Elevating financial reporting beyond a mere compliance instrument

ABSTRACT

We highlight how complying with detailed professional accounting rules can lead to lies and undermine the overall objectives of financial reporting. We do so by conducting a retrospective analysis (using the argumentation concepts of *premise*, *qualifier*, *data* and *conclusions*) of the reasoning of the two expert accounting witnesses in the criminal trial in 2006 of Enron's President (Lay) and CEO (Skilling). We make two recommendations that are intended to elevate financial reporting beyond a mere compliance instrument and to help it conform better with the idea of fair presentation. First, we call for the objectives of financial reporting to be installed as the overarching premise in a Conceptual Framework (CF) for GAAP-based financial reporting. The remainder of the CF should provide essential guidance to meet those objectives. Second, we recommend that the needs of users of financial reports should be prioritized by developing ethical forecasting principles and better ways of assessing and reporting the accounting estimation of uncertainties that are identified in the International Accounting Standards Board's (2018) revised CF. We contend that a CF with the more detailed standards should guide professional judgement on the related concepts, principles and assumptions that should be included. This will render GAAP and financial reporting more reliant on cogent reasoning and argumentation.

Keywords: Accounting risk; conceptual framework; estimation uncertainty; fair presentation.

1. Introduction

1.1 Aims and scope

This paper encourages thinking about how any general accounting Conceptual Framework (CF) can promote truthful financial reporting and fair presentation. In their standard unmodified report, auditors assert that financial statements "present fairly." However, there is much controversy about what these words mean (e.g., see Zeff 2007). The analysis we conduct relates to this controversy.

We do not consider differences that arise due to having different user groups in financial reporting, or that some compliance reporting might arise from specific regulatory requirements. We focus on the general purpose needs identified in FASB and IASB CFs, specifically the needs of the "maximum number of primary users." These are defined as "existing and potential investors, lenders and other creditors" (IASB 2018, para. 1.5-.10). In particular, we identify aspects of CFs that could deter accounting from being used to facilitate lying by management under the guise of "fair presentation."

We adopt a framework that recognizes fundamental uncertainties in the financial accounting reporting system (articulated, for example, by Barker and Penman (2020), Linsmeier (2020), and Cooper (2020)). We refer to these risks and uncertainties collectively as *accounting risks.* This distinguishes them from *audit risks* (which we regard to be the uncertainties associated with evidence gathering in the audit of financial statements).[1] Although there is an increasingly active

[1] For discussion of the distinction between accounting risk and audit risk, see Smieliauskas (2007).

research interest in how to deal with accounting risk, the problem that unverifiable or high levels of accounting risk pose for financial reporting has not been explored. This is despite accounting risk having been a root cause of some notorious cases of corporate reporting fraud and questionable accounting.[2]

Accounting risk pervades financial reporting because of the increasing use of judgement in accounting estimates when preparing financial statements, thereby creating estimation uncertainty. Specifically, accounting risks arise from the risk associated with the judgmental misstatements concept of estimation uncertainty in ISA/CAS 450.A6. More accounting risk is the risk or probability of material misstatement associated with judgments involved in forecasting future events in accounting estimates of financial reporting. Examples of specific accounting/audit failures involving accounting risk include Enron and Lehman Brothers. **Smieliauskas et al. (2018)** find that more than half of the litigation involving accounting fraud in North America relate to issues of accounting risk. Moreover, less sensational examples of questionable accounting include accounting estimates with accounting risk that were at issue in the Nortel trial of 2013 (see **Smieliauskas et al. 2019**, p. 35 for a brief summary). Many other Canadian examples can be gleaned from Rosen and Rosen's (2010) review of the Canadian reporting environment. Also, though it was not identified as such, the PCAOB inspection deficiencies related to impairments of land and goodwill involved the accounting risk that arises from different possible future scenarios (Defond et al. 2018 pp. 96-97).

Some estimates, such as predicting the return on pension assets of defined benefit pension plans, can create very high accounting risks in some years (Menzefricke and Smieliauskas (2019) and Christensen et al. (2012)). Petroni and Beasley (1996, p. 157) identified very high accounting risk estimates of more than 0.90 for estimates of the reserves needed to cover casualty losses in the insurance industry. With such high risks of failing to detect material misstatements across many audit firms, audit risk largely becomes irrelevant as a basis for indicating audit firm quality (Petroni and Beasley, 1996). The recently revised ISA/CAS 540.A125 acknowledges that in some industries reasonable ranges for estimates may be multiples of materiality, indicating very high accounting risk estimates (see Smieliauskas 2012). Appendix 1 (para. 23) to ISA/CAS 540 even indicates that the risk may be so great that the "accounting estimate cannot be recognized in the financial statements." But the guidance there is vague and refers to the "applicable financial reporting framework" and notes that "there may be additional judgments that involve subjectivity to be made." In this paper we argue that this guidance needs to be improved. We identify ways of doing so using arguments raised at the Enron trial as illustration.

The measurement of accounting risk is an increasingly important issue too because of the level of intangibles in company valuations has grown from 17% of company value in 1975 to 84% in 2018 (Tett 2021, 167). Many of these intangibles rely on hard-to-measure bartering transactions between technology companies and users[3] that create unique problems of valuation. A major component is the identification of the future benefits to a company like Facebook of the aggregate effects of such bartering. In other words, it is the accounting risk associated with the future benefits of the bartering activities that can create major problems in valuation.

[2] The problems of accounting and auditing persist. Dennis (2018), for example, reviews general problems associated with current conceptual frameworks of financial accounting, both for the FASB's CF and the revised IASB (2018) CF. Brydon (2019) identifies some profound and challenging problems associated with current financial statement audits and calls for a new audit profession.

[3] For example, think how much you would be willing to pay Facebook or Google for services they provide which you consider "free." But they are getting data about you which they monetize from monitoring your activities. This is an example of modern day bartering according to Tett (2021: 171-174).

Tett (2021, ch. 4) promotes anthropological concepts and an anthropological approach to understand complex exchanges of the type that happened during the financial crisis in 2007/2009 with various complex financial instruments. This shows that how one interprets or views a risk control problem can yield different results for the same circumstances. These differences are important in deciding how a transaction is reported. In a financial reporting context, the risk that should be considered in how to report a transaction or balance is the accounting risk. Our concern is that accounting risk tends to be ignored by the profession as a type of "silence" that is considered as a problem for "others" (i.e., outside the accounting profession). However, ethical reporting and the increasingly prominent need to "act in the public interest" suggests that accounting risk should also be of increasing concern for accountants/auditors.

This paper draws attention to how lies can arise by complying with detailed professional accounting rules. It also highlights how conforming with the rules in a particular context can undermine the overall objectives of financial reporting. We focus on the argument used by two expert accounting defense witnesses at the Enron trial to support the claimed validity of Enron's accounting. We find that two accounting concepts, if added to the conceptual framework, could have undermined the inapt management/expert witness argument in support of Enron's accounting. First, we call for the objectives of financial reporting to be installed as the overarching premise in a CF for GAAP-based financial reporting. An ancillary aspect of this is that related concepts, principles, and assumptions should also be included in such a CF in a way that will render GAAP and financial reporting more reliant on cogent reasoning by practitioners and standard setters. Second, such a rendering should lead to a CF that emphasizes verifiable levels of truthfulness in the measurements and related disclosures of estimates in financial reports.

We use argument analysis methods to examine the practical reasoning used in the Enron trial testimony to justify Enron's financial reporting. This allows us to better distinguish between compliance and fair presentation reporting.[4] From the transcript of the trial testimony we highlight those aspects that were exploited by Enron's management to mislead in its financial reporting. We address these specific weaknesses. We draw attention to improvements that may be needed in the IASB's CF and to shortfalls that should be addressed by standard setters such as the IASB. Our analysis is also relevant to the International Auditing and Assurance Standards Board's (IAASB) audit standard setting, because we highlight the different types of reasoning auditors should be using to evaluate fair presentation reporting versus compliance reporting by an auditee (as outlined in ISA 200).[5]

Although the UK Financial Reporting Council (FRC 2014) states that fair presentation allows departures from codified generally accepted accounting principles (GAAP), the basis for such departures is not clear. The absence of guidance on this matter appears to have deterred auditors from substantively implementing fair presentation reporting. This was made evident by the call in the Brydon Report (2019, pp. 57-59) for a new audit opinion on fair presentation that focuses on verifying the truthfulness of accounting numbers.

Several vexing problems arise from the vagueness and incompleteness of existing CFs and the function of CFs as conceived by practitioners. We make two recommendations to address these, based on the assumption that accountants will need to logically justify their conclusions with

[4] As summarized in the debate between Palmrose and Kinney (2018) and Defond et al. (2018). Dennis (2018) has noted there are many aspects to evaluating a CF.

[5] This issue is gaining increased urgency with calls in UK and Germany to strengthen the role of auditors in light of scandals such as Wirecard and Carillion.

persuasive reasoning. We introduce Toulmin's argumentation theory as an illustration to help auditors apply more rigorous standards of proof for audit conclusions. An audit opinion needs to be justified not only by the evidence but also by the rest of the argument the auditor uses to justify their opinion on the financial statements. Ideally, the audit opinion needs to be justified by an argument.

Argumentation theory teaches auditors (and managers) that it is not sufficient to document a conclusion without also documenting the evidence, key assumptions, principles, explanations, and objectives that relate to meeting the public interest in the engagement. Key features of these should be documented for all professional judgements in the engagement following a logic that "if it has not been documented then it has not been done." Technology is making such comprehensive documentation increasingly feasible. Application of more rigorous discipline in argumentation would help a new audit profession to be more accountable, and to fulfill the role envisioned for it by Brydon (2019, Ch. 6).[6]

One thing missing from Toulmin's framework is the importance of a hierarchy of principles/warrants to implement a principles-based reasoning system (as articulated, for example, by the Institute of Chartered Accountants of Scotland in ICAS (2006)). ICAS (2021) and other accounting bodies have now extended principles-based reasoning to ethical reasoning for accounting professionals. This reasoning approach has been adopted by IFAC (2018). The ICAS framework involves a hierarchical reasoning system in which lower level concepts and rules rely on higher level principles and objectives. In situations of conflict among these levels, the higher level concepts override those of lower levels. This leads to more consistency in fair presentation. Nelson et al. (2002) and Palmrose and Kinney (2018) point to a potential downside to principles-based reasoning. This is that "managers are less likely to structure transactions and more likely to convince the auditor that they have interpreted the rules correctly" (Nelson et al. 2002, 180). For this reason, we also encourage auditors to adopt argumentation theory as part of their skill set (as is encouraged in public sector auditing, and discussed later).

