Contrast of Perspectives: The Role of Corporate Governance Structures on Conservative Behavior of Philippine Publicly Listed Firms

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Abstract: Recent debates and controversies have led to a paradigm shift towards the role of reliable financial reporting in corporate governance. Despite empirical research on the association of corporate governance and accounting conservatism conducted in other countries, these studies remain inconclusive due to conflicting results and the lack of a solid theoretical foundation. To our knowledge, we are the first to explore the relationship between corporate governance and conservative financial reporting in the Philippine setting. With the removal of conservatism from the conceptual framework of accounting standards in favor of neutrality and faithful presentation, we depart from the conventional knowledge that conservatism leads to high-quality accounting information. We extend the implications of extant literature by presenting economic theories (traditional agency and stewardship theory) to rationalize the two competing hypotheses, the substitutive and complementary relationship respectively. Through a panel data regression analysis of secondary firm-level data on Philippine publicly-listed corporations from 2002 to 2011, excluding financial institutions and infrequently traded firms, we find that corporate governance and accounting conservatism are viewed as substitutes rather than complements. Weak corporate governance causes higher demand for conservatism as a means of curbing managerial opportunism. This further corroborates the traditional agency theory as an overriding principle that drives management decisions. Moreover, firms affiliated with corporate family groups are found to be generally less conservative with lower verification requirements placed on accounting information. With such findings, we assert that significant caution must be placed on the overuse of accounting conservatism due to its unsustainability as a substitute for established corporate governance mechanisms based on its potentially negative impact on financial reporting.

Key Words: Corporate governance; Conservatism; Agency; Stewardship
1. INTRODUCTION

"Being the managers of other people’s money rather than their own, it cannot be expected that they [managers] should watch over it with the same anxious vigilance which [they would] watch over their own."

- Adam Smith, Wealth of Nations (1776)

The recent history of global financial markets has been plagued by a series of financial crises and accounting controversies, leading to an unexpected paradigm shift in both the fields of financial accounting and economics. At the turn of the century, the infamous Enron and Worldcom scandals revealed the ramifications of careless reporting and auditing and exposed the importance of management’s ability to direct firms towards profitable yet ethical business operations.

With the perceived weakness in developed markets and with capital investors searching for safer havens, Asia holds great potential in benefitting from this international capital flow, and addressing the causes of the crises themselves is imperative for the Philippines to remain competitive. However, results of the 2012 Corporate Governance Watch conducted by the Asian Corporate Governance Association (ACGA) indicate that the Philippine governance structure has lagged behind its Asian neighbors in all aspects of corporate governance, except for accounting standards compliance.

Among the most common reasons cited for the previous decades is the separation of ownership and control in corporations that leads to principal-agent problems, which have merited attention from various researches. However, major idiosyncracies in corporate structures that exist between Western and Asian firms, such as the influence of family corporate groups, are often neglected in conventional research. Moreover, the arguments asserted by contemporary theories should not be hastily discounted.

With the recent removal of conservatism from the conceptual framework of International Accounting Standards (IAS) and extant literature suggesting a relationship between corporate governance and accounting conservatism, it is imperative to determine which among the presented hypotheses holds in the Philippine setting and the reasoning for such result. Thus, the significance of this study lies in its aim to provide a theoretical foundation explaining the existing empirical findings, to recognize the influences of group and family affiliations on the corporate practice of conservatism, and to be the first to provide a firm-year measure of accounting conservatism based on Philippine firm-level data.

1.1 Research Objectives

In this paper, we attempt to:

1. Investigate the influence of corporate governance mechanisms on a firm’s practice of accounting conservatism;
2. Relate the determinants of accounting conservatism to economic frameworks, such as agency or stewardship behavior; and
3. Explain differences in the exercise of accounting conservatism by family corporate groups and non-affiliated firms.

1.2 Scope and Limitations

The sample dataset utilized in this paper is confined to firms publicly listed in the Philippine Stock Exchange (PSE). Other limits are also imposed on the filtering of available data as further discussed in the empirical framework section. Discretion and prudence must be exercised in the application of the conclusions, recommendations, and implications presented in this research to related studies because of potential changes in the financial market structures across time or countries.

