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Would Managers Sacrifice Conservative Financial Reporting to Meet/Beat Market Earnings Expectations?

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Abstract: Prior studies show that engaging in conservative financial reporting (CON) positively affects earnings quality. However, managers also manage earnings to meet/beat market earnings expectations (MBME). This study asks three questions regarding the earnings that MBME. First, it investigates whether managers are willing to sacrifice CON when adopting strategies to MBME. Second, it tests whether managers prefer to use other earnings management (EM) strategies to MBME instead of sacrificing CON. Third, it tests whether information asymmetry between managers and shareholders affects managers' decisions to sacrifice CON. Results show that managers are more likely to sacrifice CON to MBME but are less likely to do so if they can manage earnings using accrual-based or real EM. Also, managers are more likely to do so when information asymmetry with shareholders is higher. These findings contribute to the literature by examining the circumstances in which managers would sacrifice CON to MBME.

Keywords: meet/beat analysts' forecasts; accounting conservatism; managerial entrenchment; earnings management; information asymmetry

JEL Classification: M40; M41; G34

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1. Introduction

When developing financial reporting strategies, managers often face the dilemma of whether to (i) manage earnings so that they can meet/beat market expectations (hereafter MBME) to send positive signals to the market about the firms' performance or (ii) use conservative financial reporting (hereafter CON) to highlight the reliability and credibility of financial reporting. The market tends to reward managers who could MBME (e.g., Hui et al. 2021), but the quality of future earnings will likely deteriorate (e.g., Shon and Yan 2015). Managers, therefore, need to choose between the two policies when developing their financial reporting strategies. This study asks three questions about the managers' choices between the two strategies. First, it investigates whether managers are likely to sacrifice CON to MBME. Second, it investigates whether managers prefer to use other earnings management (hereafter EM) strategies (Lin et al. 2006), including accruals-based earnings management (hereafter AEM) (e.g., Comprix et al. 2006), real earnings management (hereafter REM) (e.g., Roychowdhury 2006; Gunny 2010) and expectation management of the market (hereafter EPM) (Bartov et al. 2002) to MBME instead of sacrificing CON. Lastly, it investigates the company-specific factors related to information asymmetry between managers and shareholders that may affect the choice of sacrificing CON to MBME.

We are motivated to examine the relationship between CON and MBME strategies because financial reporting strategies are important for investors. While both strategies have merits and deficiencies, managers are not likely to employ both strategies simultaneously. For example, Lara et al. (2020) examine the impact of accounting conservatism on earnings

management and find that conditional conservatism tends to reduce AEM but not REM. Therefore, investors would benefit if they could understand how managers prioritize the different reporting strategies when they report earnings that MBME. Since the MBME strategy is likely to reduce the reliability and credibility of information in the financial statements, investors would also be interested in knowing the firm-specific factors that would encourage managers to adopt the MBME strategy over the strategy of CON.

The existing evidence shows managers are highly motivated to adopt strategies to MBME because the market generally rewards the firms that show good performance by meeting/beating the market expectations (Bartov et al. 2002; Mergenthaler et al. 2012; Kasznik and McNichols 2002; Huang et al. 2017). Although the strategy of MBME is myopic, which is likely to benefit the firm in the short run only, managers still adopt this strategy because it enhances the market value of the firm at the reporting time (e.g., Graham et al. 2005; Chen et al. 2010). Bartov et al. (2002) show that firms enjoy higher returns over the quarter than firms with similar quarterly earnings who forecast errors that fail to meet these expectations. At the same time, they show that the premium to MBME is still positive, even if MBME is achieved through earnings and expectation management. Stein (1989) even describes using EM to MBME as a rational decision because it proves to be in the best interest of shareholders, especially those who do not have long-term commitments to the firm.

On the other hand, it is well documented that the adoption of the CON strategy would enable the managers to achieve the high reliability and credibility of reported information (e.g., LaFond and Watts 2008) and reduce the potential for legal suits (Basu 1997; Holthausen and Watts 2001; Watts 2003a, 2003b). This strategy protects firms from litigation risk because firms disclose information realistically on a timely basis, and insiders are less likely to utilize their advantage to profit from insider trading (e.g., Tang and Xin 2021). For debtholders, Zhang (2008) shows that conservatism will benefit lenders ex post by timely signaling default risk while benefiting borrowers ex ante through lower initial interest rates. For shareholders, García et al. (2014) show that the CON strategy will reduce information asymmetry through (a) a decrease in the bid-ask spread and stock-return volatility and (b) an improved information environment for financial analysts, leading to more precise and less dispersed forecasts, with more analysts following the firm. Moreover, Kim and Zhang (2016) find that accounting conservatism would help reduce the negative impact of stock crashes.

In this study, we first argue that firms are likely to sacrifice CON to MBME since the benefits associated with CON strategies are long term, while the benefits associated with MBME appear to be immediate. Next, we argue that the relationship between CON and MBME will likely weaken if managers can use higher levels of other types of EM, since the goal of MBME could still be achieved without losing the benefit associated with CON strategies. We also explore the differential effects of different types of EM, namely AEM, REM, and EPM, on the relationship between CON and MBME strategies. Finally, we argue that the managerial choice between these strategies is likely to be influenced by company-specific factors related to information asymmetry between managers and shareholders. These firm-specific factors include *firm size*, *managerial entrenchment*, and *an information asymmetry index*, since prior studies have shown that these factors are important determinants of managers' choices regarding financial reporting strategy (e.g., Atiase et al. 1989; Healy and Palepu 2001; Banko et al. 2013; Di Meo et al. 2017).

We conduct the primary analyses using the conditional conservatism model developed by Basu (1997) and use other measures for conditional conservatism developed in the literature (e.g., Ball and Shivakumar 2005, 2006; Khan and Watts 2009) as sensitivity tests. We modify Basu's model to make it possible to investigate the opposing effects between MBME and CON strategies. The results show that firms that pursue the strategy of MBME, proxied by meeting analysts' consensus forecasts, are less likely to use the CON strategy. We also conducted tests to control for endogeneity, and our main conclusion remains valid. Next, we show that the opposing effect between MBME and CON strategies disappears at

higher levels of AEM and REM but remains the same at different levels of EPM. As prior studies (e.g., Degeorge et al. 1999; Habib and Hossain 2008) show that management is likely to use AEM and REM to MBME, these results imply that managers are less likely to sacrifice CON to achieve MBME when they can manage earnings using other strategies. Additionally, we show that the negative relationship between CON and MBME strategies exists only for firms that (1) are larger, (2) with more managerial-entrenched boards, and (3) have a higher information asymmetry index. These findings are consistent with our explanations that managers are more likely to choose their financial reporting strategies based on the information asymmetry between managers and shareholders.

This study has several contributions. First, this study contributes to the literature by highlighting the opposing effects of CON and MBME strategies in financial reporting, while prior studies tend to examine the two concepts separately. This study is the first to show that managers are likely to sacrifice the benefits associated with CON when adopting the strategies to MBME. For this reason, researchers should examine the two strategies simultaneously or at least control for one effect when examining the other. Second, this paper is the first study to examine the priority of different strategies that managers tend to use for MBME. Prior studies primarily focus on using expectation and EM models to show that managers are likely to manage earnings to MBME, but no studies have examined the impact of CON strategies, expectation, and EM on MBME simultaneously. Although managers will likely sacrifice the benefits of CON strategies to MBME, they would rather achieve MBME using AEM or REM, since the benefits associated with CON strategies could be relatively indirect. Lastly, this is the first study to explore the impact of firm-specific characteristics, including firm size, managers' entrenchment, and information asymmetry, on the choice between CON and MBME. These results could provide additional understanding to investors for the interpretation of earnings for different types of firms.

The remainder of the paper is organized as follows: In Section 2, we discuss the literature review and state the research questions for the study. The research methodology and data collection process are presented in Section 3. Section 4 discusses the results. Additional and robustness tests are provided in Section 5, and Section 6 concludes the paper.

2. Literature Review and Research Question

In this section, we first review the literature related to MBME. We pay special attention to the different strategies that could MBME, namely the use of accrual-based earnings management (AEM), real earnings management (REM), and expectation management (EPM). Next, we review prior studies related to the CON strategy. We discuss the MBME and CON concepts by highlighting the tension between the two concepts and state research questions related to managers' choices of strategies. In addition, we discuss how firm-specific factors, which include firm size, managerial entrenchment, and information asymmetry, could impact the choices of financial reporting strategy.

2.1. Different Ways to MBME

In general, investors tend to form expectations about corporate earnings, and they reward companies that can MBME (e.g., Bartov et al. 2002; Graham et al. 2005). Graham et al. (2005) surveyed 400 corporate executives to understand managers' usage of MBME strategy when disclosing financial information, and the results showed that investors tend to pay more attention to reported earnings that MBME as provided by analysts. The survey results are also consistent with the findings of several other empirical studies, which reported that managers have strong incentives to MBME as provided by analysts (e.g., Brown 2001; Matsumoto 2002; Bartov et al. 2002; Skinner and Sloan 2002; Brown and Caylor 2005; Mergenthaler et al. 2012). One important reason for this association is that reporting earnings that MBME are more likely to be associated with higher share prices (e.g., Kasznik and McNichols 2002). Therefore, managers are encouraged to use different strategies to MBME. Meanwhile, investors also tend to penalize the firms that failed to

MBME by lowering their stock prices (Bartov et al. 2002; Matsumoto 2002; Brown and Higgins 2005), further motivating managers to MBME.

In addition to a managerial motivation to adopt the MBME strategy, several studies have empirically tested the process to achieve the objective of MBME and the consequences associated with this strategy (Payne and Robb 2000; Bartov et al. 2002; Das et al. 2011). Prior studies have shown that MBME can also be achieved using AEM, REM, and EPM. These studies show that firms manage the reported earnings upward or manage market expectations downward to MBME (McGee 1997; Vickers 1999; Brown and Caylor 2005; Graham et al. 2005). Unfortunately, different earnings management strategies are associated with different deficiencies. For AEM, the use of positive discretionary accruals for adjusting the reported earnings upward in one period may require a downward adjustment of the reported earnings in future periods, which may have negative impacts on the predictability of future earnings (Degeorge et al. 1999; Baber et al. 2011). Some studies point out that manipulation of reported earnings will reduce earnings reliability, which will harm earnings quality (Warfield et al. 1995; Becker et al. 1998; Bartov et al. 2000; Richardson et al. 2001; Klein 2002; Francis et al. 2003a, 2003b, 2005; Myers et al. 2003). In addition to compromising managers' credibility, litigation risk will increase if earnings manipulation is detected (Heninger 2001). Overall, evidence suggests that AEM will likely result in worse earning reliability, higher potential legal liability for management, and lower predictability of future earnings.

For REM, Roychowdhury (2006) argues that managers may change corporate policies to manage the reported earnings. Manipulation of real activities is defined as "management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings threshold" (Roychowdhury 2006). These tools include cutting the selling, general, and administrative expenses, overproducing to reduce the per-unit cost of goods sold, and sales manipulation; these strategies are usually undertaken ex ante (Gunny 2010; Roychowdhury 2006). These decisions, unfortunately, tend to be suboptimal. Although reported earnings could be higher under these strategies, these strategies may have long-term negative effects on the firms. Since the last consensus forecast generally defines market expectations before earnings release, the appropriateness of using REM as an EM tool to MBME is also questionable.

Given the negatives associated with earnings manipulation through discretionary accruals, some authors argue that managers may be more inclined to adjust earnings guidance downward, which is easier for the manager to MBME (Matsumoto 2002). However, the downward adjustment of analysts' forecasts also has an inherent weakness of lowering the market expectation, resulting in negative market expectations in the long run. Managers are, therefore, less likely to use expectation management to increase the likelihood of MBME. Das et al. (2011) also find that managers are more likely to use expectation management when constraints on EM increase.

2.2. Accounting Conservatism

Another important feature of high-quality earnings is being conservative. Since managing earnings to MBME involves risk, especially if investors can detect it, managers may consider adopting alternative measures to send positive signals to the market on firm performance. The most common alternative reporting strategy is related to the use of CON. CON is an important strategy that allows managers to achieve a higher quality of reported information. Ruch and Taylor (2015) review the literature on accounting conservatism by examining the impact on financial statements and users. They show that accounting conservatism has both pros and cons. The literature documents that using CON financial reporting strategies reduces uncertainty and enhances the reliability of reported information (e.g., Tang and Xin 2021). However, Pae (2007) shows that unexpected accruals could achieve conditional CON.

Before Basu (1997), CON was mainly defined as unconditional conservatism (e.g., Belkaoui 1985). It reflected lower profits and lower equity values reporting when faced with alternatives to determine profits and equity valuation. Basu (1997) introduced the

concept of conditional conservatism. According to this concept, recognition of losses (bad news) is not postponed to future periods, while positive news is usually delayed due to additional verification. It is necessary, however, to define good news versus bad news under conditional conservatism. Thus, conservatism is conditional on the nature of news, and there is asymmetry recognition of losses and gains. This technique implies that there will be no need to borrow earnings from future periods, which would negatively impact the firm's future reported performance. Two other variants of conditional conservatism have been developed in the literature to overcome some weaknesses of Basu's technique. The first additional measure, suggested by Ball and Shivakumar (2005, 2006), is based on the asymmetric recognition of gains and losses using accrual accounting. The second additional measure is a firm-year measure of conservatism developed by Khan and Watts (2009). In this study, we conduct our primary analyses based on Basu's measure and use the additional measures to conduct sensitivity tests.

