CONSERVATISM IN ACCOUNTING:
AN ANALYTIC EXPLANATION AND AN EXPLORATION OF THE EFFECTS OF FAMILIARITY AND RULES- VS. PRINCIPLES-BASED STANDARDS

By

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The principle of conservatism is a major feature embedded in the financial reporting system. Recently, there have been numerous empirical attempts to measure the extent of conservatism that exists across firms and countries. The results of the empirical studies based on different measures of conservatism are conflicting. This study explores the principle of conservatism from analytic and behavioral perspectives.

The analytic section of this study attempts to unravel the conflicting results of the archival studies and questions the extent to which accounting conservatism can be measured empirically. The results of the analytic study show that a single measure of conservatism does not exist and empirical studies that employ a single measure of conservatism can not be relied upon to draw conclusions about the degree of conservatism inherent in financial reporting.

In addition to quantitative factors, qualitative factors also need to be considered in determining the degree of conservatism when decisions are made under uncertainty or

when decisions are made between parties that have a conflict of interest. The behavioral section of this study explores two factors that may influence the degree of conservatism that is observed in financial reporting. Specifically, this part explores the effects of rules- vs. principles-based accounting standards and the influence of familiarity on conflict resolution when auditors and their clients collectively decide on how an ambiguous accounting issue should be reported in the financial statements. The results of the experiment indicate that the type of standards and the degree of familiarity jointly have an effect on the degree of conservatism inherent in the reported numbers. This is important in showing how quantitative measures are affected by qualitative factors that surround the decision making process.

CHAPTER 1
INTRODUCTION

Accounting conservatism is a major feature of the financial reporting system. The saying "anticipate no profits and provide for all possible losses" (Devine, 1963; Watts, 2003a) describes conservative reporting on the income statement, which has inspired most of the recent empirical research on conservatism (Ball, Kothari, and Robin, 2000; Basu, 1997; Givoly and Hayn, 2000; Holthausen and Watts, 2001).

The most commonly used measures of conservatism in the literature are income statement based as derived by Basu (1997), and balance sheet based assessments as captured by the market-to-book ratio. The results of the empirical studies based on these measures are conflicting.

In chapter 2, I attempt to unravel the conflicting results in the empirical literature and I question the extent to which accounting conservatism can be accurately measured. The results in chapter 2 indicate that conservatism can not be measured by a single measure and that other factors may influence the conservatism in reported numbers.

I further explore the idea that qualitative factors may have an influence on the degree of conservatism in financial reporting. In chapter 3, I explore this idea through an experiment that examines two factors that may affect the joint decision of two parties that have a conflict of interest. The auditor and the client are a classic example of two parties known for their inherent conflict of interest. The client pays the auditor for auditing its financial statements. Thus, the auditor can do a satisfactory job in the eyes of the client if the auditor issues an opinion in line with the client's. The outcome of the joint decision

process reflects the degree of conservatism inherent in financial reporting. The results in chapter 3 indicate that familiarity and the type of standards may jointly affect the outcome of a joint decision making process.

Chapter 4 concludes the findings of the study.

CHAPTER 2
CONSERVATISM PUZZLE

The Financial Accounting Standards Board (FASB) Statement of Financial Accounting Concepts (SFAC) No. 2 (1980) describes conservatism as the understatement of net income and net assets in the presence of uncertainty. This description encompasses conservatism as it is reflected on both the balance sheet and the income statement. However, this does not imply that the effects of understatement will impact both statements equally. Basu (2001) gives the following example:

> It is useful to distinguish between the balance sheet and income statement effects of conservatism, since they do not always go hand in hand. The purchase and pooling-of-interest methods of accounting for mergers under U.S. GAAP provide a useful illustration. Under the pooling-of-interest method, the acquired firm's assets and liabilities are reported on the acquirer's balance sheet at the values on the acquired firm's balance sheet, and depreciation typically continues under the pre-existing basis. Under purchase accounting, the assets and liabilities of the acquired firm are reported on the acquirer's balance sheet at fair values, which are typically greater than their values reported on the acquired firm's balance sheet. However, these assets are subsequently depreciated and/or amortized at rates higher than those previously used by the acquired firm. Thus, the pooling method results in more conservative balance sheets and less conservative income statements than the purchase method, at least under the traditional definition. (p. 1335)

The reason why the effects of conservatism manifest in varying degrees in the financial statements may be due to the fact that the conservatism principle overlaps the two primary qualities of the financial statements: relevance and reliability. Relevance is achieved through information that has predictive value, feedback value and that is timely. Reliability is achieved through representational faithfulness, verifiability and neutrality (SFAC No. 2). There exists a tradeoff between relevance and reliability: more relevance can be achieved at the expense of reliability. Barth, Beaver, and Landsman (2001) state

that "conservatism can be a by-product of applying the FASB's reliability criterion" (p. 94). However, while on the one hand the conservatism principle requires more verifiability for reporting good news, on the other hand the use of conservatism in making judgments under conditions of uncertainty deters the neutrality of financial statements. In addition to the statement in Barth et al., conservatism can also be a by-product of the relevance criterion as it requires predictive value, feedback value, and the timely recognition of "bad news" in the financial statements—but not "good news." Thus, the concept of conservatism nurtures both of the primary qualities of the financial statements in an asymmetric manner. Kieso, Weygandt, and Warfield (2001) label conservatism as one of the "overriding constraints" to the qualitative characteristics, which introduces yet another angle to the conceptualization.

Moreover, income statement and balance sheet conservatism may be applied at varying degrees because of the different functions they serve. There may be different forces at work pushing in opposite directions: more aggressive on the income statement (as aggressive as possible that is allowed by the accounting standards) and more conservative on the balance sheet (as conservative as possible that is allowed by the accounting standards). For example, assuming that earnings provides a performance measure for compensation contracting and monitoring purposes while the balance sheet provides an estimate of the liquidation value of net assets for borrowing purposes, it is understandable that income statements will be used by managers in a least conservative manner whereas balance sheets will tend to err towards the more conservative end.

The empirical evidence collected based on operationalized definitions of conservatism measures indicates that accounting practice has become more conservative in the last 30 years (Basu, 1997; Givoly and Hayn, 2000; Watts, 2003b). Has accounting

really become more conservative in the past three decades? One of the most commonly cited reasons for this increased degree of conservatism is the litigious environment that was created after the 1966 changes in the rules of bringing class action suits (Watts, 2003a). The fear of litigation has supposedly forced accounting reporting to become more conservative. Yet, could it be that litigation has increased because of aggressive financial reporting and this has not necessarily made companies more conservative, but in fact more calculative? Could there have been other changes at work that forced litigations to increase?

An answer may be derived from Zeff's (2003a) review of the accounting profession during the 20th century. According to Zeff (2003a), one major change that has affected the large accounting firms in the last 30 years was the growth of consulting services, which eventually led to the accounting profession succumbing to the mentality of "making profits." In addition to this organizational change taking place within accounting firms, financial reporting norms were also under stress during the 1980s as (1) industry regulators increasingly viewed them as a means to achieving "public interest" goals (e.g., regulators in the banking and thrift industries pressuring the FASB and the audit firms to use deceptive accounting practices in order to "rescue" failing banks and savings and loan institutions in the name of the "public interest") and (2) firms and trade associations demanded more preparer-friendly standards from the FASB (Zeff, 2003a). Furthermore, the 1980s was also the decade when analysts' earnings forecasts became more prominent, which created increased pressure on CEOs to achieve earnings targets.

These developments led towards a more assertive and aggressive accounting practice as auditors felt pressure from both inside and outside the accounting firm: on the one hand companies wanting to secure auditor approval for creative accounting

techniques, and on the other hand the accounting firms wanting to keep the client's business. The accountant's role diminished to one of "putting the foot in the client's door" and once through the door, keeping the client happy. Not surprisingly, by the mid-1980s all of the booklets and newsletters previously published by the large accounting firms expressing views on controversial issues became nonexistent, which marks the death of the accounting profession as it was known before (Zeff, 2003b).

The empirical research based on the operationalized definition of conservatism hypothesizes that the most important explanations to conservatism are contracting and shareholder litigation (Watts, 2003a). However, Begley and Freedman's (2004) study provide evidence on the contrary. They investigate the changing role of accounting numbers in public lending agreements and show that there is a dramatic decline in the use of accounting numbers over the last quarter century. In the late 1970s, accounting-based restrictions on dividends and additional borrowing appear in almost half of the debt issues examined, in the 1990s the use of accounting-based restrictions falls down to 25 percent and in the 1999-2000 sample down to less than 10 percent. In the light of empirical research on conservatism, which provides evidence that accounting practice has become more conservative in the last 30 years because of contracting purposes, the results of Begley and Freedman are puzzling.

Measures of Conservatism

Researchers have used various measures to gauge conservatism in financial statements. These measures have been derived from three major accounting numbers: net assets, earnings, and accruals (Watts, 2003b). Following is a description of each of these measures labeled as balance sheet conservatism (utilizing net assets), income

statement conservatism (utilizing earnings), and accruals conservatism (utilizing accruals).

Balance Sheet Conservatism

Balance sheet conservatism describes the choice of accounting methods and estimates that keep the book values of net assets relatively low (Penman and Zhang, 2002). For example, LIFO accounting for inventories is conservative relative to FIFO; accelerated depreciation for property, plant, and equipment is conservative relative to straight-line depreciation; and expensing research and development (R&D) expenditures is conservative compared to capitalizing these expenditures. One empirical measure of conservatism emanates from the work of Feltham and Ohlson (1995), who model the relation between a firm's market value and accounting data. They distinguish between unbiased accounting and conservative accounting in terms of how book value differs from market value. Based on Feltham and Ohlson's work, Zhang (2000) gives the following definition of conservatism: An accounting policy is conservative if

$$\lim_{\tau \to \infty} E_t[oa_{t+\tau}] / E_t[V_{t+\tau}] < 1 \qquad \text{(Eq. 1)}$$

where *oa* is operating assets and *V* is the market value of operating assets. The market-to-book ratio has been used as a proxy for balance sheet conservatism based on this relationship (e.g., Givoly and Hayn, 2000; Lara and Mora, 2004). This implies that the market-to-book ratio will be greater than one if companies are conservative on their balance sheets.

The source of understatement of the book value relative to the economic value can be due to: (1) the failure to capture the positive net present value of projects and subsequent increases in value; (2) the minimization of the carrying value of net assets in place; and (3) the prompt recognition of losses (Givoly, Hayn, and Natarajan, 2003). The

source of understatement that is due to the failure to capture the positive net present value of projects and subsequent increases in value introduces the growth factor into the market-to-book ratio. In fact, market-to-book ratios have been widely used to proxy for growth in the financial literature where high (low) market-to-book ratio firms have been described as growth (value) firms (Brealey, Myers, and Marcus, 2001; Fama and French, 1995, 1998). Thus, high market-to-book ratios can be an indicator of conservative accounting practices on the balance sheet and/or high growth firms. The interaction of accounting bias with growth is a well-known fact (Beaver and Ryan, 2000). Thus, at this point, it becomes difficult to tease apart the conservatism embedded in the balance sheet and the growth potential that is perceived by the market. Indeed, Penman and Zhang (2002) state that this interaction of growth and conservatism—"the joint effect of real activity and accounting policy" (p. 238)—can be used to manage earnings.

Income Statement Conservatism

Recently, Basu (1997) introduced a measure of conservatism that uses earnings and stock returns to capture the conservatism principle implied by the adage "anticipate no profits and provide for all the losses." He interprets conservatism as "capturing accountants' tendency to require a higher degree of verification for recognizing good news than bad news in financial statements" (p. 4). The measure of conservatism is derived as the coefficient β_1 in the following regression:

$$X_{it} / P_{it-1} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} * DR_{it} \qquad \text{(Eq. 2)}$$

where the *i* and *t* subscripts denote the firm and period, respectively. *X* is the earnings per share, *P* is the price per share, *R* is the return from 9 months before fiscal year-end *t*

to three months after fiscal year-end *t*, and *DR* is a dummy variable that is equal to 1 if $R < 0$ and 0 otherwise.

Basu describes conservative accounting as the asymmetric recognition of "good news" and "bad news." The proxy for news is the sign of the stock return: good news firms are those with positive stock returns and bad news firms are those with negative stock returns. The coefficient β_1 in Eq. 2, captures the incremental response of earnings to bad news over the response to good news. Because companies provide for all the losses and defer all gains, more timely recognition of bad news compared to good news as measured by the β_1 coefficient implies more conservative accounting (see Fig. 1). This operationalized measure of conservatism has been used in numerous studies to assess the degree of accounting conservatism present across companies and countries (e.g., Ball et al., 2000; Giner and Rees, 2001; Givoly and Hayn, 2000; Givoly et al., 2003; Holthausen and Watts, 2001; Pope and Walker, 1999).

