CHAPTER 3

Hypotheses Development

In the previous chapter, a brief discussion of the agency theory and confirmation hypothesis, a review of studies on accounting conservatism and management earnings forecast were provided. The aim of this chapter is to develop a conceptual framework based on the concepts of accounting conservatism, agency theory and confirmation hypothesis. Testable hypotheses derived from the conceptual framework are also presented.

3.1 Relationship between accounting conservatism and management earnings forecast biases

Based on disclosure literature, corporate managers have the incentives to overestimate the firm's financial performance by delaying the announcement of bad news while rushing the disclosure of good news. These incentives are based on managers' incentive factors such as formal compensation contracts and career concerns (Ball 2009; Graham, Harvey, and Rajgopal 2005; Kothari, Li, and Short 2009). The reason behind these behaviors is to cover the firm's current negative performance with better future performance. Managers, as policy and decision makers responsible for the firm's financial reporting process and earnings forecast properties, have full access to information involving the firm's economic transactions (Watts and Zimmerman 1986). If managers have considerable discretion to disclose their business assessments through earnings forecasts, it is interpreted that estimation errors or biases are inevitable in management earning forecast disclosures because it is difficult to verify at the time the forecasts are published.

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Firms communicate their managerial assessments concerning the firm's directions and expected future earnings through their earnings forecasts. In the event where the manager is overconfident about future operations and assesses that the firm

will make greater future returns from investment projects, he or she is more likely to increase the likelihood of forecast issuance as well as the degree of optimism in management forecasts (Hilary and Hsu 2011; Libby and Rennekamp 2012). Empirically, Kothari, Li, and Short (2009) provided evidence suggesting that managements tend to delay the release of bad news to outside investors. Equity investors and financial analysts pay close intention to the level of transparency of management earnings forecasts. The managerial tendency to conceal bad news from outside investors engenders negative returns (Healy and Palepu 2001). According to more recent accounting literature, conservative financial reporting is suggested to help cope with managers' asymmetric disclosure incentives (Guay and Verrecchia 2007; LaFond and Watts 2008; Ball, Jayaraman, and Shivakumar 2012), and that conservatism influences managers' decisions in forecasting earnings (Hui, Matsunaga, and Morse 2009; Li 2007).

Prior empirical studies provided evidence that accounting conservatism affects the decisions of managers in forecasting earnings. Hui, Matsunaga, and Morse (2009) found that conservative accounting is negatively associated with the frequency, specificity and timeliness of management forecasts. They suggested that accounting conservatism could be used in place of management earnings forecasts because conservative reports were used to decrease managerial incentive problems related to information asymmetry and reduce potential litigation risk through timely reporting of bad news (i.e., negative economic events). In contrast, Li (2007) found that a firm's level of accounting conservatism has a positive relationship with its frequency in forecasting management earnings. In more recent studies such as that of Sun and Xu (2012), it was found that firms with a greater degree of accounting conservatism experience greater optimistic forecasts than firms with a lower degree of accounting conservatism. Sun and Xu (2012) suggested that information acquired from conservative reports are not completely added into the firm's earnings forecasts, and that these effects are accentuated for firms with high uncertainty in their business environment. Based on prior research findings, it is suggested that conservative financial reporting impacts management's forecast activities.

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Under accounting conservatism, losses are incorporated into accounting earnings in a more timely manner. Watts (2003) suggested that accounting conservatism is a financial reporting mechanism that is efficient and serves a beneficial purpose to investors who use the firm's financial statements for investment or financial decision-making purposes. The requirement of conservative accounting of recognizing losses on a timely manner serves as a mechanism for investors to be able to monitor managers' actions and to keep them from behaving opportunistically when reporting accounting measures in management-shareholder contracts (LaFond and Watts 2008).