2.3. Effects of MBME versus CON Strategies

As discussed in the prior sub-section, accounting conservatism enhances the reliability and credibility of the reported information and is considered helpful by investors. The demand for information based on accounting conservatism, which will result in positive investor reaction to the reported earnings, would encourage managers to adopt the CON strategy. Because this strategy is also expected to reduce information asymmetry between shareholders and managers, investors consider it even more beneficial. Unfortunately, accounting conservatism could reduce managerial performance for the current period by reporting earnings conservatively, which may negatively affect investor reaction and managerial compensation and reputation in the market. At the same time, managers may be motivated to adopt the MBME strategy for sending positive signals to the market, which, as discussed earlier, could result in positive investor reactions, thus leading to higher share prices. Based on the above discussion, our first research question is related to whether firms reporting earnings that MBME are less likely to adopt the CON strategy for financial reporting:

RQ1: *Do managers sacrifice conservative financial reporting (CON) to meet/beat market earnings expectations (MBME)?*

2.4. The Impact of Earnings and Expectation Management on the Relationship between MBME and CON

Besides sacrificing CON, managers can use several other strategies, like AEM, REM, and EPM to MBME. Although managers commonly use these strategies to manage earnings, they have significantly different consequences (e.g., Cohen and Zarowin 2008), and managers tend not to treat them as perfect substitutes (e.g., Zang 2012). Therefore, instead of sacrificing CON, we ask the following three research questions related to the strategies for MBME:

RQ2a: *Are managers more likely to use accrual-based earnings management (AEM) instead of sacrificing conservative financial reporting (CON) to meet/beat market earnings expectations (MBME)?*

RQ2b: *Are managers more likely to use real earnings management (REM) instead of sacrificing conservative financial reporting (CON) to meet/beat market earnings expectations (MBME)?*

RQ2c: *Are managers more likely to use expectation management (EPM) instead of sacrificing conservative financial reporting (CON) to meet/beat market earnings expectations (MBME)?*

2.5. Company-Specific Factors That Affect the Choices of MBME versus CON Strategies

Although we conjecture a negative association between MBME and CON strategies for financial reporting, the negative association between MBME and CON strategies is not likely to be mechanical. It may change based on the opportunity available and the motivations behind financial reporting strategies to achieve managers' goals. We argue

that firm-specific characteristics could determine the choices of the managers. Based on prior studies (e.g., Kim et al. 2003; Di Meo et al. 2017; Richardson 2000), we focus on three firm-specific factors known to affect financial reporting strategies—firm size, managerial entrenchment and information asymmetry. These factors are related explicitly to the opportunity available and the personal motivations behind financial reporting strategies.

2.5.1. Impact of Firm Size

We first examine the impact of *firm size* on the managerial choice of financial reporting strategies, since firm size also indicates the amount of information available for investors (e.g., Arbel and Strebel 1982; Zeghal 1984). Firm size should have two possible effects on financial reporting. First, there is a monitoring effect. Managers of small firms are more likely to choose the strategy of MBME over CON because the smaller number of external shareholders may not result in higher scrutiny of the firm upon the detection of the change in strategies. Meanwhile, managers for smaller firms can benefit directly from earnings that can MBME, while larger firms are more likely to be exposed to thorough scrutiny of managerial policies and actions by analysts and shareholders. However, we also recognize that large, complex firms may provide more opportunities for managers to manage the reported earnings because of the complex company policies.

Second, there is an incentive effect. Information for large firms is more readily available in the market than for small firms because many outside shareholders constantly seek information to make investment decisions (e.g., Zimmerman 1983). For this reason, Albrecht and Richardson (1990) find evidence that large firms have less incentive to smooth earnings than small firms. However, Lee and Choi (2002) find that smaller firms are more likely to manage the reported earnings because their negative signals could seriously impact investor reaction and sustainability (e.g., Watts and Zimmerman 1978). Therefore, the impact of size on the choice between CON and MBME is an empirical question based on the monitoring argument.

Based on the arguments given above, we argue that firm size would have a significant impact on the choice between CON and MBME strategies, and we present the following research question:

RQ3a: *Does firm size affect whether managers sacrifice conservative financial reporting (CON) to meet/beat market earnings expectations (MBME)?*

2.5.2. Impact of Managerial Entrenchment

Second, managerial entrenchment affects managers' choice between CON or MBME strategies. Managerial entrenchment is defined in terms of shareholders' rights. It is argued that lower managerial entrenchment (stronger shareholders' rights) would restrict managers from pursuing strategies to benefit themselves and improve the reliability and quality of reported information (Larcker et al. 2007). For example, Bebchuk et al. (2009), show that firms with higher levels of managerial entrenchments tend to have lower valuations and negative abnormal returns. Management will be more cautious in their behaviors and decision-making processes if shareholders have strong rights to sue them when shareholders believe managers are not acting in the best interests of shareholders, such as being too aggressive (non-conservative) in financial reporting strategy. Therefore, strong shareholder rights incentivize managers to be conservative and provide reliable information to investors when shareholders' rights are strong.

On the other hand, higher managerial entrenchment could also incentivize management to choose the MBME strategy, as they are more likely to benefit from short-term performance in terms of compensation and reputation. Higher managerial entrenchment provides managers with more access and means to manipulate earnings. The literature also argues that managerial entrenchment incentivizes management to adopt the strategy to MBME rather than pursuing CON (e.g., Mergenthaler et al. 2012; Bartov et al. 2002; Kasznik and McNichols 2002). Based on these arguments, we argue that managerial entrenchment

would have a significant impact on the choice between CON and MBME strategies, and we present the following research question:

RQ3b: *Does managerial entrenchment affect whether managers sacrifice conservative financial reporting (CON) to meet/beat market earnings expectations (MBME)?*

2.5.3. Impact of Information Asymmetry

Third, the managerial choice between CON and MBME strategies could also depend on information asymmetry (IA) between shareholders and managers. Again, IA could have two opposing effects on the choice of financial reporting strategy. First, when IA is high, managers could act opportunistically, and investors may be unable to detect the related expropriation activities. Managers who are myopic and have less confidence in the firm's future performance are more likely to choose MBME over the CON strategy. On the other hand, managers may not always want to maximize their IA advantage, even when IA is high (Rajan and Saouma 2006). Although investors may not be able to correctly evaluate the performance of managers when IA is high, managers may still want to pursue the CON strategy to ensure long-term success and improve managerial reputation. Therefore, we argue that the relationship between IA and managers' choices of adopting the MBME or CON strategy is also an empirical question, and we ask the following research question:

RQ3c: *Does information asymmetry between shareholders and managers affect whether managers sacrifice conservative financial reporting (CON) to meet/beat market earnings expectations (MBME)?*

3. Sample Selection and Research Methodology

3.1. Sample Selection

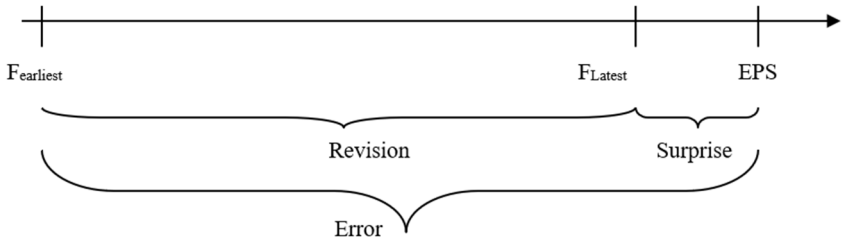
Our sample for this study starts with all firms included in the I/B/E/S database from 1983 through 2013. In extracting consensus analyst forecasts from the I/B/E/S database, we drop observations with missing data on earnings forecasts. In order to ensure that the same adjustment factors adjust the actual earnings and analysts' forecasts to take care of splits and anti-splits, we also retrieve actual earnings from the I/B/E/S database. Data for other financial statement items are extracted from the Compustat database, and data on stock returns are obtained from the Center for Research on Security Prices (CRSP) database. Managerial entrenchment data are collected from the RiskMetrics database. However, data on managerial entrenchment only covers 1990–2013; therefore, the sample for testing the effect of managerial entrenchment on the relationship is reduced.

We identify the firms that meet/beat analysts' forecasts during this period using a dummy variable, *DMBE*, which equals 1 when the firm has earnings that meet/beat analysts' consensus forecasts and 0 otherwise. In addition to the test variable of *DMBE*, we include several control variables to ensure that the results do not suffer from problems with omitted correlated variables. We identify subsamples based on firm size, proxied by market value, managerial entrenchment, proxied by corporate governance variable, and information asymmetry based on three factors—R&D indicator, HI-CON indicator, and NEGCOV (Kim and Zhang 2016).

3.2. Research Methodology

3.2.1. Meet/Beat Market Earnings Expectations (MBME)

Figure 1 shows the scheme we used to define MBME in this paper. Following Bartov et al. (2002), we examine the relative magnitudes of reported Earnings Per Share (EPS) and analysts' consensus forecasts and pay attention to the expectation paths for each reported EPS. We identify the first (last) forecast of the fourth quarter for each fiscal year, and we denote it as the earliest (latest) forecast [$F_{Earliest}$ (F_{Latest})].



Forecast Error Group	Revision $F_{latest} - F_{earliest}$	Surprise $EPS - F_{latest}$	Expectation Path[1]
Positive Forecast Error ($EPS - F_{earliest} > 0$)	+	−	Up-Down
	+	0	Up-Zero
	+	+	Up-Up #
	0	+	Zero-Up *
	−	+	Down-Up *
Zero Forecast Error ($EPS - F_{earliest} = 0$)	+	−	Up-Down
	0	0	Zero-Zero #
	−	+	Down-Up *
Negative Forecast Error ($EPS - F_{earliest} < 0$)	+	−	Up-Down
	0	−	Zero-Down
	−	−	Down-Down #
	−	0	Down-Zero *
	−	+	Down-Up *

Figure 1. Definitions of expectation paths[1]. Note: As shown in the figure, the reported EPS is defined as MBME when it is higher than or equal to the average consensus forecast. In addition, we calculate the difference between $F_{Earliest}$ and F_{Latest}, i.e., the revised forecast, which represents expectation management. A path is defined as "beating" expectations if (1) it starts with a "Zero" or "Down", but ends with an "Up" or (2) it starts with a "Down" but ends with a "Zero". A path is defined as "meeting" expectations if it starts and ends with the same indicator. * indicates "beating" expectation and # indicates "meeting" expectation.

3.2.2. Conservatism Model

The primary model to capture accounting conservatism is the timeliness of earnings in response to good news versus bad news (Basu 1997). Basu's (1997) accounting conservatism model based on the timeliness of earnings conveying good versus bad news is provided in Equation (1). In this case, conservatism is measured by the higher response of stock returns to earnings conveying bad news. This model captures the difference in sensitivity of stock returns to earnings-based good news versus bad news by including an interaction term ($DR_{it} \times R_{it}$), where the nature of the news is proxied by the sign of stock return using a dummy variable, DR_{it}:

$$NI_{it} = \beta_1 + \beta_2 DR_{it} + \beta_3 R_{it} + \beta_4 DR_{it} \times R_{it} + \varepsilon \quad (1)$$

where

NI_{it} is net income (Compustat #18) for firm i at time t, scaled by the market value of equity at time t − 1 (Compustat #25 × #199);
R_{it} is the stock return for firm i for fiscal year t; and
DR_{it} is a dummy variable, which equals 1 if $R_{it} < 0$ and 0 otherwise.

Following Basu (1997), a positive and significant β_3 in Equation (1) shows that earnings are reported in a more timely manner for bad news than good news, and thus, earnings are more conservative. In order to investigate the effect of MBME on accounting conservatism, we include a dummy variable (*DMBE*) in our model for earnings that MBME, where *DMBE* = 1 when earnings meet or beat analysts' forecast and 0 otherwise. In addition, we include several control variables that are likely to affect the relationship between earnings and MBME.

$$\begin{array}{c} NI_t = \beta_1 + \beta_2 R_t + \beta_3 DR_t + \beta_4 R_t \times DR_t + \beta_5 DMBE + \beta_6 DMBE \times DR_t \\ + \beta_7 DMBE \times R_t + \beta_8 DMBE \times R_t \times DR_t + \lambda_1 BIG5 \\ + \lambda_2 LNMVE_t + \lambda_3 \frac{DEBT_t}{TA_{t-1}} + \lambda_4 MVBV_t + \lambda_5 RECTINVT_t \\ + \lambda_6 DLOSS_t + \lambda_7 SPECIAL_t + \sum \text{Year Dummies} + \varepsilon \end{array} \quad (2)$$

where *DMBE* = 1 when earning meets or beats analysts' forecast and 0 otherwise.

All other variables are defined as above.