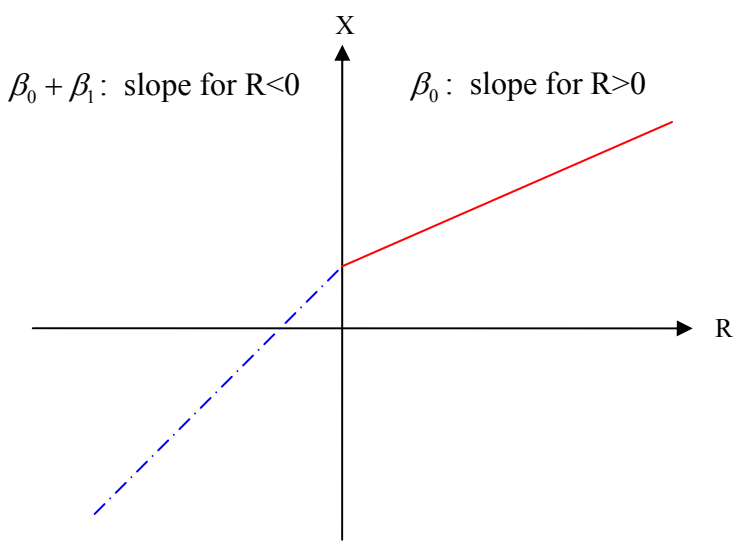


Figure 2-1. Graph of earnings regressed on positive and negative returns.

Accruals Conservatism

Givoly and Hayn (2000) consider the above-mentioned definitions of conservatism ambiguous. Their reason for ambiguity is the idea presented by Beaver (1998) in his definition of conservative behavior: "what constitutes 'conservative' earnings behavior in one period may imply 'non-conservative' earnings behavior in some later period" (p. 112). For example, both the balance sheet and the income statement will be affected in a conservative manner when R&D expenditure is fully expensed in the period that they are incurred, i.e., the company will have undervalued net assets and lowered net income in the period of the expenditure but higher net income in the subsequent periods. Hence, Givoly and Hayn (2000) state an alternative definition of conservatism that captures the multi-period dimension as the "selection criterion between accounting principles that leads to the minimization of cumulative reported earnings by slower revenue recognition, faster expense recognition, lower asset valuation, and higher liability valuation" (p. 292). They suggest that the sign and the magnitude of accumulated accruals over time are measures that can be used to gauge the degree of accounting conservatism. "A consistent predominance of negative accruals across firms over a long period is, ceteris paribus, an indication of conservatism, while the rate of accumulation of net negative accruals is an indication of the shift in the degree of conservatism over time" (p.292).

Givoly and Hayn (2000) calculate the accumulated total accruals as the difference between cumulative net income (before depreciation and amortization) and the cumulative cash flows from operations at the end of each of the years 1966-1998 and find that for the period 1966 to the early 1980s, the firms generated net positive accruals and from 1982 to 1998 there was a continuous accumulation of negative accruals, which they interpret as evidence that financial reporting has become more conservative. They break

down the cumulative total accruals into cumulative operating and cumulative nonoperating accruals and find that it is the cumulative nonoperating accruals that have become increasingly negative, whereas cumulative operating accruals have become increasingly positive (see Fig. 2). They assert that this predominance of negative cumulative nonoperating accruals cannot be explained by restructuring charges, mergers and acquisitions, increased cost of pension and post-retirement benefits, growth, and inflation based on additional analysis that controls separately for each of these factors (their results for this additional analysis are not reported in their paper).

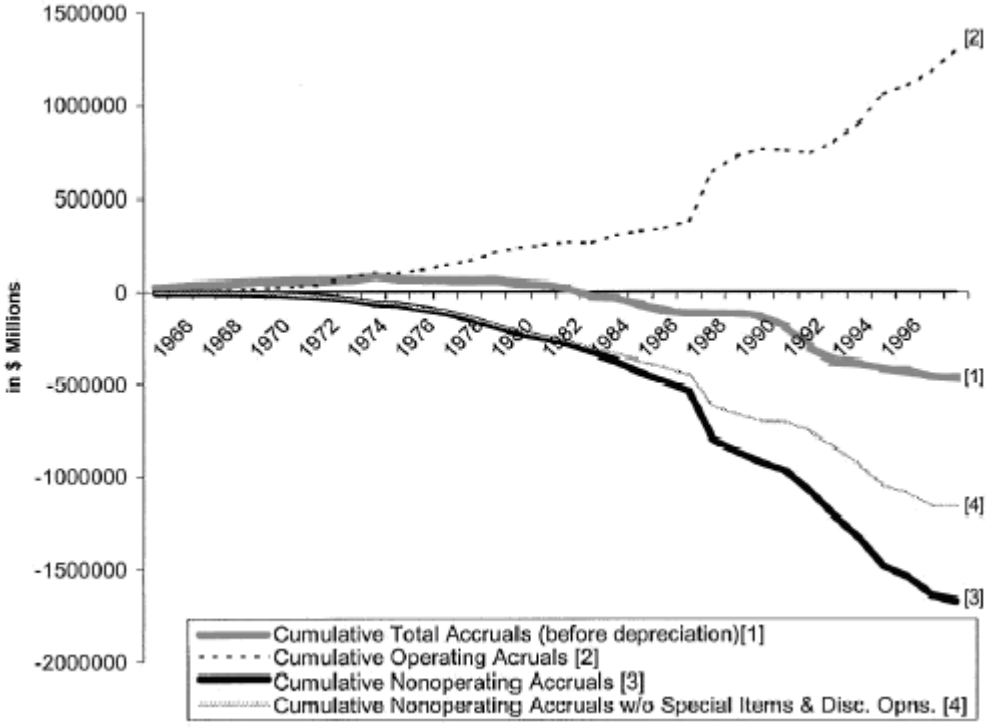


Figure 2-2. Cumulative accruals by type, 1965-1998 (constant sample of 896 firms). Total Accruals (before depreciation): (Net Income + Depreciation) – Cash Flow from Operations. Operating Accruals: ΔAccoutns Receivable + ΔInventories - ΔPrepaid Expenses - ΔAccounts Payable - ΔTaxes Payable. Nonoperating Accruals: Total Accruals (before depreciation) minus Operating Accruals. **Source: Givoly and Hayn (2000), Fig. 1, p. 303**.

The Puzzling Evidence on Conservatism

Numerous studies have been conducted based on the above-mentioned measures of conservatism (e.g., Ball et al., 2000; Basu, 1997; Givoly and Hayn, 2000; Holthausen and Watts, 2001). Some of the conclusions that emerge from these empirical studies are: (1) the U.S. financial reporting is conservative (Basu, 1997); (2) the U.S. financial reporting has become increasingly conservative (Givoly and Hayn, 2000; Holthausen and Watts, 2001); (3) the financial reporting system in common law countries (the U.K., Australia, Canada, the U.S.) is more conservative compared to the financial reporting system in code law countries (France, Germany, Japan) (Ball et al., 2000).

While Basu (1997) and Givoly and Hayn (2000) show that the U.S. is conservative and that financial reporting has become increasingly conservative using the income statement conservatism measure, Bowen, DuCharme, and Shores (1995) directly examine firms' choices of depreciation and inventory methods during the 1980s and early 1990s, and find a near-monotonic and large shift towards straight-line depreciation and FIFO from accelerated depreciation and LIFO, which indicates conservatism has been decreasing over time in the U.S.

Ball et al. (2000) explain their findings based on the differences that the law system creates. They theorize that in common law countries, where companies are mostly owned by the public, there is a demand for public disclosure that induces conservative reporting by the companies in order to protect themselves against litigation. On the other hand, this lack of demand for public disclosure in code law countries does not require conservative reporting, because companies are mostly owned by financial institutions or families and thus information asymmetries are resolved privately.

An inherent tension in the argument of Ball et al. is that while on the one hand there is a demand for public disclosure that induces conservative behavior, on the other hand the same public demands accurate, unbiased financial reporting. Gigler and Hemmer (2001) show that companies with more conservative accounting are less likely to make timely voluntary disclosures compared to those with less conservative accounting and thus, they conclude that price more timely reflects the news of firms with less conservative accounting. Moreover, even though the U.S. is more conservative as measured by Ball et al. (2000), Pope and Walker (1999) show that the differences between the U.K. and the U.S. reverse when the analysis is done based on earnings after extraordinary items, i.e., the U.K. becomes more timely in the recognition of bad news compared to the U.S. This raises two questions: (1) whether financial reporting is comparable across countries even though they use similar law systems and (2) whether the income statement conservatism measure is sensitive to the definition of earnings. Pownall and Schipper (1999) provide an answer to the first question by addressing the differences that exist between U.S. GAAP and non-U.S. GAAP. They state that "speaking to the type and magnitude of noncomparabilities as captured by Form 20-F reconciliations, research generally finds substantial negative differences between U.S. GAAP and home GAAP income, consistent with U.S. GAAP being on average more conservative than non-U.S. GAAP and consistent with a lack of aggregate comparability" (p. 264).

Another empirical example is provided by Giner and Rees (2001). They state that "an examination of the accounting practices suggests that pervasive conservatism would be greatest in Germany—the classic 'stakeholder—code law' area, intermediate in France and least apparent in the U.K. It may be expected that the more developed equity market

in the U.K., and the more frequent occurrence of widely held firms, would discourage pervasive conservatism, as it might be expected to produce earnings numbers of less relevance to shareholders, and to reflect badly on the reputation and remuneration of managers" (p. 1299). However, the empirical evidence using the income statement conservatism measure points in the exact opposite direction: the U.K. is the most timely in recognizing bad news (i.e., most conservative) compared to the 'code-law' countries, France and Germany. Germany turns out to be the least conservative of the three. Giner and Rees (2001) also show that in the U.K., firms with low (high) market-to-book ratios have higher (lower) income statement conservatism. This would indicate that the two conservatism measures point in opposite directions.

Lara and Mora (2004) reach similar conclusions and find that the existence of balance sheet conservative practices is associated with reduced levels of earnings conservatism. Givoly et al. (2003) explain why balance sheet conservatism may produce lower income statement conservatism as follows:

> The application of conservative accounting methods and practices such as expensing of software development costs, providing for anticipated losses, the immediate write-off of goodwill upon acquisition and the use of accounting methods such as LIFO and accelerated depreciation, would minimize the book value of net assets. As a result, the application of lower-of-cost-or-market-rule will be less frequent and the greater responsiveness of earnings to subsequent bad news will tend to be less pronounced. In contrast, aggressive reporting in the form of extensive capitalization and inadequate provisions for future costs or losses will make the firm's earnings more sensitive to unfavorable economic events. (p. 6).

They provide evidence that the income statement conservatism measure (which they label as the differential timeliness (DT) measure), is not related to the rate of accumulation of negative accruals (also for nonoperating accruals) and is negatively correlated with other dimensions of conservatism.

Pae, Thornton, and Welker (2004) show that income statement conservatism is substantially greater in portfolios of firms with lower price-to-book ratios than in portfolios of firms with higher price-to-book ratios and further find that the negative association between income statement conservatism and the price-to-book ratio is primarily due to the accrual component of earnings. In the following section a model is presented to explain these empirical results.

The Model

The company is assumed to be an all-equity firm.[1] The market value of the company is denoted by V and defined as the present value of all the future dividends. The stock return, R, is:

$$R_t = \frac{V_t - V_{t-1} + DIV_t}{V_{t-1}} \qquad \text{(Eq. 3)}$$

The market-to-book ratio will be used to capture the degree of conservatism on the balance sheet and the growth factor. In order to model the effects separately, the market-to-book ratio will be split into two ratios:

$$\frac{V}{B} = \frac{V}{M} \times \frac{M}{B} \qquad \text{(Eq. 4)}$$

where M denotes the market value of net assets in place and B denotes the carrying value of net assets on the balance sheet. V is the market value of the firm: sum of the market value of current assets in place and the market value of net present value of future projects. Modeling the market-to-book ratio this way enables the capture of the different sources of understatement mentioned in Givoly et al. (2003). V / M can be interpreted as capturing the growth factor as valued by the market since the features of financial

[1] An all-equity firm is assumed for mathematical ease. The analysis can be extended to debt-financed firms without loss of generalizability.

reporting (e.g., historical cost convention) do not allow for the valuation of net present value of future projects. M/B can be interpreted as capturing the degree of conservatism on the balance sheet that is purely due to accounting choices. For example, if $V = M$, this means that the net present value of future projects is 0 and that this is a no-growth firm. When this is the case, $V/B = M/B$, i.e., market-to-book ratio measures the degree of conservatism on the balance sheet without the interaction of the growth factor. Therefore, accounting choice and regulation are the only forces behind conservative practices via minimization of the carrying value of net assets in place. However, when $V \neq M$, then the market-to-book ratio becomes a noisy proxy for conservatism on the balance sheet because of the interaction between growth and conservatism.

No Growth Case $V/B = V/M \times M/B = M/B$

Assume that the company has no positive present value projects so that $V/M = 1$. In this case, V/B is purely an indicator of conservatism on the balance sheet. The degree of balance sheet conservatism will be denoted by σ. σ is the book-to-market ratio, the inverse of the market-to-book ratio:

$$B_{t-1} = \sigma V_{t-1} \qquad \text{(Eq. 5)}$$

Thus, $0 \leq \sigma < 1$ captures the degree of balance sheet conservatism that exists at the beginning of the period, i.e., increased σ implies less conservatism on the balance sheet. For example, in the extreme case where $\sigma = 0$, the company has expensed all of its assets; $\sigma = 1$ implies fair-value accounting, i.e., book value equals market value; and $\sigma > 1$ implies overvaluation of assets with respect to the market value.