2. THEORETICAL FRAMEWORK

The business environment has seen a paradigm shift in organizational structures from the predominance of sole proprietorships and purely family-owned firms to the modern corporation, which features diffused share ownership and professional management. These led to the dramatic separation of the ownership (risk-bearing) and control (decision-making) functions (Fama & Jensen, 1983; Kwon, 2005). When there is a separation of ownership and control, administrative and proprietary interests do not naturally coincide thus establishing an impetus for the canonical agency problem (Demsetz, 1983).

2.1 Effect of Traditional Agency on Financial Reporting Behavior

An agency relationship is a contract under which a principal delegates a degree of decision-making authority to one or more persons with an
insignificant residual claim in the firm (Jensen & Meckling, 1976). Agents commonly possess a minimal stake in the residual claims on any positive wealth effects brought by decisions geared toward the sole interest of the principal. Assuming that both parties are self-interested actors with the objective of maximizing personal economic gain, there exists a logical reason for a divergence of interest between the principal and agent (Levintal, 1988; Watts, 2003a).

Following the interpretation of Basu (1997) and Watts (2003a), we define conditional conservatism as the predisposition of the accountant to impose higher verifiability requirements and the differential timeliness on the recognition of favorable events (earnings increasing events) against unfavorable events (earnings decreasing events).\(^1\)

Watts (2003a) notes the use of accounting conservatism as an internal control device that curbs opportunistic behavior and biased reporting in the contracting mechanism of the firm by establishing asymmetric recognition timeliness and verifiability requirements. Timeliness in recognition obviates the maladjusted outcomes of managerial decisions due to the limited horizons, limited liabilities, and different risk orientations faced by the agent (Watts, 2003a).

Following the issues raised by agency problems, we recognize the impending demand for efficient contracting, which is facilitated by conservative reporting. Since the substitutive perspective is said to represent the demand side of accounting conservatism, it can be expected that a firm with a relatively weak governance structure will have a higher demand for accounting conservatism (Chi et al., 2009). As an instrument to reduce uncertainty and information asymmetry in the case of a weak corporate governance structure brought about by traditional agency, the extent of conservatism practices may increase as the need to curb opportunism arises, specifically in terms of managerial contracting. Thus, the evidence of a substitutive relationship between corporate governance and accounting conservatism is supported by traditional agency theory.

### 2.2 Stewardship Theory

We observe that the theoretical viability of the traditional agency paradigm is limited to the most basic economic model of man, *homo economicus*, which views the individual as a rational and self-interested utility maximizer (Friedman, Hirsh & Michaels, 1987). This particular model, however, may not necessarily hold for all agents since pro-organizational behavior may yield a higher utility relative to self-serving behavior, which ensures that the agent’s behavior does not depart from the objective of maximizing the value received by the principal. Even in situations when there is a conflict of interest or multiplicity in the principal interests, the steward will make decisions that will maximize the welfare to the best interests of the principals because he seeks greater utility from cooperation and advancing the objectives of the organization (Davis, Donaldson & Schoorman, 1997).

Aside from the contracting explanation for accounting conservatism, stockholder litigation, taxation and regulation are also possible reasons (Watts, 2003a). Litigation is deemed to persist more on occurrences of overstatements rather than its more conservative counterparts. Furthermore, by providing for an avenue of eased loss reporting, conservative financial reporting regimes prove to be more beneficial by minimizing tax implications faced by firms. The regulatory argument also gives rise to the possibility of conservatism to exist mainly as a requirement provided by accounting standards and other regulatory mechanisms (Watts, 2003a). These additional arguments regarding the source of accounting conservatism give rise to the stewardship perspective as it calls for the altruistic behavior of managerial agents towards the benefit of owners. A strong corporate governance mechanism favors a conservative financial reporting regime in order to effectively monitor and control firm affairs at different levels of the organizational structure (Garcia Lara, Garcia Ouma & Penalva, 2009). This is due to the cardinal need for verifiable and timely information that will serve as a medium of oversight and control of which the accounting information system may be a source (Ahmed & Duellman, 2007). Thus, the stewardship theory justifies the supply side of accounting conservatism. This perspective suggests that a firm with a strong corporate governance mechanism would be expected to provide more conservative financial reports, which is logically analogous with the complementary perspective discussed by Chi et al. (2009).

