Habitual Earnings Surprises, Earnings (Expectations) Management, and Market Valuation

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This study examines characteristics, managerial behavior, and market valuation of U.S. firms that habitually surprise the market. Results show that compared to firms that habitually miss analysts' forecasts by a small margin, all other habitual groups apply income-increasing discretionary accruals. In addition, firms that habitually beat analysts' forecasts by big margins also resort to income-increasing real earnings management, and firms that habitually meet/marginally beat analysts' forecasts apply downward analysts' forecast management. Valuation tests reveal that none of the other habitual firms fare better than firms that habitually miss analysts' forecasts by a small margin. In particular, firms that habitually meet/marginally beat analysts' forecasts by using income-increasing accruals earnings management and downward analysts' forecast management experience a significant value reduction measured in Tobin's Q.

Keywords: habitual earnings surprises, earnings/expectations management, market valuation

INTRODUCTION

Because of the importance of meeting/beating analysts' forecasts as an important earnings benchmark, accounting and finance researchers have long been interested in the premiums (penalties) of positive (negative) earnings surprises (e.g., Bartov et al. 2002; Skinner and Sloan 2000). A stream of literature concerns firms' habitual behavior of earnings surprises and the corresponding market reactions, and mixed results exist. For example, using quarterly data, after controlling for forecast errors, Bartov, Givoly, and Hyan (2002) find that habitual meeting/beating firms enjoy a higher market premium than firms that occasionally do so, and the reduction in market premium is not significant even after consideration of earnings management and/or expectations management. Mikhail, Walther, and Willis (2004), also using quarterly data, find that compared to non-surprising habitual firms, habitual surprising firms are associated with higher cost of equity capital, and the cost of equity capital of positive habitual surprising firms is lower than that of negative habitual surprising firms.

I argue that different results from the above two studies are likely due to differences in research designs. In the first place, both studies use scaled earnings surprises (scaled by stock price at the beginning of the year), and earnings surprises expressed in cents are a better, more direct measures used by managers (Graham, Harvey, & Rajgopal, 2005; Bhojraj, Hribar, Picconi, & McInnis, 2009). In the second place, neither study features clear demarcations of different habitual groups. Bartov et al. (2002)'s habitual sample includes three groups of observations: the meeting firms, whose actual earnings are exactly the same as most recent consensus analysts' forecasts; the marginal beating firms, whose actual earnings are marginally above the analysts' forecasts; the beating firms with big margins. Mikhail et al. (2004) divide their entire

sample into two major groups: the surprising firms, whose absolute earnings surprises are beyond a marginal threshold, and the non-surprising firms, whose absolute earnings surprises are within the marginal threshold. In essence, Mikhail et al. (2004)'s study takes as control group the combined observations of meeting firms, marginal beating firms, and marginal missing firms. However, marginal missing firms are treated as non-myopic and non-opportunistic firms (Prawitt, Smith, & Wood, 2009), not the others. In the third place, neither study considers real activities earnings management. Quarterly reporting of real earnings management measures, such as R&D expenses is uncommon (Bhojraj et al. 2009). Therefore, a study taking habitual marginal missing firms as the control group, using annual data, considering accrual-based, real activities based earnings management, and expectation management, and applying the more direct earnings surprise measure can help reconcile mixed results from prior studies and provide investors and regulators with invaluable practical insights.

Using annual data from Compustat and I/B/E/S for the period of 1987-2015, in the first step, I examine characteristics of different habitual surprising groups compared to habitual marginal missing group. Specifically, I examine and compare their managerial characteristics related to accrual-based earnings management, real earnings management, and downward market expectations management. Other relevant group specific characteristics are also included in the analyses. After identifying each group's characteristics, I conduct market valuation tests for each of the other habitual groups compared to the habitual marginal missing group.

Comparisons of the other three habitual groups to habitual marginal missing firms reveal that habitual marginal missing firms apply the least upward accrual-based and real activity-based earnings management, and the least downward expectations management, supplementing prior research's results with regard to non-habitual marginal missing firms as non-earnings managers (Burgstahler & Dechev, 1997; Prawitt et al., 2009). Specifically, compared to the base group, every other group applies more income-increasing accrual-based earnings management, firms that habitually beat analysts' forecasts by big margins also apply income-increasing real earnings management, and firms that habitually meet/marginally beat analysts' forecasts also apply downward analysts' forecast guidance. In addition to these managerial characteristics, the base group firms, among all four habitual group firms, are of the highest growth, return on assets, financial health, and increase in analysts' coverage.