The accounting earnings per share, *X*, will be assumed to be calculated using the historical cost, revenue recognition and matching principles. Assume that there no

dividends paid out[2] and that the market incorporates all kinds of information into the market price (i.e., efficient markets hypothesis), then the reported earnings per share, *E*, will be the minimum of accounting earnings or the difference between the market value and the beginning book value (because of the application of lower-of-cost-or-market rule (LCM)):

$$E_t = \min[X_t, V_t - B_{t-1}] \qquad \text{(Eq. 6)}$$

The LCM dictates departure from the historical cost principle when the market value of the assets in place is no longer as great as their original cost. Thus, the company can report its accounting earnings when the difference between the market value and the beginning book value is at least equal to the current accounting earnings amount, but reported earnings have to be adjusted when this difference is less than the current accounting earnings, which implies that there has been a downward market valuation of the company's assets in place.

Substituting Eq. 5 into Eq. 6 results in:

$$E_t = \min[X_t, V_t - \sigma V_{t-1}] \qquad \text{(Eq. 7)}$$

Adding and subtracting V_{t-1} to the second term in Eq. 7 yields the following:

$$E_t = \min[X_t, V_t - V_{t-1} + (1-\sigma)V_{t-1}] \qquad \text{(Eq. 8)}$$

Thus, reported earnings can either report the accounting earnings for the current period or a garbled number based on the market's valuation. $(1-\sigma)V_{t-1}$ can be interpreted as the "reserve" that has been created via conservative behavior on the balance sheet. For example, if the company's degree of conservatism, σ, is 0.90, then

[2] This is assumed for ease of discussion. It does not change the interpretation of the following analysis.

the book value is 90 when the market values it at 100. Thus, the company has created a "reserve" of 10.

Assuming that $0 \le \sigma \le 1$, i.e., the company's balance sheet is not overvalued compared to the market, the reported earnings amount depends on two things: the comparison between the cost of equity capital, *r*, and the stock returns, R_t; and σ, the degree of balance sheet conservatism:

1. If $r < R_t$, then $E = X$ always. This means that if the market perceives a positive change in value over the period (i.e., "good market news"), the reported earnings will always equal realized earnings. In this case, the degree of balance sheet conservatism, σ, does not matter.

2. If $r > R_t$, i.e., "bad market news," then the reported earnings depends on the magnitude of the decrease in market value of assets and the degree of balance sheet conservatism:

    a. If $X_t < V_t - V_{t-1} + (1-\sigma)V_{t-1}$, then $E = X$ as in case (a). The accounting earnings are less than the change in market value and the "reserve" created via balance sheet conservatism. Notice that increased "reserves" on the balance sheet will help this relationship to hold. Thus, the magnitude of the "bad market news" can be hidden behind the balance sheet conservatism and the company does not have to incorporate the "bad market news" into its accounting earnings.

    b. If $X_t > V_t - V_{t-1} + (1-\sigma)V_{t-1}$, then $E = V_t - V_{t-1} + (1-\sigma)V_{t-1}$. The accounting earnings are greater than the change in market value and the "reserve." The company has to incorporate the decrease in value of its assets as perceived by the market and into its current reported earnings. Notice that higher "reserves" created via balance sheet conservatism will enable the company to report higher accounting earnings than the economic income.

The income statement conservatism as captured by the regression in Eq. 2 implies that returns and earnings are more highly correlated when the stock returns are negative. If stock returns are negative, then:

$$R = \frac{V_t - V_{t-1} + DIV_t}{V_{t-1}} < 0 \Rightarrow V_t - V_{t-1} < 0$$

Given that conservatism is applied as described above to the reported earnings, then the correlation between stock returns and reported earnings is as follows:

$$\begin{aligned}\rho &= correlation(R, E) \\ &= correlation(\frac{V_t - V_{t-1}}{V_{t-1}}, \min[X_t, V_t - V_{t-1} + (1-\sigma)V_{t-1}])\end{aligned} \qquad \text{(Eq. 9)}$$

If $r < R_t$, then $\rho_G = \rho(\frac{V_t - V_{t-1}}{V_{t-1}}, X_t)$

If $r > R_t$, then $\rho_B = \rho(\frac{V_t - V_{t-1}}{V_{t-1}}, X_t)$ or $\rho(\frac{V_t - V_{t-1}}{V_{t-1}}, V_t - V_{t-1} + (1-\sigma)V_{t-1})$

Thus, $\rho_B \geq \rho_G$, the correlation between returns and reported earnings will be much higher in case 2—especially when the company cannot rely on excess "reserves" created by conservative practices on the balance sheet and when the $V_t - V_{t-1} < 0$ constraint is imposed (assuming that cost of equity capital is a positive number). Hence, the companies that are deemed to be more timely in capturing bad news cannot necessarily be described as reporting in a conservative manner. The above analysis shows that these companies are in fact *less* conservative on their balance sheet and their timeliness in capturing bad news is because they cannot "hide" their "bad market news" and they are forced to reveal it in line with the market. Moreover, the higher the balance sheet conservatism, the easier it is to report the accounting earnings without worrying about the LCM rule, because assets in place have already been written down much lower than the market's valuation. Hence, the correlation between returns and reported earnings would be lower, which explains, for example, why Germany, a country considered to be very conservative on its companies' balance sheets shows up as the least timely country in reporting bad news. This analysis explains the recently documented empirical results on the relationship between income statement and balance sheet conservatism. However, it

should be noted that the relationship is not a linear one, but rather one that depends on the degree of balance sheet conservatism and the magnitude of the change in value as perceived by the market.

Growth Case $V/B = V/M \times M/B = V/M$

Now assume that the company reports its carrying net assets in an unbiased manner on the balance sheet so that $M/B = 1$, i.e., the balance sheet is reported at fair value[3]. In this case, V/B is purely an indicator of the expected growth of the assets in place.

Assume that earnings still follow the conservatism principle as implied in the saying, "anticipate no profits and provide for all the losses." Now assume that there is a surprise element in the reported earnings that the market reacts to:

$$x = E[x] + x_u \qquad \text{(Eq. 10)}$$

where x is the rate of return on equity (ROE), i.e., E_t / B_{t-1}; $E[x]$ is the expected ROE, i.e., $E[E_t]/B_{t-1}$; and x_u denotes the unexpected portion of the ROE, i.e., UE/B_{t-1} (where UE denotes the unexpected portion of reported earnings). Given the surprise element in the earnings, the stock returns, *R*, will be:

$$R = E[R] + R_u \qquad \text{(Eq. 11)}$$

where $E[R]$ is the expected rate of return and R_u denotes the unexpected stock returns, i.e., UR/V_{t-1} (where UR denotes the unexpected change in valuation).

If the surprise in earnings were reported in an unbiased manner, then the numerators of the unexpected ROE and the unexpected stock returns would be equal to each other, i.e., $UE = UR$. However, since the earnings are known to follow the

[3] This assumption is not necessary for the analysis. It is assumed in order to isolate the effect of growth from biased reporting on the balance sheet.

conservatism principle, the market valuation of the unexpected portion of the earnings will be in the following way:

1. $UE < 0$: There is unexpected "bad company news" reported in earnings. Because the market knows that the company has to exercise the conservatism principle on the income statement by accounting for the worst case scenario, the stock return adjustment will exactly equal the unexpected "bad company news," i.e., $UR = UE$.

2. $UE > 0$: There is unexpected "good company news" reported in earnings. Again, the market knows that the financial reporting system does not allow for the complete recognition of "good company news" before the related earnings are completely realized. Now, assume that the positive earnings surprise is permanent[4] and is expected to grow at a rate of g determined by the market (that is less than $E[R]$). Then the unexpected change in valuation of stock will be calculated in the following way:

$$UR = UE + \frac{UE}{E[R] - g} \qquad \text{(Eq. 12)}$$

Income statement conservatism is driven by asymmetric recognition of gains and losses. As growth does not imply unexpected "good company news" or unexpected "bad company news," a given level of growth in present value projects should not affect the income statement conservatism. However, the stock market reaction to the unexpected news as reported by the company depends on the growth factor.

The income statement conservatism as measured by Basu (1997) (see Eq. 2) measures the differential effect of negative returns and positive returns on earnings. If the company is a growing company, then the difference between positive returns and negative returns will be greater with increased growth (growth is assumed to be less than expected stock returns) since the denominator in Eq. 11 will get smaller with higher growth resulting in greater positive stock returns when there are positive earnings

[4] Even though this is not a realistic assumption, it does not change the interpretation derived from the analysis. Assuming that there are transitory and permanent components to the positive earnings surprise would decrease the numerator in Eq. 12, but the unexpected change in market price would still be higher than the earnings surprise.

surprises. Hence, a market-to-book ratio greater than 1, which indicates positive growth in this case, will result in higher income statement conservatism (where there is no balance sheet conservatism).

By splitting the market-to-book ratio into two portions, one measuring the growth factor, V/M, and the other measuring the conservatism factor, M/B, the interaction of growth with conservatism and how it affects income statement conservatism is observed. Income statement conservatism is increasing in V/M and decreasing in M/B.

Therefore, given the growth and no-growth scenarios, two conflicting results emerge with respect to the relation between income statement conservatism as measured by Basu (1997) and balance sheet conservatism as measured by the market-to-book ratio: (1) when there is no-growth, higher income statement conservatism is associated with lower market-to-book ratio and (2) when there is growth and no balance sheet conservatism, higher income statement conservatism is associated with higher market-to-book ratio. Thus, the link between income statement conservatism and balance sheet conservatism cannot be adequately interpreted without accounting for the growth factor.

CHAPTER 3
THE EFFECTS OF RULES- VS. PRINCIPLES-BASED STANDARDS AND FAMILIARITY

Among the most cited causes of the current accounting crisis are overly complex accounting standards, emphasis of form over substance in applying accounting standards, and the failed independence of auditors (Piecara, 2002). The Sarbanes-Oxley Act of 2002 includes provisions aimed at the removal of these fundamental problems. There are two important provisions in the Act that closely relate to the topic of this chapter. Section 108 of the Act instructs the SEC to study the feasibility of adopting a principles-based accounting system. Section 203 of the Act requires the rotation of audit partners every five years and Section 206 prohibits the audit of a company if the company's CEO, CFO, controller, CAO or person in equivalent position has been employed by the audit firm during the one-year period preceding the audit.

An overlooked point by the experimental studies conducted in prior literature to discern the varying effects of rules- vs. principles-based standards on decision-making is that the auditing process is embedded in an interactive relationship between the auditor and the client. Antle and Nalebuff (1991) pointed out that the financial statement "becomes a joint venture if the auditor is unwilling to provide an unqualified opinion on management's stated representations." In other words, whenever there is a disagreement on the reporting decision of accounting issues, the auditor and the client will have to collectively resolve the conflict in order to issue an unqualified opinion.

I designed an experiment where the impact of rules- vs. principles-based standards can be explored within the context of the existing relationship between the auditor and the client. Magee and Tseng (1990) showed that there exists a link between auditor independence and the type of standard. Thus, a factor that naturally has to be considered and included in such an experimental setting is the degree of familiarity between the auditor and the client. This is especially so when auditor independence has been the concern of many regulatory agencies and the accounting profession (Glazer and Jaenicke, 2002).

The experiment was conducted using senior and graduate students studying accounting. In the experiment, the students were assigned to pairs, where one was asked to role-play as the auditor and the other was asked to role-play as the client. The auditors were instructed to question the reporting of a certain accounting transaction by their clients, which increased the net income of the company and were asked to suggest an alternative way of reporting to their clients. Both the auditors and the clients were provided with current GAAP that supported their point of view. "Threat of lawsuits" and "threat of client loss" could possibly influence the outcome of the mini discussion by giving the client an upper-hand (Farmer, Rittenberg, Trompeter, 1987). To remove the possible effects of these factors, the subjects were informed that there was no threat of litigation and the client could not fire the auditor.

The collective reporting decision of the auditor and the client depended upon (1) whether they employed rules-based or principles-based standards to discuss the accounting issue, and (2) whether they personally knew each other or were meeting for the first time. The pairs were asked to discuss the issue and make a joint decision. Pair-wise conclusion was the binary dependent variable and could either be INCOME as

favored by the client or INVENTORY as favored by the auditor. The type of accounting standard employed in determining the appropriate reporting method was manipulated between subjects, as was the familiarity factor. The results indicated that the likelihood a client agrees with an auditor's position increases when the auditor and the client resolve the issue using rules- rather than principles-based standards. Familiarity by itself did not have an impact on pair-wise conclusions. However, familiarity and the type of standards jointly affected the outcome of conflict resolution between the auditor and the client. When the client and the auditor were not familiar with each other, the pair-wise conclusion was not dependent on the type of accounting standards employed. However, when the client and the auditor were familiar with each other, the likelihood that the conclusion was in client's favor increased when principles-based standards were employed, and the likelihood that the conclusion reflected the auditor's opinion increased when rules-based standards were employed.