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\(^1\) We confine our study to conditional conservatism because unconditional conservatism in itself creates agency problems and has a different empirical treatment. See Beaver and Ryan (2005).
We rationalize the demand for accounting conservatism by considering two behavioral frameworks on the continuum of agency relationships. Moreover, we identify a binary construct (an either-or relationship) in these behavioral orientations, which provides a theoretical justification for both opposing perspectives presented. Hence, the prevalence of one becomes an empirical question. Figure 3.1 graphically depicts the foregoing theoretical relationship that serves as the basis for formulating the following hypotheses. Following Chi et al. (2009), we propose that managerial behavior towards accounting conservatism is complementary, embodying the prevalence of stewardship theory as well. Alternatively, it is also possible that due to the need to curb managerial opportunism, the substitutive perspective may exist, wherein weak corporate governance is observed to increase accounting conservatism practices.

3. METHODOLOGY

We construct an unbalanced panel dataset encompassing firms with annual reports over a ten-year period from 2002 to 2011. Financial institutions and information relating to issuances other than common stocks (e.g. preferred stocks, stock rights and warrants) are excluded from the sample. We also remove (a) firm-years related to firms whose presentation currency is not the Philippine peso, (b) firm-years when a firm is inactively traded or suspended, (c) firm-years when negative book equity is reported, (d) firm-years with missing data for any variable used in this study, and (e) firm-years that form gaps per individual time-series. The resulting sample dataset is a short panel of 669 observations, which comprises of 120 firms and 10 years.

Following Chi et al. (2009), we specify our regression model as follows:

\[ C - Score_{i,t} = \alpha_i + \beta G_{i,t} + \gamma C_{i,t} + \epsilon_{i,t} \]  

(Eq. 1)

where \( i \) indicates firm, and \( t \) indicates year:
- \( C - Score \) = firm-year measure of conservatism, estimated from Eq. 5 and 6:
- \( \beta \) = vector of coefficients for corporate governance measures
- \( G_{i,t} \) = vector of corporate governance measures such that:

\[
\begin{bmatrix}
\%INSIDE_{i,t} \\
\%INST_{i,t} \\
BRDEXP_{i,t} \\
CEOPOWER_{i,t} \\
FAMILY_{i,t}
\end{bmatrix}
\]

\( \gamma \) = vector of coefficients for control variables
- \( C_{i,t} \) = vector of control variables such that:

\[
\begin{bmatrix}
CYC.F_{i,t} \\
VOLATILITY_{i,t} \\
AGE_{i,t}
\end{bmatrix}
\]

The compositional model passes both the unobservable firm-specific effect (\( \epsilon_i \)) and the remainder stochastic disturbance (\( \epsilon_{i,t} \)) such that:

\( \epsilon_{i,t} = \epsilon_i + \nu_{i,t} \)

Both components are assumed to be random and independent of each other under our adopted econometric framework such that \( \epsilon_i \sim IID(0, \sigma^2) \), \( \nu_{i,t} \sim IID(0, \sigma^2) \), and \( E(\epsilon_{i,t}) = E(\nu_{i,t}) = 0 \).

Appendix A.2 presents the variable descriptions while Appendix A.3 summarizes the a priori expectations based on the general discussion of the theoretical framework proposed in Section 2.

3.1. Empirical Metric for Conservatism

In this study, we reckon accounting conservatism to be manifested by the differential verifiability requirement in assimilating favorable and unfavorable events into reported earnings, which involves a demand for higher verifiability for good news relative to bad news. Following this notion, we...
adopt the firm-year conservative flow measure \((C\text{-}Score)\) proposed by Khan & Watts (2009). This scale is used because it captures the asymmetric timeliness notion through the dissymmetric earnings-return association on a firm-year level. Khan and Watts (2009) modify Basu’s (1997) regression model described in Eq. 2 by specifying the differential timeliness coefficient to vary with relevant firm characteristics.

We first consider Basu’s (1997) annual asymmetric timeliness regression specified in Eq. 2 as a basis for the \(C\text{-}Score\) computation.

\[
EARN_i = \beta_1 + \beta_2 \text{NEG}_i + \beta_3 \text{RET}_i + \beta_4 \text{NEG}_i \times \text{RET}_i + \epsilon_i
\]  

(Eq. 2)

where \(i\) indicates the firm;

\(EARN\) = operating income after depreciation and amortization, scaled by the beginning-of-the-year market value of equity;

\(RET\) = annual stock returns, compounded from monthly returns beginning from the fifth month after the end of the reporting period;

Basu (1997) introduces a dummy and interaction term to demarcate the influence of the ‘bad news sample’ and the ‘good news sample’ on accounting earnings.