Comparative analyses of three habitual groups other than the habitual marginal missing group show that habitual beating firms with big margins feature the most income-increasing discretionary accruals, and the habitual meeting/marginal beating firms apply the least, the difference in the magnitude of discretionary accruals between the habitual beating firms and habitual missing firms is statistically significant. Further analyses of these three groups reveal that habitual meeting/marginal beating firms have the highest increase in analysts' coverage, and the habitual missing firms experience a significant decrease in analysts' coverage, which may partially account for the findings from Makhail et al. (2004) that habitual surprising firms feature higher cost of equity capital than that of habitual non-surprising firms, and the cost of equity capital of negative surprising firms is higher than that of positive surprising firms. Other characteristic analyses indicate that habitual meeting/marginal beating firms are the largest by total assets. Market valuation tests reveal that after considering managerial behavior of habitual firms, no other habitual firms have higher market valuations than habitual marginal missing firms. To be specific, habitual meeting/marginal beating firms feature the largest reduction in market valuation.

The rest of this paper is organized as follows. Section 2 reviews relevant prior literature leading to the hypotheses, Section 3 describes the methodology, Section 4 presents the descriptive statics and inferential results, and Section 5 concludes with limitations.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Earnings Management and Expectations Management

Accounting literature documents two types of earnings management within Generally Accepted Accounting Principles (GAAP): Accrual-based earnings management and real activities earnings management. Healy and Wahlen (1999, p. 368) state that

> "Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company, or to influence contractual outcomes that depend on reported accounting numbers."

Accounting research document that accruals have been used to boast and/or smooth earnings. For example, Teoh et al. (1998) find that seasoned equity offering (SEO) firms feature positive discretionary accruals before the issuance and subsequent underperformance. Tucker and Zarowin (2006) propose and find that firms smooth earnings to convey private information about future earnings.
Roychowdhury (2006) defines real earnings management (REM) practices as

> "Departures from normal operational practices, motivated by managers' desire to mislead at least some stakeholders into believing certain financial reporting goals have been met in the normal course of operations. These departures do not necessarily contribute to firm value even though they enable managers to meet reporting goals. Certain activities manipulation methods, such as price discounts and reduction of discretionary expenditures, are possibly optimal actions in certain economic circumstances. However, if managers engage in these activities more extensively than is normal given their economic circumstances, with the objective of meeting/beating an earnings target, they are engaging in real activities manipulation."

Roychowdhury (2006) finds and documents evidence that firms apply REM to achieve zero earnings, and slight evidence that firms use REM to meet/beat analysts' forecasts. Accounting literature documents that REM is value-destroying in nature. Bhojraj et al. (2009) examine performance consequences of cutting discretionary expenses and managing accruals to beat analysts' forecasts. They find that firms that cut discretionary spending to beat analysts' forecasts one to two months prior to the earnings announcement date are more likely to sacrifice long-term shareholder value. Cohen and Zarowin (2010) show that SEO firms exhibit some evidence of real earnings management. The performance reduction due to real earnings management is much worse than that due to accruals earnings management. Kothari et al. (2016) document that the overvaluation of SEOs is driven by both accruals management and REM, but the subsequent underperformance is mostly driven by REM, even though REM is more value destructive in the long term.

Firms also manage market expectations to achieve their earnings benchmarks. For example, Matsumoto (2002) finds that managers are more likely to guide analysts' forecasts downward if these firms rely more on implicit claims with stakeholders, have more transient institutional ownership, and feature higher value relevance of earnings.

Instead of individual application of above-mentioned earnings management schemes, accounting literature shows evidence that managers adopt more than one of these schemes to achieve their reporting goals. For example, Badertscher (2011) conducts a study of how overvalued firms sustain their overvalued status. His results suggest that the degree and duration of overvaluation determine managements' choice of alternative earnings management mechanisms. He finds that overvalued firms initially engage in accruals management, and then after three years switch to REM, especially those firms that are restricted in their ability to engage in further accruals earnings management. Zang (2012) finds some evidence on the trade-off between REM and accrual-based earnings management. She states that managers use REM and accrual-based earnings management as substitutes in managing earnings based on their relative costs.