The results should be interpreted by examining the coefficients of two interaction terms—(1) $DR_{it} \times R_{it}$ and (2) $DMBE \times DR_{it} \times R_{it}$—simultaneously. The coefficient of $DR_{it} \times R_{it}$ shows whether the companies practice conservatism before considering the impact of earnings meeting expectations, while the coefficient of $DMBE \times DR_{it} \times R_{it}$ represents the impact of meeting expectations relative to the earnings that did not MBME. Examining the two coefficients' relative magnitudes is important to understand the two effects' overall impact. The control variables include audit quality (proxied by *BIG5*—Compustat #149), firm size ($LNMVE_t$—Compustat #25 × #199), leverage ($DEBT_t/TA_{t-1}$—(Compustat #24 + #9)/#6), growth proxied by market value to book value of equity ($MVBV_t$—(Compustat #25 × #199)/#60), scaled receivable and inventory ($RECTINVT_t$—(Compustat #2 + #3)/#6), profitability (i—Compustat #18), and existence of special items ($SPECIAL_t$—Compustat #17). The quality of auditors (*BIG5*) is an important factor in determining the quality of reported earnings (Teoh and Wong 1993). Size ($LNMVE_t$) is included for political-related reasons (Watts and Zimmerman 1978; Zimmerman 1983), since larger firms are more likely to be subjected to political risk. Leverage (proxied by $DEBT_t/TA_{t-1}$) is included, since some of the debts could have covenants attached to them, which may directly affect the quality of earnings (Sweeney 1994). $MVBV_t$ is included, since it is necessary to control for growth opportunities (Schipper and Vincent 2003). Receivables and inventories are included because they are key accounting variables that managers use to determine earnings (Dechow et al. 1998). Firm profitability ($DLOSS_t$) may also play an important role in determining earnings quality and MBME. Lastly, we control for special items ($SPECIAL_t$) because they also affect earnings characteristics, though they may be unrelated to the firm's core business (Dechow and Ge 2006). Definitions of variables used in this paper are summarized in Appendix A.

4. Results

4.1. Descriptive Statistics

Descriptive statistics are provided in Table 1A. The means and medians of the scaled Net Income (NI_t) and stock returns (R_t) are positive. Only 17.48% of the sample shows losses, 37.42% of observations have negative returns, and most firms are audited by Big-4/5 auditors (83.56%). More than half of the observations (58.01%) are associated with MBME.

In Table 1B, we provide statistics for the MBME and non-MBME subsamples separately. Except for $RECTINVT_t$, all variables between the two samples significantly differ, suggesting that they should be included in the model as control variables. On average, the MBME subsample reports positive net income, and it is significantly higher than that of the non-MBME subsample (mean value of 0.0512 versus 0.0252). The mean and median of the returns also show a similar pattern for the return variable, whereas the mean return for the MBME subsample is higher than for the non-MBME sample (0.2072 versus 0.1449).

Table 1A. Descriptive statistics: Full Sample (N = 62,994).

	Mean	Min	Q1	Median	Q3	Max	Std. Dev
R_t	0.1614	−0.7333	−0.1250	0.1088	0.3627	2.7209	0.4585
DR_t	0.3742	0	0	0	1	1	0.4839
$DMBE_t$	0.5801	0	0	1	1	1	0.4936
NI_t	0.0403	−0.6276	0.0216	0.0566	0.0852	0.3381	0.0973
$BIG5$	0.8356	0	1	1	1	1	0.3706
$LNMVE$	6.3552	1.8210	5.0850	6.2820	7.5454	10.8233	1.7163
$DEBT_t/TA_t$	0.2300	0.0000	0.0496	0.1925	0.3530	1.1309	0.2087
$MVBV_t$	2.6386	0.3733	1.3166	1.9409	3.0802	21.7879	2.3135
$RECTINVT_t$	0.3621	0.0000	0.1373	0.3114	0.5377	5.1672	0.2732
$DLOSS_t$	0.1748	0	0	0	0	1	0.3798
$SPECIAL_t$	0.1236	0	0	0	0	1	0.3292

Table 1B. Descriptive statistics: By DMBE.

	Mean			Median		
	DMBE = 1 (N = 36,540)	DMBE = 0 (N = 26,454)	T-Stat	DMBE = 1 (N = 36,540)	DMBE = 0 (N = 26,454)	Z-Stat
R_t	0.2072	0.0983	−29.62 ***	0.1449	0.0561	−31.1829 ***
DR_t	0.3301	0.4352	27.06 ***	0	0	26.9041 ***
NI_t	0.0512	0.0252	−33.38 ***	0.0613	0.0488	−35.7796 ***
$BIG5$	0.8433	0.8249	−6.15 ***	1	1	−6.1526 ***
$LNMVE$	6.5413	6.0982	−32.24 ***	6.4843	5.9892	−32.0554 ***
$DEBT_t/TA_t$	0.2203	0.2434	13.74 ***	0.1830	0.2056	13.6458 ***
$MVBV_t$	2.7823	2.4401	−18.37 ***	2.0642	1.7893	−27.2324 ***
$RECTINVT_t$	0.3627	0.3614	−0.58	0.3098	0.3138	−1.6143 *
$DLOSS_t$	0.1335	0.2318	32.34 ***	0	0	32.0743 ***
$SPECIAL_t$	0.1297	0.1152	−5.46 ***	0	0	−5.4575 ***

Note: ***, *: Statistically significant at 1% level and 10% level, respectively. All other variables are defined in Appendix A.

Correlations between the variables for the total sample are provided in Table 1C. The results show a statistically significant positive association between NI_t and R_t (Pearson Correlation = 0.24). The association between firm size and NI_t is also significantly positive (Pearson Correlation = 0.16).

Table 1C. Correlation Matrix: Pearson (Spearman) Correlation above (below) Diagonal (N = 62,994).

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) R_t	N/A	−0.68 ***	0.12 ***	0.24 ***	−0.02 ***	0.13 ***	−0.01 ***	0.27 ***	0.06 ***	−0.16 ***	0.01 ***
(2) DR_t	−0.84 ***	N/A	−0.11 ***	−0.27 ***	0.03 ***	−0.2 ***	−0.02 ***	−0.17 ***	−0.04 ***	0.21 ***	−0.02 ***
(3) $DMBE_t$	0.12 ***	−0.11 ***	N/A	0.13 ***	0.02 ***	0.13 ***	−0.05 ***	0.07 ***	0	−0.13 ***	0.02 ***
(4) NI_t	0.39 ***	−0.36 ***	0.14 ***	N/A	−0.08 ***	0.16 ***	0.05 ***	−0.1 ***	0.22 ***	−0.73 ***	0.08 ***
(5) $BIG5$	−0.03 ***	0.03 ***	0.02 ***	−0.12 ***	N/A	0.19 ***	0.11 ***	0.1 ***	−0.32 ***	0.05 ***	0.03 ***
(6) $LNMVE_t$	0.18 ***	−0.2 ***	0.13 ***	0.09 ***	0.2 ***	N/A	0.13 ***	0.25 ***	−0.23 ***	−0.21 ***	0.06 ***
(7) $DEBT_t/TA_t$	0.01 *	−0.03 ***	−0.05 ***	0.1 ***	0.1 ***	0.16 ***	N/A	−0.02 ***	−0.07 ***	−0.03 ***	0.03 ***
(8) $MVBV_t$	0.32 ***	−0.25 ***	0.11 ***	−0.1 ***	0.13 ***	0.35 ***	−0.09 ***	N/A	−0.1 ***	0.04 ***	−0.02 ***
(9) $RECTINVT_t$	0.06 ***	−0.04 ***	0.01	0.26 ***	−0.3 ***	−0.24 ***	−0.11 ***	−0.09 ***	N/A	−0.19 ***	−0.04 ***
(10) $DLOSS_t$	−0.21 ***	0.21 ***	−0.13 ***	−0.66 ***	0.05 ***	−0.21 ***	−0.06 ***	−0.05 ***	−0.2 ***	N/A	−0.07 ***
(11) $SPECIAL_t$	0.02 ***	−0.02 ***	0.02 ***	0.08 ***	0.03 ***	0.06 ***	0.04 ***	−0.01 **	−0.03 ***	−0.07 ***	N/A

Note: ***, **, *: Statistically significant at 1% level, 5% level, and 10% level, respectively. All other variables are defined in Appendix A.

4.2. Main Regression Results

4.2.1. Impact of MBME on CON

We conduct tests based on Equation (2) to evaluate whether firms adopting conditional conservatism engage in MBME, and the results are provided in Table 2A.

Table 2A. Impact of meeting/beating analysts' earnings forecasts and accounting conservatism proxied by Basu's net earnings measure (N = 62,994).

Variable	(1)	(2)	(3)	(4)	(5)
Intercept	0.0512 ***	0.0587 ***	0.0560 ***	0.0580 ***	0.0578 ***
	(31.62)	(34.69)	(33.16)	(32.65)	(31.80)
R_t	0.0324 ***	0.0234 ***	0.0228 ***	0.0163 ***	0.0166 ***
	(36.85)	(19.39)	(18.91)	(7.19)	(6.93)
DR_t		−0.006 ***	−0.006 ***	−0.006 ***	−0.006 ***
		(−6.97)	(−6.77)	(−7.17)	(−4.01)
$R_t \times DR_t$		0.0219 ***	0.0223 ***	0.0334 ***	0.0340 ***
		(6.65)	(6.76)	(6.74)	(6.58)
$DMBE_t$			0.0064 ***	0.0033 ***	0.0036 ***
			(11.55)	(4.04)	(3.59)
$DMBE_t \times R_t$				0.0097 ***	0.0093 ***
				(3.96)	(3.49)
$DMBE_t \times DR_t$					−0.001
					(−0.54)
$DMBE_t \times R_t \times DR_t$				−0.019 ***	−0.020 ***
				(−3.07)	(−2.98)
$BIG5$	−0.005 ***	−0.004 ***	−0.004 ***	−0.004 ***	−0.004 ***
	(−6.31)	(−5.34)	(−5.56)	(−5.71)	(−5.71)
$LNMVE_t$	0.0025 ***	0.0020 ***	0.0018 ***	0.0018 ***	0.0018 ***
	(12.61)	(10.11)	(9.04)	(9.07)	(9.07)
$DEBT_t/TA_t$	0.0149 ***	0.0143 ***	0.0154 ***	0.0155 ***	0.0155 ***
	(9.21)	(8.91)	(9.59)	(9.63)	(9.63)
$MVBV_t$	−0.005 ***	−0.004 ***	−0.005 ***	−0.005 ***	−0.005 ***
	(−31.09)	(−30.36)	(−30.64)	(−30.68)	(−30.67)
$RECTINVT_t$	0.0280 ***	0.0282 ***	0.0281 ***	0.0280 ***	0.0280 ***
	(24.66)	(24.90)	(24.92)	(24.85)	(24.85)
$DLOSS_t$	−0.173 ***	−0.171 ***	−0.170 ***	−0.170 ***	−0.170 ***
	(−128.02)	(−126.53)	(−125.56)	(−124.91)	(−124.86)
$SPECIAL_t$	0.0084 ***	0.0084 ***	0.0083 ***	0.0083 ***	0.0083 ***
	(11.63)	(11.61)	(11.49)	(11.50)	(11.49)
Adj. R^2	0.5706	0.5722	0.5732	0.5735	0.5735
F-Stat	3295 ***	2727 ***	2477 ***	2095 ***	1946 ***

Note: The dependent variable is NI_{it}, which is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following: R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise; $DMBE$ is a dummy variable, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. All regressions are conducted after clustering with respect to firm and fiscal year. *** indicate significance at a p-value less than the 1% level (2-tailed) respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

Model (1) in Table 2A, shows a general relationship between earnings and returns. After controlling for other variables that determined net income (NI_t), each percent change in return would contribute to 0.0324% of the change in scaled NI_t. The results in Model (2) show that firms are likely to adopt conditional conservatism when reporting, as the coefficient for the interaction term ($R_t \times DR_t$) is significantly positive, consistent with the explanation provided in Basu (1997), while the conclusion is still valid if we control for MBME (in model 3) by including $DMBE_t$. In models (4) and (5), we include a three-way interaction term ($DMBE_t \times R_t \times DR_t$) to evaluate the impact of MBME on conditional conservatism. The results show that the coefficient for the interaction term ($R_t \times DR_t$) is positive and significant, while the coefficient for the three-way interaction term ($DMBE_t \times R_t \times DR_t$) is negative and statistically significant. The two coefficients must be considered in conjunction when interpreting the impact of MBME on CON strategies. In other words, firms are more likely to be conservative when reporting earnings, but the effect is significantly weakened if the reported earnings MBME.