Theoretical Basis for Experiment Design

Gibbins, Salterio, and Webb (2001) develop a model of auditor-client accounting negotiation and design a field questionnaire that was completed by audit partners about real negotiations with clients. Negotiation is defined as any context in which two or more parties with differing views jointly make a decision that affect the welfare of both parties. The negotiation process is described as a three-element process model, which begins with an accounting issue (based on past negotiations or relationships between the parties), followed by different choices and actions that constitute the auditor-client process, and results in a negotiation outcome. In this process, each negotiation has the potential to become an antecedent for the next negotiation, making it a continuous round of discussions until a final resolution is reached. The three-process model is closely

associated with accounting contextual features that provide practical meaning to the model. These features are external conditions and constraints, interpersonal context, and parties' capabilities (Gibbins et al., 2001).

The experiment was designed to replicate one round of this three-element process model. The subjects were provided with an accounting issue along with a brief history of the auditor-client relationship; the auditor and the client were asked to discuss the issue between them; and an outcome was required to be reported at the end of their discussion. The conflict was created by instructing the auditor and the client to adopt opposing points of view.

Gibbins, McCracken, and Salterio (2003) explore the client side of the same negotiation process described in Gibbins et al. (2001). In both studies, the audit partners and the CFOs report accounting and disclosure standards as one of the most important external factors during auditor-client negotiations. In both studies, the relationship with the "other side" constituted one of the most important interpersonal factors. This outcome can be somewhat biased since the length of the relationship between the auditor and the client in both studies was reported to be more than three years for most of the sample, indicating that most were already familiar with the person they were negotiating with. The experiment was designed to isolate the effects of these two important factors from the other contextual factors and to reveal the impact they may have on the accounting outcome when the negotiation was limited to only one round of discussion.

A puzzling issue that arises from the joint analysis of both papers is the reported outcome of the negotiated issue. 32% (19%) of the audit partners (CFOs) reported that the negotiation outcome was agreement on auditor's original position whereas only 4% (34%) of the audit partners (CFOs) reported that the negotiation outcome was agreement

on client's original position. The percentages reported in both studies tell opposing stories as to whose original positions wins at the end of a negotiated issue. Since both these studies are field questionnaires collecting subjective information, it is not possible to objectively verify the reported percentages. The designed experiment has the potential to provide insight into this puzzle.

Background and Hypotheses

Rules- vs. Principles-Based Standards

A closer look at the development of standards and the definition of rules- vs. principles-based standards is necessary in order to understand how we came upon the debate and distinction between rules- vs. principles-based standards.

The need to develop a comprehensive set of accounting standards first arose after the market crash in 1929. Since then, there have been other major market crashes, the most recent being the so-called "burst of the Tech Bubble." The aftermath of almost every market crash has eventually led to the questioning of accounting standards in effect at the time, their structure, and whether they had been comprehensive enough to predict or to prevent the imminent crash (refer to appendix for a summary of historical account of the development of standards).

After nearly a century of developing accounting standards, the debate on rules- vs. principles-based standards is fueled once again. It is important to understand what is meant by these terms. A likewise distinction is made in the law literature between rules vs. principles. Brasil, Jr. (2001, pp. 67-68) summarizes the law literature on rules and principles as follows:

- Dworkin (1978) claims that rules have "absolute obligations equivalent to 'all-or-nothing'" whereas principles do not have this kind of absolute obligation.

According to Dworkin, principles are selected based on the importance of the value they attain to whereas rules are not value-laden.

- Alexy (1978) claims that one way of distinguishing rules from principles is "the abstraction degree on their prescriptions," which is not just a matter of degree but also a matter of quality.
- Peczenik (1989) assumes that "principles are normative propositions" and not descriptive statements.
- Verheij (1996) proposes that the difference between rules and principles is merely gradual and that there is "no difference in logic structure" between the two.

Recent accounting literature has made the distinction along parallel lines. Vincent et al. (2003) "characterize the standard setting-process and its products along a continuum ranging from unequivocally rigid standards on one end to general definitions of economic-based concepts on the other end" (p. 74). The rigid end of the spectrum leaves no room for judgment or disagreement whereas the general end of the spectrum requires the application of professional judgment and expertise both by managers and accountants.

Nelson (2003) defines rules- vs. principles-based standards in a similar way by adopting the "incremental perspective." He views all standards as principles-based since the FASB is assumed to be issuing standards based on the conceptual framework. Thus, he characterizes the "issue as the incremental effect on behavior when standards include relatively more elaborate rules." He focuses on the incremental effects of increasing the number of rules in a standard where he defines rules to "include specific criteria, 'bright line' thresholds, examples, scope restrictions, exceptions, subsequent precedents, implementation guidance, etc." (p. 91).

The FASB has issued a "Proposal for a Principles-Based Approach to U.S. Standard Setting" (FASB 2002) in response to concerns about the quality and

transparency of financial reporting. There are mixed reactions to the proposal. Some academics find the proposal in conflict with the existing constraints posed by the legal, technological, and business environment (Schipper, 2003), while others embrace the notion on the grounds that managers use rules-based standards to structure transactions (Nelson, 2003; Vincent et al., 2003).

Initially, the accounting profession has been concerned about the lack of accountants' power over their clients (Sterling, 1973). The issuance and application requirement of more strict and clear rules have been viewed as an "empowering" tool for the auditor against clients who are inclined to interpret standards in a way that justifies their aggressive reporting decisions. This perspective has resulted in a highly technical, complex, and detailed set of accounting standards. Magee and Tseng (1990) found that auditor independence is easier to maintain when standards leave little room for disagreement among auditors. However, more recent research clearly pointed out that replacement of vague standards with precise standards does not mitigate aggressive reporting in tax contexts (Cuccia, Hackenbrack, and Nelson, 1995). Based on the results of Cuccia et al., one can make the analogy that using rules- vs. principles-based standards should not necessarily have an effect on the reporting decision of auditors. Hackenbrack and Nelson (1996) further explore the issue in the audit arena while introducing an additional factor that might mitigate the aggressiveness of auditors' reporting decisions, namely the engagement risk. Results of their study indicate that the nature of standards does not influence the outcome of the reporting decision: They showed that under moderate engagement risk, auditors permitted aggressive reporting method by their clients under both rules- vs. principles-based standards, whereas under high engagement risk, the auditors reverted to more conservative interpretation of standards.

Recently the perspective that rules-based standards "empower" auditors has suddenly swung in favor of the clients: rules-based standards now are perceived to "empower" clients by enabling them to structure transactions to manage their earnings. This is currently quoted as one of the main reasons why regulators want to revert to principles-based standards. Nelson, Elliott, and Tarpley (2002) analyzed data collected from 253 auditors on 515 specific earnings management incidences by using a field-based questionnaire. Their results indicated that managers are more likely to attempt earnings management by structuring transactions using "high precise" standards [i.e., rules-based] rather than "low precise" standards and that auditors are less inclined to interfere with such attempts. On the other hand, the percentage of earning management attempts adjusted by the auditor was still higher for the "high precision" standards (51%) compared to the "low precision" standards (39%). In addition, the number of earning management attempts was higher for the "low precision" standards (313) compared to the "high precision" standards (202).

In this experiment, the type of standards is manipulated between subjects to examine the impact of rules- vs. principles-based standards on the outcome of conflict resolution. Since the recent literature indicated that different types of standards do not mitigate aggressive reporting of auditors and since this fact would only be exacerbated by closer relationships between the auditor and the client, the hypothesis stated in alternative form is as follows:

H1: The likelihood that a client agrees with an auditor's position increases when the auditor and the client resolve the issue using rules- rather than principles-based standards.

Familiarity

The accounting literature on familiarity is fairly limited in scope and explores the issue only from the accountants' side. Most studies conducted on the topic are limited to the effects of familiarity in the audit setting concerning the relationships between the senior auditors and their staff (Asare and McDaniel, 1996; Ramsay, 1994; Wilks, 2002). There are no behavioral studies that explicitly examine how familiarity between the auditor and the client may affect the outcome of an actual discussion between the two with regard to the reporting decision of a conflicting accounting issue. An emerging theme from the existing studies is that familiarity with the group members of an audit team can potentially become a source of judgment bias in the team's performance (Tan and Jamal, 2001; Asare and McDaniel, 1996). Likewise, long running interactions between the client and the auditor can also be a potential source of judgment bias (Dopuch, King, and Schwartz, 2001) and a threat to auditor independence (Glazer and Jaenicke, 2002), which explains why the Sarbanes Oxley Act includes specific provisions for auditor independence. The implicit assumption underlying the mandatory rotation of auditors is that potential economic gains from continuing interactions with the same client undermine auditor independence (Dopuch et al., 2001).

This experiment manipulates the degree of familiarity between-subjects to examine its effect on the outcome of a conflict resolution. The second hypothesis is:

H2: The more familiar an auditor is with a client, the more likely s/he is to agree with a client's position.

Method

Experimental Design

An experiment was conducted to test the effects of different types of standards and familiarity on the resolution of a conflict between the auditor and the client. The subjects were paired up where one subject was asked to role-play as the auditor and the other was asked to role-play as the client. The pairs were provided with a case in which the appropriate conclusion to the accounting issue in question could be resolved by using the accounting standards they were provided with.

The experiment employed a 2 x 2 between-subjects design (Table 3-1). There were two different units of observation: One was observation based on individual reports and the other was observation of a pair of students. The dependent variable measured is the binary outcome of the conflict resolution (0=INCOME for client-favoring outcomes, 1=INVENTORY for auditor-favoring outcomes). One variable was the type of standards. The standards manipulation involved the resolution of a conflicting accounting issue by employing either rules- or principles-based standards. Pairs assigned to the rules-based standard condition were provided with a case in which the ambiguous accounting issue could be resolved by employing rules-based standards. Both the auditor and the client were provided with rules-based GAAP that appropriately supported their stance on the matter. Auditors were given an excerpt from SAB 101, *Revenue Recognition in Financial Statements* (SEC, 1999), and clients were given an excerpt from SFAS 45, *Accounting for Franchise Fee Revenue* (FASB, 1981). Pairs in the principles-based standard condition were provided with GAAP that was not rules-based. Auditors were provided with standards from ARB 43, *Restatement and Revision of Accounting Research Bulletins* (CAP, 1953), on inventory and clients were provided with standards

from SFAC 6, *Elements of Financial Statements* (FASB, 1985), on characteristics of gains.

Table 3-1. 2x2 between subjects design and the number of pair-wise observations in each cell

		Familiarity		
		Unfamiliar	Familiar	Total
Standards	Principles	17	16	33
	Rules	16	16	32
	Total	33	32	65

The other manipulated variable was familiarity. This manipulation was achieved by informing half the pairs to assume that they had known each other for at least five years personally and professionally[1] and the other half was asked to assume that this was their first encounter with each other.[2]

Table 3-2 summarizes the experimental design, indicating how the "standard" and the "familiarity" manipulations interact to determine the outcome of the resolution when different types of standards are used (related to H1) at two levels of familiarity (related to H2) during conflict resolution. When the participating pairs are in the rules-based standards condition, familiarity between the subjects does not increase the likelihood that the auditor will agree with the client's position. When the participating pairs are in the principles-based standards condition, familiarity between the subjects increases the likelihood that the auditor will agree with the client's position.

[1] Familiar auditor instructions: Your meeting at the headquarters is scheduled with the CFO, whom you have personally known for over five years. You have worked with him/her on four other engagements and have found him/her to be both conscientious and cooperative. You have attended several social gatherings together and have enjoyed each other's company. You both know that the two of you get along well.

[2] Unfamiliar auditor instructions: Your meeting at the headquarters is scheduled with the CFO, who has been with the company for some time and is known to be both conscientious and cooperative. You do not personally know anything about him/her. This will be the first time that you will be meeting him/her in person.

Subjects

The participants were students who were enrolled in Intermediate Financial Accounting class and Professional Accounting Research class at Fisher School of Accounting, University of Florida. The experiment was conducted at the beginning of their classes. All those who were present at the beginning of the class participated in the experiment. The total number of participants was 130 students (65 pairs of students), with 50 students from two sections of the Professional Research class and 80 students from three sections of the Financial Accounting class. The participants were all above the age of 21 and were all classified as at least a junior in the program. The students from the Professional Research class did not receive any compensation for participating in the experiment. As for the students from the Financial Accounting class, the participation in the experiment counted as an extra lab grade, which constituted less than 1% of the total course grade. An additional variable was included in the statistical analysis to test if the two levels of compensation had an effect on the reporting decision of the pairs.

Table 3-2. Experimental design and predictions.

	Familiarity	
Accounting Standard	Unfamiliar	Familiar
Rules-based		
Auditor's position	Inventory Adjustment	Inventory Adjustment
Client's position	Income	Income
Principles-based		
Auditor's position	Inventory Adjustment	Inventory Adjustment
Client's position	Income	Income

Procedure

The students were asked to get into groups of two and were told that they would be role-playing as either the auditor or the chief financial officer (CFO) of a company. Each pair was distributed different sets of instructions. The experiment comprised of two

parts. In the first part of the experiment, the auditors received a set of instructions informing them about their role along with a description of the accounting issue that needed to be resolved. Half the auditors were told that they were familiar with their client—that they were friends with the CFO and also knew them professionally. The other half was told that this would be the first time they would be interacting with their client. Likewise, the CFOs received a set of instructions informing them about their role along with a description of the problem. The familiarity manipulation was applied to the clients same way as it was applied to the auditors.