Earnings Benchmarks

Benchmark is defined as something that serves as a standard by which others may be measured or judged. Accounting literature has identified three important earnings benchmarks: earnings from previous fiscal period, earnings increase from previous fiscal period, and analysts' earnings forecasts. These earnings benchmarks are ranked differently. For example, using quarterly data, Degeorge, Patel, and Zeckhauser (1999) conclude that managers prioritize three earnings benchmarks in the order of zero earnings, zero

earnings growth, and analysts' forecast. Using surveys, Graham et al. (2005) find that chief financial officers rank quarterly zero earnings growth the highest among all three earnings benchmarks. Dechow, Richardson, and Tuna (2003) use annual data and examine these three earnings benchmarks and find that during the last three years of their period 1999-2001, analysts' forecast ranks the first target managers seek to meet/beat. Applying the same methodology as used by Burgstahler and Dichev (1997) but using quarterly data, Brown and Caylor (2005) find out that during their study period, 1985-2002, analysts' forecast has been ranked the most important earnings benchmark since the mid-1990s, but not before that range.

Accounting literature documents the importance of meeting/beating analysts' forecasts. For example, Skinner and Sloan (2002) show the stark contrasts of market reactions to growth firms that meet/beat analysts' forecasts and those that fail to do so. Puffer and Weintrop (1991) find that failing to meet market expectations is a predictor of CEOs' turnover, while abnormal stock returns and accounting ratios are not. Not only accounting academic expresses their concern, regulators also convey this signal. Former SEC Chairman Arthur Levitt (1998) addresses that the equity market pays too much attention to firms' meeting/beating analysts' forecasts.

Habitual Meeting/Beating Analysts' Forecasts

Prior literature documents that habitual meeting/beating firms exhibit opportunistic managerial behavior of accrual-based earning management and downward market expectations management. For example, after controlling for forecast error, Bartov et al. (2002) conclude that habitual meeting/beating firms still enjoy a market premium even after the consideration of accrual-based earnings management and downward expectations management. Besides meeting firms, their study lumps beating observations into one category regardless of the magnitudes of firms' beating analysts' forecasts, which includes the marginal beating firms and those firms with larger beating margins.

These two groups of observations exhibit different characteristics. Prior literature labels meeting/marginal beating firms as suspects of opportunistic managerial behavior. Roychowdhury (2006) categorizes meeting/marginal beating firms as suspects of real earnings management. Matsumoto (2002) concludes that marginal beating firms apply both income-increasing accrual-based earnings management and downward expectations management.

Mikhail et al. (2004) explore the relation between habitual surprising (beating with large margins, negative and positive) firms and the cost of equity capital. They find that compared to habitual non-surprising (marginal missing, meeting, and marginal beating) firms, surprising firms feature higher cost of equity capital after controlling for changes in analysts following. Dividing surprising firms into positive and negative groups, they further reveal that the cost of equity capital of habitual negative surprising firms is higher than that of habitual positive surprising firms. However, their study does not explicitly attribute the higher cost of equity capital of these surprising firms to any myopic managerial behavior including earnings management and expectations management. In addition, their study treats the same marginal missing, meeting, and marginal beating firms.

Accounting research suggests that marginal missing firms do not manage earnings as do meeting/marginal beating firms. Burgstahler and Eames (2006) suggest that firms apply management of earnings (accrual-based and real-activities) and forecasts to achieve the goals of meeting/marginally beating analysts' forecasts. Bhojraj et al. (2009) suggest that marginal missing firms have higher earnings quality in terms of lower accrual-based earnings management and higher discretionary expenditures than that of marginal beating firms. The studies cited above lead to my first hypothesis:

Hypothesis 1. *Compared to habitual marginal missing firms, habitual beating firms, habitual meeting/marginal beating firms, and habitual missing firms exhibit opportunistic managerial behavior either in individual or in a combination of accrual-based earning management, real earnings management, and market expectations management.*

Market participants can see through opportunistic managerial behavior, and the opportunistic managerial behavior is detrimental to firm value. Dechow and Skinner (2000) state that market participants,

especially sophisticated ones, such as mutual fund managers and analysts, can see through managerial behavior. Sankaraguruswamy and Sweeney (2005) build a model and demonstrate that managers and analysts cultivate a symbiosis relationship in which managers can achieve their goal of meeting/beating analysts' forecasts while analysts do not lose their faces by missing too much. Kross et al. (2011) find that habitual meeting/beating firms tend to provide more frequent and pessimistic earnings forecast management, and that analysts revise their forecasts after taking into consideration this managerial behavior. Hilary and Hsu (2013) demonstrate that to analysts, consistency in meeting/beating firms' earnings is more important than accuracy. Analysts would rather consistently lowball their forecasts by missing a few cents than more accurately execute their forecasts.