In the rest of this paper we focus on the changes that are required to the CF for accounting. We draw particular attention to whether it is acceptable to deviate from the objectives of financial reporting to comply with more detailed guidance provided in particular rules promulgated in standards issued by the accounting profession. This is one problem with the new CF provisions outlined in IASB (2018). Despite the FRC's (2014) vague explanation of what constitute allowable departures from GAAP, the latest CF presented in IASB (2018, A13) makes it clear in paragraph SP1 that "The CF is not a Standard. Nothing in the CF overrides any Standard or any requirement in a Standard." The only way practitioners should use the CF is to develop consistent policies when no Standard applies or if a choice of accounting policy is allowed by a Standard IASB 2018, A13). This is *not* the practice we recommend. Instead, we recommend that the CF be allowed to override a standard when it is necessary to do so to achieve the objectives of a CF.

Thus, the FASB's CF is not much different in this respect from the IASB's, as we show in Appendix A. Our recommendations apply equally to both CFs. There may be individual standards such as IAS 37 on contingencies that conform to one of our recommendations for a CF. However, this is not the same as saying all accounting estimates should conform to this recommendation. The current CFs are not a principles-based reasoning system of the type we see in ICAS (2021) or in provincial codes such as CPA Ontario (2021) that require CPAs act in the public interest at all times. A true principles-based accounting system would have the accounting CF act in a similar

[6] This is evident in recent concerns in Canada to make CPAB findings more public and auditing firms more accountable (Milstead 2021).

way to the principles in professional ethics. Thus, any conflict between the goals in the CF and a particular standard should be resolved in favor of meeting the objectives of the CF. We recommend the CF be viewed as offering a guide to standard setting, and for it to have an overriding role on practice as well.

This paper also provides further insights to the broader social institution of GAAP and to the potential role a CF can play in guiding accounting theory and practice. It responds to the call by Greenwood and Freeman (2018, p. 1) to recognize the deep role CFs can have in determining how truthfulness of accounting estimates can be implemented effectively in practice.

A key weakness in the current CF (and something we address) is whether its guidelines encourage financial reporting to serve the public interest by meeting the objectives of the financial reporting system. A particular concern for us is that there are circumstances in which the accounting/auditing concept of material misstatement is equivalent to lying. This can arise through the use of materially misstated information if the auditor points out the material misstatement to management and management refuses to correct or justify that there is no material misstatement. If the risk of material misstatement/lying is unacceptably high then the financial statements are not presented fairly. Professional accountants should be encouraged to link the public interest to accounting/auditing standards. If the risk of material misstatement/lying is too high in audited financial statements, then the public interest is not served. Furthermore, standards dealing with the audit of more speculative information (such as audits of explicitly future-oriented financial information) invoke a much more cautious audit reporting approach that explicitly disavows "achievability" of the reported numbers.[7]

1.2 Conceptual framework, compliance reporting, fair presentation reporting

The reasoning with a CF for financial reporting is often conceived as comprising three levels. At the uppermost level are the objectives of financial reporting. From this, at the next level, are identified the concepts, principles, and assumptions that should be applied in seeking to meet those objectives. At the bottom level are detailed accounting standards that are derived from the concepts and principles and from the objectives of financial reporting. The detailed standards relate to specific types of economic events and provide examples of their application. The detailed guidance in accounting standards should be consistent with the objectives and general concepts and principles of the CF.

Compliance reporting aims to satisfy the detailed requirements of accounting standards. Ostensibly, but not necessarily substantively, compliance reporting acts in the interests of general-purpose financial reporting users. Under a compliance view, an auditor is expected to provide reasonable assurance of technical compliance with GAAP for general purpose financial reporting (Palmrose & Kinney, 2018).

Fair presentation reporting, in contrast, should result in the objectives of financial reporting being met. Under the CF of the IASB (2018; para. 1.3) this means being useful for economic decision making and for assessing management's stewardship of an entity's economic resources. Under a fair presentation view, an auditor is expected to provide reasonable assurance of fair presentation. This goes beyond mere technical compliance with the detailed guidance provided by GAAP (Defond, Lennox, & Zhang 2018). In the trial of Enron's two most senior executives in

[7] Some estimates are so unlikely as to verge on being fraudulent (CPA Canada AuG 6 para. 20). Why isn't similar guidance provided for GAAP accounting estimates that also involve predictions of future events such as future cash flows? In the CF in IASB (2018) there is no guidance on how high measurement uncertainties can be allowed to get before an estimate should be excluded.

2006, the objectives of financial reporting were not met, even though Enron's financial statements conformed with detailed accounting standards. Thus, compliance with GAAP will not necessarily be sufficient to meet the objectives of financial reporting. Fair presentation reporting is closer in spirit to the type of accounting that aims to capture economic substance in a reliable and ethical way. Fair presentation reporting should include a more reliable form of fair value accounting that controls accounting risk in fair value estimates.

In developing detailed guidance for practitioners, standard setters need to make assumptions about the circumstances in which the guidance applies. Deviations from such assumptions create tension between compliance reporting and fair presentation reporting. Since standard setters cannot anticipate every possible situation to which the detailed guidance applies, there is a risk that compliance reporting may not result in fair presentation. Thus, following detailed compliance guidance may not result in meeting the overall financial reporting objectives and should not be considered as axiomatically leading to financial reports that present fairly. This situation has prevailed in several major corporate failures in recent decades (including Enron, discussed later).

Four possible outcomes of financial reporting are:

OUTCOME A: Compliance with GAAP + Fair Presentation	**OUTCOME B:** Compliance with GAAP + NOT Fair Presentation
OUTCOME C: Fair presentation + NOT Compliance with GAAP	**OUTCOME D:** NOT Fair Presentation + NOT Compliance with GAAP

In Outcome A, audited financial statements comply with GAAP and also provide fair presentation. This is the ideal situation. In Outcome D, neither compliance nor fair presentation is achieved. This is the worst situation. The four-celled matrix of outcomes above should be considered with caution. Neither "compliance" nor "fair presentation" should be regarded unequivocally as dichotomous states, as we explain below.

IAASs have attempted to distinguish between compliance reporting and fair presentation reporting. In ISA 200, fair presentation reporting allows material departures and note disclosures beyond GAAP requirements. The different ways departures can be justified include circumstances when the objectives of the CF do not meet the public interest; the assumptions of the CF are not met in the context of a particular firm; the objectives of the CF are not met because of conflicts with broader social norms; and an aspect of a CF is inconsistent with other aspects of the CF so that any type of reporting can follow logically from the inconsistency. Thus, although the words "presented fairly" have clearer meaning under ISAs, the question remains, "What would justify such departures?" Defond et al. (2018) argue that departures may be needed to better capture economic substance in particular situations. If so, departures from GAAP should be justified by logical reasoning that relies on the goals set out in general purpose financial reporting CFs such as IASB (2018). However, the conditions under which auditors and accountants are justified in departing from International Financial Reporting Standards (IFRS) or the FASB's GAAP are unclear. We illustrate the need for clarification in our analysis of court argumentation at the 2006 Enron trial.

1.3 Social construction and the underlying reality of what is "fair"

Both the compliance and fair presentation approaches downplay the social-constructionist nature of the "dichotomous" decisions that auditors make. Assessing compliance with GAAP and whether a set of financial statements is fairly presented, are both negotiated assessments. They reflect the fuzziness of a so-called "underlying reality" of the reporting entity. They also reflect the social and psychological milieu within which the practice of accounting and auditing occurs.

Hines' (1988, p. 257) view of the "hidden power" of accountants and accounting is pertinent. She regarded this power as being rooted in the widespread presumption that accounting communicates reality. In her view, the act of accounting communication helps fashion the alleged reality thus communicated, because "people think and act" according "to that picture of reality [and] they make it so: it becomes 'real in its consequences'...". In similar vein, Cooper (2013, p. 245) addresses the myth-like status of accounting by arguing that "Perhaps the strongest myth in accounting is that it communicates reality." She contends that the visible, highly aggregated numbers included in financial statements strongly have "hidden power" and that dysfunctional consequences are likely to arise from that power. Thus, we are alert to the idea that "social reality" (e.g., of what constitutes "fair") is itself a contested concept, and that the "reality" of accounting results needs to be contested.

We concur with Hines (1991, p. 327) that accounting's CF projects "presume, legitimize and reproduce the assumption of an objective world and as such they play a part in constituting the social world." Drawing from this, we problematize the "compliance" view versus the "fair presentation" view of financial reporting within the context of a CF that is conceived as a socially constructed institution. However, we argue that the fair presentation view should be preferred because of its stronger potential to alert users of accounting information to the equivocal nature of the output of the financial accounting process. One way to resolve the dilemma posed by "alternative realities" is to use convincing argumentation. In applying such argumentation, accounting and its conventions and paraphernalia should not be a hindrance. The logic of accounting should not facilitate fraudulent reporting. What is needed is a reporting system that promotes truthfulness in accounting estimates and fair presentation in meeting the public interest. Changes in the CF are needed to help ensure these outcomes.

We propose that Toulmin's (1958) argumentation concept be implemented to justify conclusions in setting standards, and the reasoning on accounting and auditing issues, in audit file documentation. We also propose changes in the CF that will complement Brydon's (2019, pp. 30-42, 57-59) proposed new conception of the corporate auditing profession. We seek to facilitate the auditability of information that arises from implementing accounting standards. For example, we propose a concept of accounting risk that is fully consistent with estimation risk in financial reporting (as outlined in IASB 2018, para. 2.22). This will help explain the basis for the graduated findings being experimented with in audit practice (Brydon, 2019, pp. 76-78). Limiting the disclosure of information to that which is verifiable by an auditor will constrain the scope for financial reporting to reflect alternative, misleading, yet ostensible social realities.

1.4 Approach and main finding

By means of a detailed analysis of the accounting expert witness testimony in the criminal trial of Enron's President and CEO in 2006, we reveal how a court and jury rejected the compliance view that the accounting expert witnesses advocated. Instead, the court applied a logic consistent with a fair presentation view. Although the arguments of the two expert accounting witnesses supported Enron's published accounting, they failed to address management's accountability to the users of Enron's financial statements. We highlight how the court transcripts reveal the potential for CFs to facilitate fair presentation financial reporting by prioritizing accounting principles over accounting rules.