\(\text{NEG} = 1\) if \(\text{RET}_i < 0\), and 0 otherwise;

The coefficient of the variable \(\text{NEG} (\beta_2)\) is the differential intercept of ‘bad news sample’ from the ‘good news sample.’ Furthermore, the differential timeliness coefficient refers to the coefficient of the interaction term \(\text{NEG} \times \text{RET} (\beta_4)\). It captures the extent to which the association between current earnings and negative returns is stronger than that with positive returns following the asymmetric timeliness notion of conservatism (Basu, 1997).

Consistent with Khan and Watts (2009), we integrate firm characteristics, namely market-to-book ratio, firm size, and leverage, into the Basu (1997) regression model designated as Eq. 2 by specifying the original good news coefficient (\(\beta_2\)) and differential timeliness coefficient (\(\beta_4\)) as a linear function of these firm characteristics. It is important to note, however, that the following equations are not regression models. Rather, they are linear equalities that allow spatial variation of the annual good news and asymmetric timeliness coefficients with the firm-specific characteristics.

\[
G\text{-}Score = \beta_2 = \mu_i \text{F}_{it}
\]  

(Eq. 3)

\[
C\text{-}Score = \beta_4 = \lambda_i \text{F}_{it}
\]  

(Eq. 4)

where \(i\) indicates firm, and \(t\) indicates year:

\(\mu\) = vector for coefficients of firm-year characteristics relating to good news timeliness such that:

\[
\mu_i' = [\mu_{i,1}, \mu_{i,2}, \mu_{i,3}, \mu_{i,4}]
\]

\(\lambda\) = vector for coefficients of firm-year characteristics relating to asymmetric timeliness such that:

\[
\lambda_i' = [\lambda_{i,1}, \lambda_{i,2}, \lambda_{i,3}, \lambda_{i,4}]
\]

\(\text{F}_{it}\) = vector of firm-year characteristics such that:

\[
\text{F}_{it} = \begin{bmatrix} 1 & \text{SIZE}_{it} & \text{MTB}_{it} & \text{LEV}_{it} \end{bmatrix}
\]

where:

\(\text{SIZE}\) = natural logarithm of the market value of equity;

\(\text{MTB}\) = ratio of the market value of equity to the book value of equity at the end of the reporting period; and

\(\text{LEV}\) = long-term plus short-term debt, divided by the beginning-of-the-year market value of equity.

We substitute Eq. 3 and 4 for \(\beta_2\) and \(\beta_4\) into the original Basu (1997) regression specified in Eq. 2. The modified regression model Eq. 5 enables the estimation of a firm-year measure of accounting conservatism by considering the contemporaneous interaction between earnings, returns, and relevant firm-specific characteristics. The \(\lambda\) and \(\mu\) vectors are estimated as an alternative to \(\beta_2\) and \(\beta_4\) for each of the years covered (Khan & Watts, 2009).

\[
EARN_i = \beta_1 + \beta_2 \text{NEG}_i + \beta_3 \text{RET}_i (\mu_i \text{F}_{it}) + \text{NEG}_i \times \text{RET}_i (\lambda_i \text{F}_{it}) + \epsilon_i
\]  

(Eq. 5)

We estimate Eq. 5 using ordinary least squares (OLS) and collect the yearly coefficients relating to the asymmetric timeliness vector \(\lambda\) to compute the \(C\text{-}Score\) based on Eq. 6. Specifically, we compute it as:

\[
C\text{-}Score_{it} = \hat{\lambda}_i \text{F}_{it}
\]  

(Eq. 6)

4. RESULTS AND DISCUSSION

Table 1 presents the empirical results after estimating Equation 1. The following results support a statistically significant relationship between accounting conservatism and all corporate governance variables, except for insider ownership (%INSIDE).