Managers in the survey by Graham et al. (2005) report that they would sacrifice firm value to achieve certain earnings benchmarks. If habitual firms establish their status by using any individual or combinations of individual myopic managerial schemes, market value of these firms will suffer compared to that of habitual marginal missing firms that do not apply any of the opportunistic managerial schemes. The above reasoning leads to my second hypothesis, expressed in the alternative form:

Hypothesis 2. *Considering their opportunistic behavior, habitual beating firms, habitual meeting/marginal beating firms, and habitual missing firms do not fare better than habitual marginal missing firms.*

RESEARCH METHODOLOGY

Data and Sample Selection

This study examines habitual firms' opportunistic managerial behavior, and the behavior is expressed in terms of accrual-based earnings management, real earnings management, and expectations management. Since majority of the accruals are adjusted at the end of the year and firms do not usually report discretionary expenses (part of the real earnings management) on a quarterly basis (Bhojraj et al., 2009), I use annual data in this study. I take the income statement approach to calculate total accruals. Since cash flow information is not available before 1987, my study period spans 1987 through 2015. Actual earnings, analysts' forecasts, and analysts following are from the I/B/E/S database, and other relevant financial data are from Compustat.

After merging I/B/E/S and Compustat, I delete utilities (SIC 44 through 50) and financial firms (SIC 60 through 65) from my sample since they are regulated and may have different motives for earnings management. To avoid issues caused by micro-cap firms, penny stocks (Bhojraj et al. 2009), and scaling, I delete firms with total assets less than $1 million and stock price less than $1.00. To calculate estimates of accrual-based and REM proxies, I also require at least 15 observations in each two-digit SIC and YEAR group. The above requirements result in a dataset of 12,226 observations involving 1,999 firms spanning 28 years, and 293 SIC-YEAR groups for the estimation processes. The estimates from the above procedures and other continuous variables used in this study are winsorized at the top and bottom one percent to avoid any problems caused by outliers. There are a total of 8,604 firm-year observations for the entire study before identifying habitual firms.

Habitual firms are selected based on frequency, magnitude, and sign of firms' earnings surprises. Existing literature does not have a consensus on the frequency of being classified as a habitual earnings surprise firm (Kross et al., 2011). Bartov et al. (2002) apply a frequency of at least nine out of twelve quarters that an observation met or exceeded analysts' forecasts. Mikhail et al. (2004) choose a frequency of at least five out of eight quarters that an observation is qualified as either as a surprising firm or non-surprising firm.

The magnitudes of habitual earnings surprises are based on earnings surprises measured in cents, since this measure is widely used and accepted as one of the most important goals managers seek (Graham et al., 2005). Habitual missing firms with big margins (HMISS, hereafter) are firms with negative earnings surprises (difference between actual EPS and analysts' consensus forecast immediately before earnings announcements) in absolute value greater than one cent. Habitual firms that marginally miss analysts' forecasts are those with earnings surprises of negative one cent (HJUSTMISS, hereafter). Habitual

meeting/marginal beating firms (HMBE, hereafter) are those that meet and beat analysts' forecasts by one cent. Habitual beating firms with big margins (HBEAT, hereafter) are those that beat analysts' forecasts by more than one cent.

The importance of the base group, HJUSTMISS, suggests that a frequency applied in this study be determined by the fact that a reasonable number of observations for this group should be obtained first. A frequency of at least 50 percent is adopted together with a rolling window (Kross et al., 2011) of ten years starting 1987. The number of observations for HJUSTMISS is 65, covering 6 firms. Any attempt to significantly increase the frequency does not result in any meaningful number of observations of greater than or equal to 30 (Wooldridge, 2009, p. 175) for HJUSTMISS group to conduct further empirical tests. To achieve optimal contrasts with other habitual groups, I use the same frequency to get observations for HMISS (1,018 firm-years and 105 firms), HMBE (1,696 firm-years and 166 firms), and HBEAT (1,647 firm-years and 145 firms).