Due to its nature of constraining the manager's opportunistic behaviours of deferring bad news about expected future cash flows while accelerating the recognitions of good news in financial statements (Watts 2003, LaFond and Watts 2008), conservative reporting could help reduce the possibilities of the overestimation of earnings and net asset values. In addition, a verified lower-bound measure of earnings and net asset value is provided under high conservative reports (Guay and Verrecchia 2007). Since accounting conservatism involves the anticipation of all negative economic transactions, it helps reduce the uncertainty of whether or not the firm will realize economic losses in the future. Thus, when forecasted earnings are based on verified accounting conservatism, it becomes a possibility for management forecasts to have a minimal estimation error or bias, particularly when the economic environment is highly uncertain and has high information asymmetry.

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To empirically test whether biases in management earnings forecasts are driven by accounting conservative, this study examined the effects of accounting conservatism on management earnings forecast biases. By applying conservative financial reporting, reported accounting earnings would incorporate the negative economic events in a timely manner (Basu 1997; Beaver and Ryan 2005). Hence, conservatism helps restrain the manager's incentives and ability to defer bad news and instead accelerate good news recognition (Watts 2003; LaFond and Watts 2008). This limitation on the manager's actions leads to less likelihood that the firm's forecast earnings would systematically overestimate the probability of good firm performance and underestimate the probability of poor firm performance.

Management forecast bias is defined as the difference between actual earnings and forecast earnings (earnings forecast bias is measured as actual earnings per share subtracted by forecast earnings per share, divided by lagged closing share price). The forecast bias is viewed as an optimistic forecast when actual earnings is less than forecast earnings. On the contrary, it is considered to be less optimistic when actual earnings is greater than forecast earnings. Since conservative reports commit managers to report unrealized losses in a timely manner while delaying the announcement of unverifiable gains, it can constrain managers' abilities to overestimate their firms' future earnings through earnings forecasts. Consequently, the numbers stated in the forecast earnings are not overestimated and are not greater than actual earnings. This is referred to as "less optimistic bias" direction. However, if the earnings forecast happens to be greater than actual earnings, the propensity is that the gap in the differences between actual earnings and earnings forecast of high conservative firms is smaller than the gap found in low conservative firms. As a result, management forecasts tend to carry less optimistic biases when conservative accounting is relatively high.

From the above discussion, this study expected that higher degrees of accounting conservatism would be associated with less optimistic forecast biases. In other words, a higher degree of conservatism would be associated with a positive value of management earnings forecast biases (actual earnings is greater than forecast earnings). This led to the following hypothesis:

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H1: There is a positive relationship between accounting conservatism and management earnings forecast biases.

3.2 Impacts of operational uncertainty on the relationship between accounting conservatism and management earnings forecast biases

Prior literature suggests that obscurity in the operational environment results in managers making inevitable mistakes when conducting business assessments of their firms' business prospects (Hirshleifer 2001; Zhang 2007). Moreover, such operational uncertainty also affects corporate managements' asymmetric disclosure incentives, of which is to overstate the firm's financial performance by accelerating the disclosure of

good news while delaying the release of bad news because the managers have concerns about their executive positions (Kothari, Shu, and Wysocki 2009; Hui, Matsunaga, and Morse 2009).

In situations when the economic environment faces uncertainties, such as unpredictable changes in market demands and competitor business strategies, the amount of errors made by the manager in evaluating the firm's business prospects tends to increase (Hirshleifer 2001). A prior study on management forecast errors found that, under uncertain business environments, managers tend to generate high accounting accruals and forecast more optimistically due to their imperfect assessments of the firm's future prospects (Gong, Li, and Xie 2009). Biases in management earnings forecasts, therefore, are likely to be affected to a greater extent by unintentional errors resulting from the manager's difficulties in assessing business prospects, which are caused by uncertainties in the operating environment.

In a more recent research, Sun and Xu (2012) found that in the event when greater uncertainties in business operations exist, firms with a greater degree of conservatism experience a higher instance of optimistic forecast bias. They concluded that prediction difficulties are caused by firms' operational volatility that refrain managers from fully incorporating information in conservatively reported effects into their forecasted earnings.