One of our main findings is that the accounting profession, auditing profession, and financial reporting regulators should give priority to meeting the stated "official" objectives of financial reporting: that is, they should implement a fair presentation view, instead of undermining these objectives by requiring adherence to rules in all circumstances. Another main finding is that limits should be placed on the level of acceptable accounting risk in financial reporting in order to maintain minimum levels of truthfulness in fair presentation financial reporting.

1.5 Structure

The remainder of this paper is organized as follows. Section 2 outlines the analytical approach adopted and reviews prior relevant research. Section 3 describes the Enron criminal trial of 2006, outlines its importance, and highlights the central arguments at issue. Section 4 provides an overview of our analysis of the accounting expert witness testimony. The focus is on five main accounting issues raised at trial. We highlight the argumentation factors that were (or ought to have been) critical to the court in ascertaining whether Enron's accounting conformed to GAAP and resulted in fair presentation. Section 5 enters two recommendations and some conclusions.

2. Analytical frame and literature review

Below, we explain how argument analysis using Toulmin (1958) is conducted. This involves analyzing the four critical factors of warrant, qualifier, data, and conclusion. What is unique about Enron is that we have access via a published legal article (Hueston 2007) to the thinking behind the prosecution's legal strategy at the trial. This reveals how the prosecution argued there was fraudulent GAAP reporting using the idea of lying with GAAP. This helps explain the importance of the Enron trial for accounting and auditing and why we have chosen the Enron trial for empirical support. Then we outline two presumptions that underpin our analysis: one regarding the role of a CF; and the other regarding "fair presentation."

2.1 Argumentation analysis using Toulmin (1958)

Argumentation involves the interdisciplinary study of how conclusions can be reached in natural language. Here we use elements of the original model of argumentation explained in Toulmin (1958) and Toulmin et al. (1984). Toulmin's method has been advocated in a number of practical fields including law and public sector auditing (e.g., see Barnes 1991).[8]

The Toulmin model avoids the extremes of absolutist and relativist reasoning in evaluating the worth of ideas: for example, by regarding cultural variations of rational arguments to be important. Toulmin recognizes "field-dependent" aspects of argumentation that are unique to the field where the argumentation is applied. This would extend to include the use of accounting concepts in accounting argumentation.

Some aspects of argumentation are field variant and change with the disciplinary context. However, other aspects of argumentation are field ***in***variant and are largely independent of the

[8] For a recent public sector example of such a role in Canada see Buckstein (2021).

particular field. These include such things as deductive versus inductive argumentation, argument structure, reasoning by sign, reasoning by analogy and other aspects of the logic of the argumentation. Toulmin's view was that good argumentation should be able to withstand criticism and should be regarded as a form of competition in which ideas survive and evolve based on the arguments that support them.[9]

The relevance of an argumentation approach is illustrated by the fact that virtually all published research in the field of accounting involves argumentation to convince the reader of a particular conclusion or finding. By focusing on the field of accounting and field-dependent aspects of argumentation, we are using a context bound theorizing approach. With field-dependent accounting argumentation the detection of lying through accounting will not always be a dichotomous "yes" or "no" issue. There can be different degrees of lying or half truths about future events because accounting estimates fall within a distribution of estimates. To use a point estimate to record a number for such an estimate in the financial statements carries different degrees of risk of material misstatement, depending on the point chosen (Brydon, 2019, p. 77). For this reason, degrees of truthfulness are more consistent with current accounting estimates than they are with assuming that absolute truth or falsity applies in material misstatements. A continuum of truth seems to be a very practical way to deal with half-truths.

The concept of degrees of accounting truthfulness is also consistent with the burden of proof concept in civil cases in commercial law, where the "preponderance of evidence" rule applies. In civil cases in the UK, this is described as "the balance of probabilities"; and in the U.S. as "more probable than not." In both countries, the civil standard is met if there is a greater than fifty percent chance that the proposition is true. We draw on our subsequent analysis of the Enron trial evidence to propose that similar criteria of truthfulness be used to decide the truthfulness of an accounting estimate in GAAP-based financial reporting.

We define ethical accounting as being accounting that is 100% truthful about known material facts; and at least 50% truthful about future material events that are the sources of the various types of estimation uncertainty outlined by the IASB (2018, paras. 2.22, 6.60-61). For example, ethical accounting for the allowance for doubtful accounts could mean that there should be at least 0.50 probability (50% confidence) that there is no material misstatement in the account based on the available evidence at the time of the audit report. An example of this type of logic is reflected in Barker and Penman's (2020, 332) implementation of a matching principle for IFRS. There is nothing preventing an auditor/manager from using more demanding standards of truthfulness, and some may contend that the balance sheet should be ordered by decreasing levels of truthfulness (e.g., cash should be 100% truthful while goodwill is 50%). Such principles of truthfulness for various accounts also applies to omissions of material facts or omissions of probable material future events, as well as to recorded amounts. Systems to support such reasoning should be required through a revised CF of accounting and/or through revised auditing standards that specify the types of information that are capable of being audited.

Constitutions of many types follow a top-down logic of hierarchical reasoning (Chambers 1996). They invoke such concepts as natural law (rules of nature) and social law (rules of society). National constitutions can be codified, starting with a preamble (objectives) and then basic

[9] Walton (2013) extended argumentation concepts by advocating commitments rather than beliefs in dialogue, and the use of argument mapping tools and formal argumentation schemes. Van Eemeren and Grootendorst (2002) have developed ideal models for resolving differences of opinion within a dialectic framework and for using rational discussion to reach sound conclusions. Shapiro (1998) has also used dialog/dialectic settings to analyze rational accounting argumentation.

principles followed by rules for changes and amendments. Such an accounting/auditing constitution could help to deter abuses in the governance of accounting reasoning in practice and in litigation.

The Enron trial is an example of where compliance did not result in fair presentation.[10] Yet, no accounting or auditing authority (such as the FASB) has contradicted the validity of the accounting expert witness evidence presented. The legitimacy of the accounting argumentation remains unchallenged. Standard setters have not addressed the vexing accounting issues that arose. Their failure to do so has contributed to continuing controversy, including the call for a new audit profession to monitor increasingly questionable financial reporting (e.g., see Brydon 2019).

Our recommendations for the CF indicate how the field-dependent aspects of accounting argumentation could be improved to de-legitimize the types of accounting arguments presented at the Enron trial. We disagree with the notion that high accounting risk estimates reflect a legitimate social construction of fair presentation with GAAP. Rather, Toulmin-type argumentation indicates the desirability of the CF acting as the major premise or source of authority in accounting argumentation. Combining this major premise with the requirement to hold accounting risk in the existing CF to acceptable levels would have prevented the accounting expert witnesses in the Enron trial from arguing that high-risk estimates were legitimate.

2.2 Concepts used to analyze the court argumentation: Warrants, qualifiers, data and conclusions

Toulmin's (1958) theory of argumentation includes the concepts of *data, warrants, qualifiers* and *conclusions.* These concepts, explained below, are described too in the general model of logical argumentation in auditing and accounting outlined by Barnes (1991). Data, warrants, and conclusions are considered to be the essential components. They are used explicitly or implicitly in every practical argument. Qualifiers may not be needed in every setting. Toulmin's approach has been used widely in many fields, including in management (Hursti, 2011; Hitchcock & Verheij, 2005); and in legal jurisprudence (Anderson &Twining, 1998; Goldring, 2001; Twining 1990). Collectively, warrants, qualifiers, and data should result in cogent and persuasive accounting arguments based on the evidence available to the preparers and auditors of financial statements (Vorobej, 2006, p. 49).

In this paper we analyze the importance of *warrants*, *qualifiers*, *data* and *conclusions* (described immediately below) in logically assessing whether Enron's financial reports were fairly presented prior to Enron filing for bankruptcy protection (December, 2001). Additionally, we provide fuller understanding of how rhetorical concepts such as *logos* (logic), *pathos* (emotional quality) and *ethos* (arguer's perceived character) were invoked in arguments about whether Enron's accounting conformed to GAAP. Ideally, argumentation in the trial should have relied on *logos* to organize thoughts in support of a conclusion.

Warrants explain the connection between data and conclusion. They are the major premises of an argument. They include objectives, concepts, principles, theories, models, assumptions and definitions. A common warrant in accounting is the assumption that assets, liabilities and equities can be expressed in currency values. The most important warrants or major premises in accounting reasoning are the objectives of financial reporting. They determine the ultimate purpose of the reporting. All other elements of argumentation should support this purpose.[11]

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[10] Another is the Continental Vending Case in the U.S.. This resulted in revisions of professional standards on related party transactions (Mano et al. 2006).

[11] Much critical accounting literature advances the view that the warrants in accounting and financial reporting are based on the priorities of "special interests" who act contrary to the interests of the wider community/culture.

Analysis of the accounting expert witness evidence leads us to propose that the set of warrants in accounting should include the objectives of financial reporting, and the related concepts and principles needed to attain those objectives. A key principle in meeting the objectives should be to control the *accounting risk* involved in measuring assets and liabilities to an acceptable level. By the term *accounting risk*, we mean the aspect of estimation uncertainty that relates to the reasonableness of management assumptions and judgments. Specifically, in the context of reporting on assets/liabilities, we regard *accounting risk* to be:

> … the probability of a material difference arising between what is recorded in the financial statements as the monetary equivalence of an asset/liability, and what is realized [obtained/disbursed in cash or cash-equivalent proceeds] for the asset/liability in the future, based upon the prudent application of knowledge at the recording date. This concept can be modified to distinguish between intentional and unintentional accounting risk based on the acceptable risk level, e.g., see Smieliauskas (2008).