Measuring Accrual-based Earnings Management

I estimate discretionary accruals following Kothari, Leone, and Wasley (2005), since this method results in the least measurement error in discretionary accruals (Prawitt et al., 2009),

$$\frac{TA_{ijt}}{A_{ijt-1}} = \alpha_{0jt} + \alpha_{1jt}\frac{1}{A_{ijt-1}} + \alpha_{2jt}\frac{\Delta SALE_{ijt}-\Delta AR_{ijt}}{A_{ijt-1}} + \alpha_{3jt}\frac{PPE_{ijt}}{A_{ijt-1}} + \alpha_{jt}\,ROA_{ijt-1} + \varepsilon_{ijt} \quad (1)$$

where for firm i in industry *j* at year *t*:

TA_{ijt} = total accruals of firm *i* in industry *j* at year t (income statement approach), set to equal the difference between income before extraordinary items and discontinued operations and cash flow from operations;

A_{ijt-1} = total assets of firm *i* in industry *j* at year *t*-1;

$\Delta SALE_{ijt}$ = change in net sales of firm *i* in industry *j* at year *t*;

ΔAR_{ijt} = change in accounts receivable of firm *i* in industry *j* at year *t*;

PPE_{ijt} = gross property, plant, and equipment of firm *i* in industry *j* at year *t*; and

ROA_{ijt-1} = return of assets of firm *i* in industry *j* at year *t*-1 calculated as the ratio between income before extraordinary items and discontinued operations at the beginning of year *t* and total assets.

The residuals from Equation (1) are the estimated discretionary accruals (DA hereafter).

Measuring Real Earning Management

Following prior literature, I use the three real earnings management (REM hereafter) measures implemented by Roychowdhury (2006) but developed by Dechow, Kothari, and Watts (1998).

$$\frac{CFO_{ijt}}{A_{ijt-1}} = \beta_{0jt} + \beta_{1jt}\frac{1}{A_{ijt-1}} + \beta_{2jt}\frac{SALE_{ijt}}{A_{ijt-1}} + \beta_{3jt}\frac{\Delta SALE_{ijt}}{A_{ijt-1}} + \varepsilon_{ijt} \quad (2)$$

where for firm i in industry *j* at year *t*:

CFO_{ijt} = cash flow from operations of firm *i* in industry *j* at year *t*;

To make further analyses straightforward, I multiply the residuals from Equation (2) by -1 to arrive at the magnitude of REM measure using CFO (REM_CFO, hereafter). The higher the value, the greater the extent of REM with this respect.

$$\frac{DISEXP_{ijt}}{A_{ijt-1}} = \eta_{0jt} + \eta_{1jt}\frac{1}{A_{ijt-1}} + \eta_{2jt}\frac{SALE_{ijt-1}}{A_{ijt-1}} + \varepsilon_{ijt} \quad (3)$$

where for firm *i* in industry *j* at year *t*:
$DISEXP_{ijt}$ = discretionary expense of firm *i* in industry *j* at year *t*, calculated as the sum of research and development (R&D) expense, advertising expense, and selling, general, and administrative expense (SG&A);

To make further analyses straightforward, I multiply the residuals from Equation (3) by -1 to arrive at the magnitude of REM measure using DISEXP (REM_DISEXP, hereafter). The higher the value, the greater the extent of REM with this respect.

$$\frac{PROD_{ijt}}{A_{ijt-1}} = \gamma_{0jt} + \gamma_{1jt}\frac{1}{A_{ijt-1}} + \gamma_{2jt}\frac{SALE_{ijt}}{A_{ijt-1}} + \gamma_{3jt}\frac{\Delta SALE_{ijt}}{A_{ijt-1}} + \gamma_{4jt}\frac{\Delta SALE_{ijt-1}}{A_{ijt-1}} + \varepsilon_{ijt} \quad (4)$$

where for firm *i* in industry *j* at year *t*:
$PROD_{ijt}$ = production cost of firm *i* in industry *j* at year *t*, calculated as the sum of cost of goods sold and change in inventory;

The residuals from Equation (4) are REM measures using PROD (REM_PROD, hereafter).

Measuring Expectations Management

Following prior literature (Bartov et al., 2002; Burgstahler & Eames, 2006), I identify firms that are likely to guide analysts' forecasts downward as those with a path of downward revisions from the initial forecasts immediately after prior year's earnings announcements to the most recent consensus forecasts immediately before the earnings announcements for the current year. If the difference between the initial forecast and the most recent consensus forecast immediately before the earnings announcement is positive, DOWN is set to 1, otherwise it is equal to 0.