4.2.2. Controlling for Endogeneity

An endogeneity issue exists, since conservative accounting could also affect the possibility of MBME, and we employ the following two-stage model to address this issue:

First Stage:

$$DMBE_t = \alpha + \lambda_1 BIG5 + \lambda_2 LNMVE_t + \lambda_3 \frac{DEBT_t}{TA_{t-1}} + \lambda_4 MVBV_t + \lambda_5 RECTINVT_t + \lambda_6 DLOSS_t + \lambda_7 SPECIAL_t + \lambda_7 NUMEST + \varepsilon \quad (3a)$$

Second Stage:

$$NI_t = \alpha + \beta_1 R_t + \beta_2 DR_t + \beta_3 R_t \times DR_t + \beta_4 DMBEHAT + \beta_5 DMBEHAT \times DR_t + \beta_6 DMBEHAT \times R_t + \beta_7 DMBEHAT \times R_t \times DR_t + \lambda_1 BIG5 + \lambda_2 LNMVE_t + \lambda_3 \frac{DEBT_t}{TA_{t-1}} + \lambda_4 MVBV_t + \lambda_5 RECTINVT_t + \lambda_6 DLOSS_t + \lambda_7 SPECIAL_t + \varepsilon \quad (3b)$$

For the first-stage regression, we used the number of analysts following the companies as an exogenous variable and estimated a prediction of the likelihood of earnings that MBME. This is a reasonable choice because the exogenous variable for a two-stage model should be closely related to the endogenous variable ($DMBE_t$) but independent of the dependent variable in the second stage (NI_t). The results of the regressions are reported in Table 2B.

Table 2B. Impact of MBME on CON—two-stage least-square regression.

First Stage (Logistic Regression)			Second Stage (Cluster Regression)		
Variable	**Coef**	**Wald χ^2**	**Variable**	**Coef**	**T-Stat**
Intercept	−0.3293 ***	(54.00)	*Intercept*	0.1339 ***	(18.66)
BIG5	0.0856 ***	(13.28)	R_t	−0.072 ***	(−6.75)
$LNMVE_t$	0.0994 ***	(293.47)	DR_t	−0.016 *	(−1.89)
$DEBT_t/TA_t$	−0.6787 ***	(288.22)	$R_t \times DR_t$	0.1876 ***	(8.00)
$MVBV_t$	0.0478 ***	(151.15)	$DMBEHAT_t$	−0.161 ***	(−10.26)
$RECTINVT_t$	0.0853 ***	(6.63)	$DMBEHATt \times R_t$	0.1607 ***	(9.58)
$DLOSS_t$	−0.6126 ***	(719.30)	$DMBEHAT_t \times DR_t$	0.0137	(1.03)
$SPECIAL_t$	0.0677 ***	(7.16)	$DMBEHAT_t \times R_t \times DR_t$	−0.292 ***	(−7.51)
$NUMEST_t$	0.1553 ***	(103.41)	*BIG5*	−0.002 **	(−2.48)
Pseudo R^2	0.0363		$LNMVE_t$	0.0052 ***	(11.13)
$N = 0$	26,454		$DEBT_t/TA_t$	−0.003	(−0.95)
$N = 1$	36,540		$MVBV_t$	−0.004 ***	(−17.30)
N	62,994		$RECTINVT_t$	0.0298 ***	(25.30)
			$DLOSS_t$	−0.185 ***	(−75.41)
			$SPECIAL_t$	0.0100 ***	(13.39)
			R^2	0.5752	
			F-Stat	2016 ***	
			N	62,994	

Note: This table reports results for the two stage regression. For the first stage, which is a logistic regression, the dependent variable is the dummy variable $DMBE_{it}$, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. An endogenous variable is $NUMEST_t$, which is the number of analysts following the corporations and providing an earning forecast estimate. The predicted value of $DMBE_{it}$ ($DMBEHAT_{it}$) is then included in the second stage regression, a linear regression, where NI_t is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following: R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise. All linear regressions are conducted after clustering with respect to firm and fiscal year. ***, **, and * indicate significance at a *p*-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. T-statistics are next to each coefficient. Definitions of variables are listed in Appendix A.

The first-stage regression results are reported in the left panel of Table 2B. The coefficient of $NUMEST_t$ is significant at the 1% level, and these results confirm our choice of the exogenous variable. $DMBEHAT_t$ is the predicted value of $DMBE_t$ calculated using the logistic regression (3a), which we include as the independent variable in the second-stage

regression (3b). Results of the second-stage regression are reported in the right panel, and the key test variables are the two interaction terms $R_t \times DR_t$ and $DMBEHAT_t \times R_t \times DR_t$. The coefficient of the term $R_t \times DR_t$ is significantly positive, which is consistent with the conjecture that financial reporting is conservative, while the coefficient of the three-way interaction terms is significantly negative. Confirming results in the prior subsection, these results show that managers are less likely to practice the CON strategy when the earnings of the firm MBME after controlling for endogeneity.

4.3. The Impact of Earnings and Expectation Management

Managers have other ways to manipulate earnings in order to MBME. For example, Lin et al. (2006) find that managers use descending earnings forecasts, ascending classification shifting, and discretionary accruals to MBME. At the same time, managers could use strategies that lower the expectation of analysts and/or increase their reported earnings by using income-increasing EM, besides using less conservative accounting. As our second research question is related to managers' choices among expectation and earnings management and conservatism with regard to MBME, we would like to examine the impact of earnings and expectation management in this section.

To examine the impact of earnings and expectation management on the relationship between CON and MBME, we split the sample based on measures of earnings and expectation management and applied Equation (2) to the subsamples separately. Although there are other ways to examine the effect of a moderating variable, this methodology is a conventional way of examining the impact of a moderating variable on the relationship between a dependent and an independent variable. The benefit of this approach is that it allows the relationship between dependent and control variables to differ between subsamples.

4.3.1. Impact of AEM

Besides using less conservative reporting strategies, managers can also manage their reported earnings using discretionary accruals to MBME. This study uses performance-adjusted discretionary current accruals ($REDCA_t$) (Kothari et al. 2005) as our proxy of AEM. In order to understand the impact of AEM on the relationship between MBME and CON, we apply Equation (2) to two subsamples formed (median-split) by AEM, and the results are reported in Table 3A.

In Table 3A, the left (right) panel reports the results for the high (low) REDCA subsample. The key test variables are $DMBE_t \times R_t$ and $DMBE_t \times R_t \times DR_t$. The results show that the coefficient of $DMBE_t \times R_t$ is significantly positive while the coefficient of $DMBE_t \times R_t \times DR_t$ is significantly negative only for the low REDCA subsample. In other words, firms that cannot manage earnings using AEM are more likely to sacrifice CON to MBME, and these results are consistent with the argument that firms are more likely to use AEM to manage earnings to MBME instead of sacrificing CON to do so. In summary, these results show that the substitution effect between accounting conservatism and MBME exists only for firms with low levels of accrual-based EM.

Table 3A. Impact of meeting/beating analysts' earnings forecasts and accounting conservatism: controlling for earnings management.

	High REDCA (N = 16,698)		Low REDCA (N = 16,697)	
Variable	**(1)**	**(2)**	**(1)**	**(2)**
Intercept	0.0410 ***	0.0413 ***	0.0272 ***	0.0259 ***
	(13.75)	(13.59)	(7.32)	(6.66)
R_t	0.0181 ***	0.0176 ***	0.0085 *	0.0099 *
	(4.84)	(4.45)	(1.78)	(1.94)
DR_t	−0.006 ***	−0.007 ***	−0.0001	0.0032
	(−4.32)	(−2.97)	(−0.02)	(0.95)
$R_t \times DR_t$	0.0077	0.0066	0.0439 ***	0.0471 ***
	(1.11)	(0.94)	(4.25)	(4.40)
$DMBE_t$	0.0050 ***	0.0045 **	0.0008	0.0026
	(3.63)	(2.47)	(0.40)	(1.10)
$DMBE_t \times R_t$	0.0011	0.0018	0.0122 **	0.0101 *
	(0.27)	(0.40)	(2.43)	(1.81)
$DMBE_t \times DR_t$		0.0016		−0.005
		(0.59)		(−1.34)
$DMBE_t \times R_t \times DR_t$	−0.004	−0.002	−0.026 **	−0.032 **
	(−0.50)	(−0.25)	(−2.11)	(−2.43)
BIG5	−0.001	−0.001	−0.003	−0.003
	(−0.51)	(−0.51)	(−1.53)	(−1.51)
$LNMVE_t$	0.0023 ***	0.0023 ***	0.0036 ***	0.0036 ***
	(6.94)	(6.94)	(8.76)	(8.77)
$DEBT_t/TA_t$	0.0181 ***	0.0182 ***	0.0115 ***	0.0115 ***
	(6.79)	(6.80)	(4.02)	(4.02)
$MVBV_t$	−0.004 ***	−0.004 ***	−0.002 ***	−0.002 ***
	(−17.14)	(−17.14)	(−9.84)	(−9.84)
$RECTINVT_t$	0.0353 ***	0.0353 ***	0.0446 ***	0.0445 ***
	(17.68)	(17.68)	(13.66)	(13.65)
$DLOSS_t$	−0.138 ***	−0.138 ***	−0.168 ***	−0.168 ***
	(−63.33)	(−63.31)	(−80.72)	(−80.70)
$SPECIAL_t$	0.0113 ***	0.0114 ***	0.0115 ***	0.0115 ***
	(9.44)	(9.44)	(7.41)	(7.40)
Adj. R^2	0.5424	0.5424	0.5580	0.5580
F-Stat	536.4 ***	498.3 ***	701.3 ***	651.6 ***

Note: The dependent variable is NI_{it}, which is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following: R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise; *DMBE* is a dummy variable, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. $REDCA_t$ is performance-adjusted discretionary current accruals at time t. All regressions are conducted after clustering with respect to firm and fiscal year. ***, **, and * indicate significance at a *p*-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

4.3.2. Impact of REM

Besides controlling for AEM, we also control for REM by running Basu's model on the timeliness of earnings to news for subsamples with high and low levels of real EM. Similar to the case of AEM, we define the top (bottom) half of our sample based on an REM index[2], suggested by Roychowdhury (2006), as firms with high (low) REM. The results are reported in Table 3B, showing that the coefficients for the three-way interaction terms ($DMBE_t \times R_t \times DR_t$) are significantly negative only for the low REM subsample. These negative coefficients suggest that firms' substitution effects between MBME and accounting conservatism exist only for firms that could not use real activities to manage earnings. In other words, managers are less likely to sacrifice benefits associated with accounting conservatism for MBME when they can manage earnings using REM.

Table 3B. Earnings Management proxied by Real Earnings Management (REM).

	High REM (*N* = 16,719)		**Low REM (*N* = 16,719)**	
Variable	**(1)**	**(2)**	**(1)**	**(2)**
Intercept	0.0299 ***	0.0299 ***	0.0407 ***	0.0397 ***
	(9.18)	(8.76)	(10.69)	(10.34)
R_t	0.0101 **	0.0101 **	0.0174 ***	0.0186 ***
	(2.37)	(2.20)	(3.67)	(3.77)
DR_t	−0.003 *	−0.003	−0.002	0.0006
	(−1.96)	(−1.09)	(−1.09)	(0.21)
$R_t \times DR_t$	0.0229 **	0.0228 **	0.0365 ***	0.0389 ***
	(2.55)	(2.47)	(3.96)	(4.07)
$DMBE_t$	0.0025	0.0025	0.0021	0.0036
	(1.55)	(1.20)	(1.22)	(1.63)
$DMBE_t \times R_t$	0.0075 *	0.0076	0.0060	0.0042
	(1.69)	(1.54)	(1.16)	(0.74)
$DMBE_t \times DR_t$		0.0002		−0.004
		(0.05)		(−1.20)
$DMBE_t \times R_t \times DR_t$	−0.015	−0.014	−0.021 *	−0.026 **
	(−1.39)	(−1.28)	(−1.80)	(−2.08)
BIG5	−0.003	−0.003	−0.002	−0.002
	(−1.37)	(−1.37)	(−1.12)	(−1.12)
$LNMVE_t$	0.0034 ***	0.0034 ***	0.0021 ***	0.0021 ***
	(10.11)	(10.11)	(4.52)	(4.54)
$DEBT_t/TA_t$	0.0198 ***	0.0198 ***	0.0139 ***	0.0138 ***
	(8.02)	(8.02)	(3.88)	(3.86)
$MVBV_t$	−0.003 ***	−0.003 ***	−0.003 ***	−0.003 ***
	(−15.45)	(−15.45)	(−9.99)	(−10.01)
$RECTINVT_t$	0.0382 ***	0.0382 ***	0.0414 ***	0.0414 ***
	(14.42)	(14.41)	(17.24)	(17.22)
$DLOSS_t$	−0.149 ***	−0.149 ***	−0.166 ***	−0.166 ***
	(−74.92)	(−74.90)	(−61.58)	(−61.48)
$SPECIAL_t$	0.0127 ***	0.0127 ***	0.0125 ***	0.0125 ***
	(9.94)	(9.94)	(8.81)	(8.81)
Adj. R^2	0.5536	0.5536	0.5586	0.5586
F-Stat	615.1 ***	571.2 ***	555.3 ***	516.2 ***

Note: The dependent variable is NI_{it}, which is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following: R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise; *DMBE* is a dummy variable, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. *REM* is real earnings management at time t, calculated as an index based on three constructs: abnormal CFO (*AbCFO*), abnormal expenses (*AbExp*), and abnormal production costs (*AbProd*). All regressions are conducted after clustering with respect to firm and fiscal year. ***, **, and * indicate significance at a *p*-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

4.3.3. Impact of EPM

In order to MBME, managers could also lower the expectations of analysts so that their forecasts for earnings are less optimistic and there are higher chances to MBME. Managers may have different ways to manipulate the expectations of analysts. For example, they may release unfavorable information before the earnings announcement so analysts' expectations would be lowered. Kross et al. (2011) find that firms that consistently MBME are more likely to follow the same pattern by issuing negative information, especially when these forecasts are opportunistic. Like Bartov et al. (2002), we define the change from the earliest forecast to the latest forecast as forecast revision. If a company has a negative forecast revision by analysts but MBME, it is more likely that expectation management has taken place.