Table 1. Model Results

<table>
<thead>
<tr>
<th>Corporate Governance Variables</th>
<th>Coef. Est.</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>%INSIDE ((\beta_2))</td>
<td>-0.00001</td>
<td>1.04</td>
</tr>
<tr>
<td>%INST((\beta_4))</td>
<td>-0.00102</td>
<td><strong>1.06</strong></td>
</tr>
</tbody>
</table>
Our results support the findings of Chi et al. (2009) that a greater link between managerial wealth and firm value through inside ownership does not decrease a firm's practice of accounting conservatism. However, the insignificance of insider ownership (%INSIDE) may also be attributed to the limitation posed by proxies extracted from annual reports. While the essence of the insider ownership variable is to capture the influence of the managers, the deficiencies in corporate disclosures place significant difficulty in the extraction of precise measures for both their direct and indirect ownership.

We find institutional ownership, as captured by %INST, to exhibit a negative relationship with C–Score suggesting that accounting conservatism and institutional ownership are substitutes. This is consistent with the arguments of Szewczyk, Tsetsekos, and Varma (1992), Gillian and Starks (2003), and Chi et al. (2009), that institutional investors in the Philippines effectively mitigate agency problems by reducing information asymmetries between manager and capital markets and by monitoring and disciplining management.

Similar to Chi et al. (2009), our findings indicate that agency theory is suitable in explaining the positive relationship between the duality phenomenon (CEOPOWER) and accounting conservatism. It appears that the self-interested nature of CEOs in the Philippines are fostered when Philippine firms decide not to separate decision-management and control functions following the arguments of Fama and Jensen (1983) and Imhoff (2003). Consequently, Philippine firms are found to compensate for this governance weakness by adopting more conservative financial reporting.

Philippine firms with corporate boards comprised of more directors holding outside directorships (BRDEXP) are found to be less inclined to issue conservative reports. This implies a substitutive relationship between accounting conservatism and board expertise since a higher number of expert independent directors bring greater monitoring expertise and thus are more effective in mitigating agency problems. Conservatism, as a vehicle that plays a palliative role in mitigating agency problems, is therefore unneeded.

Based on our empirical results, we find that the coefficient of the FAMILY variable aligns with the management mindset under traditional agency theory. Firms who can be identified as family- or group-affiliated provide less conservative financial reports due to the inherent familiarity with firm operations and an absence of agency problems, to a certain degree.

Also, we find two of our four control variables to significantly modify a firm’s tendency to practice financial reporting conservatism. Consistent with Khan and Watts (2009), we find a negative relationship between CYCLE, a decreasing measure of investment cycle length, and accounting conservatism (C–Score), which implies that greater investment uncertainty exposes the firm to adverse outcomes that necessitate conservative financial reporting. Moreover, our results indicate a positive but insignificant relationship with total risk (VOLATILITY). This may suggest that the inclination of Philippine firms to behave conservatively is motivated by investment related uncertainties, a subset of firm-specific uncertainty rather than total firm-specific uncertainty. AGE is insignificant in modifying a firm’s demand for financial reporting conservatism similar to the results of Khan and Watts (2009) and Chi et al. (2009). An alternative explanation is that the business environment in the Philippines as characterized by a predominance of family-firms may be an exception to the assumption that younger firms possess less developed information environments because these less mature firms may have been founded by or affiliated with experienced corporate groups. Our empirical results also confirm the substitutive function auditors play in governance in accordance with Chi et al. (2009) and Fan and

Table 1. Model Results

<table>
<thead>
<tr>
<th>One-Way Random Effects GLS Estimation on C–Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRDEXP(βs)</td>
</tr>
<tr>
<td>0.00108 ***</td>
</tr>
<tr>
<td>CEPower(βs)</td>
</tr>
<tr>
<td>0.01647 ***</td>
</tr>
<tr>
<td>FAMILY(βs)</td>
</tr>
<tr>
<td>-0.18951 ***</td>
</tr>
<tr>
<td>Control Variables</td>
</tr>
<tr>
<td>CYCLE (γx)</td>
</tr>
<tr>
<td>-0.34449 ***</td>
</tr>
<tr>
<td>VOLATILITY (γx)</td>
</tr>
<tr>
<td>0.06750</td>
</tr>
<tr>
<td>AGE (γx)</td>
</tr>
<tr>
<td>0.00496</td>
</tr>
<tr>
<td>BigN (γx)</td>
</tr>
<tr>
<td>-0.02675 ***</td>
</tr>
<tr>
<td>No. of observations</td>
</tr>
<tr>
<td>669</td>
</tr>
<tr>
<td>No. of firms</td>
</tr>
<tr>
<td>120</td>
</tr>
<tr>
<td>Mean VIF</td>
</tr>
<tr>
<td>37.44 ***</td>
</tr>
<tr>
<td>Overall Wald’s Test</td>
</tr>
<tr>
<td>1.12</td>
</tr>
</tbody>
</table>

Coefficient estimates in bold: VIFs are variance inflation factors; the estimates are corrected for heteroskedasticity and serial correlation.