Research Models

Multinomial Logistic Regression

I use the following multinomial logistic regression to examine the differences between HJUSTMISS and any of the other three groups: HBEAT, HMBE, HMISS, and also the differences between any two of the HBEAT, HMBE, and HMISS groups,

$$HABITUAL_{ijt} = \theta_0 + \theta_1 DA_{ijt} + \theta_2 REM_{ijt} + \theta_3 DOWN_{ijt} + \theta_4 SIZE_{ijt} + \theta_5 MTB_{ijt} + \theta_6 LEV_{ijt} + \theta_7 Z\_SCORE_{ijt} + \theta_8 ROA_{ijt} + \theta_9 \Delta AF_{ijt} + \theta_{10} SURP_{ijt} + \varepsilon_{ijt} \quad (5)$$

where for firm *i* in industry *j* and year *t*;
HABITUAL = an ordinal variable taking the value of 0 when it is HJUSTMISS, 1 when it is HMISS, 2 when it is HMBE, and 3 when it is HBEAT.

Selection of variables is based on predictions of the hypotheses. Variables of interests are DA, REM, and DOWN. Control variables used in the valuation tests such as SIZE, market to book ratio (MTB), leverage (LEV), financial health (Z_SCORE), ROA, increase in analysts following (ΔAF), and magnitude of earnings surprises (SURP) are also analyzed.

Valuation Tests

Following Anderson and Reeb (2003), I use Tobin's Q (TQ hereafter) as the market measure to test firms' performances after considering their opportunistic managerial behavior. Since there exists non-independence of the same firm-year observations in different categories, following Makhail et al. (2004), I compute *t* statistics using the Huber-White estimator.

The empirical model is as follows:

$$TQ_{it} = \theta_0 + \theta_1 HBEAT_{it} + \theta_2 HMBE_{it} + \theta_3 HMISS_{it} + \theta_4 DA_{it} + \theta_5 REM_{it} + \theta_6 DOWN_{it} + \theta_7 HBEAT_{it} * DA_{it} * REM_{it} + \theta_8 HMBE_{it} * DA_{it} * DOWN_{it} + \theta_9 HMISS_{it} * DA_{it} + \theta_{10} SIZE_{it} + \theta_{11} MTB_{it} + \theta_{12} LEV_{it} + \theta_{13} Z\_SCORE_{it} + \theta_{14} ROA_{it} + \theta_{15} \Delta AF_{it} + \theta_{16} SURP_{it} + YEAR + SIC + \varepsilon_{it} \quad (6)$$

Predicted signs of independent variables are based on findings from prior studies. Makhail et al. (2004) explore the relation between the cost of equity capital and magnitudes of habitual earnings surprises in absolute value. They find that habitual surprising firms have higher cost of equity capital than that of habitual non-surprising firms. I predict negative signs for HBEAT and HMISS. Prior studies show that missing analysts' forecasts marginally incurs penalties from the equity market (for example, Skinner & Sloan, 2000). Therefore, I predict a positive sign for HMBE. Managerial opportunistic behaviors are negatively related to firm value, and I predict negative signs for DA, REM, DOWN, and their interaction terms with individual habitual groups. Large firms and high-leverage firms are negatively and growth firms are positively related to TQ (Anderdson & Reeb, 2003). Therefore, I predict negative signs for SIZE and LEV, and a positive sign for MTB. Financial health is positively related to firm performance (Gunny, 2010). Therefore, I predict a positive sign for Z_SCORE. ROA is positively related to return (Bartov et al., 2002), and therefore, I predict a positive sign for ROA. Mikhail et al. (2004) argue that analysts' monitoring role can reduce agency costs resulting in lower cost of equity capital. I include the increase in analysts following (ΔAF) in the valuation regression to control for its effect on TQ, and predict a positive sign for it. I add SURP, a continuous variable of earnings surprises to control for the normal effect of earnings surprises on TQ from different dichotomous habitual groups (Jiang, 2008), and I do not have a directional prediction for it due to mixed results from prior studies (Bartov et al., 2002; Makhail et al., 2004).

EMPIRICAL RESULTS

Descriptive Statistics

Table 1 exhibits habitual firm-year observations by SIC. Thirteen two-digit SICs are shown on the list with a wide spread of observations from different industries. For example, the most HMISS observations are from SIC 35, Heavy Machinery, with 263 observations; the most HJUSTMISS observations are from SIC 28, Chemicals, with 24 observations; the most HMBE observations are from SIC 73, Business Services, with 381 observations; the most HBEAT observations are from SIC 35, Heavy Machinery, with 362 observations. For SIC 58, Eating/Drinking, the entire 26 observations are from HMBE group alone. Descriptive statistics from Table 1 imply the importance of controlling for SICs in the valuation tests.

