriptions to try to prevent manipulation by users, a strategy which turned standard setting into a vast bureaucracy—with a need for constant throughput of work—but which ultimately failed in its supposed objective to control the technology. This diffuse resistance, or diffuse trial of strength, took the form of endless tune-ups to the accounting standards, and litigation, or threats of litigation, against companies who were deemed not to be observing the network's objective; or, at least, what the standard setters from their own point of view thought was the objective. In the end, though, the standard setters lost control of the use of their own standards, so the diffuse trial of strength was lost. Along the way, though, the identity of the standard setters and allies had also changed: they became (by the time of Translation 4) ever and more fervent believers in the power of markets, while at the same time they believed that FVA accounting information would enhance the information symmetry of those markets. This identity seems to have been a schizophrenic one that operated alongside a different, simultaneous identity: that of policeman, to recalcitrant users and providers of accounting information who used FVA for other than its intended role. When the GFC arrived in 2008, these identities would be challenged in the ultimate trial of strength, but this time the trial would be out in the open.

After the GFC, control over the accounting standards remained with the standard setters, but they had abandoned their ideal method of mark-to-market measurement being 'virtually compulsory' for FVA, in favour of an extensively usable, more malleable, mark-to-model. Indeed, as time goes on, malleable asset price measurement has been accommodated by an equally malleable 'forward-looking' (i.e. modelled on future estimates) impairment device, a development that seems to suit the financial industry as well as business generally. This seems to have been the price the standard setters have had to pay to stay in the network at all, a network that is now fundamental to their ideological view and sense of identity. Unable to deal with the complaints of 'contagion' that arose during the GFC, standard setters, rather than abandon the model totally, allowed it to continue in the translated form. This remains so even when, long after the GFC crisis has passed, the mark-to-model 'emergency measures' of the crisis have become normalized as the new ongoing model. The standard setters have not *conspired* with the financial industry; they have been *translated* by the network itself.

But the black box remains not quite closed. A few recalcitrant academics, not convinced by the model, continue to complain about management estimates, convenient fudges in times of turmoil, and the failure to produce adequate impairment measurements (e.g. Paananen, Renders & Shima, 2012). These academics are supported by a few investment industry officials, (e.g. CFA Institute, 2013) who seem to have been unable to influence recent alterations to the accounting standards.

By Translation 5, and perhaps much earlier, the FVA network seems to have become an entity in its own right. It cannot be said that the financial industry is totally in control of the network, although it does exert a strong influence. The regulators and standard setters would appear to be in charge of the inscriptions, but these have drifted—become translated—so far from the original purpose that these actors are not really in control either. It seems, therefore, that there is no dominant human actor. As other actor-network researchers have discovered (e.g. Chua, 1995; Jones & Dugdale, 2002; Pipan & Czarniawska, 2010) the network itself is in charge. And, embedded in the technology are attachments to underlying ideological developments in the world economy. The Western economy has developed a dependency on tradable financial products, and FVA seems to be the necessary conduit for the measurement of those products. The stakes of this dependency are high; $700 trillion of derivatives contracts are outstanding at any one time. The Western world has become dependent on fair value technology, even if some of its human actors have other ideas about its efficacy. The network itself, therefore, has acted to silence these critics. The wider relations of fair value and the investment industry are depicted diagrammatically in Figure 7.1, which is located at the end of the chapter. Perhaps it makes sense to say that there is a wider financial economy network, and the FVA network is a subsidiary actor.