* significant at 0.10 level
** significant at 0.05 level
*** significant at 0.01 level
Wong (2005). Big-named audited firms engage in less conservative practices since services by the top four auditing firms can be a means of efficient contracting due to a higher degree of expertise from their established reputation in financial reporting.

5. CONCLUSION

With significant evidence denoting the dominance of the substitutive perspective over complementary, we find that the shareholders’ demand for conservatism as a means to efficient contracting outweighs the stewards’ supply of conservatism that aims to mitigate costs of litigation, taxation, and regulation for the firm. Consequently, this corroborates the traditional agency theory as the overriding principle that drives management decisions in contrast with stewardship theory.

From an academic standpoint, our findings reveal that the exclusion of accounting conservatism from governance studies may lead to misinterpretation of results. The existence of a substitutive perspective implies that accounting values conveyed by good governance firms are biased upwards while those reported by bad governance firms are biased downwards. Notwithstanding the general importance of corporate governance, its impact on various measures of firm value or financial performance, may be overstated by a portion attributable to accounting conservatism.

With the recent removal of the principle of conservatism from the conceptual framework in favor of neutrality and fair presentation, we depart from the conventional knowledge that conservatism leads to high-quality accounting information. For investors, the notion that financial statements can be maneuvered to mask weaknesses in corporate governance underlines the importance of the practice of due diligence. The government and other regulators must also create policies that do not only focus on compliance but more importantly foster a principles-based approach to good governance. Finally, this study provides sufficient incentive for bad governance firms to steer away from short-term solutions that address governance issues like managerial opportunism. While disguises for bad governance may be effective in addressing issues arising from managerial opportunism, such solutions are also myopic as they do not directly address agency problems nor effectively protect shareholder welfare by undervaluing firm performance. There must be a willingness to change that begins from managers and directors realizing that strong corporate governance is key to moving towards a sustainable utopian business environment.
6. REFERENCES


Khan, M., & Watts, R.L. (2009). Estimation and empirical properties of a firm-year measure of...


7. APPENDICES

Appendix 1. Corporate Family Groupings

<table>
<thead>
<tr>
<th>Aboitiz</th>
<th>Gotianun</th>
<th>Lucio Tan Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ayala</td>
<td>Lopez</td>
<td>Ty Group</td>
</tr>
<tr>
<td>Consunji</td>
<td>San Miguel Group</td>
<td>Villar Group</td>
</tr>
<tr>
<td>First Pacific Group</td>
<td>Sy Group</td>
<td>Yuchengo Group</td>
</tr>
<tr>
<td>Gokongwei</td>
<td>Andrew Tan Group</td>
<td></td>
</tr>
</tbody>
</table>