TABLE 1
HABITUAL FIRMS BY SIC

SIC		*HMISS*	*HJUSTMISS*	*HMBE*	*HBEAT*	
Code	Description	Frequency	Frequency	Frequency	Frequency	Total
10	Metal mining	5		6		11
13	Oil & gas	48	10	104	49	211
20	Food products	18		49	64	131
28	Chemicals	137	24	305	189	655
35	Heavy machinery	263		266	362	891
36	Electronic equip.	162	11	204	261	638
37	Transportation	32		50	66	148
38	Medical/optical	166	10	188	296	660
58	Eating/drinking			26		26
59	Misc. retail	23		54	25	102
73	Business services	138	10	381	307	836

80	Health services	26		54		80
87	Engineering & mgmt services			9	28	37
# of Obs.		1,018	65	1,696	1,647	4,426
# of Firms		105	6	166	145	422

This tables presents habitual firm distribution by *SIC* for the period of 1988-2015. Habitual firms are categorized based on a frequency of at least 50 percent of times in a rolling window of ten years that a firm meets/beat analysts' forecasts measured in cents. *HBEAT* firms are firms that habitually beat analysts' forecasts by more than one cent; *HMBE* firms are firms that habitually meet/marginally beat (by one cent) analysts' forecasts; *HJUSTMISS* firms are firms that habitually miss analysts' forecasts by one cent and less; *HMISS* firms are firms that habitually miss analysts' forecasts by more than one cent.

Table 2 lists habitual firm-year observations by YEAR. It seems that there is a chronological increasing trend of observations for the HMBE group except for the year of 2015. The rolling window method of qualifying habitual firms does not result in any observations for HJUSTMISS for the later period of this study starting 2011. Descriptive statistics from Table 2 suggest the importance of controlling for YEAR in the valuation tests.

TABLE 2
HABITUAL FIRMS BY YEAR

	HMISS	*HJUSTMISS*	*HMBE*	*HBEAT*	
YEAR	Frequency	Frequency	Frequency	Frequency	Total
1988	12	2	3	20	37
1989	30	3	7	39	79
1990	31	3	10	43	87
1991	34	3	10	50	97
1992	36	4	12	51	103
1993	41	4	13	59	117
1994	43	4	14	67	128
1995	46	5	20	71	142
1996	55	5	24	81	165
1997	54	5	27	94	180
1998	55	4	34	91	184
1999	46	3	39	86	174
2000	53	3	43	84	183
2001	46	4	52	81	183
2002	32	3	42	56	133
2003	39	2	70	74	185
2004	39	2	76	86	203
2005	34	1	77	72	184
2006	43	1	96	63	203
2007	43	1	79	58	181
2008	30	1	81	50	162
2009	36	1	130	47	214
2010	31	1	138	46	216
2011	29		139	44	212
2012	25		140	40	205
2013	21		129	38	188
2014	22		120	30	172

2015	12		71	26	109
# of Obs.	1,018	65	1,696	1,647	4,426
# of Firms	105	6	166	145	422

This table displays habitual firms by year. All variables are defined in Table 1.

Multinomial Logistic Estimation of HBEAT, HMBE, and HMISS

Table 3 presents descriptive statistics and multinomial logistic estimations of variables used in this study. Panel A of Table 3 displays the means and standard deviations of variables. The value of scaled TA is presented to ensure the validity of further analyses. Its mean values for each habitual groups are comparable to the values in other studies. For example, the mean of scaled TA for HMBE group is -0.069, comparable to the value of -0.062 from Roychowdhury (2006). It seems that the base group HJUSTMISS applies the least REM, DA, and DOWN. For example, the mean REM of HJUSTMISS is -0.127, whereas the values for the other three groups are all positive; the mean of DA is -0.024, and the corresponding values of DA for the other three groups are all positive; the mean of DOWN for HJUSTMISS is 0.523, and the means for the other three groups are all greater than this value, especially the value of 0.760 for the HMBE group. However, there is not much difference in this value between HBEAT (0.576) and HMISS (0.578).