Table 3C, reports results for Basu's (1997) model on the timeliness of earnings to good versus bad news applied to upward and downward revisions separately. The results show that firms are conservative for both the upward and downward revision sample regarding the timeliness of earnings to good versus bad news. More importantly, firms in both

subsamples are likely to sacrifice benefits associated with CON to MBME. These results show that management might sometimes manipulate analysts' expectations, but using less CON to MBME always prevails.

Table 3C. Expectation Management.

	Downward Revision (*N* = 35,529)		**Upward Revision (*N* = 27,465)**	
Variable	**(1)**	**(2)**	**(1)**	**(2)**
Intercept	0.0472 ***	0.0468 ***	0.0781 ***	0.0777 ***
	(17.21)	(16.66)	(34.84)	(33.88)
R_t	−0.008 *	−0.007	0.0237 ***	0.0241 ***
	(−1.77)	(−1.56)	(9.48)	(9.24)
DR_t	−0.007 ***	−0.007 ***	−0.004 ***	−0.002
	(−6.54)	(−3.62)	(−2.70)	(−1.05)
$R_t \times DR_t$	0.0520 ***	0.0527 ***	0.0379 ***	0.0405 ***
	(7.51)	(7.59)	(3.75)	(3.59)
$DMBE_t$	0.0039 ***	0.0045 ***	0.0015	0.0020
	(3.41)	(2.94)	(1.27)	(1.49)
$DMBE_t \times R_t$	0.0145 ***	0.0136 **	0.0068 **	0.0062 **
	(2.96)	(2.50)	(2.52)	(2.17)
$DMBE_t \times DR_t$		−0.002		−0.002
		(−0.69)		(−0.81)
$DMBE_t \times R_t \times DR_t$	−0.018 **	−0.019 **	−0.036 ***	−0.041 ***
	(−2.03)	(−2.18)	(−3.14)	(−2.86)
BIG5	−0.005 ***	−0.005 ***	−0.003 ***	−0.003 ***
	(−4.19)	(−4.18)	(−2.84)	(−2.83)
$LNMVE_t$	0.0030 ***	0.0030 ***	−0.0001	−0.0001
	(9.82)	(9.82)	(−1.34)	(−1.35)
$DEBT_t/TA_t$	0.0096 ***	0.0096 ***	0.0252 ***	0.0252 ***
	(3.95)	(3.95)	(11.96)	(11.97)
$MVBV_t$	−0.003 ***	−0.003 ***	−0.006 ***	−0.006 ***
	(−15.62)	(−15.62)	(−27.45)	(−27.44)
$RECTINVT_t$	0.0241 ***	0.0241 ***	0.0295 ***	0.0295 ***
	(14.30)	(14.30)	(21.02)	(21.01)
$DLOSS_t$	−0.161 ***	−0.161 ***	−0.184 ***	−0.184 ***
	(−101.95)	(−101.93)	(−69.73)	(−69.71)
$SPECIAL_t$	0.0084 ***	0.0084 ***	0.0084 ***	0.0083 ***
	(8.43)	(8.43)	(8.11)	(8.11)
Adj. R^2	0.5613	0.5613	0.5571	0.5571
F-Stat	1260 ***	1170 ***	759.7 ***	706.3 ***

Note: The dependent variable is NI_{it}, which is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following: R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise; *DMBE* is a dummy variable, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. Downward (Upward) Revisions are based on the change from the earliest forecast to the latest forecast. All regressions are conducted after clustering with respect to firm and fiscal year. ***, **, and * indicate significance at a *p*-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

5. The Impact of Firm-Specific Factors

Although it was shown in the prior section that managers are more likely to sacrifice conservatism to MBME, this choice is not mechanical. Companies with specific characteristics are more likely to sacrifice CON to MBME, including according to firm size, managerial entrenchment, and overall information asymmetry between managers and shareholders. Based on the discussion in the previous section, we apply Equation (2) to different subsamples formed based on the interested effects.

5.1. Impact of Firm Size

As discussed in the literature review and research question section, firm size is expected to significantly impact the choice between the CON and MBME strategies. We evaluate the impact of firm size by median, splitting the sample into high and low firm sizes based on the market value; then, we apply Equation (2) separately to the two subsamples and report the results based on Basu's model in Table 4.

Table 4. Regression results on meeting/beating analysts' forecasts and accounting conservatism: large versus small firms.

	Large Firms (N = 31,497)		**Small Firms (N = 31,497)**	
Variable	**(1)**	**(2)**	**(1)**	**(2)**
Intercept	0.0642 ***	0.0641 ***	0.0475 ***	0.0466 ***
	(19.58)	(19.32)	(15.09)	(14.54)
R_t	0.0150 ***	0.0152 ***	0.0151 ***	0.0161 ***
	(4.35)	(4.14)	(5.23)	(5.29)
DR_t	−0.004 ***	−0.004 *	−0.009 ***	−0.007 ***
	(−3.80)	(−1.93)	(−6.80)	(−3.42)
$R_t \times DR_t$	0.0444 ***	0.0450 ***	0.0180 ***	0.0201 ***
	(5.68)	(5.49)	(2.84)	(3.07)
$DMBE_t$	0.0010	0.0012	0.0062 ***	0.0076 ***
	(0.99)	(0.94)	(4.83)	(4.77)
$DMBE_t \times R_t$	0.0101 ***	0.0098 **	0.0094 ***	0.0077 **
	(2.87)	(2.57)	(2.84)	(2.10)
$DMBE_t \times DR_t$		−0.001		−0.004
		(−0.27)		(−1.55)
$DMBE_t \times R_t \times DR_t$	−0.022 **	−0.023 **	−0.008	−0.013
	(−2.41)	(−2.30)	(−0.99)	(−1.46)
BIG5	−0.007 ***	−0.007 ***	−0.003 ***	−0.003 ***
	(−5.53)	(−5.53)	(−2.78)	(−2.76)
$LNMVE_t$	0.0013 ***	0.0013 ***	0.0041 ***	0.0041 ***
	(4.09)	(4.09)	(7.79)	(7.80)
$DEBT_t/TA_t$	0.0142 ***	0.0142 ***	0.0120 ***	0.0119 ***
	(6.68)	(6.68)	(5.40)	(5.39)
$MVBV_t$	−0.004 ***	−0.004 ***	−0.005 ***	−0.005 ***
	(−29.00)	(−29.01)	(−15.03)	(−15.03)
$RECTINVT_t$	0.0214 ***	0.0214 ***	0.0311 ***	0.0311 ***
	(13.26)	(13.25)	(19.98)	(19.98)
$DLOSS_t$	−0.144 ***	−0.144 ***	−0.184 ***	−0.184 ***
	(−67.45)	(−67.44)	(−116.22)	(−116.20)
$SPECIAL_t$	0.0075 ***	0.0075 ***	0.0102 ***	0.0102 ***
	(9.09)	(9.09)	(8.16)	(8.17)
Adj. R^2	0.5033	0.5033	0.5975	0.5975
F-Stat	631.8 ***	586.7 ***	1638 ***	1521 ***

Note: The dependent variable is NI_{it}, which is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following: R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise; *DMBE* is a dummy variable, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. Firm size is calculated based on the market value of equity of the firms. All regressions are conducted after clustering with respect to firm and fiscal year. ***, **, and * indicate significance at a p-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

The results for large firms (left panel) show that the coefficient of the three-way interaction term ($DMBE_t \times R_t \times DR_t$) is significantly (at 5%) negative, whereas it is insignificant (right panel) for small firms. These results answer the research question RQ3a, indicating that managers of large firms are more willing to sacrifice benefits associated with CON by adopting strategies to MBME. In contrast, there is no effect for small firms, which is consistent with the argument that small firms could be using other ways to MBME instead of sacrificing CON.

5.2. Impact of Managerial Entrenchment

In this study, we measure shareholders' rights using the company's bylaws, which contain provisions granting rights to managers and shareholders, anti-takeover provisions, etc.

Bebchuk et al. (2009) developed an E-index based on six provisions to capture shareholders' rights. The index is developed based on the presence/absence of these six specific anti-takeover provisions. A higher value of this index indicates that managers have stronger power, whereas a lower value suggests lower power for managers and, thus, stronger corporate governance. Prior studies show that corporate governance is related to earnings quality. For example, Adut et al. (2011), find that corporate governance attributes correlate to MBME and show that stronger corporate governance tends to lower agency costs when earnings MBME.

In order to evaluate the effect of managerial entrenchment on the choice between the CON and MBME strategies, we define firms with high managerial entrenchment as firms that have an E-Index above or equal to 5 and firms with low managerial entrenchment as firms having an E-Index equal to zero. We made these choices because the E-index is heavily skewed. We conduct regression tests on the two groups separately based on our primary model in Equation (2). The results are reported in Table 5.

Table 5. Regression results on meeting/beating analysts' forecasts and accounting conservatism: entrenched versus non-entrenched managers, conservatism proxied by Basu's net earnings measure.

	High E-Index (N = 845)		**Low E-Index (N = 3029)**	
Variable	**(1)**	**(2)**	**(1)**	**(2)**
Intercept	0.0419 **	0.0385 **	0.0283 **	0.0274 **
	(2.19)	(2.01)	(2.17)	(2.10)
R_t	0.0068	0.0151	0.0315 ***	0.0326 ***
	(0.51)	(1.07)	(3.50)	(3.45)
DR_t	0.0087	0.0250 **	−0.001	0.0021
	(1.39)	(2.25)	(−0.18)	(0.44)
$R_t \times DR_t$	0.0769 **	0.0927 **	0.0071	0.0108
	(2.20)	(2.52)	(0.33)	(0.49)
$DMBE_t$	−0.005	0.0051	0.0049	0.0062 *
	(−0.82)	(0.63)	(1.59)	(1.67)
$DMBE_t \times R_t$	0.0299 *	0.0164	0.0029	0.0012
	(1.92)	(0.98)	(0.31)	(0.12)
$DMBE_t \times DR_t$		−0.027 **		−0.004
		(−1.99)		(−0.68)
$DMBE_t \times R_t \times DR_t$	−0.089 **	−0.117 **	0.0140	0.0077
	(−2.02)	(−2.37)	(0.55)	(0.27)
BIG5	−0.008	−0.010	0.0025	0.0025
	(−1.03)	(−1.23)	(0.52)	(0.52)
$LNMVE_t$	0.0051 ***	0.0049 **	0.0038 ***	0.0038 ***
	(2.62)	(2.56)	(3.19)	(3.19)
$DEBT_t/TA_t$	−0.012	−0.013	0.0266 ***	0.0266 ***
	(−0.86)	(−0.92)	(2.62)	(2.61)
$MVBV_t$	−0.003 **	−0.003 **	−0.006 ***	−0.006 ***
	(−2.29)	(−2.28)	(−9.08)	(−9.08)
$RECTINVT_t$	−0.007	−0.007	0.0363 ***	0.0362 ***
	(−0.61)	(−0.65)	(5.16)	(5.15)
$DLOSS_t$	−0.183 ***	−0.183 ***	−0.149 ***	−0.149 ***
	(−13.90)	(−13.93)	(−23.22)	(−23.26)
$SPECIAL_t$	0.0057	0.0059	0.0071 **	0.0071 **
	(0.96)	(0.99)	(2.56)	(2.55)
Adj. R^2	0.5548	0.5565	0.5593	0.5594
F-Stat	22.09 ***	20.55 ***	64.17 ***	59.83 ***

Note: The dependent variable is NI_{it}, which is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following" R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise; *DMBE* is a dummy variable, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. E-Index is the managerial entrenchment index developed by Bebchuk et al. (2009). All regressions are conducted after clustering with respect to firm and fiscal year. ***, **, and * indicate significance at a p-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

The results in Table 5 show that the coefficient of the three-way interaction variable ($DMBE_t \times R_t \times DR_t$) is significantly negative for the subsample of high entrenchment managers, whereas it is insignificant for the low entrenchment subsample. This finding suggests that firms with entrenched managers (weaker corporate governance) are more

likely to sacrifice the benefits associated with CON to MBME. Firms with a low entrenchment of managers (stronger corporate governance) are more likely to opt for accounting conservatism for financial reporting, as managers are more likely to be long-term oriented.

5.3. Impact of Information Asymmetry

Lastly, we investigate the effect of overall IA on managerial choices between CON and MBME strategies. However, to the best of our knowledge, there is no commonly accepted measure to capture IA directly. For this reason, we construct an IA index, which is defined as the first principal component of the following three measures—(1) R&D indicator, which is coded as 1 for firms with R&D expenditures and 0 otherwise; (2) HI-CON indicator, which equals 1 for firms that have an above-industry median Herfindahl– Hirschman Index (estimated using sales) and 0 otherwise; and (3) NEGCOV: natural log of one plus the number of analysts following a firm in year t, multiplied by minus one. For this measure, a higher value represents high levels of IA (Kim and Zhang 2016; Gao et al. 2016). The sample is then split into high and low information asymmetry based on the median value of the index, where firms with higher values than the median are considered high information asymmetry firms. The results are reported in Table 6.