The case was adapted from the Deloitte & Touche Trueblood Accounting & Auditing Case Study Series. The accounting issue in question was the classification of $1,000,000. This amount could either be reported as an adjustment to inventory in the following period or as income for the current period. After reading the case, the participants were asked to write down and hand in to the experimenter their personal opinion as to how the issue should be resolved.

In the second part of the experiment, the standards manipulation was applied in addition to the familiarity manipulation. The participants were provided with a second set of instructions. Half the pairs received principles-based standards that supported their arguments and the other half received rules-based standards. The auditors were told that their subordinates' report indicated the appropriate treatment to be an adjustment to inventory in the following period supported by the provided accounting standard. The clients were told that for the company's tax purposes and in order to receive the bonus for the current period, the amount in question should be reported as income. They were also provided with appropriate accounting standards that supported their argument, albeit different from the ones the auditors received. All standards provided to both auditors and

clients are part of current GAAP and no standards were made up to support their arguments.

Each pair, consisting of an auditor and a client, was then asked to discuss the issue between them based on the standards provided. Half the pairs discussed the issue solely based on rules-based standards and the other half discussed the issue based on principles-based standards. All pairs were told that the financial statements had to be published the next day and they had to make a joint conclusion on the matter based on the information they had.

The threat of litigation and the removal of the auditor from the current assignment are two factors in prior literature that have been suggested to increase the likelihood that the auditors will agree with their clients (Farmer et al., 1987). To remove the confounding effects of these factors, the participants were informed that there was no threat of litigation posed by either of the accounting treatments in question and that the client could not fire the auditor.

At the end of their discussion, the participants were asked to individually report the concluding reporting decision; whether the amount in question should be recorded as an inventory adjustment or income. This response provided data to test H1. The participants were also asked to rate how familiar they felt with each other on a ten-point scale (1=total stranger to 10=extremely familiar). This response was used to check for the manipulation of familiarity and was also used to test H2.

Materials

The case

The case is about a company that has entered an exclusive supply agreement with a supplier concerned about enhanced price competition from its rivals. Initially, the

supplier offers to pay the company a nonrefundable amount of $1,000,000 in cash and promises best prices over the next two years in exchange for the signing of the exclusive supply agreement. In exchange, the company has no obligations to fulfill after signing the contract. Even if they renege and decide to purchase from another supplier, they would still be entitled to claim the $1,000,000. The company declines to receive the $1,000,000 in cash and instead asks the supplier to issue a credit memo of $1,000,000 that could be applied towards future purchases. The underlying motive for this is to keep their tax bill low for the period while increasing their net income (by recording a gain of $1,000,000), which would entitle the managers to a generous bonus. The fiscal year ends the day after they sign the contract. The accounting issue is whether to record the amount in question as income for the period or whether to apply it whenever inventory is actually purchased from the supplier.

"Familiarity" manipulation

The subjects were provided with a description of the role that they were asked to play. Familiarity manipulation was based on the length of the relationship between the auditor and the client. Those assigned to the "familiar" group were told that they had known each other for five years personally and professionally. They were told that they had worked together on other business engagements, attended social gatherings together, had occasional barbeques with each other's families on Sundays. Those in the "unfamiliar" group were told that this would be the first time that they would be meeting. Both groups were told that they were with someone who was known to be both conscientious and cooperative at work.

"Standards" manipulation

Rules-based standards. The auditors were provided with the following excerpt from SAB 101, *Revenue Recognition in Financial Statements* (SEC, 1999), to convince their client that the amount in question could not be recorded as income for the period since the credit memo was inseparable from the purchase of inventory. Unless the client purchased inventory, the credit memo was deemed worthless. There was no transaction that actually took place with the signing of the contract. It was simply an executory contract. The only way to disclose it would be in the footnotes to the financial statements.

> The staff states that revenue is realized or realizable and earned when <u>all</u> of the following criteria are met:
>
> - Persuasive evidence of an arrangement exists [*yes; an executive contract is in effect*],
>
> - Delivery has occurred or services have been rendered [*no; inventory has not yet been purchased*],
>
> - The seller's price to the buyer is fixed or determinable [*yes; $1,000,000 is fixed*],
>
> - Collectibility is reasonably assured [*yes*].
>
> …
>
> Revenue may not be recognized before it is realized or realizable and earned. An amount received is <u>not deemed to be earned</u> under GAAP <u>solely because it is nonrefundable</u>… In some circumstances, the right, product, or service conveyed in conjunction with the nonrefundable fee has no utility to the purchaser separate and independent of the registrant's performance of the other elements of the arrangement. Therefore, <u>in the absence of the registrant's continuing involvement under the arrangement, the customer would not have paid the fee</u>.

The clients were provided with the following excerpt from SFAS 45, *Accounting for Franchise Fee Revenue* (FASB, 1981), to justify the reason why they could report the amount in question as income for the period. They argued that an analogy could be made

to franchise fee revenues since no articulate standards about the particular transaction in question existed in current GAAP.

> Franchise fee revenue from an individual franchise sale ordinarily shall be recognized, with an appropriate provision for estimated uncollectible amounts, when all material services or conditions relating to the sale have been substantially performed or satisfied by the franchisor. Substantial performance for the franchisor means that:
>
> (a) the franchisor has no remaining obligation or intent--by agreement, trade practice, or law - to refund any cash received or forgive any unpaid notes or receivables;
>
> (b) substantially all of the initial services of the franchisor required by the franchise agreement have been performed; and
>
> (c) no other material conditions or obligations related to the determination of substantial performance exist .

Principles-based standards. The auditors in this manipulation group were told that the amount in question could only be applied to future purchases, which made it inseparable from inventory and that the credit memo should be considered like a price discount, which is not the same as income. When a price discount it received, the inventory cost is adjusted to reflect the discounted cost. By analogy, the credit memo should also offset inventory cost when the inventory is bought. Similarly, the credit memo could also be viewed like a big coupon: unless they ordered inventory, it was worthless. They were provided with the following excerpt from ARB 43, *Restatement and Revision of Accounting Research Bulletins* (CAP, 1953), to help them argue their position.

> The term inventory is used herein to designate the aggregate of those items of tangible personal property which (1) are held for sale in the ordinary course of business, (2) are in process of production for such sale, or (3) are to be currently consumed in the production of goods or services to be available for sale.
>
> <u>A major objective of accounting for inventories is the proper determination of income through the process of matching appropriate costs against revenues.</u>

> The primary basis of accounting for inventories is cost, which has been defined generally as the price paid or consideration given to acquire an asset. As applied to inventories, cost means in principle the sum of the applicable expenditures and charges directly or indirectly incurred in bringing an article to its existing condition and location.

The clients in the principles-based standard manipulation group were told that the receipt of the credit memo represents income in exchange for signing the exclusive supply agreement. They were told that the credit memo, in substance, represents a gain to the company because it increases net assets and arises from a peripheral transaction. They were provided with the following excerpt from SFAC 6, *Elements of Financial Statements* (FASB, 1985), to support their argument.

> Gains are increases in equity (net assets) from peripheral or incidental transactions of an entity and from all other transactions and other events and circumstances affecting the entity except those that result from revenues or investments by owners.

Results

Descriptive Statistics

There were a total of 65 pair-wise observations. The number of observations in each cell is reported in Table 3-1.

The Joint Decision

In the first part of the experiment, the subjects were asked to report their personal opinion as to how the issue should be resolved. They could report their decision as adjustment to inventory, income, or undecided. Initially, 90% of the participants replied that the issue should be resolved as an adjustment to inventory, whereas only 7% of the participants thought it should be recorded as income. There was little difference in personal opinions when compared across the two subsets of participants (Table 3-3, Panel A).

In the second part of the experiment, after the subjects were asked to discuss the issue with each other, they were once again asked to report their personal opinion as well as the pair-wise resolution to the issue. This time 73% of participants reported that the amount in question should be recorded as inventory adjustment whereas those who thought it should be recorded as income rose to 22% (Table 3-3, Panel B). The difference between the sub samples appeared to be greatest in this panel.

When the pair-wise conclusions were observed, 72% of the conclusions were adjustments to inventory, whereas 28% were income (Table 3-3, Panel C).

Table 3-4 provides a graphical illustration of how the personal opinions of auditors and the clients differed after the discussion. Overall, the percentage of auditors who believe the issue should be recorded as income increased to 15% whereas the percentage of clients who believe the issue should be recorded as income increased to 29%. 28% of the pair-wise conclusions were income. It appears that the auditors chose to agree with their clients despite their personal preferences. It seems that the outcome of the resolution reflects the client's point of view rather than the auditor's.

The auditors (clients) in ACG 4133 were more (less) prone to lean towards the clients' (auditors') side when compared to ACG 5816 observations (Table 3-4, Panels A and B). Likewise, there were more pair-wise conclusions in favor of the client within the ACG 4133 participants (Table 3-4, Panel C).

Manipulated Variables

The pair-wise conclusions were reported as inventory by 47 of the pairs and income by 18 of the pairs out of a total of 65 pairs (Table 3-5). More than half the pairs that concluded the outcome to be an adjustment to inventory were in the rules-based standards manipulation whereas more than half the pairs that concluded the outcome to be income

were in the principles-based standards (Table 3-5, Figure 3-1). More specifically, 33% of the conclusions in the principles-based group were reported as income compared to 22% of the conclusions in the rules-based group, which suggests that discussing an ambiguous issue based on principles-based standards increases the likelihood that the auditor will agree with their client.

Familiarity did not seem to have an effect on how the issue was resolved when compared based on only pair-wise conclusions (Table 3-6). The total number of reported resolutions as income and as inventory was equally divided between the familiar and unfamiliar groups (Table 3-6, Figure 3-2). However, when the total sample was split into groups of INCOME and INVENTORY based on pair-wise conclusions, the type of standard and familiarity appeared to interact (Tables 3-7 and 3-8, Figures 3-3 and 3-4). Among the pairs with inventory conclusion, i.e., when the auditor's position was agreed upon by the pair, more than half the pairs in the familiarity manipulation were in the rules-based group (Table 3-7, Figure 3-3). On the other hand, among the pairs with income conclusion, i.e., when the client's position was agreed upon by the pair, more than half the pairs in the familiarity manipulation were in the principles-based group (Table 3-8, Figure 3-4). The type of standard did not have an effect on the pair-wise conclusions when the pairs were in the unfamiliar group. Only when the pairs were assigned to the familiar group did the type of standard seem to have a differential effect on the pair-wise conclusions.

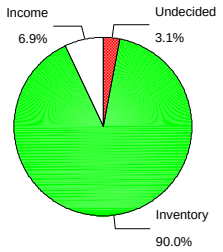
Manipulation Check for Familiarity

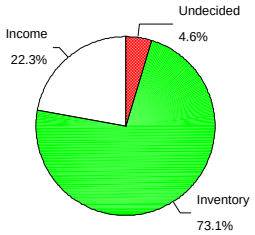
The participants were asked to report how familiar they felt with their partner after they had discussed the issue as a manipulation check for familiarity variable. The total sample was split into sub samples based on the familiarity manipulation. A t-test

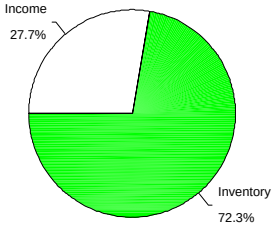
assuming unequal variances was conducted to see whether the mean difference in the degree of familiarity reported by individuals (1=total stranger to 10=extremely familiar) assigned to familiar and unfamiliar groups would be statistically different than zero. Tables 3-9 and 3-10 indicate that the mean difference between the unfamiliar and the familiar groups was significantly different than zero. The mean degree of familiarity reported by those in the unfamiliar group based on a ten-point scale (1=total stranger to 10=extremely familiar) was 6.53 compared to 8.11 in the familiar group.

Table 3-3. Comparison of individual beliefs before and after the discussion with pair-wise conclusions.