Since uncertainties in the operating environment lead to managerial difficulties in assessing business prospects and evaluating future returns from project investments (Hirshleifer 2001; Gong, Li, and Xie 2009; Sun and Xu 2012), it was predicted that the information acquired from conservative reports were not completely incorporated into the firm's earnings forecasts. In addition, it was also predicted that operational uncertainties would strengthen corporate managements' asymmetric disclosure incentives. Hence, the role of conservatism in decreasing managements' optimistic forecast biases is weakened for firms that operate in a business environment that has greater uncertainties. An uncertainty in the business environment, therefore, is a possible factor that affects the relationship between managers' forecast biases and conservatism.

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Based on the above rationale, this study expected that the positive relationship between conservatism and biases in management earnings forecasts would be attenuated, given that the level of uncertainty in the operating environment is greater. The second hypothesis was stated as:

H1a: The positive relationship between conservatism and management earnings forecast bias is weaker for firms that operate in a more uncertain business environment.

3.3 Impacts of corporate governance on the relationship between accounting conservatism and management earnings forecast biases

This study also proposed that corporate governance structure (i.e., the number of outside directors on board, incidence of joint CEO-board chair structure, and board size) would have an influence on the relationship between accounting conservatism and the manager's forecasted earnings. Corporate governance is an institutional mechanism utilized by modern firms in monitoring and contracting activities (Shleifer and Vishny 1997). Accounting literature suggested that strong governance structures influence the application of conservatism in accounting. Corporate governance structures, particularly strong boards of directors, were found to be positively related with conservatism in firms with high information asymmetry (Ahmed and Duellman 2007; Garcia Lara, Osma, and Penalva 2007, 2009; Ramalingegowda and Yu 2012). Garcia Lara, Osma, and Penalva (2007) argued that in addition to the board of directors, conservative accounting is a financial report mechanism used in monitoring activities conducted by the firm's managers, as well as in solving agency problems that are a result of managerial incentives and asymmetric information.

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An important role of corporate governance is to monitor the manager's actions. Recent studies provided evidence that firms with a greater number of external directors and institutional holdings show greater accuracy and are less optimistically biased (Karamanou and Vafeas 2005; Ajinkya, Bhojraj, and Sengupta 2005). The governance mechanism, such as board of directors, force managers to disclose both reliable and credible mandatory and voluntary disclosure information to corporate stakeholders

(Armstrong, Guay, and Weber 2010). Since strong corporate governance commit managers to transparent disclosures, these mechanisms mitigate managerial incentives of disclosing unverified favorable future performance information. Instead, managers are required to accelerate the disclosure of future performance information that are verified and unfavorable news.

Because corporate governance dampens managerial self-serving incentives to disclose unverified favorable information (Armstrong, Guay, and Weber 2010), corporate governance strengthens the role of conservatism in decreasing managers' overestimation of future performance. Therefore, this study predicted that the relationship between higher degree of accounting conservatism and less optimistic forecast bias would be stronger for firms that have strong corporate governance. This led to the following hypothesis:

H1b: The positive relationship between conservatism and management earnings forecast bias is stronger for firms with stronger corporate governance.

3.4 The effects of accounting conservatism on stock market reactions to management earnings forecasts

Based on disclosure literature, corporate managers have the incentives to strategically assess the firm's financial performance by intentionally holding back on the release of negative news concerning future cash flows while accelerating the release of more positive news to outside investors. The manager's tendency to withhold negative economic performance from outside investors generates information gap and adverse selection problems between corporate's managers and uninformed investors.

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Previous studies found that investors interact differently to forecaster's characteristics. For instance, investors are found to be more responsive to management forecast news when a firm's prior forecast was more accurate (Hutton and Stocken 2006), as well as to good news than bad news earnings forecasts (Kasznik and Lev 1995; Hutton, Miller, and Skinner 2003; Atiase et al. 2005). While managers withhold bad news or strategically disclose earnings forecasts, equity investors may punish them by engaging

in more price protection or applying a discount for uncertainty, which resulting in a lower firm value (Guay and Verrecchia 2007).