Thus, we tie the economic substance of future events to their riskiness of being misrepresented materially by an accounting estimate. This is an approach used by economists such as Ben-David, Graham, and Harvey (2013) and Glaser, Langer, and Weber (2013) when dealing with reasonable ranges about future events of the type considered by auditing standards such as ISA/CAS 540; and by accounting concepts IASB (2018, para. 2.30). *Accounting risk* should be a key consideration in fair value accounting and other accounting estimates that make assumptions about the future.[12] Adoption of an *acceptable* level of accounting risk should help provide accounting estimates that present fairly. This would operate in a way similar to the notion of acceptable (reasonable) audit risk that is used in auditing standards to determine whether sufficient appropriate audit evidence has been gathered.[13]

In legal reasoning in court judgements, warrants are the general decision principle and the driving force of court logic (Goldring, 2001, p. 63; Walton, 2006). The principles-based reasoning in judgments must have a general applicability that goes beyond a particular case. Application of the same general reason (warrant) across like cases has the desirable property of judicial fairness by treating like cases as alike (Goldring, 2001, p. 64).

Originally, the basis for the FASB's rationale for its CF was a hierarchy of warrants in GAAP. At the apex of the hierarchy was the most important reason (or warrant); that is, achieving the objectives of financial reporting. Below this were concepts and principles that would help to achieve the objectives. Then, at the bottom, were detailed rules of specific accounting standards that provided further guidance. These were to be consistent with the overall framework in more specific economic contexts. This reasoning system is mirrored to a considerable degree in the

[12] The accounting profession is increasing efforts to make fair value measurements more auditable by encouraging use of calibrated ranges for unobservable inputs in measurements and estimates. Murphy and Smith (2017, pp. 34-35) view this as essential for quality audits of accounting measurements. Similar issues apply to other accounting estimates (ISA/CAS 540.13(k)). Accounting risk is the complement of the accounting confidence concept referenced in Brydon (2019, p.77): that is, when the confidence level is defined within a material amount of the reported point estimate used for a line item in the financial statements.

[13] The audit risk concept does not specify the effect of audit evidence on financial reporting. Instead, an auditor must make a distinctly different decision when evaluating financial reporting in each audit engagement: s/he must incorporate the objectives of the financial reporting framework and consider the appropriateness of specific accounting standards. The auditor needs to consider the estimation uncertainty of an estimate, including the acceptability of its accounting risk, and decide whether it represents a significant risk. ISA/CAS 540.16-17 emphasizes that audit procedures should address significant risk in accounting estimates. Deciding how to best report such estimates is complicated if the risk arises from the estimation uncertainties of accounting concepts of the IASB (2018, paras. 2.22, 5.12, 6.60-6.62). Also see ISA/CAS 540.16-.17 and Appendix 1 para. 23 for the current audit guidance.

current CF of IASB (2018). However, the individual standards are not subordinate to the CF principles in IASB (2018, para. SP 1.2-1.4) thus preventing IFRS (or FASB standards) from being a coherent system of accounting reasoning that is principles-based as noted in Sutton et al. (2015). Also see Dennis (2018) for more discussion.

In contrast to CFs such as FASB and IASB (2018), it is possible to have a principles-based reasoning system such as developed in ICAS (2006). Any conflict between the objectives of a CF and a rule in a principles-based reasoning system should result in the CF overriding the rule. Such overriding is necessary to ensure that the objectives of financial reporting are met. The intent of the FASB CF was to guide reasoning in standard setting and rule-making and to provide general practical guidance when there was no specific standard. The CF was supposed to embrace reasoning, to incorporate principles from experience, and to help generate new ideas that would address future needs (Storey & Storey, 1998, pp. 41-3). The FASB's CF intended to create additional hierarchies of warrants to help determine which warrant took precedence when there was conflict among warrants. Importantly, the FASB made it clear that definitions of basic concepts in accounting should follow from the prime objectives of financial reporting.

The above premises focus on accounting reasoning because that was the issue at the Enron trial and is the focus of our analysis here. In practice, there are other standards that need to be followed by professional accountants, specifically professional ethics and auditing standards. Each of these have their own hierarchies of warrants such as conceptual frameworks and more detailed standards guidance. For example, there is the code of professional conduct that has objectives, principles and concepts as well as more specific standards on conduct; IAASB has a conceptual framework on financial statement audits in ISA 200 as well as CFs for other assurance engagements in ISAEs 3000 and 3001, and more detailed guidance on auditing and assurance in the rest of the ISAs and ISAEs for audit and assurance, respectively. All of the CFs for these are organized in the same way with objectives first, followed by concepts and principles, followed by more detailed guidance. The big difference for audit and professional ethics is that their CFs are to be followed by practitioners as well as standard setters. Because of this, ICAS (2006) principles-based reasoning proposals are now largely being followed by professional ethics and financial statement audit standards, with accounting standards being a somewhat unusual exception. As is illustrated in the testimony here, strictly following the detailed standards in all situations can lead to the fraudulent reporting seen in Enron. At its most general the hierarchy of warrants in professional accounting argumentation would be as follows: Level 1. Meeting the public interest and related guidance from professional ethics; Level 2. The CF of financial accounting and related guidance by IFRS; and Level 3. The CF of financial statement auditing and related guidance in ISAs. Our focus of argumentation analysis is on the level 2 warrants dealing with fair presentation vs. compliance financial reporting issues. Practicing auditors ideally should be dealing with all 3 levels of argumentation in supporting their opinions and providing explanations for their reasoning in audit files.

With the above background, it should be clearer that the role of a CF in accounting should be to seek to meet the public interest through following professional ethics and providing information for decision making and evaluating management stewardship. The resulting accounting information should be filtered by the verifiability requirements specified by audit standards. Our focus in this paper is on the effect that coherent principles-based reasoning with accounting standards could have had on the accounting argumentation at the Enron trial.

Qualifiers are the constraints on warrants. They clarify situations in which a general warrant does not apply. Qualifiers are exceptions to the general principles represented by the warrants. An important qualifier in financial reporting is that "although GAAP are the most common benchmark for evaluating financial reporting, GAAP do not always result in fair presentation." Explicit qualifiers such as this help to strengthen an argument.

Care is needed in developing principles (warrants) so that they are not converted into rules by allowing many exceptions (qualifiers) to the principles (Schipper, 2003). Frequently, qualifiers in accounting argumentation arise when major warrants of accounting and financial reporting (such as the going concern assumption) have a sufficiently high risk of being violated. Use of the "going concern" warrant of financial reporting helps to justify the valuation of assets at their historical net acquisition cost (and not at their selling price) on the grounds that the entity is not contemplating liquidating its capital assets. If this warrant is questionable in a particular circumstance, then a different basis of accounting (other than historical cost) may be needed. Justification for valuing assets at their selling price (a net realizable value or liquidation basis of accounting) arises from violating the qualifier that a business is a going concern.

Data are the evidence of accounting practices and the circumstances of their application. They are the minor premises of an argument. Data depend on warrants (major premises) to determine their relevance in reaching a conclusion about the reasonableness of accounting. Provision of data (in the form of sufficient appropriate evidence to support the truthfulness of future realizable values) is a key condition of the accounting knowledge that should be used as a basis for financial reporting.

Conclusions state the claim of a logical argument. They are strengthened by supporting data, acceptable major premises (warrants), and acceptable minor premises (data). Logically, warrants dominate argumentation because they determine which data are relevant to the conclusion. Usually, it is easier to follow the logic of an argument when it is stated in the following sequence: Warrants → Qualifiers → Data → Conclusion. Such reasoning helps assure that preceding statements (premises) support the conclusion of the argument sufficiently. If the premises are true (or at least highly likely to be true) then the conclusion is more likely to be true too. Reasoning of this type should be the basis of any accounting that is geared to meet the objectives of financial reporting. A prerequisite for issuing fairly presented GAAP financial statements should be acceptance of the dominant warrant that accounting must meet the objectives of financial reporting.

2.3 Legal argument

A CF for financial reporting should help courts to assess whether accounting estimates of future realizable values of assets are faithfully represented. Court evidence presented by an expert witness usually contains a strong appeal to the authority or credibility (*ethos*) of the expert's professional reputation. Quite often too much emphasis is put on *ethos* at the expense of the logic or reasoning (*logos*). Ideally, the evidence of an expert witness should appeal extensively to *logos*, and much less to *ethos* or *pathos* (emotions). Otherwise, it risks becoming "emotional, imprecise and open to interpretation" (Norreklit, 2003, p. 595). Because expert witness arguments usually draw strength from the credibility of the provider, much trial questioning focuses on enhancing or attacking the *ethos* of the expert witness. An expert witness risks losing credibility by invoking bad arguments that involve poor *logos*. Courtroom argumentation makes use of narrative elements that are reflected by the rhetoric used in the argumentation. The testimony needs to be analyzed to identify the key premises in the trial argumentation.

The Enron trial transcripts highlight important warrants that supported the opinion of the two accounting experts. We do not leave these warrants as implicit enthymemes[14], contrary to what occurs in court-based argumentation. Enthymemes arise because it is impossible to specify every aspect of the universe that is assumed in making an argument (Walton, 2001). In formal and everyday informal interchanges, shared conventions and values are often used, without making them explicit or advising participants of them. Any CF in financial reporting should acknowledge its reliance on such shared conventions and values, and justify the goals and concepts arising from them (Bromwich, Macve, & Sunder, 2010). Crucially, at the Enron trial, the objectives of financial reporting were left as enthymemes. This helped disguise the flawed accounting logic of the defense's expert witnesses.

2.4 Underpinning presumptions

We make two presumptions. The first is about the role of a CF. We do not dispute Hines' (1991) premise that "the meaning and significance of CF projects is not so much functional and technical, but rather social and cultural" (pp. 313-314); and that CF projects are undertaken as "a strategic manoeuvre for providing legitimacy to standard-setting boards and the accounting profession during periods of competition or threatened government intervention" (1989, p. 89). Rather, from an argumentation perspective, we maintain that *ad hoc* warrants based on political/power considerations will lead to financial reporting that lacks cogent normative guidance. Thus, warrants should meet user needs and go beyond narrow political interests.

Second, we presume that "fair presentation" is an overriding goal. In this, we are consistent with Zeff (2007, p.11), who asserts that "present fairly" should be the overriding goal of an audit and, by extension, of financial reporting:

> My premise is that principles should supplant, or at least supplement, rules in the conduct of the audit, just as they are being proposed to govern the setting of accounting standards. It should not be enough that the auditor's opinion reflects little more than a ticking off of the company's accounting methods against the rules of GAAP . . . the auditor should be expected to treat "present fairly" as a substantive issue, and not as a "rubber stamp" of GAAP. Toward this end [there should be a] decoupling [of] the auditor's opinion into whether the financial statements "present fairly" and whether they are in conformity with GAAP ….