Table 6. Regression results on meeting/beating analysts' forecasts and accounting conservatism, controlling for information asymmetry.

	High IA (*N* = 31,544)		**Low IA (*N* = 31,532)**	
Variable	**(1)**	**(2)**	**(1)**	**(2)**
Intercept	0.0328 ***	0.0323 ***	0.0751 ***	0.0755 ***
	(12.87)	(12.24)	(27.50)	(27.28)
R_t	0.0078 ***	0.0084 ***	0.0297 ***	0.0292 ***
	(2.58)	(2.62)	(8.52)	(7.99)
DR_t	−0.006 ***	−0.005 **	−0.003 ***	−0.004 **
	(−4.76)	(−2.20)	(−2.78)	(−2.26)
$R_t \times DR_t$	0.0319 ***	0.0336 ***	0.0340 ***	0.0327 ***
	(4.69)	(4.72)	(4.73)	(4.35)
$DMBE_t$	0.0013	0.0021	0.0049 ***	0.0043 ***
	(1.10)	(1.40)	(4.57)	(3.31)
$DMBE_t \times R_t$	0.0082 **	0.0073 **	0.0125 ***	0.0134 ***
	(2.49)	(2.01)	(3.44)	(3.41)
$DMBE_t \times DR_t$		−0.002		0.0019
		(−0.93)		(0.84)
$DMBE_t \times R_t \times DR_t$	−0.022 ***	−0.025 ***	−0.014	−0.011
	(−2.70)	(−2.81)	(−1.56)	(−1.10)
BIG5	−0.002	−0.002	−0.004 ***	−0.004 ***
	(−1.45)	(−1.43)	(−4.26)	(−4.26)
$LNMVE_t$	0.0037 ***	0.0037 ***	0.0003	0.0003
	(14.32)	(14.32)	(0.84)	(0.84)
$DEBT_t/TA_t$	0.0097 ***	0.0097 ***	0.0125 ***	0.0125 ***
	(4.42)	(4.41)	(5.35)	(5.35)
$MVBV_t$	−0.003 ***	−0.003 ***	−0.006 ***	−0.006 ***
	(−18.27)	(−18.27)	(−24.15)	(−24.16)
$RECTINVT_t$	0.0478 ***	0.0478 ***	0.0167 ***	0.0167 ***
	(23.01)	(23.01)	(11.47)	(11.47)
$DLOSS_t$	−0.163 ***	−0.163 ***	−0.175 ***	−0.175 ***
	(−108.08)	(−108.07)	(−66.17)	(−66.17)
$SPECIAL_t$	0.0134 ***	0.0134 ***	0.0044 ***	0.0044 ***
	(13.11)	(13.11)	(4.36)	(4.37)
Adj. R^2	0.5776	0.5776	0.5522	0.5522
F-Stat	1379 ***	1281 ***	735.5 ***	683.1 ***

Note: The dependent variable is NI_{it}, which is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following: R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise; *DMBE* is a dummy variable, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. Information asymmetry (*IA*) is defined as the first principal component of the following three measures—(1) R&D indicator, which is coded as 1 for firms with R&D expenditures and 0 otherwise; (2) HI-CON indicator, which equals 1 for firms that have an above-industry median Herfindahl–Hirschman Index (estimated using sales) and 0 otherwise; and (3) *NEGCOV*: natural log of one plus the number of analysts following a firm in year t, multiplied by minus one. All regressions are conducted after clustering with respect to firm and fiscal year. *** and ** indicate significance at a *p*-value less than the 1% level (2-tailed) and 5% level (2-tailed) respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

The results show that the coefficient of the three-way interaction variable ($DMBE_t \times R_t \times DR_t$) for the high IA subgroup is significantly negative but insignificant for the low IA subgroup. This result suggests that managers are more likely to sacrifice the benefits of CON for firms with high IA between management and shareholders and opt for the MBME strategy to meet market expectations. These results answer the research question RQ3c.

6. Robustness and Additional Tests

In this section, we conduct additional robustness tests using different measures of CON. We first use two other models to conduct the sensitivity tests: the accrual-based gain/loss recognition model suggested by Ball and Shivakumar (2005, 2006) and the firm-year conservatism measure suggested by Khan and Watts (2009). Lastly, we consider the effect of the passage of the Sarbanes–Oxley Act in 2002 and examine whether the relationship between the CON and MBME strategies has changed.

6.1. Alternative Models of Conservatism

6.1.1. Ball–Shivakumar's Asymmetric Recognition of Gain and Loss

Ball and Shivakumar (2005) developed a model to capture conservatism by measuring the relationship between accruals and cash flows for good versus bad news. For the measure of accrual-based gain/loss recognition, Ball and Shivakumar (2006) use three models to capture the relationship between accruals and cash flows, which are the cash flow (CF) model, the Dechow and Dichev (2002) (DD) model, and the Jones (1991) model. We report results related to the DD model, while results related to the CF and Jones models are qualitatively similar. The nature of news for these models is proxied by the signs of operating cash flows ($DOCF_t$) or signs of change in operating cash flows ($\Delta DOCF_t$).

According to Dechow and Dichev (2002), the relationship between working capital accruals and operating cash flows could be captured by initiating and reversing accruals within one year. We extend the DD accrual models (Equation (4)) by incorporating accrual's role in asymmetric recognition of gain and loss to examine the effect of conservatism (as in Ball and Shivakumar 2006):

$$ACCL_t = \beta_1 + \beta_2 OCF_{t-1} + \beta_3 OCF_t + \beta_4 OCF_{t+1} + \beta_5 DUM_t + \beta_6 OCF_t \times DUM_t + \varepsilon \quad (4)$$

where

$ACCL_t$ (Compustat #18-#308/#6) is scaled accruals in year t;
OCF_t (Compustat #308/#6) is scaled operating cash flow in year t;
DUM_t is the proxy for economic loss.

This analysis uses signs of operating cash flow ($DOCF_t$) and signs of change in operating cash flow ($D\Delta OCF_t$) as proxies for economic loss alternatively. $DOCF_t$ equals 1 when OCF_t is negative and 0 otherwise; and $D\Delta OCF_t$ equals 1 when ΔOCF_t (change in OCF_t) is negative and 0 otherwise.

We examine the effect of reported earnings that MBME due to accrual's timely recognition of gain/loss, and we modify the above models by adding interaction terms to the regressions (Equation (5))[3]. We also include control variables in our models as in the prior subsection[4], and the main regression becomes

$$\begin{aligned} ACCL_t = {} & \beta_1 + \beta_2 OCF_{t-1} + \beta_3 OCF_t + \beta_4 OCF_{t+1} + \beta_5 DUM_t + \beta_6 OCF_t \times DUM_t \\ & + \beta_7 DMBE + \beta_8 DMBE \times OCF_t + \beta_9 DMBE \times DUM_t \\ & + \beta_{10} DMBE \times OCF_t \times DUM_t + \lambda_1 BIG5 + \lambda_2 LNMVE_t + \lambda_3 \tfrac{DEBT_t}{TA_{t-1}} \\ & + \lambda_4 MVBV_t + \lambda_5 RECTINVT_t + \lambda_6 DLOSS_t + \lambda_7 SPECIAL_t + \varepsilon \end{aligned} \quad (5)$$

where all variables are defined as above.

The results for Equation (5) are reported in Tables 7A and 7B. Loss is represented by signs of change in operating cash flow ($DUM_t = D\Delta OCF_t$) in Panel A, while it is represented by the sign of operating cash flow ($DUM_t = DOCF_t$) in Panel B. The results in Panel A

show that coefficients for OCF_t are negative and significant in all settings, and these results are consistent with prior studies (Dechow 1994; Dechow et al. 1998; Dechow and Dichev 2002). Similar to the results reported by Ball and Shivakumar (2006), the coefficients for the interaction term $OCF_t \times D\Delta OCF_t$ are positive and significant. The positive coefficients in such piecewise linear regressions show that the recognition role of accruals is more prominent when there is bad news. In other words, accruals are more likely to map to operating cash flows in the case of bad news.

Table 7A. Ball–Shivakumar's Asymmetric Recognition of Gain and Loss (DD Model)—Economic Loss proxied by $\Delta OCF_t < 0$ (N = 50,992).

Variables	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	−0.055 ***	−0.062 ***	−0.063 ***	−0.061 ***	−0.061 ***	−0.063 ***
	(−26.20)	(−27.76)	(−28.15)	(−27.13)	(−26.99)	(−27.25)
OCF_{t-1}	0.1075 ***	0.0819 ***	0.0824 ***	0.0824 ***	0.0767 ***	0.0704 ***
	(26.07)	(14.69)	(14.76)	(14.80)	(9.49)	(8.32)
OCF_t	−0.570 ***	−0.544 ***	−0.544 ***	−0.544 ***	−0.539 ***	−0.533 ***
	(−95.62)	(−71.83)	(−71.81)	(−71.97)	(−56.34)	(−53.88)
OCF_{t+1}	0.1438 ***	0.1442 ***	0.1442 ***	0.1440 ***	0.1441 ***	0.1440 ***
	(30.11)	(30.38)	(30.39)	(30.39)	(30.44)	(30.44)
$D\Delta OCF_t$		0.0135 ***	0.0136 ***	0.0135 ***	0.0135 ***	0.0181 ***
		(13.89)	(13.97)	(13.98)	(13.98)	(11.76)
$OCF_t \times D\Delta OCF_t$		−0.006	−0.005	0.0330 **	0.0261	0.0295 *
		(−0.58)	(−0.49)	(2.37)	(1.62)	(1.81)
DMBE			0.0040 ***	0.0001	0.0009	0.0050 ***
			(5.55)	(0.07)	(0.91)	(4.15)
$DMBE \times \Delta OCF_t$					−0.012	−0.024 **
					(−1.17)	(−2.24)
$DMBE_t \times D\Delta OCF_t$						−0.009 ***
						(−4.39)
$DMBE_t \times \Delta OCF_t \times D\Delta OCF_t$				−0.073 ***	−0.058 ***	−0.062 ***
				(−4.74)	(−2.80)	(−2.96)
BIG5	−0.010 ***	−0.010 ***	−0.010 ***	−0.010 ***	−0.010 ***	−0.010 ***
	(−7.23)	(−7.21)	(−7.27)	(−7.42)	(−7.41)	(−7.40)
$LNMVE_t$	0.0064 ***	0.0065 ***	0.0063 ***	0.0063 ***	0.0063 ***	0.0063 ***
	(28.92)	(28.53)	(27.48)	(27.60)	(27.57)	(27.61)
$DEBT_t/TA_t$	−0.020 ***	−0.020 ***	−0.020 ***	−0.020 ***	−0.020 ***	−0.020 ***
	(−11.77)	(−11.98)	(−11.78)	(−11.71)	(−11.74)	(−11.75)
$MVBV_t$	0.0011 ***	0.0011 ***	0.0011 ***	0.0011 ***	0.0011 ***	0.0011 ***
	(7.29)	(7.00)	(6.94)	(6.94)	(6.94)	(6.95)
$RECTINVT_t$	0.1177 ***	0.1175 ***	0.1175 ***	0.1176 ***	0.1176 ***	0.1175 ***
	(64.42)	(64.86)	(64.84)	(65.02)	(64.98)	(64.97)
$DLOSS_t$	−0.103 ***	−0.104 ***	−0.103 ***	−0.103 ***	−0.103 ***	−0.103 ***
	(−83.22)	(−83.40)	(−82.85)	(−82.73)	(−82.77)	(−82.84)
$SPECIAL_t$	0.0105 ***	0.0111 ***	0.0111 ***	0.0111 ***	0.0111 ***	0.0111 ***
	(9.88)	(10.41)	(10.42)	(10.48)	(10.50)	(10.47)
Adj. R^2	0.5628	0.5651	0.5654	0.5666	0.5666	0.5668
F-Stat	2568 ***	2566 ***	2376 ***	2226 ***	2080 ***	1953 ***

Note: The dependent variable is $ACCL_{it}$, which is the Total Accrual for firm i in fiscal year t deflated by market value at the beginning of the year. OCF_t is operating cash flow in year t, taken from cash flow statement (Compustat #308); $ACCL_t$ is accruals in year t, defined as income before extraordinary items (Compustat #123) minus operating cash flow in year t; $DMBE_t$, defined as a dummy variable, equals 1 when reported earnings have met or beaten analyst forecasts and 0 otherwise; $D\Delta OCF_t$, defined as a dummy variable, equals 1 when $\Delta OCF_t < 0$, and equals 0 otherwise. All variables are deflated by total assets at the beginning of the fiscal year. For each continuous variable, an extreme 1% of observations are deleted. All other variables are defined in Tables 1A–1C. All regressions are clustered at the firm and fiscal year levels. ***, **, and * indicate significance at a p-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

Table 7B. Ball–Shivakumar's Asymmetric Recognition of Gain and Loss (DD Model)—Economic Loss proxied by $OCF_t < 0$. (N = 50,992).