Accounting literature documents that equity markets have a preference towards conservative financial report because of the reduction in information asymmetry they yield (Francis, Hasan, and Wu 2013). This reduction in information gap between market participants or insiders and outside investors is the result of the conservative recognition requirements that restrain managers from overstating income and net asset values (LaFond and Watts 2008). In particular, accounting conservatism brings out information that managers are unwilling or are reluctant to provide and allows only verified gains to be recognized in financial statements (Watts 2003; LaFond and Roychowdhury 2008; LaFond and Watts 2008).

Therefore, this study proposed that accounting conservatism would play a role in management earnings forecast disclosure and would affect stock market returns at the time the forecasts were released. This study predicted that conservatism would have the potential of increasing stock returns around the management earnings forecast disclosure date in three ways. First, the strict verification required by conservatism offsets managers' actions in concealing bad news events and accelerating good news events into the public information sources (LaFond and Watts 2008). The higher verification requirement of recognizing economic gains rather than economic losses of conservatism speeds up the process of recognizing bad news about future cash flows as losses. At the same time, the announcement of unverifiable good news as gains is being delayed until they are realized. Consequently, the bad news conveyed to the market is more timely than good news that are unverifiable. Conservatism prevents the events that bad news from being delayed disclosures, and thus alleviates the agency costs associated with information asymmetry. This is done by offering investors better tools for monitoring corporate managers or by limiting the manager's ability to misrepresent information (Watts 2003; Ball and Shivakumar 2005; Ahmed and Duellman 2007). As a result, the higher the level of conservatism, the lower the probability that economic losses (bad news) be hidden and accumulated. These would enable investors to better evaluate the company's transparency

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in disclosing information when earnings forecasts are released, leading to higher stock returns. This study labels the first explanation as the "*agency cost effect.*"

Second, effective conservative reports produce a lower-bound estimate for net assets that could be used to restrict manager's overstatement incentives. Because conservatism forces the early recognition of economic losses in earnings and net assets, the net assets value of a more conservative firm would likely be closer to its fundamental value than those of low conservative firms (Watts and Zuo 2011; Kim, Nekrasov, Shroff, and Simon 2013). Based on this viewpoint, accounting information generated from the financial statements of less conservative firms were more likely to be in the upper end of the distribution of firms' fundamental values compared to those of more conservative firms. As a result, when management earnings forecasts are disclosed, and if bad news happens to be released, the reaction of stock prices to earnings forecast information would be stronger for less conservative reported firms than for firms with greater conservatism. Thus, investors can use both conservative financial reports and earnings forecast information to price firms more accurately. This study identifies the second explanation as the "*valuation effect*."

Third, conservative financial reports provided verified and confirmatory accounting information. These information can be set as a better benchmark used to evaluate unverifiable information acquired from other various sources, which include forecasts made by managers and other voluntary nonfinancial information disclosures (Ball 2001; Ball, Jayaraman, and Shivakumar 2012; Watts 2006). According to the confirmatory hypothesis, the information environment of having verified accounting information (hard information) available for the public requires managers to be more honest with their voluntary disclosures (soft information) and consequently, provide more accurate information for relevant parties (Ball 2001; Ball, Jayaraman, and Shivakumar 2012). Reports on *ex-post* audited financial outcomes (such as revenue, earnings and book value of assets) allow for outsiders (such as investors, boards, analysts and lenders) to make better decisions based on a comparison of different sources of voluntary disclosures with the eventually realized numbers in the financial statement (Watts 2006; Ball, Jayaraman, and Shivakumar 2012). The financial outcome can also be used to evaluate

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the truthfulness of past management forecast disclosures. Based on these confirmatory perspective, firm-specific information that are concealed or exaggerated would be detected sooner in conservative firms than in firms that are less conservative. In addition, misleading information from voluntary disclosures would be less likely to be discovered in non-conservative firms until the manager discloses the firm's earnings forecasts. Hence, there is greater likelihood that the manager would misinform external investors in non-conservative firms. In contrast, managers in more conservative firms have less opportunities to mislead external investors. If earnings forecasts are highly accurate in predicting future cash flows in more conservative firms, the equity investors would reward them by engaging in less price protection, and so would mitigate the price reduction in disclosed earnings forecasts. This study identifies the third explanation as the "*disclosure effect*."