If fair presentation means capturing economic substance, engaging in ethical reporting, and meeting stated objectives, then there can be differences between compliance reporting and fair presentation reporting, depending on the circumstances. Fair presentation reporting is more sensitive to the specific context of the reporting.

3. The criminal trial of Enron's CEO and Chair in 2006: context and central arguments

3.1 Why Enron?

"Enron" is a landmark business, economic, ethical, and regulatory case that can fruitfully be explored to help understand the potential for markets and organizations to be destroyed unless principled-based ways of conducting business are achieved. Enron is an exemplary case because it provides rich insights to continuing problems in financial accounting theory and practice, including the role of a CF, and how to deal with accounting risk in financial reporting (e.g., Dichev, 2017; Lev, 2017; Brydon, 2019). Benston (2006, pp. 482-483) attributed the problematic

[14] Enthymemes are premises, statements or conclusions that are not explicit because they are widely adopted social norms that reflect shared knowledge, conventions, and assumptions (Hechter, 2008).

accounting at Enron to non-verifiability of the accounting estimates. However, the real problem was the high risk associated with the accounting estimates. Although an auditor may be able to verify that an estimate is high risk, if the financial reporting framework allows the high-risk estimate to be reported, then auditors can do little to deter its use, especially if a compliance reporting mentality is adopted. Our analysis of the court argumentation by the expert accounting witnesses supports this view.

What makes the Enron trial an exceptional case is the blatant way GAAP-based, compliance-focused accounting was used as a defence. The profession has not yet responded by proposing any new or revised standards or conceptual changes to address the poor legitimacy of the accounting argumentations of the expert witnesses. The profession has not acknowledged where the accounting expert witness testimony was wrong from an accounting perspective. The profession's failure to do so in field-specific terms of accounting concepts and standards is disconcerting because of the potential for the problems involved to be perpetuated.

The collapse of Enron in 2001 was a pivotal event affecting the accounting profession. It led to a criminal trial in 2006 of the company's CEO (Jeffrey Skilling) and Chair (Ken Lay). Both were convicted in the US District Court (Southern District of Texas – Houston Division) on May 25, 2006, of conspiracy to commit securities fraud. These convictions arose from matters related to the preparation of Enron's published quarterly financial statements, issued before the company filed for bankruptcy protection in December 2001. At the trial, two prominent members of the American accounting profession, Jerry Arnold and Walter Rush, testified as expert witnesses for the defence. They gave evidence that Enron's accounting complied fully with US GAAP. We conduct a detailed analysis of the transcripts of their expert witness testimony in Appendix B.[15] An overview of this analysis is presented in Section 4.

The expert witness testimony has not been denounced by the accounting profession or financial market regulators. Instead, the accounting profession has limited itself to criticizing some relatively minor rule violations that were not mentioned at the trial. The testimony presented raises important issues about the acceptability of applying a "tick box" mentality in accounting in all situations.[16] The continuing failure of accounting standard setters to disassociate themselves from the accounting argumentation of the prominent accounting expert witnesses at the Enron trial is disturbing. Such failure has contributed to controversy about the auditor's role in evaluating financial reporting (Palmrose & Kinney, 2018; Defond et al., 2018). Specifically, compliance with GAAP can be used to cover up lying by management. Enron is unique in that the prosecuting attorney published an article outlining his legal strategy in order to get a criminal conviction (Hueston 2007). We are not aware of similar legal insights from other accounting trials.

The trial proceedings provide important insights to the theory and practice of contemporary accounting and financial reporting. One of the major accounting and financial reporting issues that arose concerned asset measurement (valuation) and, in particular, the degree of acceptable uncertainty that should be allowed in estimating the worth of assets. Indeed, analysis of the

[15] The transcripts were downloaded from http://www.kenlayinfo.com/public/pag149.aspx on 9 June, 2006. The website www.kenlayinfo became inactive shortly after Ken Lay's death in July 2006. The transcripts are currently available from the US Court for the Southern District of Texas (www.txs.uscourts.gov). For discussion of the role of expert witnesses in trial argumentation see Craig, Smieliauskas and Amernic (2014) and Grenier, Lowe, Reffett and Warne (2015).

[16] Similar issues arose in the Lehman Brothers trial in 2015. Part of the outcome of that trial was that Lehman Brothers' auditors, Ernst & Young, agreed to pay investors $US 99 million and the State of New York $US 10 million (Rapoport 2015). This outcome arose despite Ernst & Young calling a reputable expert accounting witness to testify that Lehman Brothers' accounting conformed with GAAP.

testimony of the accounting expert witnesses highlights the following still-pertinent question for accounting and auditing practitioners.

Should financial reporting that accords with GAAP be regarded to result axiomatically in financial reports that do not lie about economic substance but are reliable, ethical, and verifiable in reflecting economic substance?

In the following analysis of accounting-related issues at the trial, we highlight the uncertainties of accounting estimates of the realizable value of assets made in financial reports. The evidence of the accounting expert witnesses reveals the extremes to which accounting reasoning can be taken in providing such estimates, and how such reasoning can justify misleading and unethical financial reporting.

3.2 Fundamental objectives of financial reporting

According to the accounting profession's prescriptive literature, financial reporting has dual fundamental objectives. These are first, to provide information useful for making decisions about the reporting firm; and second, to provide information to help achieve accountability of company management through stewardship (FASB 2010, OB 2 and OB 4; IASB 2018, para. 1.3). Such objectives serve a social role because they provide seemingly ethical, normative boundaries for financial reporting. Nonetheless, how to make these objectives operate in practice continues to be a vexing issue.

Neither of these objectives of financial reporting was met at Enron, despite expert accounting defence witness testimony that the accounting fully conformed with GAAP. Part of the problem is that GAAP encourages accountants to give priority to the authority of detailed guidance (rules) rather than to strive to attain the objectives of financial reporting. The latter are specified in principles that are less detailed and vaguer than detailed rules.

A moral compass would have been needed by Enron management to prevent any lying in its financial reports (Garmann Johnsen, 2018). Nonetheless, when accounting expert witnesses publicly defend lies in financial reporting and use accounting-based argument to do so, public analysis of such argument is warranted. Such analysis is especially important now because of the emphasis being given to implementing governance arrangements that are intended to prevent unethical reporting (Bishop, 2013) and because of increasing evidence that financial accounting is becoming less relevant (Lev & Gu, 2016). In our analysis of the accounting expert witness evidence, we illustrate how ethical reasoning was compromised by management and accountants, and how flawed, yet acceptable, accounting arguments were implicated in allowing this to happen.

3.3 The conceptual framework and the trial context

At the time of the Enron trial, accounting and financial reporting rules and practices in the US were guided by a non-binding CF for financial reporting. This had been developed largely between 1978 and 1985 by the US FASB (Zeff, 1999). However, due to regulatory requirements in the US, the FASB's CF was placed at the bottom of the hierarchy of professional authority in accounting (Palmrose, 2009, p. 290), meaning that the CF had lesser authority than all the sources above it. (For further information regarding the US GAAP hierarchy, see Appendix A.) A similar reasoning is suggested in the recently revised CF of IASB (2018, SP1.1-.2)

The CF of financial reporting is supposed to guide accounting standard setters in developing more detailed standards. A critical part of the CF, the overall stated objectives of financial reporting, are situated at the pinnacle of the framework. Although the overall objectives have not changed much over the years, the detailed accounting standards have changed. The objectives of financial reporting should have been a major focus of the Enron trial. However, the accounting expert witnesses argued narrowly that only conformity to detailed accounting rules mattered. A mechanistic "compliance with rules" mentality dominated their evidence. They did not address whether the overall objectives of financial reporting were likely to be achieved. Their stance condoned unethical reporting to the point of lying. The trial transcripts support the view that the existing system of accounting standards can encourage stretching the interpretation of standards to the point of conflicting with fundamental objectives of financial reporting (see Appendix B).

At the trial, a principles-based mentality in which a CF would have been drawn upon for justification was absent (Ball, 2009, pp. 310-312). Although Enron's published financial statements plausibly complied with GAAP, nonetheless they were grossly misleading. They were at odds with the generally accepted overriding intent to "present fairly." The "disconnect" between the intent of financial reporting and what actually appeared in published financial statements was emphasized by Fastow, a former Chief Financial Officer (CFO) of Enron. He had been involved in preparing Enron's financial statements and subsequently served a six-year prison term for defrauding Enron. In 2016, he asserted that the accounting rules were dysfunctional and were exploited by Enron's management to justify the company's fraudulent financial reporting:

> … all the deals were technically approved by our attorney and accountants, so if that is your definition of fraud then there was no fraud … I believe there *was* a fraud. It's oversimplifying, but if a fraud examiner is typically looking for compliance with the rules, *the problem in Enron's case is that you had compliance with the rules yet you still had fraud*. (italics applied) (Fastow, 2016, unpaginated)

The summaries of evidence provided in Appendix B are faithful representations of the expert witnesses' testimonies and the prosecutor's points of view. They provide a reliable source from which to draw conclusions regarding the trial testimony. The summaries presented are consistent with the summaries of the expert witnesses' opinions in the trial transcripts (May 2, p. 191 for Arnold; May 3, p. 70 for Rush). They are also consistent with the basic reasoning framework that is used extensively in legal literature (involving analysis of arguments in terms of warrants, qualifiers, data, and conclusion). To minimize misinterpretation, we use extensive direct quotes from the trial transcript and give detailed references to the testimony. Our conclusions are consistent with the prosecutor's view, as explained independently by him (Hueston, 2007).

3.4 Legal strategies in a criminal trial: Accounting standards as legal defence

Although Enron's financial reporting is regarded widely to have been misleading, it has also been deemed to conform with GAAP (Haldeman, 2006). This paradox was evident to the prosecution at the Enron trial, compelling it to not to focus on "proofs of reserve manipulations, asset overvaluation schemes, complicated and misleadingly disclosed end-of quarter transactions … and other accounting frauds" (Hueston, 2007, p. 206). The prosecutor was concerned that inclusion of such matters would lead to a complex "battle between experts regarding the propriety of a transaction under governing accounting rules … [with the attendant risk of] … presenting a diluted message and losing the jury for much of the trial" (Hueston, 2007, p. 206). The prosecution decided "the winning way was to directly confront the weaknesses of the case—defining the 'crime' and conduct directly involving the defendants themselves—and to convert it into a clear trial narrative" (p. 207). The guilty verdicts obtained were *not* in respect of crimes that included fraudulent violation of GAAP in financial reporting.