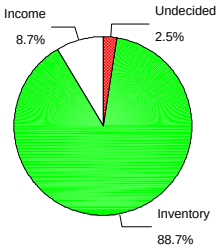
Panel A	Panel B	Panel C
Personal Reports of Participants		Pair-wise Conclusions
Before Discussion	After Discussion	

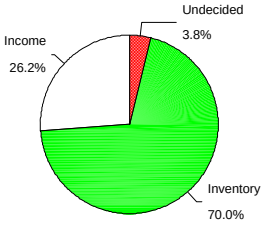


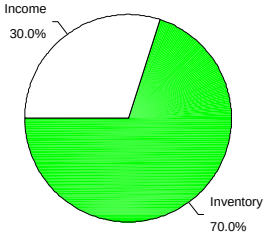




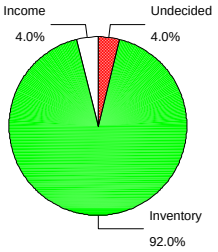
All Observations (n=130)

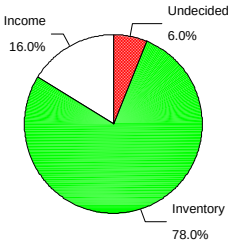


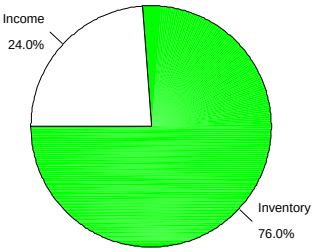




ACG 4133 (n=80)



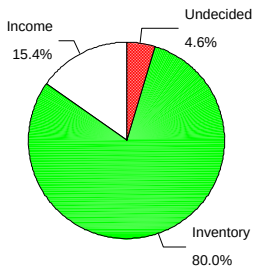


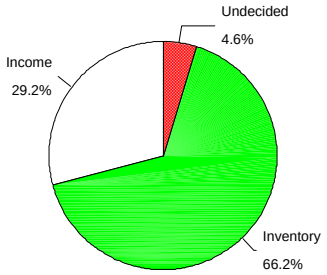


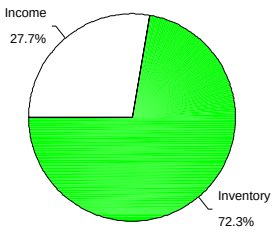
ACG 5816 (n=50)

Table 3-4. Comparison of auditor and client beliefs with pair-wise conclusions.

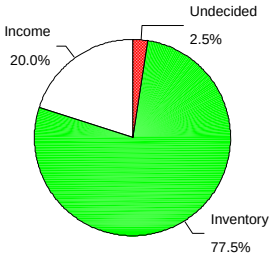
Panel A	Panel B	Panel C
Personal Reports of Participants After Discussion		Pair-wise Conclusions
Auditors	Clients	

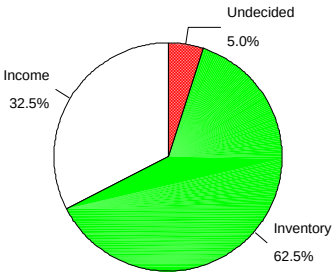


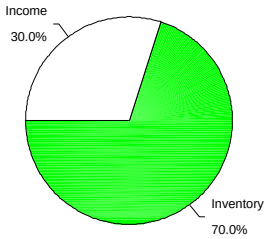




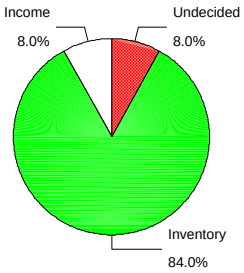
All Observations (n=130)

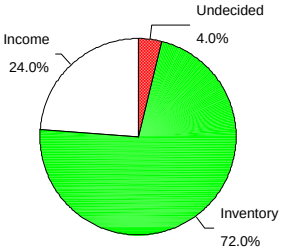


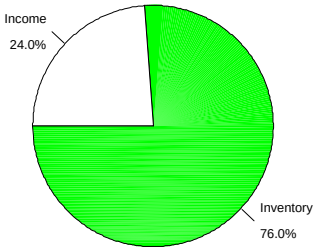




ACG 4133 (n=80)







ACG 5816 (n=50)

Table 3-5. Number (percentage) of observations in "standards" manipulation.

		Standards		
		Principles	Rules	Total
Joint Decision	Inventory	22 (34%)	25 (38%)	47 (72%)
	Income	11 (17%)	7 (11%)	18 (28%)
	Total	33 (51%)	32 (49%)	65 (100%)

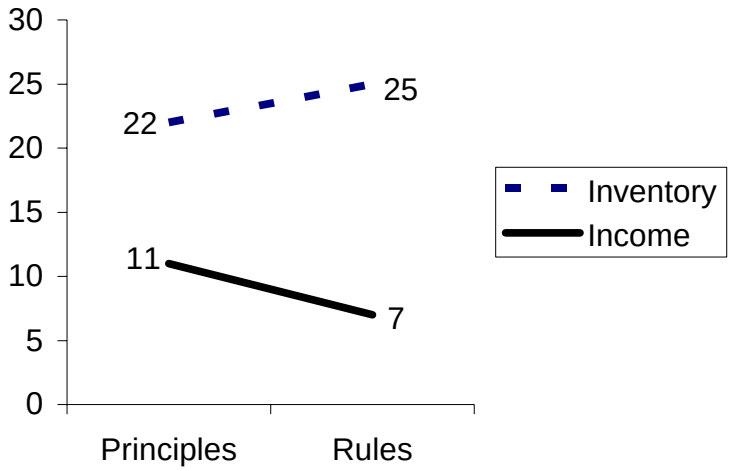


Figure 3-1. "Standards" manipulation graph. The graph shows the effect of standards on the joint decision.

Table 3-6. Number (percentage) of observations in "familiarity" manipulation.

		Familiarity		
		Familiar	Unfamiliar	Total
Joint Decision	Inventory	24 (37%)	23 (35%)	47 (72%)
	Income	9 (14%)	9 (14%)	18 (28%)
	Total	33 (51%)	32 (49%)	65 (100%)

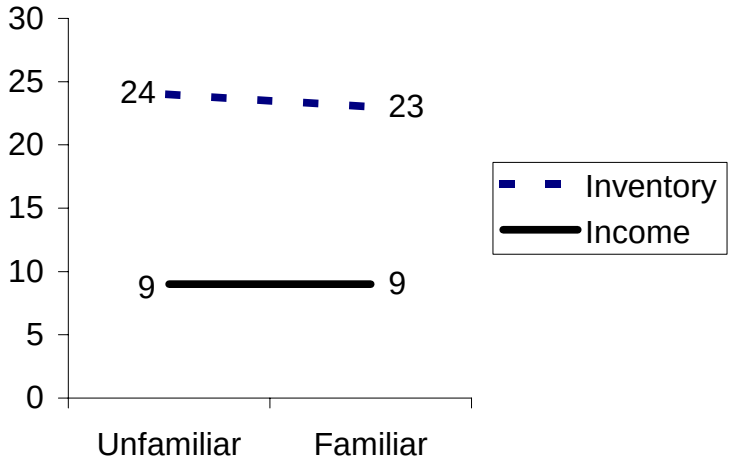


Figure 3-2. "Familiarity" manipulation graph. The graph shows the effect of familiarity on the joint decision.

Table 3-7. Number (percentage) of observations when the joint decision is INVENTORY.

		Familiarity		
		Unfamiliar	Familiar	Total
Standards	Principles	12 (26%)	10 (21%)	22 (47%)
	Rules	12 (26%)	13 (28%)	25 (53%)
Total		24 (51%)	23 (49%)	47 (100%)

Table 3-8. Number (percentage) of observations when the joint decisions is INCOME.

		Familiarity		
		Unfamiliar	Familiar	Total
Standards	Principles	5 (28%)	6 (33%)	11 (61%)
	Rules	4 (22%)	3 (17%)	7 (39%)
Total		9 (50%)	9 (50%)	18 (100%)

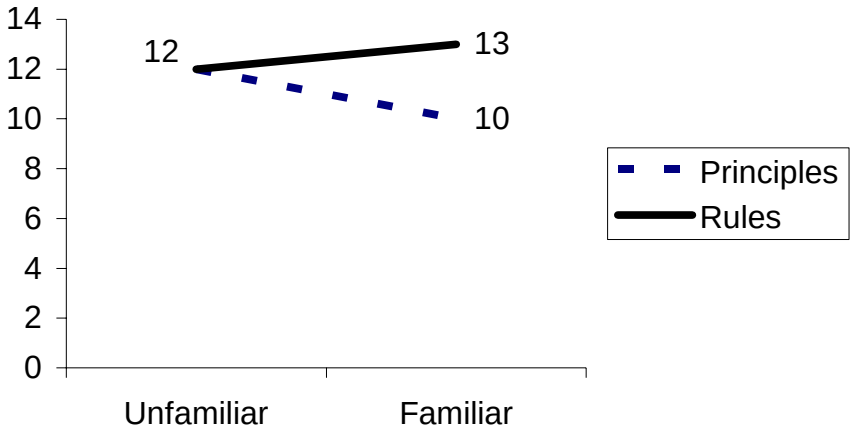


Figure 3-3. Graph of Table 3-7. Joint decision is INVENTORY.

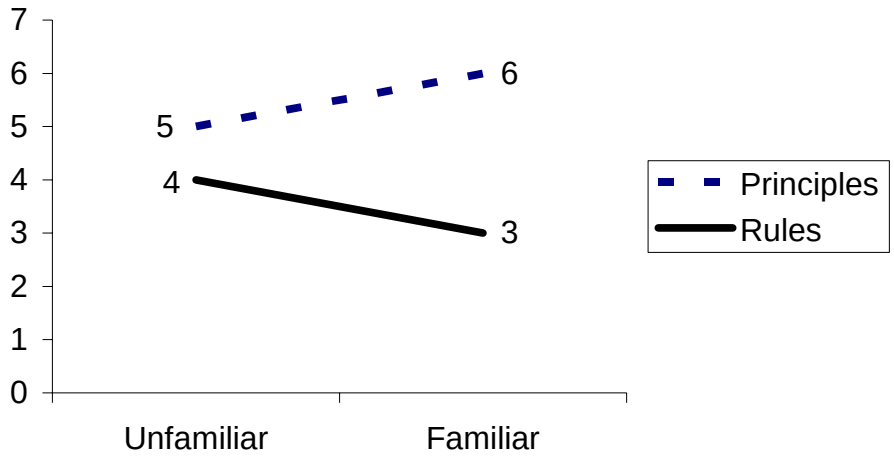


Figure 3-4. Graph of Table 3-8. Joint decision is INCOME.

Table 3-9. Manipulation check for the familiarity variable for individuals. The differences between unfamiliar and familiar treatment groups, based on the degree of familiarity reported by each participant (1=total stranger to 10=extremely familiar) were compared using a t-test.

	Unfamiliar	Familiar
Mean	6.53	8.11
Variance	5.08	5.44
Observations	66	64
Hypothesized Mean Difference	0	
df	127	
t Stat	-3.92	
P(T<=t) one-tail	0.000	
P(T<=t) two-tail	0.000	

Table 3-10. Manipulation check for the familiarity variable for paired individuals. The differences between unfamiliar and familiar treatment groups, based on the average degree of familiarity reported by each pair (1=total stranger to 10=extremely familiar) were compared using a t-test.

	Unfamiliar	Familiar
Mean	6.27	8.16
Variance	5.42	5.49
Observations	33	32
Hypothesized Mean Difference	0	
df	63	
t Stat	-3.25	
P(T<=t) one-tail	0.001	
P(T<=t) two-tail	0.002	

Additional Variable: Compensation/Class

The participants in the Intermediate Financial Accounting class (ACG 4133) received a grade that contributed to less that 1% of their total course grade for participating in the experiment whereas those students in the Professional Research class (ACG 5816) did not receive any compensation for participation. An additional binary variable for compensation was included in the statistical analysis to control for any differential effects this may have on pair-wise conclusions. However, the compensation variable is confounded with the participant's class. The experiment setup fails to differentiate the effects of compensation from the effects of being enrolled in a different class.

Hypothesis Tests

The participants' individual reports and pair-wise conclusions were separately analyzed using logistic regression with pair-wise conclusions (1=INVENTORY and 0=INCOME) as the binary dependent variable and the factors familiarity, standards, and compensation as the independent variables. All the interaction variables were included in the initial analysis. The pair-wise analysis results were weaker across all variables, since the sample size was reduced from 130 to 65 when the unit of observation is changed from individual observation to pair-wise observation. The probability modeled by the regression is based on the INCOME conclusion. The results of the logistic regression are reported in Table 3-11.

The regression results indicate that the main effects of familiarity, standards, and compensation are all significant at the individual observation based analysis. Same analysis reveals significant two-way interactions between familiarity and standards, familiarity and compensation, and a borderline significant three-way interaction between

all three variables. When each class is analyzed separately using the same model, the results continue to hold for ACG5816 students with regard to the main effects of standards and familiarity, and the two-way interaction between the two, but not for ACG4133 students (Table 3-11).

Table 3-11. Logistic regression model for single and pair-wise observations explaining pair-wise conclusions.

		Pair-wise Observationsb		
	Hypothesized Sign	Full Sample1	ACG 58162	ACG 41332
Intercept	?	4.8832	4.8835	-1.1938
		(0.1323)	(0.1323)	(0.5423)
Familiarity	+	-0.8698	-0.8699	0.1026
		(0.0397)	(0.0397)	(0.3386)
Standards	-	-6.9507	-6.9511	-1.3827
		(0.0289)	(0.0289)	(0.3262)
Compensation	?	-6.0770		
		(0.1088)		
Familiarity5 x Standards6	?	1.0261	1.0262	0.0519
		(0.0625)	(0.0625)	(0.8917)
Familiarity x Compensation7	?	0.9724		
		(0.0791)		
Standards x Compensation	?	5.5679		
		(0.2442)		
Familiarity x Standards x Compensation	?	-0.9742		
		(0.1460)		
Number of observations		65	25	40
-2 Log-likelihood statistic		68.702	22.237	46.465
Within-sample classification rate3		64.6	68	62.5
Paired rank correlation ("c" statistic)4		0.692	0.763	0.649

- [a] Data collected based on individual observations was used to run the logistic regression.
- [b] Data collected based on pair-wise observations was used to run the logistic regression.
- [1] The analysis was run for the full sample with the pair-wise conclusion (INVENTORY and INCOME) as the binary dependent variable. The probability modeled by the regression is based on the INCOME conclusion. Reported values are parameter estimates from Logistic Regressions with *p* values of Wald chi-squared statistics in parentheses. Reported *p* values for familiarity and standards variables are one-tailed. All other reported *p* values are two-tailed.