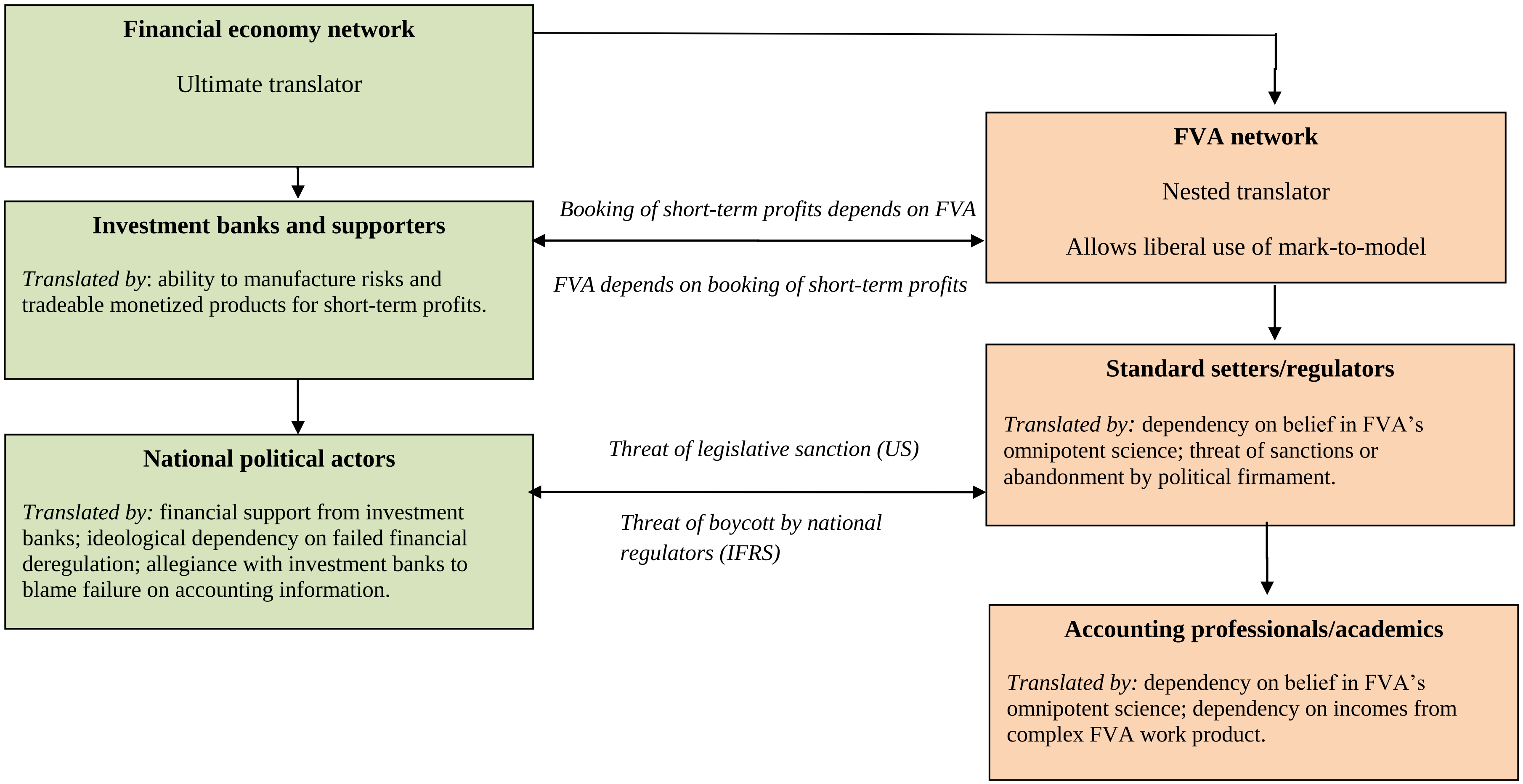
The fair value network has enrolled other actors in a diffuse way. Especially in the case of IFRS, control of the inscriptions rests with a fragmented collection of interested actors: regulatory authorities spread out over Europe and other parts of the world; large accounting firms and auditors who interpret the application of standards across borders. This fragmentation seems to work in favour of the network because it is malleable. 'Buck passing' on problems is frequent and often takes the form of public relations management rather than the actual solving of problems. Perhaps the most telling indicator of the malleable nature of this translation is the recent episode with IFRS and the Greek debt crisis. Here, finally, we can see the plurality of purpose that now characterizes the whole network. When it is necessary to appease critics of mark-to-model malfeasance, IASB officials claim that the standards are not being applied rigorously. When it is necessary to appease the financial industry, when it wants to minimize the extent of its own losses, the IASB invites them into specially created impairment minimization schemes using mark-to-model accounting. Academics who wish to publicize or criticize these inconsistencies are themselves simply part of the network; anything they do and say is likely only to validate fair value as a whole. From outside the black box, statements that support some 'fragment' of fair value (including the mark-to-market fragment), must seem to the lay observer like general support for FVA—simply because, to outsiders, there is no nuanced difference in these technology fragments. These activities simply serve to proliferate FVA, the overall objective of the network. In turn, the overall objective of the financial economy network is to proliferate its ability to book short-term profits from trading in assets that have no physical substance. This trading has become, for many, particularly in the West, the new economic ideology.