Variables	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	−0.055 ***	−0.035 ***	−0.036 ***	−0.035 ***	−0.034 ***	−0.032 ***
	(−26.20)	(−16.15)	(−16.65)	(−16.45)	(−14.97)	(−14.19)
OCF_{t-1}	0.1075 ***	0.0933 ***	0.0936 ***	0.0931 ***	0.0930 ***	0.0931 ***
	(26.07)	(23.03)	(23.09)	(23.01)	(22.99)	(23.01)
OCF_t	−0.570 ***	−0.704 ***	−0.705 ***	−0.704 ***	−0.716 ***	−0.725 ***
	(−95.62)	(−98.89)	(−98.74)	(−98.73)	(−67.93)	(−65.82)
OCF_{t+1}	0.1438 ***	0.1344 ***	0.1344 ***	0.1343 ***	0.1342 ***	0.1342 ***
	(30.11)	(29.14)	(29.15)	(29.18)	(29.17)	(29.17)
$DOCF_t$		0.0376 ***	0.0375 ***	0.0374 ***	0.0373 ***	0.0328 ***
		(23.50)	(23.44)	(23.46)	(23.33)	(14.44)
$OCF_t \times DOCF_t$		0.2979 ***	0.2987 ***	0.3222 ***	0.3363 ***	0.3395 ***
		(24.87)	(24.91)	(22.47)	(18.91)	(19.33)
DMBE			0.0042 ***	0.0022 ***	0.0002	−0.003 **
			(6.01)	(3.47)	(0.14)	(−2.06)
$DMBE \times OCF_t$					0.0205 *	0.0378 ***
					(1.76)	(3.00)
$DMBE_t \times DOCF_t$						0.0086 ***
						(2.84)
$DMBE_t \times \Delta OCF_t \times DOCF_t$				−0.050 ***	−0.075 ***	−0.079 ***
				(−3.29)	(−3.27)	(−3.56)
BIG5	−0.010 ***	−0.011 ***	−0.011 ***	−0.011 ***	−0.011 ***	−0.011 ***
	(−7.23)	(−8.52)	(−8.59)	(−8.71)	(−8.70)	(−8.70)
$LNMVE_t$	0.0064 ***	0.0066 ***	0.0064 ***	0.0065 ***	0.0065 ***	0.0065 ***
	(28.92)	(29.24)	(28.29)	(28.59)	(28.62)	(28.62)
$DEBT_t/TA_t$	−0.020 ***	−0.022 ***	−0.021 ***	−0.021 ***	−0.021 ***	−0.021 ***
	(−11.77)	(−12.92)	(−12.69)	(−12.55)	(−12.57)	(−12.57)
$MVBV_t$	0.0011 ***	0.0016 ***	0.0016 ***	0.0016 ***	0.0016 ***	0.0016 ***
	(7.29)	(9.03)	(8.98)	(9.03)	(9.00)	(8.97)
$RECTINVT_t$	0.1177 ***	0.0983 ***	0.0983 ***	0.0986 ***	0.0985 ***	0.0986 ***
	(64.42)	(55.24)	(55.25)	(55.58)	(55.55)	(55.59)
$DLOSS_t$	−0.103 ***	−0.115 ***	−0.115 ***	−0.115 ***	−0.115 ***	−0.115 ***
	(−83.22)	(−95.18)	(−94.61)	(−94.65)	(−94.67)	(−94.60)
$SPECIAL_t$	0.0105 ***	0.0106 ***	0.0106 ***	0.0106 ***	0.0106 ***	0.0106 ***
	(9.88)	(10.03)	(10.04)	(10.03)	(9.98)	(9.98)
Adj. R^2	0.5628	0.5942	0.5946	0.5954	0.5954	0.5955
F-Stat	2568 ***	3467 ***	3199 ***	2987 ***	2796 ***	2624 ***

Note: The dependent variable is $ACCL_{it}$, which is the Total Accrual for firm i in fiscal year t deflated by market value at the beginning of the year. OCF_t is operating cash flow in year t, taken from cash flow statement (Compustat #308); $ACCL_t$ is accruals in year t, defined as income before extraordinary items (Compustat #123) minus operating cash flow in year t; $DMBE_t$, defined as a dummy variable, equals 1 when reported earnings have met or beaten analyst forecasts and 0 otherwise; $DOCF_t$, defined as a dummy variable, equals 1 when $OCF_t < 0$, and equals 0 otherwise. All variables are deflated by total assets at the beginning of the fiscal year. For each continuous variable, an extreme 1% of observations are deleted. All other variables are defined in Tables 1A–1C. All regressions are clustered at the firm and fiscal year levels. ***, **, and * indicate significance at a p-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. T-statistics are below each coefficient. Definitions of variables are listed in Appendix A.

By adding a three-way interaction term ($DMBE_t \times OCF_t \times D\Delta OCF_t$) in the regression, we can examine the impact of MBME on the asymmetric recognition role of accruals for gain versus loss separately. These three-way interaction terms are significantly negative in all specifications. Similar to the prior sections, the results must be interpreted in conjunction with the coefficient of the two-way interaction term ($OCF_t \times D\Delta OCF_t$). These results show that managers are likely to use different asymmetric gain/loss recognition (in this case, less conservative recognition of gain/loss) to manipulate the reported earnings so that they can MBME. The sum of coefficients β_6 and β_9 is positive (e.g., 0.1020 − 0.097 = 0.005 in

model 4), implying that asymmetric recognition of gain and loss can still be observed but to a lesser extent when management has incentives to MBME.

Table 8B contains the results based on negative operating cash flows as a proxy for economic loss ($DUM_t = DOCF_t$). The results of these tests are qualitatively similar to the results reported in Panel A, and they confirm the findings that accruals are more likely to map cash flow in the case of bad news, but the effect is weakened when management has incentives to MBME.

6.1.2. Khan and Watts' (2009) Firm-Year Conservative Measures

Khan and Watts (2009) developed a firm-year measure of conservatism (*CSCORE*). The estimation of *CSCORE* starts with the Basu (1997) model. Equation (1) could be written in a way that allows the coefficients to vary across firms and over time (Equation (6)), that is,

$$NI_{it} = \beta_{1t} + \beta_{2t}DR_{it} + \beta_{3t}R_{it} + \beta_{4it}DR_{it} \times R_{it} + \varepsilon_{it} \quad (6)$$

The timeliness of good news (*GSCORE*) and bad news (*CSCORE*) each year are linear functions of firm-specific characteristics during each year:

$$GSCORE = \beta_{3it} = \mu_{1t} + \mu_{2t}Size_{it} + \mu_{3t}M/B_{it} + \mu_{4t}Lev_{it} \quad (7)$$

$$CSCORE = \beta_{4it} = \lambda_{1t} + \lambda_{2t}Size_{it} + \lambda_{3t}M/B_{it} + \lambda_{4t}Lev_{it} \quad (8)$$

where

$Size_{it}$ is the natural logarithm of market value;
M/B_{it} is the market-to-book equity ratio; and
LEV_{it} is the debt-to-equity ratio.

All of the above variables are measured at the beginning of the year.

Replacing β_{2it} and β_{3it} in Equation (6) by Equations (7) and (8) yields the following estimation equation:

$$NI_{it} = \beta_{1t} + \beta_{2t}DR_{it} + R_{it}(\mu_{1t} + \mu_{2t}Size_{it} + \mu_{3t}M/B_{it} + \mu_{4t}Lev_{it}) + DR_{it} \times R_{it}(\lambda_{1t} + \lambda_{2t}Size_{it} + \lambda_{3t}M/B_{it} + \lambda_{4t}Lev_{it}) + (\delta_{1t}Size_{it} + \delta_{2t}M/B_{it} + \delta_{3t}Lev_{it} + \delta_{4t}DR_{it} \times Size_{it} + \delta_{5t}DR_{it} \times M/B_{it} + \delta_{6t}DR_{it} \times Lev_{it}) + \varepsilon_{it} \quad (9)$$

Equation (9) is estimated annually, as in Khan and Watts (2009), and *CSCORE* is calculated based on coefficients estimated using Equation (8) as a firm-year proxy for conservatism. Higher *CSCOREs* are considered to be more conservative. In order to investigate the relationship between MBME and conservatism, we estimate the following equation using *CSCORE* calculated as illustrated above:

$$DMBE_t = \beta_1 + \beta_2 CSCORE_t + \beta_3 BIG5 + \beta_4 RECTINVT_t + \beta_5 LOGTA_t + \beta_6 DLOSS_t + \beta_7 SPECIAL_t + \varepsilon_t \quad (10)$$

where all variables are defined as above. Based on our discussion, we expect a negative coefficient (β_2) for *CSCORE*.

Table 8A presents the results calculated based on the Khan–Watts model. Since conservatism in this model is not represented by the coefficient of an interaction term, we can include $CSCORE_t$ in the model to test the association between MBME and conservatism directly. The coefficient of $CSCORE_t$ is significantly negative in model 2 (-0.4366 with Wald λ^2 statistics of -7.56), and it shows that conservative financial reporting is less likely to achieve MBME.

Table 8A. Proxied by Khan and Watts' (2009) firm-year measure of conservatism (N = 60,836).

Variable	(1)	(2)
Intercept	−0.0056	0.117 ***
	(−0.20)	(3.72)
$CSCORE_t$		−0.4366 ***
		(−7.56)
BIG5	0.0847 ***	0.0561 ***
	(5.61)	(3.57)
$RECTINVT_t$	−0.0515 **	−0.0484 **
	(−2.53)	(−2.37)
$LOGTA_t$	0.0339 ***	0.0308 ***
	(10.68)	(9.70)
$DLOSS_t$	−0.3963 ***	−0.3833 ***
	(−28.11)	(−26.94)
$SPECIAL_t$	0.0338 **	0.0371 **
	(2.06)	(2.26)
Pseudo R^2	0.0199	0.0209
N = 0	25,642	25,642
N = 1	35,194	35,194

Note: $DMBE_t$, defined as a dummy variable, equals 1 when reported earnings have met or beaten analyst forecast and 0 otherwise; *CSCORE* is the firm-year measure of conservatism calculated according to Khan and Watts (2009). All variables are deflated by total assets at the beginning of the fiscal year, except dummy variables and *LOGTA*. All other variables are defined in Appendix A. All regressions are clustered at firm- and fiscal-year levels. P($DMBE_t$ = 1) = 57.86% and P($DMBE_t$ = 0) = 42.14%. *** and ** indicate significance at a *p*-value less than the 1% level (2-tailed) and 5% level (2-tailed) respectively. Wald Statistics are below each coefficient. Definitions of variables are listed in Appendix A.

In order to examine the effect of managerial entrenchment on the relationship between CON and MBME, we use Equation (11) to investigate the issue by including an E-index in our regression as well as an interactive term between CSCORE and E-index (Equation (11)):

$$DMBE_t = \alpha + \beta_1 CSCORE_t + \beta_2 EIndex_t + \beta_3 CSCORE \times EIndex_t + \beta_4 BIG5 + \beta_5 RECTINVT_t + \beta_6 LOGTA_t + \beta_7 DLOSS_t + \beta_8 SPECIAL_t + \varepsilon_t \quad (11)$$

The results of this test are reported in Table 8B. Model (1) shows that managerial entrenchment does not directly affect earnings that MBME, but *CSCORE* is significantly negative (−0.3216 with Wald λ^2 statistics of −1.71), which could be interpreted as companies that are conservative in terms of financial reporting are less likely to MBME. However, when an interaction term is added to the equation, model (2) results show that the *CSCORE* coefficient is significantly negative (−0.5838 with Wald λ^2 statistics of −2.71). In contrast, the coefficient of the interaction term is significantly positive (0.27 with Wald λ^2 statistics of 2.37), and these results are consistent with the explanation that entrenched managers are going to disrupt the negative relationship between conservatism and MBME, since they are more likely to use other means to achieve their goal of MBME. Therefore, the relationship between conservatism and MBME is weakened when managers are entrenched.

Combining the results in the prior two subsections, we can see that the substitution effect between accounting conservatism and MBME exists irrespective of accrual-based and real earnings and expectation management. However, managers for small firms, firms with high information asymmetry, and firms with stronger managerial entrenchment (weaker corporate governance) are more likely to sacrifice benefits associated with accounting conservatism to MBME.

Table 8B. Proxied by Khan and Watts' (2009) firm-year measure of conservatism (N = 8466).

Variable	(1)	(2)
Intercept	0.2017 *	0.2475 **
	(1.73)	(2.10)
$CSCORE_t$	−0.3216 *	−0.5838 ***
	(−1.71)	(−2.71)
$EINDEX_t$	0.0014	−0.0415 **
	(0.15)	(−2.03)
$CSCORE_t \times INDEX_t$		0.27 **
		(2.37)
BIG5	0.0949	0.0909
	(1.50)	(1.44)
$RECTINVT_t$	0.0121	0.0099
	(0.18)	(0.15)
$LOGTA_t$	0.0203 *	0.0203 *
	(1.83)	(1.83)
$DLOSS_t$	−0.3081 ***	−0.3104 ***
	(−7.07)	(−7.12)
$SPECIAL_t$	−0.0054	−0.0084
	(−0.13)	(−0.20)
Pseudo R^2	0.0097	0.0104
N = 0	3064	3064
N = 1	5402	5402

Note: $DMBE_t$, defined as a dummy variable, equals 1 when reported earnings have met or beaten analyst forecasts and 0 otherwise; *CSCORE* is the firm-year measure of conservatism calculated according to Khan and Watts (2009). All variables are deflated by total asset at the beginning of the fiscal year, except dummy variables and *LOGTA*. All other variables are defined in Appendix A. All regressions are clustered at firm- and fiscal-year levels. P($DMBE_t$ = 1) = 63.81% and P($DMBE_t$ = 0) = 36.19%. ***, **, and * indicate significance at a p-value less than the 1% level (2-tailed), 5% level (2-tailed), and 10% level (2-tailed), respectively. Wald Statistics are below each coefficient. Definitions of variables are listed in Appendix A.