Supporting the reasons discussed above, Guay and Verrecchia's (2007) analytic study suggested that for more conservative firms, the market faces lower levels of uncertainty in terms of negative news. They found that *ex ante* commitment to an accounting policy that recognizes economic losses on a timely manner and defers of unverifiable gains is rewarded by the capital market. A more recent empirical research by Kim, Li, Pan and Zuo (2013) found that issuing firms with a greater degree of conservatism experience fewer negative market reactions to seasoned equity offerings announcements by mitigating the negative impact of information asymmetry.

In sum, management earnings forecasts typically affect investors' expectations and convey information about corporate managers' business prospects. With bias in management earnings forecasts, investors face intensified agency problems from corporate managers, and thus they tend to engage in lower pricing in order to protect themselves. Conservative financial reports, by offsetting managerial bias in overstatement and alleviating uncertainty for uninformed investors, reduces the agency costs associated with information asymmetry between managers and uninformed investors. It is implied that for more conservative firms, when management forecasts are released, such concerns are lower as investors are aware of the firm's reputation in providing voluntary disclosure and the timeliness conveys uncertainty of future earnings.

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As such, the capital market will perceive the forecast information delivered by conservative financial reports as being less manipulated.

If conservatism does help improve the information environment in which the disclosure firms operate, and increases investor's perception of the corporate's credible and transparent earnings forecast disclosures, it could be observed that greater conservative firms have larger abnormal (or excess) returns at the time the earnings forecast is disclosed. Thus, this study expected conservatism to be positively associated with cumulative abnormal returns around the period when earnings forecasts are announced by managers. This study states the hypothesis in an alternative form:

H2: There is a positive relationship between accounting conservatism and cumulative abnormal returns around management earnings forecast dates.

3.5 Impact of accounting conservatism on the relationship between information asymmetry and stock market reactions to management earnings forecasts

Corporate managers possess the incentives to overstate performance and hide private negative information from investors which, in turn, increase information asymmetry between firm insiders and outside equity investors (Gietzmann and Trombetta 2003; Watts 2003; Ball, Jayaraman, and Shivakumar 2012). This adverse selection problem and information asymmetry[8] may lead to a reduction in the stock returns of companies (Jensen and Meckling 1976; Healy and Palepu 2001; Artiach and Clarkson 2011; Garcia Lara, Osma, and Penalva. 2011). In the case of management earnings forecast, a reduction in stock returns of firms with higher information asymmetry is predicted to be greater than firms with lower information asymmetry at the time of earnings forecast disclosures. The cause of this decline is due to the reasoning that the

[8] Information asymmetry between the principal and the agent leads to difficulties in designing the contract and, consequently, a moral hazard problem (Jensen and Meckling 1976; Kotowitz 1987; Brennan 1995). Hence, the presence of high information asymmetry or uncertainties in the absence of information leads to higher agency costs, and eventually decreased value of the firm.

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rational investor perceives that managers utilize the information they possess to strategically disclose earnings forecasts. As a result, rational investors counter the manager's actions by engaging in price protection (Healy and Palepu 2001; Armstrong, Guay, and Weber 2010).

Accounting conservatism keeps managements from acting on their opportunistic motivations and minimizes the impact of adverse selection of information asymmetry by providing investors with the effective means of monitoring managers, including reporting mechanisms that curb managers' personal incentives and abilities from exaggerating earnings and net assets in financial statements (Watts 2003, 2006; LaFond and Roychowdhury 2008; LaFond and Watts 2008; Armstrong, Guay, and Weber 2010). Specifically, conservatism allows only verified economic gains to be recognized in financial statements, as well as restricts the public disclosure of information to only verified economic gains. Moreover, verified accounting information is a standard that can be used as a point of comparison to other sources of information, such as management earnings forecasts (Watts 2006). This way, investors are equipped with a variety of sources to compare the earnings predictions with the eventually realized accounting numbers in audited financial statements. Information obtained from financial statements and management earnings forecasts have become more plausible and reliable with conservative financial reporting (Watts 2006; Kim, Li, Pan, and Zuo 2013). Therefore, investors do not see the need of having to price-protect themselves when dealing with the forecasting firms that employ conservative accounting practices. Consequently, it can be reasoned that conservatism contributes in the reduction of adverse selection problems emerging from asymmetric information that tend to be present around the period of management earnings forecast disclosures.