For the network to obtain such supremacy its deficiencies have had to be ‘purified’. In accounting ANT studies, there has been a common theme, that translations of technology need to ‘make things the same’ in order to spread the technology. In Mackenzie (2009), the nature of gas emissions had to be standardized in order to form a carbon market; in Chua (1995) case-mix technology gave inaccurate results in different circumstances, but these comparability limitations had to be glossed over in order for different actors to adopt the technology for different purposes. In a similar way, from outside the black box, it must appear to lay observers that that fair value is ‘all the same thing’ thus assisting its public acceptance. This purification of fair value has been assisted by numerous descriptive technical reports and advisories issued by the large accounting firms. These have the appearance of science but are often uncritical of the shortcomings of fair value and many are un-critical of misuses made of the technology by interest groups.

It was shown in Chapter 2 how Latour (1988) described the pressures that face network actors. Perhaps these can now be revisited as a capstone to this section. Latour posited four types of pressure: Aristotelian, Darwinian, Newtonian and Freudian. In FVA, the Aristotelian forces may be depicted as the neoliberal puritans who seek to realize their inner shape, whatever the consequences. These puritans believe in the efficacy of markets and are not dissuaded by evidence of gross episodes of market failure, caused apparently by the misinformation effect of FVA. Darwinian forces that seek exponential growth, might be a good characterization of the financial industry, who seek to use FVA to enhance profits from an ever increasing, exponential trade in financial assets. The $700 trillion of derivatives contracts that hangs over the world would, represent more cash than existed in the world’s banks. If the contracts were all closed out catastrophically in another financial crisis, the exponential effects would be devastating.

Newtonian forces, that travel straight until disturbed, would describe the standard setters fairly well. These actors were not dissuaded from their FVA programs until the evidence against the technology had mounted to an insuperable degree, such as in the Enron post-mortem, or under extreme pressure during the GFC. Finally there are the Freudian forces which ‘do not know what they lust for—displacing, substituting, metamorphosing, or paralysing themselves as the need arises’ (Latour, 1988, p. 154). Perhaps this is a good description of accounting ideologues generally. The metamorphosis of FVA has resulted in a kind of paralysed disbelief that the ideologically favoured incarnation of the technology, mark-to-market, has been both unwanted and problematic.

Figure 7.1 Networks of FVA and the financial economy



Chapter 8: Conclusions

Contents

8.1 Summary of thesis

At the outset, this thesis sought to understand how FVA has become entrenched as a technology in US accounting and IFRS despite its problematic history and association with financial crises. The thesis began, in Chapters 1 and 2, by outlining the issues of FVA that have recently become controversial to commentators on the global economy. During the GFC of 2008–9, FVA was implicated in the collapse of (particularly) US and UK banks. Financial industry protagonists claimed that the rigorous version of FVA, mark-to-market accounting, had caused or exacerbated a freeze on banking liquidity. Mark-to-market, these interests claimed, had stringently required fair valued assets be marked down to their observable market prices. Banking interests claimed that a longer-term view, based on financial modelling, was more realistic. Accounting standard setters and their allies had replied that management modelling ('mark-to-model' accounting) was too subjective and that *observable inputs* mark-to-market accounting told the valuation story as it really was. Standard setters lost this argument when, in 2008–9, they were forced to implement a series of changes that more easily enabled management modelling of financial assets.

Since 2009, the easier modelling protocol of the fair value standards has in turn been implicated in an ongoing system of misuse by those who wish to disguise the nature of failed assets. This led to the Greek financial crisis of 2010–12, in which businesses using IFRS sought to hide massive amounts of losses on Greek sovereign debt. Since then, it has become clear that mark-to-market *and* mark-to-model versions of fair value have, in different ways, been implicated in large-scale financial measurement problems. While some academic proponents of fair value have sought to rescue the reputation of its mark-to-market version following the 2008–9 crisis, the empirical evidence is unclear. While there is little evidence that mark-to-market write-downs were excessive or unrealistic, some academic studies suggest that mark-to-market did, in any event, contribute to a liquidity 'contagion' that caused bank lending to freeze. Few academics, however, now seem to support the mark-to-model version.

ANT was chosen as the methodological apparatus with which to study FVA because of its focus on understanding why actors become dependent on a technology, and how other, more dominant, actors can *translate* their interests. Translation involves realigning another actor's beliefs in the technology, such that the other actor's interests are believed by them to be aligned with (or at any rate, tolerated by) those of the dominant actors. These interpretive approaches were presented in Chapter 3.