The prosecution's opening statement to the jury is instructive:

> This is a simple case. It is not about accounting. It is about lies and choices… In the year before Enron declared bankruptcy, two men at the helm of the company [Skilling and Lay] told lie after lie about the true financial condition of Enron, lies that propped up the value of their own stockholdings and lies that deprived common investors of information that they needed to make fully informed decisions about their own Enron stock (Hueston, 2007, p. 207).

By focusing directly on the lies the two defendants were alleged to have made in private and public information that was not included in the financial statements, the accounting issues became tangential to the prosecution's case. The prosecution decided not to mention accounting issues. However, ironically, to parry accusations against the defendants of lying, the defence used accounting standards to show that there was no lying with respect to Enron's (alleged) true financial situation. This raises two important questions: how did the defendants publicly reason their actions in accounting terms? To what extent was such reasoning justified?

US court practice encourages expert witnesses to seek the sanctuary of rules while engaging in "information-seeking dialogue" (Walton, 2006, p. 746). Although reliance on such a sanctuary might assist in winning a legal battle by hiding behind GAAP, it risks losing the war in terms of meeting the broad needs of financial statement users (Craig et al., 2014). Neither of the two expert accounting witnesses criticized Enron's accounting. Greater consideration should have been given to whether Enron's accounting estimates were deceptive. Such ignorance of the critical importance of providing reliable accounting estimates is a type of "ethical blindness" in accounting (Palazzo, Krings, & Hoffrage, 2012).

3.5 Expert witnesses

Arnold was a well-known accounting academic at the University of Southern California's Leventhal School of Accounting. He informed the court that he founded the "SEC and Financial Reporting Institute" and was involved extensively in consulting for the Securities and Exchange Commission [SEC] and major accounting firms (Trial transcript, May 2, pp. 197-198).[17] Rush stressed his experience as a former audit partner at PricewaterhouseCoopers, as a technical consultant on reporting issues, and as a consultant for the SEC and the federal government (May 3, pp. 70-75).

Although the prosecution argued that the trial was not about accounting, nonetheless, accounting became an issue because the Enron defendants decided to make it an issue. The defence case was based on the accounting expert witnesses' testimony: in particular, that because Enron's financial reporting complied with GAAP, lying did not take place. Thus, mere compliance with accounting rules was used to argue that the financial reporting information was not misleading. However, as Fastow (2016) claims, compliance can have fraudulent outcomes, despite adherence to professionally-ordained accounting rules and standards. Rules may not be applicable to all situations.

3.5 Applying the Toulmin framework to accounting expert witness testimony

Through repeated close readings of the trial transcripts of the testimonies of Arnold and Rush, and using Toulmin's (1958) framework, we have analyzed five major accounting issues raised in the trial. These five issues were sufficiently significant to prompt the defence team to explore them in detail and to have their two accounting expert witnesses address them. This formed part of the

[17] The biographical profile of Arnold we draw from was retrieved from http://www.marshall.usc.edu/faculty/directory/jarnold on 20 September 2013.

defence case that Lay and Skilling were not misrepresenting the true state of Enron's financial affairs. Our detailed evaluation of the expert witness testimony explores whether Enron's accounting technically conformed with GAAP; and whether the accounting and financial reports "presented fairly." This detailed exploration is provided in Appendix B, with an overview summary of those results is provided immediately below in Section 4.

4. Results and discussion

4.1 Accounting-related trial argument

The basic reasoning of the accounting expert witnesses, as documented in Appendix B, was based on the following argument:

- Warrant: GAAP do not condone lying.
- Qualifier: When accounting estimates involve forecasts of future events, GAAP do not provide guidance on the level of estimation uncertainty that would be misleading.

Thus, a crucial qualifier is omitted. The fact of whether risks are below this level of estimation uncertainty can be verified *if* acceptable risk levels are stated and *if* sufficient appropriate evidence is available. Verification can be achieved too through the use of newly-evolving principles of risk management (such as well-calibrated reasonable ranges for estimates) to assess the acceptability of the accounting risk for an estimate (Savage, 2009; Tetlock & Gardner, 2015; and to help assess economic substance as indicated in Ben-David et al. 2013 and other research in economics). Essentially, such ranges should act similar to the way reliable confidence intervals are used in statistical tests of empirical accounting research.

- Data: The financial reporting by Enron's management conforms with GAAP.
- Conclusion: Enron's management is not lying.

The trial illustrated that if the fair presentation objectives of financial reporting are to be met, then an appropriate CF should have authoritative status over detailed accounting standards and rules. What is needed is a hierarchical system of top-down reasoning where any conflict between detailed rules and any other authoritative guidance is resolved in favor of the basic principles and objectives of the CF for financial reporting, similar to what is required in professional ethics of IFAC (2018, para. 100.3A2).

Despite pejorative description of Enron's accounting as "unreasonable" or "high risk" (Benston, 2006; Knapp, 2006), Arnold and Rush were never asked to address the riskiness of Enron's accounting estimates. They argued strongly that Enron's accounting conformed to GAAP. Even if their argument was true, and Enron's accounting technically conformed with GAAP, a question arises as to whether GAAP is a necessary but not sufficient condition for fair presentation (Alexander & Archer, 2003). The court should have considered whether Enron's accounting was presented fairly: that is, were the objectives of financial reporting, as stated in the CF, realized by the financial reporting?

We concur with the expert witnesses that Enron's accounting can be considered to conform materially to US GAAP (as then conceived). However, we do not agree that Enron's accounting constituted fair presentation. Thus, it represents Outcome B in the matrix presented earlier. At a minimum, it misled users because it did not meet the objectives of financial reporting. Specifically, the accounting risks for Enron were too high to be considered acceptable or truthful about future outcomes. To render them acceptable, the reported estimates should have been adjusted to make the reported numbers more reliable. Part of the problem was caused by high-risk accounting estimates being allowed by GAAP.

4.2 Rules or Principles?

Rather than focus on the actual intentions of the defendants, Arnold and Rush dwelt on demonstrating technical conformity with accounting rules. However, the accounting estimates they cited had too much accounting risk given Enron's economic context. Nonetheless, this seemed the best defence strategy in view of the commonly alleged bias in the US regulatory system in favor of rules over principles. Such a strategy is consistent with the observation that evidence of compliance with rules-based GAAP has been persuasive in many US court cases in which improper reporting is alleged (Ball, 2009, p. 306). Such persuasiveness is mildly surprising given argument that a rules-based system encourages misleading financial reporting (Chambers & Wolnizer, 1991, pp. 362-3). In contrast, a well-developed principles-based system seems more likely to satisfy users' reporting needs. Such a system will not mislead users because it does not allow financial statements to report extremely risky estimates that are unlikely to be realized.

A key accounting issue that should have arisen, but did not, was whether high-risk estimates should be permitted by GAAP. It did not, because the prosecution was keener to attack the character (the credibility or *ethos*) of the defendants, using premises not connected with accounting reasoning (Hueston, 2007, p. 207). The prosecution did not want to get bogged down in arcane technical details of accounting rules and confuse the jury.

4.3 Conformity with GAAP: Rules versus principles

The expert accounting witnesses argued that Enron's accounting conformed to GAAP. Yet, the defendants did not ask their accounting expert witnesses to testify about any specific Special Purpose Entity (SPE) transactions. These had been the focus of much critical commentary. Nor were the witnesses pressed on such matters by the prosecution. Some of Enron's SPE transactions were clear violations of GAAP rules (Benston & Hartgraves, 2002, p. 109, p. 113; Knapp, 2006, p. 15). This helps to appreciate why Skilling and Lay and their lawyers and expert witnesses did not focus on these issues. The prosecution did not do so because it believed jurors would be confused by accounting rules if they were asked to consider the characteristics of misleading, fair or unreasonable financial reporting. The prosecution focused instead (implicitly) on the objectives of financial reporting.

The prosecution's attack on the expert witness testimony was compromised by a GAAP hierarchy in which the objectives of financial reporting were ranked last. The prosecution's task would have been facilitated by a more appropriate GAAP hierarchy – one in which failure to adhere to principles would have helped to evaluate the *ethos* of the defendants. Since the prosecutor did not want to get involved in "disputes over the defendants' respective understandings of the application of often arcane accounting rules" (Hueston, 2007, p. 1978), he de-empasized any exploration of whether the financial reporting of Enron's management conformed with GAAP. The prosecutor took a different route to disprove the conclusion (Enron's management was lying) by trying to undermine the credibility of the expert witnesses. He questioned their motives (e.g., how much were they paid for their testimony?) and the reliability of their evidence (e.g., did they attempt to corroborate the defence claims with their own independent analysis?)

The prosecutor's accounting-related argumentation would have been facilitated greatly had an appropriate CF been recognized as the most authoritative source of accounting reasoning. The GAAP hierarchy needs to be changed to help deter fraudulent or unethical financial reporting. The objectives of financial reporting in meeting user needs (including the need to represent future events faithfully) should be paramount. When combined with the concepts of risk and materiality, this means that the accounting risk of estimates in a financial report should be at acceptable levels.[18] If the objectives and related concepts and principles inherent in the CF were located at the top of the authoritative GAAP hierarchy, rather than at the bottom, this would result in a more coherent system of justification based on meeting user needs. Such elevation would be easier to defend logically in court disputes about financial reporting.

Although the testimony of the accounting expert witnesses was logically consistent with [then existing] GAAP, their arguments failed to persuade the jury. The authority of the experts was undermined by their inability to argue convincingly that fair presentation ensued; and by the prosecution's interrogation of their credibility and impartiality. In terms of persuading the jury, the logic of the defence case of conformity with GAAP was overwhelmed and ineffective.

6. Recommendations and conclusions

Our first recommendation is to require that GAAP and financial reporting standards be more reliant on coherent logic derived from the objectives of financial reporting.

Recommendation 1:
A Conceptual Framework of financial reporting should emphasize the overarching need to meet the stated objectives of financial reporting in a fair presentation framework. The remainder of the Conceptual Framework should provide essential guidance to meet those objectives, including basic concepts, assumptions, and principles to capture economic substance (such as future cash flows) to the extent possible using accounting concepts. This guidance should be contrasted with the compliance reporting framework; and it should be integrated with the compliance and fair presentation reporting outlined in an auditing conceptual framework, such as in ISAs/CASs 200-210.