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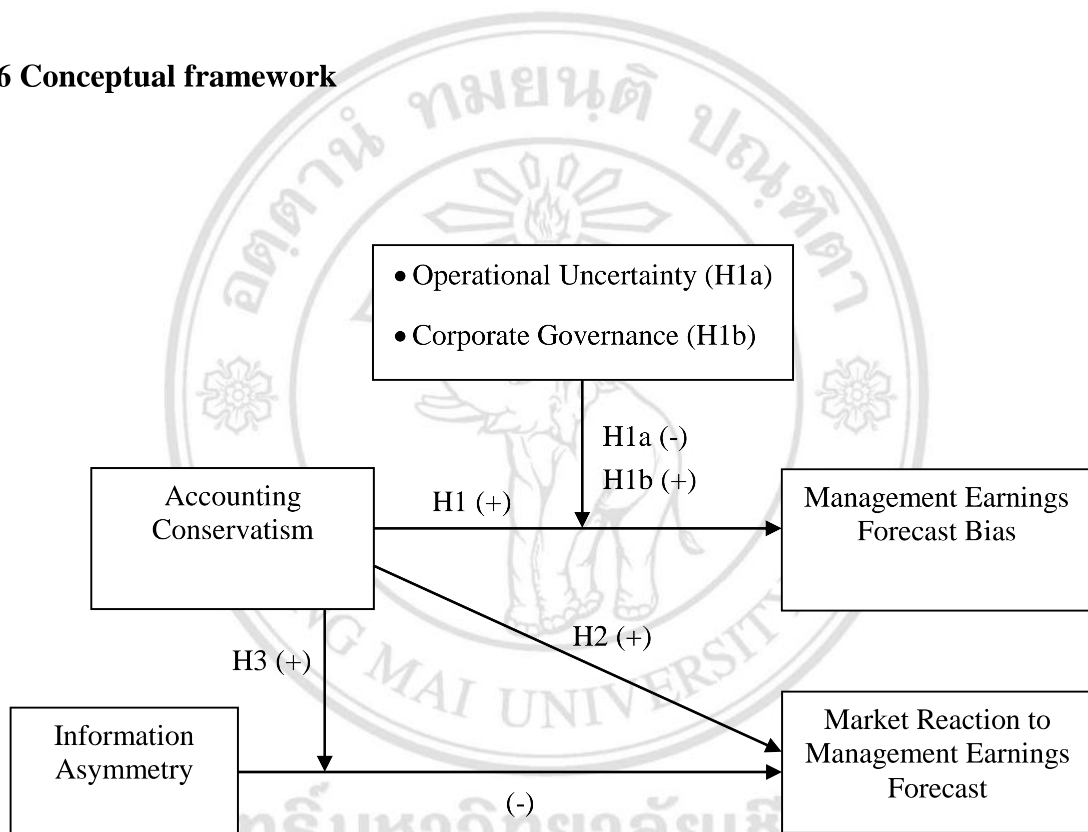
Based on the reason discussed above, this study proposed that for firms with high conservatism in accounting, the negative effects of asymmetric information on stock returns around management earnings forecast disclosures would be attenuated. Therefore, this study expected the negative relationship between information asymmetry and stock market reactions to earnings forecasts would be weaker for firms with a greater degree of

accounting conservatism. The research hypothesis, stated in an alternative form, is as follows:

H3: The negative association between information asymmetry and cumulative abnormal returns around management earnings forecast dates is less pronounced for firms with a greater degree of accounting conservatism.

3.6 Conceptual framework



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