In the empirical section of this thesis, actors' beliefs about fair value were demonstrated. There is a considerable back-story as to how these beliefs were put into practice. Chapter 5 examined the translation of fair value by academics in the 1960s and 1970s. Although fair value was practiced in the early 20th century, it was soon discredited as a manipulative device. Fair value had been misused by the financial industry; the artificial inflation of profits led to the 1929 stock market crash and the Great Depression. The resurrection of fair value by 1960s academics such as Edwards and Bell and Chambers has been labelled by this thesis 'Translation 1'. Ultimately this was a failed translation, since academics were never able, in practice, to align regulators to the view that fair value was a measurement system that encompasses the whole of the financial statements in a rigorous manner. The adoption of fair value by regulators of the 1990s is termed ‘Translation 2’ because it involved a realignment of academics’ beliefs, such that fair value could be used in a piecemeal manner to solve specific financial reporting problems that concerned historical cost accounting. Academics did not seem to object to this translated reintroduction. During the 1990s, FASB and IASB authorities reintroduced versions of FVA that required fair value information to be recorded in the main part of the financial statements, and not just as additional disclosure. These requirements were a mixture of the optional and the compulsory, depending on the nature of the accounting item. This mix and match with historical cost made it difficult for the report user to assume that consistency in measurement had been employed. In addition, these 1990s standards allowed a liberal use of management modelling of fair valued assets. These fair value requirements applied particularly to financial assets.

Throughout the 1990s, though apparently unknown (at first) to the standard setters, these optional and/or modelled requirements were seriously misused by corporate management. This period was labelled ‘Translation 3’. Chapter 5 presented a study of this misuse in one company, Enron, which might be considered archetypal of this form of misuse. Enron is a particularly pertinent study because there is evidence that the collapse of Enron itself led directly to accounting standard changes. The specific vehicle for the study was the congressional hearings on Enron, a post-mortem of the collapse performed by the US Government. A careful evaluation of the vast documentation of these hearings revealed the following. First, there was minimal discussion of fair value or mark-to-market at all during the approximately 17,000 pages of testimony. On the few occasions it was mentioned, FASB standard setters and regulators from the SEC simply denied that there was any problem with Enron and FVA. A small number of expert witnesses tried to contradict this testimony. Anecdotes were provided that Enron had used mark-to-model accounting to inflate revenues. These anecdotes seem to have left most of the committee members unable to comprehend the importance of the information. The accounting means by which Enron's frauds were obtained were, instead, ascribed to other factors, such as poor consolidation accounting and auditor collusion. At this time, the political world trusted the FASB. As part of the translation, the standard setters were again the obligatory point of passage.

Quietly, the FASB tried to amend the situation. New accounting protocols were introduced that emphasized mark-to-market accounting and severely downplayed the ability to use mark-to model-accounting. This new protocol was known as the 'three-tier hierarchy' of fair value. Level 1 of the hierarchy required 'observable inputs' mark-to-market accounting, based on quoted prices from live markets. Levels 2 and 3 allowed management estimates of inputs in varying degrees. Level 3 was equivalent to 'mark-to-model', a description some observers also gave to many of the techniques in Level 2. But Level 1 was the preferred input wherever possible; the protocol downplayed the use of the other two. The thesis labelled this protocol 'Translation 4'. This translation coincides with the Fair Value World View in which neoliberal assumptions about the purity of markets dovetail with observable market mechanisms as the principal method of choice for asset valuation. A successful Translation 4 would have required the standard setters and their allies in the regulatory bureaucracy to quell any opposition from the financial industry, and to align other interests, such as the accounting profession, with their view. Alignment of the accounting profession at this time proved to be difficult; a number of vocal sceptics complained that the standard setters were moving too far away from the traditional stewardship function of accounting and too far towards a neoliberal and doctrinaire view of the perfection of markets. These sceptics were sidestepped only because of the black box itself: the technicalities of FVA were perhaps too complex for the professional or business community to understand, and if not understood, there could be no full-scale revolt without some other triggering mechanism. For a brief time, therefore, Translation 4 was not seriously challenged. Unfortunately for the accounting standard setters, Translation 4 arrived almost simultaneously with the beginning of the GFC, which became the trigger for a full-scale revolt.

Chapter 6 studied the GFC and its ramifications to the present day. The onset of the crisis immediately produced sharp divisions of opinion, and two rival groups were revealed, along with a number of enrolled allies. The fair value network at this point was characterized by a pro-mark-to-market group and an anti-mark-to-market group. The former was initially led by the FASB and IASB standard setters who wished to protect their attempt to bring Translation 4 to success: a fair value technology based on a neoliberal belief in the purity of markets and the primacy of observable market inputs data. The rival group was opposed to observable inputs mark-to-market accounting and sought a return to Translation 3 in which mark-to-model accounting, which was more malleable, could be used more freely. Initially, the motive for the investment banks was not their planned use for mark-to-model in the longer term. Instead, the immediate issue was to deflect blame for the GFC. This they did by suggesting that mark-to-market accounting had caused excessive write-downs owing to its doctrinaire approach of using the quoted last trade of market prices even when the market was virtually non-existent.