How should a principles-based reasoning system in accounting (as, for example, proposed in ICAS, 2006) be implemented? First, all implemented rules should verifiably meet the objectives of financial reporting stated in the CF. Second, verifiably reliable measurements of value in financial statements should emerge from accounting estimates that conform to rigorous measurement guidance. Thus, if accounting estimates (measurements) do *not* result in faithful representation of future outcomes then they should *not* be used in GAAP-based financial reporting. Rather, they could be incorporated in audited financial forecasts and projections, using cautionary wording in the opinion about possible material differences between forecasted and actual results (AuG-6, para. 43 and AICPA, AT section 301, especially para .34). This is what the accounting risk concept is intended to reflect.

Instead of requiring perfect information about the future, accounting standards should use information based on acceptable risk – what we call the *accounting risk*. Since accounting risk is a financial reporting issue, a verifiable acceptable level of accounting risk should be incorporated in the CF. This can be done as part of an accounting measurement principle in the CF. If there is no such principle, it can be incorporated as part of a disclosure principle. Such a proposed system would be grounded on the availability of sufficient appropriate evidence. Such a reporting system would also require a changed audit orientation as proposed, for example, in Brydon (2019). For other aspects of audit reasoning see Dennis (2015).

[18] Smieliauskas (2012) and Pelger (2020) suggest that levels of uncertainties for accounting estimates could be the basis for determining what should be recorded, disclosed, or ignored for purposes of fair presentation reporting. Such approaches are consistent with the social futures epistemology of Bell and Olick (1989).

Our second recommendation seeks to ensure that financial reporting rests on an ethical foundation in which accounting numbers are verifiable; and hence, more likely to be truthful.

Recommendation 2:
To reflect the economic substance of future events reliably, a revised Conceptual Framework should associate verifiably acceptable levels of accounting risk with accounting estimates and related note disclosures.

In the preponderance of evidence criteria used in civil law trials, the degree of proof is “more probable than not” (Nolan, 1990, p. 1182). When applied to evidence about future estimates, this suggests that if an accounting estimate is to meet the burden of proof in civil law, the minimum probability of it being true should verifiably be at least 50%.[19] Commercial law works this way to conform to a fundamental truthfulness principle that is based on adducing sufficient appropriate legal evidence in deciding cases. If accounting standards are to be logically defensible in a court of law, then they should follow principles that are consistent with burden of proof concepts in commercial law.

Acceptance of truthfulness as a key objective of financial reporting requires appropriate reasoning in dealing with risks and uncertainties relating to future events, including the effects of measurement rules and note disclosures. What we add here is that all sources of uncertainty about the future, including the concepts of existence, outcome, as well as measurement uncertainties of IASB (2018, para. 6.61-6.62 and 5.12) should be considered in determining accounting risk for an estimate and deciding on its acceptability for financial reporting purposes. It is important to note from the testimony at the trial that accounting risk can only be addressed through appropriate financial reporting and not necessarily through the gathering of more audit evidence that is the focus of audit standards. Thus, fairly presented financial statements should report only estimates that have verifiably acceptable accounting risk. Other estimates should be disclosed in the notes and also meet verifiability criteria (e.g., see IFAC, 2011 for proposed verifiability criteria).

Brydon (2019) views a key aspect of the auditor’s evolving role as being to provide more assurance on management’s estimates and estimation processes in accurately reflecting estimation uncertainties. This can be done by identifying acceptable levels of these uncertainties for fair presentation, and by at least disclosing in notes to the financial statements when these uncertainties exceed acceptable levels. This may be done through the key audit matters paragraph or through the concept of graduated findings (Brydon. 2019, 77-78). But, in turn, appropriate implementation of this requires good calibration as part of good forecasting principles (indicated in Savage (2009), Glover, Ijiri et al. (2005), Lundholm (1999), and Tetlock and Gardner (2015)). Innovations in financial modelling, data analytics and machine learning to help predict the future (Agrawal, et al. 2018), and increased use of these models in impairment testing and fair value accounting, will compel auditors but to keep up with these innovations if they are to remain relevant (e.g., see AICPA 2019).

The two recommendations above can elevate financial reporting beyond a mere compliance instrument and render financial reporting a more socially constructive institution that is based on verifiable truthfulness. The social reality thus represented would be more likely to be truthful than not, and less likely to misreport social reality. The two recommendations will require financial report preparers, auditors and standard-setters to exercise functional knowledge of justification by

[19] In the Lehman Brothers case, failure to record $50 billion of liabilities when material misstatement was $1.8 billion resulted in an accounting risk of untruthful reporting of 100%.

recourse to sound argumentation; to prioritize user needs; and to develop ethical forecasting principles. Such actions would help create accounting standards that are more conducive to deterring unethical management activities, including unethical reporting.

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Appendix A: The GAAP Hierarchies for FASB and IASB (for IFRS)

The FASB's GAAP Hierarchy

The AICPA's "Hierarchy of GAAP for Financial Statements of Non-governmental Entities," published in 1999, had five strata, listed below in descending order of authority:

1. FASB Statements and Interpretations, APB Opinions, and AICPA Accounting Research Bulletins.
2. FASB Technical Bulletins, AICPA Industry Audit and Accounting Guides, and AICPA Statements and Practices.
3. Consensus positions of the FASB emerging Issues Task Force and AICPA Practice Bulletins.
4. AICPA accounting interpretations, "Questions and Answers" published by FASB staff, as well as industry practices widely recognized and prevalent.
5. Other accounting literature, including FASB Concept Statements, AICPA Issues Papers, International Accounting Standards Committee Statements, GASB Statements, Interpretations and Technical Bulletins, pronouncements of other professional associations or regulatory agencies, AICPA Technical Practice Aids, and accounting textbooks, handbooks and articles.

The AICPA's GAAP hierarchy ranks the FASB Concept Statements [components of the Conceptual Framework] in the bottom stratum. However, on April 28, 2005, pursuant with the FASB's exposure draft titled "The Hierarchy of Generally Accepted Accounting Principles" and associated documentation, the FASB (2005, p. i) conceded that the place of the CF in its hierarchy was too low, and out of kilter with the IASB. The FASB indicated an intention to act on this. Nonetheless, in May 2008, when it issued a revised version of this exposure draft as FASB 162, it observed in its "Summary" preface that FASB 162 was not expected to result in changes in current practice. Consistent with this attitude, in FASB 162, FASB Concept Statements remain in the bottom stratum of the hierarchy, despite mentioning that they should "normally be more influential than other sources" in the (bottom) category in which they appear (para 5).

The IFRS's GAAP Hierarchy

1. IFRS Standards and Interpretations

2. The IASB Conceptual Framework can be used to develop consistent accounting policies when no standard applies or when a Standard allows a choice of accounting policy. Nothing in the Conceptual Framework overrides any Standard or any requirement in a Standard (Source: Status and Purpose of the Conceptual Framework in IASB 2018).

Appendix B: Analysis of the accounting expert witness evidence using Toulmin (1958)

For each of the five accounting issues, we outline the warrant, qualifier, data, and conclusion of the expert witnesses and the prosecution. We also provide a commentary in respect of each issue.

Issue 1: Were the international assets of Enron's Global Asset and Services Unit impaired, according to GAAP? [Expert witness: Arnold]

Warrant

Arnold: The value reported for the international assets is based on book value, in conformity with GAAP. Hence, international assets are presented fairly. "Under GAAP, the only appropriate number to show for assets included in…a set of financial statements is the book value" (Arnold, May 2, p. 201).

Prosecution: The value of the assets is misleading. Therefore the assets are not presented fairly.

Qualifier

Arnold: "Losses can only be taken if an asset is going to be sold, committed to be sold in a formal way or if specific accounting rules indicate that there's been an impairment loss" (May 2, p. 196).

Prosecution: There are no qualifications to the government's prohibition on misleading financial information (May 2, p. 276).

Data

Arnold and Prosecution: The data are in a schedule that lists individual assets in the Enron Global Asset and Services Unit. These data show where these assets are located, the values that were determined by Enron's risk assessment and control group, Skilling's estimate of the values, and the carrying (or book) value of the assets at June 30, 2001 (May 2, p. 195).

Conclusion

Arnold: Although Enron's book value for international assets exceeded their market value by billions of dollars, this does not mean that there was (or that there will be) a loss (May 2, p. 196).

Prosecution: Since the assets are recorded at billions of dollars in excess of fair market value, this is misleading. For fair presentation, the assets should be recorded at fair value.

Commentary

The expert witness testimony was intended to disprove any criminal intent by Lay (e.g., see Hueston, 2007). However, a notable feature of Arnold's testimony was his narrow interpretation that the rules affecting asset impairment applied only to some assets. He seemed obsessed with rules-oriented behavior ("the rules that must be followed" [May 2, p. 201]), despite the capacity for such behavior to be misleading. Nevertheless, the view of the expert witness was that to comply with GAAP, rules must be obeyed mechanically, regardless of the circumstances (i.e., independent of the economic context).

The presumption that accounting concepts are clear, and that rules must always be followed, dominated the testimony. The $6.5 billion of international assets at issue were part of the $21 billion of fair value assets that Haldeman (2006, p. 19) argued were worthless just a few months later. Arnold testified that there was no need to inform potential investors of the vastly overstated nature of the international assets relative to current market values because the book values conformed with GAAP rules (May 2, pp. 199-201). Scant concern was shown for how users of financial statements might be affected. Fairness of presentation was not raised as an issue.

The writing-down of a group of assets (such as those of Enron's Global Asset and Services Unit) signaled that top corporate management had "given up" on the businesses supported by those assets, thus prompting a loss. However, if the group of assets had *not* been written down, then there was potential to send a strong signal that top management intended to take strategic actions to realize the book value of the group of assets. Thus, management intent, and more importantly, the feasibility of the outcomes contingent upon management intent and ensuing actions, ought to have become central to the accounting. A key issue was whether or not there was an appropriate or acceptable level of accounting risk in the estimation uncertainty.