Appendix 2. Variable Descriptions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asymmetric Timeliness Measure</strong></td>
<td></td>
</tr>
<tr>
<td>EARN</td>
<td>Operating income after depreciation and amortization, scaled by the beginning-of-the-year market value of equity</td>
</tr>
<tr>
<td>RET</td>
<td>Annual stock returns, compounded from monthly returns beginning from the fifth month following the end of the reporting period</td>
</tr>
<tr>
<td>NEG</td>
<td>Dummy variable for bad news: 1 if RET&lt;0, and 0 otherwise</td>
</tr>
<tr>
<td>NEG×RET</td>
<td>Interaction term of the dummy variable for bad news and annual stock returns</td>
</tr>
<tr>
<td><strong>Firm-Specific Characteristics</strong></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>Firm size: natural logarithm of the market value of equity</td>
</tr>
<tr>
<td>MTB</td>
<td>Market-to-book ratio: market value of equity divided by the book value of equity</td>
</tr>
<tr>
<td>LEV</td>
<td>Leverage ratio: total of short- and long-term debt divided by the beginning-of-the-year market value of equity</td>
</tr>
<tr>
<td><strong>Conservatism Measure (Dependent Variable)</strong></td>
<td></td>
</tr>
<tr>
<td>C-Score</td>
<td>Firm-year measure of conservatism: cross product of vectors of yearly coefficients (λ) relating to asymmetric timeliness estimated from Eq. 4.5 and the vector of firm-specific conservatism coefficients</td>
</tr>
<tr>
<td><strong>Corporate Governance Measures (Independent Variables)</strong></td>
<td></td>
</tr>
<tr>
<td>%INSIDE</td>
<td>Percentage of outstanding shares held by managers and directors</td>
</tr>
<tr>
<td>%INST</td>
<td>Percentage of outstanding shares held by institutional investors</td>
</tr>
<tr>
<td>BRDEXP</td>
<td>Percentage of independent board members who hold seats in other firm’s boards</td>
</tr>
<tr>
<td>CEOPOWER</td>
<td>Dummy variable for CEO duality: 1 if CEO simultaneously serves as the chairman of the board of directors, and 0 otherwise</td>
</tr>
<tr>
<td>FAMILY</td>
<td>Dummy variable for affiliation with a corporate family group: 1 if the firm is effectively controlled by such group through ownership levels of 50% or more and/or if a firm’s officer</td>
</tr>
<tr>
<td><strong>Control Variables</strong></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>Natural logarithm of the number of years from initial public offering</td>
</tr>
<tr>
<td>VOLATILITY</td>
<td>Standard deviation of daily firm-level stock returns within the reporting period</td>
</tr>
<tr>
<td>CYCLE</td>
<td>Investment cycle: depreciation expense divided by lagged total assets</td>
</tr>
<tr>
<td>BigN</td>
<td>Dummy variable for name-brand audited firm: 1 if the corporation is audited by Ernst and Young (EY), PricewaterhouseCoopers (PwC), Deloitte, and KPMG, and 0 otherwise</td>
</tr>
</tbody>
</table>
### Appendix 3. Summary of A priori Expectations and Justification

<table>
<thead>
<tr>
<th>Variable</th>
<th>A priori</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Agency</td>
<td>Stewardship</td>
</tr>
<tr>
<td>%INSIDE(θ₁)</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>%INST(θ₂)</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>BRDEXP(θ₃)</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>CEOPOWER(θ₄)</td>
<td>+</td>
<td>-</td>
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<td></td>
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<td></td>
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</tbody>
</table>
Family-affiliated firms adopt less conservative financial reporting regimes because family or corporate group members are expected to prioritize firm goals over their own based on (1) the strong link between familial wealth and firm value (2) and the longer horizons faced by family owner-managers (Chrisman et al., 2007; Wu, 2013).

Stewardship. Family-affiliated firms are motivated and committed to achieve organizational objectives without opportunism. Accordingly, they practice conservative accounting as a manifestation of good governance to attenuate litigation risks and potential reputation damages (Beehr et al., 1997).

<table>
<thead>
<tr>
<th>Variable</th>
<th>A priori</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYCLE ($\gamma_1$)</td>
<td>-</td>
<td>Firms with greater firm-specific uncertainty and longer investment cycles are further exposed to adverse outcomes such as non-realization of potential economic benefits and shareholder class action suits (Khan &amp; Watts, 2009). These litigation and contracting considerations consequently force management to behave conservatively.</td>
</tr>
<tr>
<td>VOLATILITY ($\gamma_2$)</td>
<td>+</td>
<td>Younger firms have less verifiable cash flows arising from growth options and are unlikely to have well-developed information environments and sound governance mechanisms. Information asymmetry is greater in the presence of the foregoing circumstances creating an environment conducive for opportunistic behavior (LaFond &amp; Watts, 2008; Khan &amp; Watts, 2009). Thus, we expect younger firms to report more conservatively to reduce information asymmetry and constrain managerial opportunism.</td>
</tr>
<tr>
<td>AGE ($\gamma_3$)</td>
<td>-</td>
<td>Name-brand auditing firms are generally conservative because of high quality audit services that complement existing governance systems and the greater potential liability arising from substandard audits (Carcello et al., 2002; Basu et al., 2001). Yet, it may also be argued that auditing reduces the need for conservatism because it is a device that already facilitates efficient contracting (Fan &amp; Wong, 2005). That being so, the effect of being audited by a BigN auditor is ambiguous.</td>
</tr>
</tbody>
</table>

Control Variables

[Effect on Accounting Conservatism]