The evidence for these banking claims scarcely existed at the time of the GFC, which made it easier for the banks to make such assertions. The preponderance of evidence now seems to suggest that excessive write-downs were not being made during the GFC.

In fact, the opposite seems to be the case; banking and other corporate interests strenuously avoided making write-downs under mark-to-market. This failure has resulted in a significant amount of 'hidden toxic assets' in the world economy. On the other hand, the banks also claimed that mark-to-market helped to cause a 'contagion' effect, which led to banks being unable to lend to each other. Some academic studies actually do support this latter claim.

As the GFC played out, the investment industry's point of view became accepted by the political world, while the standard setters' point of view was not. The investment industry was able to enrol national politicians: partly as a result of financial dependency, lobbying and campaign donations; partly because national politicians seemed to believe the argument that banks' interests in the economy were too big to be allowed to fail; and partly because accountants could be conveniently blamed for a series of economic mishaps involving state-sponsored mortgage lending. Thus, the investment industry translated the interests of national politicians so that they were aligned with their depiction of how accounting rules should work. The investment industry was careful not to criticize fair value as a whole, as evidenced by content analysis of comment letters sent to the SEC. Instead, the investment industry only criticized the mark-to-market version of fair value, as if it were an entity in itself.

One of the evidentiary vehicles chosen for the thesis was the US congressional hearing on mark-to-market accounting, in April 2009. Here, the protagonists' views were aired publicly. The investment industry made use of its newly enrolled political actors, and the large extent of this enrolment is shown clearly at the hearing. However, the most revealing information came from the testimonies of the standard setters. Under intense questioning, it became clear that the standard setters were, in fact, concerned about mark-to-market and 'contagion' theory and that this problem came as an unwelcome surprise to them. Contagion theory seemed to undermine the standard setters' fundamental belief in observable inputs. If Level 1 observable inputs were not, after all, quite as serviceable as the standard setters had imagined, then this left their fair value edifice with a large problem. They could go back to greater use of mark-to-model, but this had been the very problem they had sought to avoid following the Enron and other corporate disasters. Another alternative, perhaps, would be to abandon the fair value network altogether. Some commentators have suggested that the standard setters might be forced into this eventually, given that, traditionally, regulators have been conservative on accounting matters. A return to historical cost accounting would, therefore, have been an option for the standard setters; they were, after all, still in charge of the accounting standard inscriptions. But the standard setters have so far not been willing to take this option. Instead, they have decided to remain enrolled in the fair value network, but on the terms dictated by the financial industry. After April 2009, the FASB/IASB modified the standards such that mark-to-model was much easier to deploy. In 2009, this modification signalled the end of Translation 4 and the beginning of what has been termed 'Translation 5', which, so far, has been a successful translation. Although easier-to-use mark-to-model was supposed to be a 'crisis emergency measure', evidence suggests that it is being used in a widespread and subjectively chosen manner long after the crisis 'ended'.

After April 2009, the standard setters' mark-to-market allies continued to demonstrate their disapproval of the standard setters' abandonment of mark-to-market. One by one, however, most of these allies abandoned mark-to-market. While some accounting professionals had been sceptical of fair value in the early 2000s, by the time of the GFC the large accounting firms, at least, were demonstrative in their support for mark-to-market accounting. This alignment with the standard setters is perhaps explained by their (albeit late) alignment with the same neoliberal views and perhaps also by the growing dependency on income due to the demand for complex accounting services relating to fair value. The large professional accounting firms were vigorous in their opposition to mark-to-model but only for a short time. Within a few months, the large accounting firms' representatives seemed to accept the new regime. Perhaps, like the standard setters, they were dependent on some form of the network, especially in view of the accounting fees generated by fair value's complexity. Commentators in the blogosphere continued to be outraged by the accounting standard changes for a while; in many cases this may have been driven as much by an antipathy to the investment banks as by any real support for mark-to-market. Today, the most vigorous supporters of mark-to-market accounting in its pure, observable inputs, neoliberal form are, once again, the academic community, the original progenitors of modern fair value.