- [2] The analysis was conducted separately for each sub-sample with the pair-wise conclusion (INVENTORY and INCOME) as the binary dependent variable. The probability modeled by the regressions is based on the INCOME conclusion. Reported values are parameter estimates from Logistic Regressions with *p* values of Wald chi-squared statistics in parentheses.
- [3] This measure is a within-sample classification where each observation is classified as an event or non-event based on the predicted probability from the logistic regression and then compared to what actually happens in the event status.
- [4] This measure compares all possible pairs of observations with different responses. It is said to be concordant (discordant) if the observation with the higher response has a higher (lower) predicted probability than the lower level response. It is closest to a goodness-of-fit test.
- [5] Familiarity variable is a subjective measure of how familiar the participants felt with their partner and is included in the analysis conducted at the individual observation level. A new familiarity variable is calculated as the average of the subjective measures reported by the participants in each pair and is included in the analysis conducted at the pair-wise observation level. The familiarity variable is measured on a ten-point scale (1=total stranger to 10=extremely familiar).
- [6] Compensation variable is a binary measure coded as 1 for those participants in ACG4133 and coded as 0 for those participants in ACG5816.
- [7] Standards variable is a binary measure coded as 1 for Rules-based standards and coded as 0 for Principles-based standards.

The first hypothesis (H1) is that the likelihood that a client agrees with an auditor's position increases when the auditor and the client resolve the issue using rules- rather than principles-based standards. The descriptive statistics in Table 3-5 and Figure 3-1 indicate that this relationship appears to hold. The main effect for standards was statistically ignificant , thus providing strong support for H1. H1 is a one-directional test; therefore the reported p-values for standards variable are one-tailed.

The analysis at each sub sample level reveals that the results for ACG 5816 participants continue to be statistically significant for standards. For ACG 4133, the main effect of standards becomes statistically insignificant, even though the parameter estimate's sign is still in the same direction as the hypothesized sign.

The familiarity variable is defined differently at individual and pair-wise level analysis. The logistic regression conducted at the individual level employed the degree

of familiarity reported by each participant as the familiarity variable. The same analysis conducted at the pair-wise level employed the average degree of familiarity—calculated as the average degree of familiarity reported by subjects in the same pair—as the familiarity variable in the analysis.

The second hypothesis (H2) is that the more familiar an auditor is with a client, the more likely s/he is to agree with a client's positions. An inspection of the graphs in Figure 3-3 and Figure 3-4 indicates conflicting results and suggests an interaction between familiarity and standards. The main effect for familiarity in the logistic regression (Table 3-11) is statistically significant; however the sign is in the opposite direction from the hypothesized sign. Thus, the regression results suggest that a higher degree of familiarity reduces the likelihood of a client-favoring outcome. This result may be due to the fact that all participants were accounting students and even though they were asked to play the role of the manager, they probably intrinsically reasoned with the mind of an auditor. Thus, the more familiar the pair was, the stronger was the intrinsic motivation to favor the auditor's and not the manager's position. H2 is a one-directional test; therefore the reported p-values for familiarity are one-tailed.

The analysis at each sub sample level reveals that the results for ACG 5816 participants continue to be statistically significant for familiarity, but still in the opposite direction from the hypothesized sign. For ACG 4133, the main effect of familiarity becomes statistically insignificant, but the parameter estimate's sign switches in the direction of the hypothesized sign.

The significant interaction that is observed in the full logistic regression model was further analyzed by splitting the sample into familiarity groups (Table 3-12). The logistic regression based on pair-wise observations did not reveal any significant results. Thus,

the results for pair-wise analysis are not included. The interaction coefficient for standards and compensation was insignificant, thus the data was not further analyzed at class levels. The simple effect test for standards reveals at borderline significance that when the auditor and the client are familiar with each other, discussing the ambiguous issue using rules-based (principles-based) standards decreases the likelihood of a client-favoring (auditor-favoring) outcome. This relation can be graphically observed in Figure 3-3 and Figure 3-4. On the other hand, when the auditor and the client were unfamiliar with each other, discussing the ambiguous issue using rules- or principles-based standards did not have any impact on the outcome of the resolution.

The logistic regression was conducted using sex, age, and academic level in the program entering as independent variables. None of these additional variables had an impact on the pair-wise conclusions. Thus, these results are not reported.

Discussion and Limitations

Results Discussion

The analysis conducted at two sub sample of classes show considerable differences. A number of explanations can be enumerated for these differences. First of all, the differences in results may be attributed to the compensation provided for participating in the experiment to only one of the groups. Given the insignificance of the majority of results for this compensated group, it appears that providing compensation randomized the data. This view is not consistent with the idea of providing compensation in the first place. Thus, there must be some other reason to explain the insignificant results in one group and significant results in the other group. A plausible explanation is accounting knowledge of students. ACG 5816 students have already taken ACG 4133 as a prerequisite for enrolling in ACG5816. Thus, their accounting knowledge base can be

considered greater than those enrolled in ACG4133. Johnstone, Bedard, and Biggs (2002) suggest that higher task knowledge auditors may be better prepared to interact with aggressive, uncooperative clients. They show that inherited alternatives prohibit generation of alternative solutions among lower knowledge auditors. This may very well explain the discrepancy of outcomes between the two groups of students.

Table 3-12. Logistic regression for simple effects test for familiarity using data collected at individual level.

		Familiarity Treatment	
	Hypothesized Sign	With Interaction1	Simple Effects2
Intercept	?	-0.5108	-0.5108
		(0.1618)	(0.1618)
Standards5	-	-1.0986	-0.9555
		(0.0998)	(0.1005)
Standards x Compensation6	?	0.2231	
		(0.8153)	
Number of observations		64	64
-2 Log-likelihood statistic		73.170	73.225
Within-sample classification rate3		71.9	71.9
Paired rank correlation ("c" statistic)4		0.621	0.616

		Unfamiliarity Treatment	
	Hypothesized Sign	With Interaction	Simple Effects
Intercept	?	-0.8755	-0.8755
		(0.0200)	(0.0200)
Standards5	-	0.1823	-0.2231
		(0.7998)	(0.6878)
Standards x Compensation6	?	-0.6931	
		(0.4032)	
Number of observations		66	66
-2 Log-likelihood statistic		76.487	77.184
Within-sample classification rate3		72.7	72.7
Paired rank correlation ("c" statistic)4		0.565	0.528

- [1] The analysis was run for the full sample with the pair-wise conclusion (INVENTORY and INCOME) as the binary dependent variable splitting on familiarity. The probability modeled by the regression is based on the INCOME conclusion. Reported values are parameter estimates from Logistic Regressions and those in parentheses are one-tailed *p* values for standards and two-tailed *p* values for other parameter estimates of Wald chi-squared statistics.
- [2] The analysis was run for the full sample with the pair-wise conclusion (INVENTORY and INCOME) as the binary dependent variable splitting on familiarity to test for simple effects of standards. The probability modeled by the regression is based on the INCOME conclusion. Reported values are parameter estimates from Logistic Regressions with *p* values of Wald chi-squared statistics in parentheses.
- [3] This measure is a within-sample classification where each observation is classified as an event or non-event based on the predicted probability from the logistic regression and then compared to what actually happens in the event status.
- [4] This measure compares all possible pairs of observations with different responses. It is said to be concordant (discordant) if the observation with the higher response has a higher (lower) predicted probability than the lower level response. It is closest to a goodness-of-fit test.
- [5] Standards variable is a binary measure coded as 1 for Rules-based standards and coded as 0 for Principles-based standards.
- [6] Compensation variable is a binary measure coded as 1 for those participants in ACG4133 and coded as 0 for those participants in ACG5816.

Another factor that may have produced the differences in results is the level of authority present in the classroom while the experiment was conducted. The professor was personally present when the experiment was administered to ACG5816 students whereas a teaching assistant, who was a graduate student, was initially present and then left the classroom while the experiment was administered to ACG4133 students. This could suggest that the students in ACG5816 (more knowledgeable compared to those in ACG4133 and working under the presence of an authority—albeit without any compensation for participation) took the experiment far more seriously than the other group. One could possibly infer that the credibility of the results from ACG5816 students are further enhanced by these uncontrolled and unforeseen factors that existed at

the time the experiment was conducted. Interpreted this way, the data obtained from ACG4133 students could be viewed as adding random noise to the analysis.

The comparison of individual beliefs with pair-wise conclusions (Figure 2 and Figure 3) illustrate that the outcome of conflict resolution closely reflects the beliefs of clients. This could mean that auditor independence is truly impossible (Bazerman, Morgan, Loewenstein, 1997). This pattern clearly reflects Antle and Nalebuff's (1991) claim that joint conclusions of auditor and client are always client-favored. Figure 2 shows that the initial beliefs of participants before they discuss the issue are not associated with their privately reported beliefs and the outcome of the resolution after they have discussed the issue. Gibbins et al. (2001) also reported that they found no association between the reported initial beliefs of the parties and the contextual features, when beliefs are considered very important in basic negotiation models.

Limitations

One major limitation of the experiment is that the selected sample was initially biased towards the auditor-favored conclusion. This was because all participants were accounting majors. Nonetheless, comparison of initial beliefs with pair-wise conclusions still display differences, indicating that even asking accounting students to role-play as clients has an impact on the outcome of the conflict resolution. However, because the sample was initially biased towards one side, this naturally produced pair-wise conclusions that were also biased towards the same side, weakening the statistical results.

The pairs were provided with only one accounting standard to defend their point of view. In reality, a variety of accounting standards are used to justify a certain reporting decision and this set of standards will include both rules- and principles-based standards. Thus, the results of the experiment are not immediately generalizable to other settings.

An important factor to reflect upon is that the standard setting process is a process and that standards are not a static set over time. "Significant efforts should be made to continue progress in the development of objectives from this point on. The objectives of financial statements are not and should not be static." (report of the Accounting Objectives Study Group, 1973, p. 44).

Majority of the subjects in the experiment had been in the program long enough to know most about everybody in their class. Hence, even though the familiarity manipulation seems to have worked to a certain degree, the results should be interpreted with caution. Instructing people to assume that they do not know somebody when they actually do is tricky. This can possibly explain why there were no significant results associated with the unfamiliar group.

A further limitation of the study is that the experimental design did not take into consideration potentially important factors in negotiation such as the bargaining/discussion strategies of subjects, first mover advantage, additional information added into the setting by the participants, and the degree of effort each participant put into the discussion.

In the real world, there are many other factors that enter a negotiation process, each factor interacting to a certain degree with all the other factors. Even in this small study, it was documented that most of the interactions between the variables were significant. Hence, the results of this study should be taken with a grain of salt for the simple fact that there are at least a dozen missing variables from the equation.

CHAPTER 4
CONCLUSION

The principle of conservatism is an important feature of the financial reporting system. There have been numerous empirical attempts to measure the extent of conservatism embedded in the financial statements. Chapter 2 discusses these different measures and the results of the empirical studies in light of a simple model that attempts to explain the conflicting results of balance sheet based and income statement based conservatism measures. The model explains why increased income statement based conservatism may be associated with decreased balance sheet based conservatism. I also distinguish between growth and no-growth firms and argue that the difference between the two measures cannot be interpreted adequately given increased growth. Additional empirical analysis is needed to test the model. An empirical study can be conducted using a proxy for growth and forming portfolios based on growth and then measuring the degree of conservatism on the balance sheet and the income statement.

One very important conclusion that emerges from chapter 2 is that there is not a single measure of conservatism. There are many factors to consider and any simplistic way of attempting to measure conservatism cannot be relied upon to draw conclusions about the degree of conservatism inherent in financial reporting. Other than quantitative factors, there are qualitative factors that interfere when making decisions under uncertainty. Prudence for example, a subjective concept, is deemed conservative behavior (Giner and Rees, 2001). Thus, the "value" of an increment of prudence or the level of prudence may differ greatly across companies and across countries.

Chapter 3 explores the effects of two qualitative factors that may influence conservatism in financial reporting. A unique setting is chosen to explore how the resolution of an ambiguous accounting issue between the auditor and the client can be affected by employing different types of standards and whether the degree of familiarity between the auditor and the client impacts the outcome of the resolution. The experimental design is based on the three-element process model of auditor-client accounting negotiation proposed by Gibbins et al. (2001). The results indicate that the type of standards and the degree of familiarity jointly have an effect on conflict resolution. Thus, the joint decision of two parties that have a conflict of interest will ultimately affect the degree of conservatism in the reported numbers.