This highlights the problem of assessing whether a future event (or combination of events) should have to qualify for recognition in financial reports. The assessment involved is a type of contest. On one hand, management ostensibly alleges some future state with respect to event(s). On the other hand, external auditors seek good evidence to support or oppose such allegation(s) before making an audit judgment. This contest should be distinguished from mechanical compliance with rules. The assessment involved should be addressed through the accounting risk concept, by relating fairness of presentation to an acceptable level of accounting risk for different assets and liabilities in financial statements. A skeptical auditor ought to consider a range of scenarios before evaluating the accounting risk associated with non-realization of management's estimate. If management fails to forecast correctly (as is probable), an overconfidence bias arises as a pervasive management problem (Kahneman, 2011, ch. 24).

Issue 2. Is the reduction in equities of $1.2 billion in the third quarter of 2001 'immaterial' and therefore not requiring re-statement, according to GAAP? (May 2, p. 257) [Expert witness: Arnold]

This issue prompted the court to consider the confounding nature of "legal materiality" and "accounting materiality."

Warrant

Arnold and Prosecution: If there is a material misstatement, a re-statement should be made.

Qualifier

Arnold: If a misstated item does not affect an investor's opinion, that misstatement is immaterial. (May 3, p. 30).

Prosecution: Under SEC Staff Accounting Bulletin [SAB] No. 99, *Materiality*, the "auditor must consider both quantitative and qualitative factors in assessing an item's materiality" (May 2, p. 261). Even if the item is quantitatively immaterial, it can be qualitatively material, as here (May 3, pp. 18-9). Any intentional misstatement is material.

Data

Arnold: The materiality thresholds were appropriate (May 2, p. 258, p. 263, p. 271). Enron's accounting is justified because the change in the debt-to-equity ratio was immaterial: that is, too small to care about.

Prosecution: The cover-up of a reduction in equity resulted from a huge accounting error by Enron. The misstatement was qualitatively material by virtue of it being intentionally misleading (May 3, pp. 20-1, p. 24, p. 29).

Conclusion

Arnold: The error was immaterial when first discovered. There was no need for a re-statement. No independent analysis of the appropriateness of materiality (such as making enquiries of Enron's accountants) was necessary (May 3, p. 285).

Prosecution: Management knew about the error. It was qualitatively material since the intention of management was to hide the loss. Therefore, the financial statements should have been re-stated.

Commentary

Arnold exaggerated the clarity of the accounting materiality concept. He did not express concern that users might be misled. This was contrary to the spirit of the SEC's SAB 99 that he (and Rush) relied upon extensively in claiming an issue could be "immaterial" based on a mechanistic rule of thumb (see Fastow, 2016).

Both expert witnesses discounted the importance of the "intent of management" in deciding whether a deliberate immaterial misstatement could be considered material in accord with SAB 99. Use of a mechanistic rule, instead of recognizing the inherent estimation uncertainty, can result in significant risks being ignored (such as those mentioned in ISA/CAS 540.16-17, *Auditing Accounting Estimates, Including Fair Value Accounting Estimates*). In general, just focusing on material misstatements, without considering the associated risks, is tantamount to regarding accounting as having no uncertainty. Such a logic allows 100% accounting risk. This is because, for future events, no number can be absolutely certain. Thus, the only meaningful representation is one that considers the riskiness of an accounting number. This idea is well established in financial economics and risk management — but not in accounting principles (Savage, 2009; Smieliauskas, 2012).

Issue 3: Was the accounting treatment of the third quarter "non-recurring" charges of approximately $1 billion appropriate, according to GAAP? [Expert witness: Arnold]

Warrant

Arnold: GAAP requires a company to report separately on matters that affect operations and those that are not expected to affect future operations (May 2, p. 235, pp. 241-2).
Prosecution: For the financial statements to be presented fairly, the treatment of the third quarter charges should be consistent for positive items and for negative items (May 3, pp. 45-6).

Qualifier

Arnold: According to the consistency principle, the treatment of an item as "recurring" or "non-recurring" should be consistent from year to year. It is not necessary to explain in the notes to financial statements why a non-recurring item was previously recurring (May 3, p. 43).
Prosecution: For full transparency, any inconsistent treatment of non-recurring and recurring items between two periods should be explained (May 2, p. 235).

Data

Arnold: Consistent with the SEC's definition, non-recurring items should be discussed as unusual or infrequent events that materially affect the amount of reported income from continuing operations (May 2, pp. 243-9).
Prosecution: Management intended to hide losses. Enron treated losses as non-recurring at a time when it was treating gains as recurring (May 2: 240; May 3: 45-6).

Conclusion

Arnold: Enron's non-recurring charges fit the SEC's definition well. That is why it was appropriate to record them as non-recurring (May 2, p. 235).
Prosecution: Enron should not have classified the charges as non-recurring, based on management's intention to hide losses. By classifying the charges as non-recurring, Enron misled users (May 3, pp. 45-6).

Commentary

The accounting experts exaggerated the importance of strict adherence to accounting form rather than economic substance. They did not seem concerned for the purpose of the rules. Their stance is unsurprising given that the CF (and its primary warrant relating to objectives of financial reporting) were at the bottom of the GAAP hierarchy at the time of the trial (and are still there in 2020).

Issue 4: Was shifting losses from Enron's Retail to Wholesale segments (which arose from re-segmentation) appropriate according to GAAP? [Expert witness: Rush]

Warrant

Rush: There is no rule on how a company should segment its business. Segments should reflect the way the company is organized. FASB 131 (*Disclosures about Segments of an Enterprise and Related Information*) permits companies to change their segments (May 3, pp. 131-6).
Prosecution: There should be a valid business reason for re-segmentation to occur. There was none (May 3, p. 294).

Qualifier

Rush: Prior financial statements have to be re-stated to conform to new presentation requirements (May 3, pp. 295-6).
Prosecution: To avoid misleading reporting, a Management Discussion and Analysis report is needed to explain the reasons for re-segmentation (May 3, p. 296).

Data

Rush: The risk management function in the Retail operation was moved to the Wholesale operation. Enron was re-segmented to share the risk management function (May 3, p. 141, p. 152, p. 292).
Prosecution: The questionable timing of the re-segmentation indicates that management's intent was to hide losses (May 3, p. 294).

Conclusion

Rush: The re-segmentation was disclosed properly under FASB 131 and SEC rules (May 3, p. 132).
Prosecution: The re-segmentation was structured to hide losses and mislead the public to believe that the Wholesale operation was profitable. There was no valid business reason for the re-segmentation (May 3, p. 294).

Commentary

Rush's testimony follows logically from the [then] existing GAAP hierarchy. However, the logic is deficient if the needs of users are to be satisfied. Those needs were at the bottom of the GAAP hierarchy. They were superseded by detailed accounting standards (Palmrose, 2009, p. 290). Rush made it clear that he was rules-oriented (May 3, p. 293). But segmentation requires estimation based on predictions of future events by segment. The estimation uncertainty this creates should be addressed by fundamental accounting principles that consider when an estimate is "unreasonable."

Issue 5: Was the estimation of reserves in conformity with GAAP and not materially misstated? [Expert witness: Rush]

Warrant

Rush: The reserve estimates conform with GAAP. They are not materially misstated. Hence, they are presented fairly (May 3, pp. 108-14, p. 118).

Prosecution: Reserve estimates should comply with GAAP. Reserves should not be used to manage earnings. SAB 99 *Materiality* should be used when conducting audits of reserve estimates. SAB 99 requires consideration of qualitative and quantitative factors in determining materiality, and for adjustments to be made for intentional misstatements (May 3, pp. 207-8).

Qualifier

Rush: Auditors are unlikely to be able to check the reasonableness of the estimated reserve accurately at any time. "A review is much less detailed, much less rigorous" (May 3, p. 100).
Prosecution: There are grey areas in GAAP. These might lead to risks for users in interpreting GAAP-compliant financial statements.

Data

Rush: External auditors verified that the estimate of the reserve was reasonable, as part of their normal audit work. They verified quarterly financial statements that tracked the reasonableness of estimates for the reserve (May 3, p. 100). No new information was available to justify the change in estimate. Therefore, there was no earnings management in the change in estimate (May 3, p. 105).
Prosecution: Management was very aggressive. It understood how Enron's reserves could be manipulated to manage earnings to meet analysts' expectations (May 3, pp. 205-17, pp. 233-4, p. 247).

Conclusion

Rush: Enron's accounting for reserves complied with GAAP and received unqualified audit opinions for 1999 and 2000 (May 3, p. 101). Management's estimates of reserves were legitimate — even if they were ultimately proven to be wrong. The greater the volatility in gas prices, the more reserves the company needed to set aside, since the chances of being paid on the contract would decrease. This showed that the reserve was set up to take account of the impact of volatility on prices, and that Enron reacted in accord with market information.[20]
Prosecution: Enron used reserves as a tool to manage earnings. The reserves were misstated in the financial statements. "Misstatements are not immaterial simply because they fall beneath a numerical threshold" (quote read to the court by the prosecutor from SAB 99) (May 3, p. 204).

Commentary

When questioned about estimates of reserves, Rush stated:

> … the accounting principles also know that you're not always going to get these estimates right … If it turns out that the reserve was too high or low, that is not an indication that the financial statements were wrong (May 3: pp. 98-9).

Rush argued that GAAP require management to make assumptions and estimates about future events; and that management made the best assessments possible. In his view, GAAP assumed users understand that estimates are not final, but change over time.

The expert witness testimony relied on the logic of form over substance. This was an enthymeme in the [then] current GAAP hierarchy. According to Rush:

[20] Rush did not complete an independent analysis of the reserve. This raises doubts as to whether he had sufficient knowledge of the facts when reaching his conclusion (May 3, 2006).

> GAAP doesn't talk about misleading. GAAP doesn't talk about integrity. GAAP talks about accounting rules, how you measure assets and liabilities, what kind of disclosures you make (May 3, pp. 201-2).

Rush relied on detailed GAAP rules relating to specific accounting issues, even though he agreed to the likelihood of great uncertainty. We contend that had the CF included an explicit principle about controlling overall estimation uncertainty to acceptable levels, then he would not have used such mechanistic reasoning. Also implicit in his view was that users understand the logic of the current GAAP hierarchy (an enthymeme in Rush's reasoning). Rush used the materiality concept mechanistically (May 3, pp. 107-112). He relied mainly on quantitative materiality and understated the importance of qualitative materiality. His emphasis on quantitative materiality was easier to defend because of the low status of the CF (including the objectives of financial reporting and user needs) in the GAAP hierarchy. Although Rush acknowledged estimation uncertainty, he failed to consider whether the level of estimation uncertainty would have affected faithful representation.