This thesis supports other ANT research, that networks become most visible during times of crisis. This certainly seems to be the case with fair value accounting. The 2001–2 Enron crisis and the 2008–9 GFC made network actors' activities much more visible. A third crisis, also on a significant scale, amply illuminated the present translation of FVA. This was the Greek crisis of 2010– which demonstrated how the network itself governs the technology. The important thing, for the network, seems to be that fair value itself must continue. To serve the network, the IASB offered different elements of the network different depictions of how fair value was involved in the Greek crisis. For the investment industry, easier mark-to-model was designed and implemented to enable fair value write-downs of toxic assets to be dealt with more comfortably and malleably. But, to manage external threats against the network, for different audiences the puritanical vision of hard-line mark-to-market was invoked.

Thus, the network's main objective is to preserve itself in all of its constituent components.

8.2 Limitations of the thesis

The thesis uses the historiographical approach of Porter (1981) in conjunction with the interpretive lens of ANT. Many other interpretive lenses might be available, for example, a Flyvbjerg-style analysis (1998) of how FVA was framed by circuits of power. Any such alternative lens might have produced different or additional interpretations.

Except for some assessments of secondary sources, the thesis was not able to study accounting practice. Mainly the thesis is, instead, a study of the technology itself. The thesis has taken a broad approach to historical study in order to develop a general schema about the translations of FVA. This has meant that, by necessity, only the main turning points have been studied. The focus of empirical evidence collection from primary sources has been on the Enron crisis of 2001–2 and the GFC of 2008–9. To study the surrounding or intervening periods, which do form part of the actor-network study, the thesis has relied mainly on secondary accounts.

The thesis has relied upon publicly available documentation: reports, hearings, comment letters, transcripts of interviews and the accounting standards themselves. While these sources have been valuable, there is no doubt that a different methodology might develop additional insights; for example, if intensive interviews with authorities had been used instead. Some accounting ANT studies have adopted a laboratory approach in which important officials have been questioned at length about their experiences. For example, MacKenzie (2012), in order to discover the means by which credit default swaps were standardized, conducted a series of interviews with 15 financial industry participants (mainly broker/dealers). These interviews helped MacKenzie to understand how some financial dealers were able to foresee the onset of the GFC's liquidity crisis. Similarly, Chua (1995) conducted interviews with accountants and hospital personnel in order to understand their attitudes towards accounting case-mix technology. This thesis is limited in not conducting any such personal interviews with accounting, regulatory or industry operatives. The thesis has, for the most part, not chosen to use quantitative analysis. However, there is a content analysis of comment letters in Chapter 6. Content analysis is limited, as discussed in Chapter 4, by unknown biases that might occupy the letter writers (though such biases might not be considered a limitation of ANT, since voices of known actors are paramount).

The thesis has focused on the FASB and IASB worlds. While these are the two most important institutional environments and influences upon accounting, no doubt different interpretations could be given to the use of fair value in other regional locations.

8.3 Implications for practice

FVA remains a contentious topic. According to Whittington (2008), FVA has, despite its issues, become an ideological imperative of the FASB and IASB. This thesis concurs with Whittington that FVA is embedded in the accounting worldview of these institutions. The implication is that, for FVA we might continue to see episodes of accounting malfeasance, especially since the malleable mark-to-model version of the technology seems likely to continue. It is also possible, if not likely, that there will be further episodes of economic unrest or turmoil, with accounting practices implicated as part of the causality. At the time of writing, some economic forecasters of note are predicting that the world economy will, soon, once again slip into collapse, the victim of optimistic over-valuations of corporate wealth (Commins, 2015).

The debates over FVA will continue. This thesis has provided a body of evidence that may be useful for those who wish to make submissions to accounting standards update projects. The clear message is that mark-to-model FVA is substantially problematic and the efficacy of mark-to-market FVA needs further research. It should not be taken by this that historical cost accounting is necessarily a superior alternative. Perhaps the important implication for future practice is that any accounting system needs to offer substance over form.

At the individual practitioner level, the implications of the thesis are that accounting professionals need to be vigilant: the practice guidelines and information they receive from standard setters and large professional firms are embedded with a set of compromises. We have seen in the thesis that the large accounting firms provide elaborate scientific-looking information packs about FVA. But while this information looks scientific, there is often little warning within it about the easy manipulability of FVA. Practitioners need to be ever vigilant and not be led into temptation by the requirements of clients or employers to over-state asset values based on 'estimates of the future'. The culture of accounting is now one that has accommodated wishful-thinking estimates, but practitioners need to be aware of their own ethical requirements.

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