Hence, conservatism is an elusive concept difficult to operationalize with simple quantitative measures that lack contextual factors. Any empirical studies that claim to report on the degree of conservatism in financial reporting have to be analyzed and interpreted with great caution before drawing conclusions.

APPENDIX
HISTORICAL PERSPECTIVE ON THE DEVELOPMENT OF ACCOUNTING STANDARDS

1929 Market Crash and the Development of Accounting Standards

The Securities and Exchange Commission (SEC) was formed to restore public confidence in the capital markets after the stock market crash in 1929. The main purpose of the SEC was to build investors' trust by ensuring that the companies truthfully conveyed information about themselves to the public [http://www.sec.gov/about/whatwedo.shtml]. The only way this could be done and monitored at the same time was creating regulations that would make the companies report truthfully. Regulation is possible through the formation of a police force of some kind that will enforce a set of rules. The SEC would be the police force and the set of rules needed to be created. At the time, accounting standards were not heard of, so the SEC encouraged the creation of a group of standard setters. In recognition of the resources, expertise, and talent of the private sector, the SEC supported the formation of a private standard-setting body and asked the American Institute of Accountants (later AICPA) to undertake the task of providing accounting standards for companies (Kieso, Weygandt, and Warfield, 2001).

The AICPA appointed a small group of prominent academics, Sanders, Hatfield, and Moore, to write the accounting standards and published their work in 1938: *A Statement of Accounting Principles*, which is the first noteworthy book of accounting standards. In the *Introduction* section of the book, the authors stated that several institutions had already issued various sets of accounting standards. For example, the

AICPA had published a brief statement of principles, the SEC had issued accounting regulations for the administration of the legislation, and the Bureau of Internal Revenue had enlarged the volume of its accounting rules for determining taxable income. However, none of the issued statements represented a complete formulation of accounting principles. It seemed that each agency was stating only those accounting rules that required compliance with the statutes it was administering. Thus, the time seemed ripe for the compilation of a comprehensive statement of accounting principles. The authors, not being members of the AICPA but notable academics, had been asked to carry out the task of writing the standards on behalf of the Institute yet independently from the Institute. This appeared to be a perfect arrangement for the AICPA: it encouraged research without lending authority to its findings. On the other hand, the SEC was not satisfied with the arrangement and urged the Institute to back their findings and endorse their principles, which led to the formation of the Committee on Accounting Procedure (CAP) in 1939 (Baxter, 1979).

CAP issued 51 authoritative standards known as Accounting Research Bulletins (ARB) from 1939 to 1959. ARBs were issued in response to accounting problems occurring at the time. The ARBs had a big impact on the financial reporting system and constituted the basis of generally accepted accounting principles (GAAP), but the problem-by-problem approach to formulating standards failed to provide the desired structured body of accounting standards (Kieso et. al, 2001). All CAP members worked part-time. There was not enough staff and the turnover ratio was high. The critics pointed out that the committee did not rely enough on research and that it was the catspaw of the SEC. Thus, came the demise of CAP and the formation of a new committee: the Accounting Principles Board (Baxter, 1979).

The Accounting Principles Board (APB), run by about 20 part-time members, replaced CAP in 1959. After a decade of its formation, criticisms began to pour in once more: APB was considered to be lacking the resources necessary to develop high-quality standards to meet the increasingly complex business transactions of the times [http://www.aicpa.org/info/regulation02.htm]. The development of a conceptual framework was a principal part of the charter of the APB in 1958 (Burton, 1978). Yet, there were complaints about the lack of articulated statements of basic concepts underlying procedures that would enable uniformity, simplicity, and comparability in financial reporting. There was a "longing for certainty" that could only be provided by a coordinated system of principles (Davidson, 1969). APB's failure to provide such a conceptual framework has been cited as one of the main reasons that eventually led to its replacement by the Financial Accounting Standards Board (FASB) in 1973 (Burton, 1978). By the time APB was terminated, it had issued 31 standards called APB Opinions.

Blue Monday and the Emerging FASB

Trueblood (1970) observed that there were "rising expectations" in all fields including accounting mostly because of the advances in technology and communications at the time. He pointed out that increased personal and social choices, business alternatives, interdependence, and the rising costs accompanying the choices would likely intensify the moral and ethical problems that already existed in the accounting profession. He called for "rules for the profession" so that the accountants could not find ways to circumvent APB Opinions that their clients did not like. He stated that the "profession must move to correct deficiencies in the setting of standards with more alacrity than it has so far seemed able to muster" (p. 38).

Trueblood's observations and recommendations for the accounting profession closely follow the market crash of 1969. In 1971, in the aftermath of the crash, the AICPA appointed a Study Group on Establishment of Accounting Principles (commonly known as the Wheat Committee). This was an action similar to the one that AICPA undertook after the 1929 crash when the AICPA appointed academics to write standards on behalf of the Institute. The Study Group's recommendations were submitted to the AICPA Council in 1972, adopted in total, and shortly after implemented in 1973. As a result of the Wheat Committee's recommendations, the APB was disbanded and the FASB was founded (Kieso et. al, 2001).

The Study Group's conclusions were based upon the fundamental concept that financial statements should aid economic decision-making. All the major conclusions of the Group aimed for a "principles-based" approach to standard setting. "Emphasize substance, not technical form" was explicitly listed as one of the conclusions (Report of the Accounting Objectives Study Group, 1973). Hence, the Wheat Committee initially started out with a principles-based approach to standard setting just like all the previous committees that undertook the task.

The FASB started its operations by implementing the Trueblood report and formulating a conceptual framework for the profession, which the CAP and the APB had failed to do. This conceptual framework would provide the basis upon which new standards could be issued (Flegm, 1989). Flegm (1989) described the FASB's next decade full of tension but nonetheless revolutionary as the committee proceeded on the conceptual framework project. The Discussion Memorandum (DM) published in 1976 supported a shift from the matching of costs and revenues perspective to an asset/liability

view when determining income. Two public hearings were held in 1977 and 1978 to discuss the DM and the perceived shift in income determination.

In 1978, Flegm (1989) attended a special meeting of the FASB on the conceptual framework project and the DM. The meeting entailed the discussion of "eight examples of accounting problems … with the participants being asked to[1] comment on whether or not they accepted the various alternatives under the asset/liability or revenue/expense[2] view. Without delving extensively into the discussion, it is fair to say that there was little consensus on any of the issues" (p. 91). The author stated that despite the lack of consensus, the FASB was determined to implement the Trueblood report, which was geared toward the asset/liability view of income and entailed the prediction of future cash flows and fair value accounting. On the other hand, accountants led by Financial Executives Institute's (FEI) Committee on Corporate Reporting, argued for the maintenance of the historical-cost based accounting and the retention of the matching concept (p. 91). Flegm pointed out that this fundamental argument had not been resolved when the concepts statements were being developed, which eventually led to so many compromises that in the end no one has been satisfied with the result.

To assist the FASB in the development of a conceptual framework, the AICPA, Financial Analysts Federation, FEI, and the Robert Morris Associates got together to discuss the issue in the triennial Seaview Symposium (Burton, 1978). The group shared the general view that financial statements should be limited to objectively verifiable data

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[1] Asset/liability perspective considers assets and liabilities to be direct measurements of economic phenomena and defines income as a change in such phenomena. This view endorses the fair-value approach to accounting (Burton, 1978).

[2] Revenue/expense perspective considers assets and liabilities to be residuals arising out of the income measurement process. This view endorses the historical cost approach to accounting (Burton, 1978).

and objectivity should not be compromised for better predictive information. However, there were differences of opinion on how far the process of emphasizing objectivity should go. Some supported the notion of moving towards a more cash-basis accounting, whereas others, including the FASB, preferred an accrual-basis accounting but at the same time were in favor of objective measurements that would minimize management's role in income determination. The consensus was that the financial statements themselves should not emphasize predictive data, yet a predictive approach to financial reporting should be undertaken outside the financial statements to aid users of information in decision-making about companies. The group proposed that predictive data, subject to uncertainties and differences in subjective opinion, should appear under a separate section of the financial report and not be audited as rigorously as the financial statements. This way the statements would be simpler, more uniform, more understandable and less subject to manipulation. A small group was concerned because of added constraints to the conceptual framework project and objected to an implementation of the dual reporting approach. (Burton, 1978).

1980s: How (and Why) did We Move Away from 'Principles-Based' Approach to Standard Setting toward a 'Rules-Based' Approach?

In the 1980s, the search for a conceptual framework to guide the FASB in decision making was still a lingering issue. Accounting Principles Board Statement no. 4, Basic Concepts and Accounting Principles Underlying Financial Statements of Business Enterprises, was perceived as helpful in defining objectives, but nevertheless considered insufficient in prescribing a clear direction for standard setting (Kirk, 1981).

Horngren (1981) observed that the FASB was moving in the direction of building a conceptual framework that emphasized the technology of accounting. He explained that

this was because of a "problem of social choice." A technical framework would empower the FASB by "measuring the financial impact of events in an evenhanded manner" and thus steer the board away from the "problem of social choice." For the FASB, this "problem" entailed the identification of the constituencies in power, acting in accordance with their wishes and accomplishing this in a manner that would be acceptable by "the 800-pound gorilla in the form of the federal government, particularly the SEC" in order to ensure its survival. The emphasis on certain issues would still continue to depend on the relative importance of the board's constituencies, but building a more technical framework would enable the FASB to stay away from the policymaking process (Horngren, 1981, p. 88).

In the beginning of the 1980s, the accounting profession had already begun complaining about a standards overload (Chenok et. al, 1980). Not heeding the protests of the profession, the FASB embarked on a journey of moving away from "principles-based" toward "rules-based" standards. The motivation behind this apparent course of action was to empower the FASB help drive out "creative accounting" that emerged as executive pays were increasingly tied to reported profits and as new and riskier ways of financing appeared as a result of globalization and deregulation (Piecara, 2002).

Sterling's captivating description of the accountant's dilemma (1973) closely parallels the FASB's problem in the 1980s and why the board opted to move toward a more "rules-based approach" to standard setting:

"As an independent auditor, the accountant needed a strong defense against the always optimistic, sometimes dishonest, financiers and entrepreneurs. Unfortunately, he was not given this defense. Instead, he was placed in the precarious position of being the employee of the person he was obliged to keep honest. In the absence of a cohesive

theory, in the absence of police power, in the presence of ignorance and apathy of the community, his only defense was precedent and persuasion. Precedent soon became rule and the rigid application of rules was his primary weapon. It is much easier and more diplomatic to accuse someone of breaking a rule than to accuse him of telling a lie" (p. 61).

"The Nature of Standards" in 1980s, EITF, and More "Rigid" Rules

The Emerging Issues Task Force (EITF) was established in 1984 upon the FASB's recommendations to form a group responsible for timely financial reporting guidance in order to assist with emerging accounting problems [http://www.fasb.org/eitf]. The task force did not have any formal authority, yet its views quickly became to be regarded as de facto GAAP for managers and accountants who wanted timely guidance on new issues (Wishon, 1986). In less than two years time after its formation, the EITF fueled the lively debate on whether standards should be "general" or "specific" (Wishon, 1986). Despite advocates for broad and general standards, who believed detailed questions should be dealt by managers, the task force's having reached a consensus on almost 50 issues in its first 20 months was clear evidence that those who supported detailed standards had won the latest round on the long-debated issue (Wishon, 1986).

Black Monday and the Troubled FASB

There were major changes in the composition of the FASB right before the market crash in 1987 (Flegm, 1989). The publication of a White Paper sponsored by the FEI and the Accounting Principles Task Force suggested an increase in business-trained people on the FASB and the trustees of the Financial Accounting Foundation (FAF), which was followed by the appointment of Art Northrop and Vic Brown (both with primarily a business background) to the FASB. This raised considerable controversy in the

accounting field with some believing it to be an attempt by business to "take over" the standards-setting process. The resignation of Art Wyatt in mid-1987 because of the increased influence of business in the FASB's activities was the ultimate peak of the controversy. As the dispute subsided following the appointments of Jim Leisenring and Clarence Sampson to the FASB, and by the time the virtual reformation of the Board was complete in 1987, there was yet another market crash: the Black Monday. This time the reformation of the standard-setting committee coincided with the collapse of the financial market. Hence, this was the FASB's opportunity to start afresh with the financial market in the aftermath of the crash.

The "Tech Bubble" and the Proposed Shift from "Rules-based" to "Principles-based" Standards

History seems to repeat itself as we once again embark on a search to improve the financial reporting system after yet another market crash: the "burst of the tech bubble". The desirable shift is this time towards a more principles-based approach to accounting standards as called forth by the Sarbanes-Oxley Act to which the FASB has responded by issuing a "Proposal for a Principles-Based Approach to U.S. Standard Setting" (FASB 2002).

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BIOGRAPHICAL SKETCH

I was born and raised in Adana, Turkey. I graduated from Bogazici University in Istanbul, Turkey, with a Bachelor of Arts in business administration in June 1993. I received a Master of Education in educational psychology from the University of Florida in 2000. Currently, I am working towards a Master of Arts degree in economics.