6.2. Passage of Sarbanes–Oxley Act (SOX) (2002)

Lastly, we also test whether the passage of the Sarbanes–Oxley Act (SOX) of 2002 affects how managers choose to sacrifice CON to MBME. Before the passage of SOX, we expect managers to manage reported earnings using different EM strategies and not have to rely on sacrificing CON. However, the passage of SOX has an important impact on financial reporting, and managers are less likely to use other EM strategies to MBME.

We apply the main regression (2) to two different time periods separated by the passage of SOX in 2002, and the results are reported in Table 9. Comparing results before and after the passage of SOX, Equation (1) of the two panels shows that the passage of SOX did not significantly impact the strategy of sacrificing CON to MBME in general. The coefficients for the interaction term $R_t \times DR_t$ are positive and significant in both panels. However, the coefficient for the three-way interaction term ($DMBE_t \times R_t \times DR_t$) is only significantly (at 1%) negative after the passage of SOX, while the same coefficient is insignificant before the passage. The different results show that managers do not need to sacrifice CON to MBME before the passage of SOX, as they have other strategies to MBME. Unfortunately, companies are less likely to manage earnings after the passage of SOX, both using AEM or REM, and they need to rely on sacrificing CON to achieve their goals.

Table 9. Impact of meeting/beating analysts' earnings forecasts and accounting conservatism: impact of SOX.

	Before SOX (*N* = 34,438)		**After SOX (*N* = 28,556)**	
Variable	**(1)**	**(2)**	**(1)**	**(2)**
Intercept	0.0774 ***	0.0749 ***	0.0264 ***	0.0265 ***
	(35.92)	(32.77)	(9.22)	(8.65)
R_t	0.0313 ***	0.0273 ***	0.0158 ***	0.0072 *
	(22.55)	(10.17)	(7.79)	(1.79)
DR_t	−0.009 ***	−0.009 ***	−0.002 *	0.0003
	(−7.78)	(−5.31)	(−1.69)	(0.14)
$R_t \times DR_t$	0.0146 ***	0.0175 ***	0.0247 ***	0.0481 ***
	(3.40)	(2.70)	(4.87)	(5.80)
$DMBE_t$		0.0066 ***		0.0013
		(5.37)		(0.78)
$DMBE_t \times R_t$		0.0046		0.0128 ***
		(1.56)		(2.81)
$DMBE_t \times DR_t$		0.0016		−0.005 *
		(0.71)		(−1.77)
$DMBE_t \times R_t \times DR_t$		−0.003		−0.040 ***
		(−0.30)		(−3.86)
BIG5	−0.010 ***	−0.010 ***	−0.006 ***	−0.007 ***
	(−9.41)	(−9.43)	(−5.05)	(−5.43)
$LNMVE_t$	0.0020 ***	0.0019 ***	0.0051 ***	0.0050 ***
	(8.26)	(7.55)	(13.88)	(13.12)
$DEBT_t/TA_t$	0.0109 ***	0.0120 ***	0.0093 ***	0.0104 ***
	(5.02)	(5.53)	(3.91)	(4.37)
$MVBV_t$	−0.006 ***	−0.006 ***	−0.003 ***	−0.003 ***
	(−29.31)	(−29.60)	(−14.43)	(−14.58)
$RECTINVT_t$	0.0176 ***	0.0173 ***	0.0327 ***	0.0326 ***
	(11.77)	(11.67)	(19.19)	(19.15)
$DLOSS_t$	−0.169 ***	−0.167 ***	−0.167 ***	−0.166 ***
	(−92.90)	(−92.44)	(−83.87)	(−82.19)
$SPECIAL_t$	0.0077 ***	0.0076 ***	0.0109 ***	0.0108 ***
	(7.94)	(7.87)	(10.45)	(10.36)
Adj. R^2	0.5865	0.5884	0.5602	0.5614
F-Stat	1569 ***	1141 ***	1274 ***	909.0 ***

Note: The before-SOX period is between 1983 and 2001, while the after-SOX period is after and including year 2002. The dependent variable is NI_{it}, which is the Net Income for firm i in fiscal year t deflated by market value at the beginning of the year. Independent variables include the following: R_t is stock return in year t, calculated as the firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t; DR_t is a dummy variable, which equals 1 when R_t is less than 0, and equals 0 otherwise; *DMBE* is a dummy variable, which equals 1 if earnings meet or beat analysts' forecasts and 0 otherwise. All regressions are conducted after clustering with respect to firm and fiscal year. *** and * indicate significance at a *p*-value less than the 1% level (2-tailed) and 10% level (2-tailed), respectively. T-Statistics are below each coefficient. Definitions of variables are listed in Appendix A.

7. Conclusions

This study investigates whether managers would sacrifice CON when adopting financial reporting strategies to MBME. The use of CON is supported because financial reporting is likely to be of higher quality when managers practice conservatism, but managers could be myopic and focus on short-term benefits. The results show managers are willing to sacrifice benefits associated with CON to MBME. At the same time, this study investigates whether managers are likely to use different types of EM to MBME, thus not completely sacrificing the benefit associated with CON. The negative relationship between CON and MBME disappears for firms engaging high levels of AEM and REM but is not affected by EPM. We further investigate the impact of company-specific factors that may affect the choice of sacrificing CON to MBME. We find that larger firms, firms with entrenched boards, and firms with higher levels of overall information asymmetry are more likely to sacrifice CON to MBME.

The results of this study have important implications for how investors interpret reported earnings. Prior studies show that the earnings reported under conservative accounting are of higher quality, yet the market rewards managers when earnings MBME. Therefore, managers face the dilemma of choosing between conservatism or MBME as reporting strategies. Our results show that managers are more likely to choose reporting strategies that benefit themselves when facing this dilemma. They also tend to prioritize the reporting strategies when facing the dilemma. They are more likely to use AEM and REM to MBME instead of sacrificing CON. However, they are more likely to sacrifice CON when information asymmetry is high, namely when firms are larger, have entrenched boards, and face high levels of information asymmetry.

However, there are several caveats to our analyses. For example, our analyses only consider one of the managers' motivations—MBME and its relationship with CON. Managers commonly have multiple motivations concerning EM, and once these motivations are taken into consideration, conclusions could be different. It should also be noted that the environment in which the firm operates also determines the choice between MBME and the CON strategy, and we leave these additional research questions for future research.

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Appendix A. Definitions of Variables

Variable	Definition
Test Variables	
R_t	Stock Return in year t, calculated as firm's stock return cumulated from fiscal year end t − 1 to fiscal year end t
DR_t	Negative return dummy variable: = 1 if $R_t < 0$; = 0 otherwise
$DMBE_t$	Meet or Beat Analysts' Forecasts (MBE) Dummy: = 1 if earnings meet or beat analysts' forecasts for year t and 0 otherwise (See Tables 1A–1C for the definition of MBE)
$ACCL_t$	Total accruals in year t, calculated as the difference between Net Income and Operating Cash Flow, scaled by total asset at beginning of year
NI_t	Net Income in year t, scaled by market value at the beginning of the year
ΔNI_t	Change in Net Income from year t − 1 to year t, scaled by market value at the beginning of year t
$D\Delta NI_t$	Dummy Variable: = 1 if $\Delta NI_t < 0$; = 0 otherwise
OCF_t	Operating Cash Flow in year t, scaled by market value at the beginning of the year
ΔOCF_t	Change in Operating Cash Flow from year t − 1 to year t, scaled by market value at the beginning of year t
$DOCF_t$	Dummy Variable: = 1 if $OCF_t < 0$; = 0 otherwise
$D\Delta OCF_t$	Dummy Variable: = 1 if $\Delta OCF_{t\,t} < 0$; = 0 otherwise

Control Variables	
BIG5	Dummy Variable: = 1 if company is audited by Big 4/5 auditors and 0 otherwise
LNMVE	Natural Logarithm of Market Value in year t
$DEBT_t/TA_t$	Total Debt in year t scaled by Total Asset in year t
$MVBV_t$	Market value to book value of equity
$RECTINVT_t$	Receivable and Inventory at year t, scaled by Total Asset at year t
$DLOSS_t$	Dummy Variable: = 1 if the company reports loss in year t and 0 otherwise;
$SPECIAL_t$	Dummy Variable: = 1 if the company reports special items in year t and 0 otherwise;
$NUMEST_t$	Number of analysts following the company and providing an earning forecast estimate

Notes

[1] A path is defined as "beating" expectations if (1) it starts with a "Zero" or "Down" but ends with an "Up" or (2) it starts with a "Down" but ends with a "Zero". A path is defined as "meeting" expectations if it starts and ends with the same indicator. * indicates "beating" expectation, and # indicates "meeting" expectation.

[2] For real earnings management, we follow Roychowdhury (2006) and calculate an index based on three constructs that proxy for real earnings management. The first measure of real earnings management is abnormal operation cash flow (AbCFO). To calculate such a measure, we run the following cross-sectional regression for every industry (based on Fama-French 48 industries) and year to obtain the normal level of cash flows from operations. The abnormal cash flows from operations for year t ($AbCFO_t$) is the residual from the regression $\frac{CFO_t}{A_{t-1}} = \alpha_0 + \alpha_1\left(\frac{1}{A_{t-1}}\right) + \beta_1\left(\frac{S_t}{A_{t-1}}\right) + \beta_2\left(\frac{\Delta S_t}{A_{t-1}}\right) + \varepsilon_t$, where A_t is the total assets at the end of period t, S_t represents the sales during period t, and $\Delta S_t = S_t - S_{t-1}$. Our second measure of real earnings management is abnormal discretionary expenses. We estimate such a measure by running the following cross-sectional regression for every industry and year to obtain the normal discretional expenses. The abnormal discretionary expense for year t ($AbExp_t$) is the residual from the following regression: $\frac{DISEXP_t}{A_{t-1}} = \alpha_0 + \alpha_1\left(\frac{1}{A_{t-1}}\right) + \beta\left(\frac{S_{t-1}}{A_{t-1}}\right) + \varepsilon_t$. We also run the following regression for each industry-year combination to obtain the normal production costs, and the abnormal production costs (AbProd) are the residuals from the following regression: $\frac{PROD_t}{A_{t-1}} = \alpha_0 + \alpha_1\left(\frac{1}{A_{t-1}}\right) + \beta_1\left(\frac{S_t}{A_{t-1}}\right) + \beta_2\left(\frac{\Delta S_t}{A_{t-1}}\right) + \beta_3\left(\frac{\Delta S_{t-1}}{A_{t-1}}\right) + \varepsilon_t$

[3] We use the following models to test the robustness of our results. The results are qualitatively similar but are not reported. All variables are defined as above.Cash Flow (CF) model:

$$\begin{aligned} ACCL_t = \; & \alpha + \beta_1 OCF_t + \beta_2 DOCF_t + \beta_3 OCF_t \times DOCF_t + \beta_4 DMBE_t + \beta_5 DMBE_t \times OCF_t \\ & + \beta_6 DMBE_t \times DOCF_t + \beta_7 DMBE_t \times OCF_t \times DOCF_t + \lambda_1 BIG5 + \lambda_2 LNMVE_t + \lambda_3 \tfrac{DEBT_t}{TA_{t-1}} \\ & + \lambda_4 MVBV_t + \lambda_5 RECTINVT + \lambda_6 DLOSS_t + \lambda_7 SPECIAL_t + \Sigma YearDummies + \psi_t \end{aligned} \tag{5a}$$

Jones Model:

$$\begin{aligned} ACCL_t = \; & \alpha + \beta_1 OCF_t + \beta_2 \Delta REV_t + \beta_3 \mathrm{PPE}_t + \beta_4 DOCF_t + \beta_5 DOCF_t \times OCF_t + \beta_6 DMBE_t \\ & + \beta_7 DMBE_t \times OCF_t + \beta_8 DMBE_t \times DOCF_t + \beta_9 DMBE_t \times OCF_t \times DOCF_t + \lambda_1 BIG5 \\ & + \lambda_2 LNMVE_t + \lambda_3 \tfrac{DEBT_t}{TA_{t-1}} + \lambda_4 MVBV_t + \lambda_5 RECTINVT + \lambda_6 DLOSS_t \\ & + \lambda_7 SPECIAL_t + \Sigma YearDummies + \psi_t \end{aligned} \tag{5b}$$

[4] Similar to the prior section, we tested the robustness of our results by excluding control variables and year dummies, and the results are qualitatively similar.

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