TABLE 3
PANEL A: DESCRIPTIVE STATISTICS

	HBEAT	*HMBE*	*HMISS*	*HJUSTMISS*
	(3)	(2)	(1)	(0)
	Mean (Std. Dev)	Mean (Std. Dev)	Mean (Std. Dev)	Mean (Std. Dev)
	n = 1,647	n = 1,696	n = 1,018	n = 65
TA	-0.048 (0.10)	-0.069 (0.08)	-0.062 (0.13)	-0.079 (0.06)
REM_CFO	-0.018 (0.12)	-0.025 (0.11)	-0.010 (0.13)	-0.074 (0.10)
REM_DISEXP	0.036 (0.23)	0.029 (0.25)	0.014 (0.25)	0.030 (0.23)
REM_PROD	-0.011 (0.17)	0.000 (0.16)	-0.003 (0.16)	-0.082 (0.21)
REM	0.007 (0.39)	0.005 (0.39)	0.001 (0.36)	-0.127 (0.47)
DA	0.014 (0.11)	0.000 (0.09)	0.001 (0.12)	-0.024 (0.09)
EM	0.021 (0.42)	0.005 (0.42)	0.022 (0.40)	-0.150 (0.47)
DOWN	0.576 (0.49)	0.760 (0.43)	0.578 (0.49)	0.523 (0.50)
SIZE	6.241 (1.84)	7.485 (1.50)	5.493 (1.59)	6.796 (1.79)
MTB	3.181 (2.88)	3.609 (2.91)	2.684 (2.41)	3.756 (2.32)
LEV	0.129 (0.14)	0.162 (0.15)	0.133 (0.15)	0.157 (0.13)
Z_SCORE	2.214 (1.97)	1.873 (1.45)	1.482 (2.37)	2.391 (1.19)
ROA	0.059 (0.13)	0.052 (0.11)	-0.002 (0.17)	0.092 (0.07)
ΔAF	0.224 (0.91)	0.299 (0.83)	-0.036 (0.84)	0.722 (1.17)
SURP	0.005 (0.15)	0.001 (0.03)	-0.054 (0.28)	-0.001 (0.00)

This table presents variables used in multinomial logistic regressions and valuation tests. *TA* is total accruals (defined as the difference between net income before extraordinary items and discontinued operations and cash flow from operations (CFO)) scaled by total assets at the beginning of the year; *REM_CFO* is the sign-adjusted real earnings management (*REM*) measure of CFO; *REM_DISEXP* is the sign-adjusted *REM* measure of discretionary expenses; *REM_PROD* is the *REM* measure of production costs; DA is the measure of discretionary accruals calculated using the method from Kothari et al. (2005); *EM* is the sum of *REM* and *DA; DOWN* is a dichotomous variable set to one if the difference is positive between the earliest analysts' forecast following prior year's earnings announcement and the most recent consensus analysts' forecast immediately before current year's earnings announcement, otherwise it is equal to zero; *SIZE* is the natural log of total assets; *MTB* is the market to book ratio calculated as the market value of common equity to book value of equity; LEV is the leverage, calculated as the ratio between long-term debt and total assets; *Z_SCORE* is the measure of financial health, from Mackie-Mason (1990) calculated as: 3.3*(net income/lagged assets) + 1.0*(sales/lagged assets) + 1.4*(retained earnings/lagged assets) + 1.2*(working capital/lagged assets); *ROA*

is the return of assets; *ΔAF* is the increase of analysts following (*AF*), calculated as the difference between *AF* this year and that of prior year, and AF is calculated as the natural log of one plus the number of analysts following a firm; *SURP* is the earnings surprise (defined as the difference between the actual earnings per share (EPS) and the most recent consensus analysts' forecasted EPS) scaled by stock price at the beginning of the year; all other variables are defined in prior tables.

Panel A of Table 3 also shows that HMBE firms are the largest (SIZE 7.485) and the highest in leverage (LEV 0.162); HMISS firms are the least healthy (Z_SCORE 1.482), lowest in ROA (-0.002), and highest in drop of analysts following (ΔAF -0.036); HJUSTMISS firms, however, are financially the healthiest (Z_SCORE 2.391), highest in ROA (0.092), highest in growth (MTB 3.756), and gain the most increase in analysts following (ΔAF 0.722).

Panel B of Table 3 presents results from the multinomial logistic regressions. Compared to the base group, all other three groups apply significantly more DA. For example, the coefficient estimate for DA in the first column is 4.03 with a chi-square of 13.48, statistically significant at 0.01 significance level. Only HBEAT firms apply significantly more REM than HJUSTMISS. To be specific, the coefficient estimate for REM in the first column is 0.63 with a chi-square of 3.31, statistically significant at 0.10 significance level. In addition, only HMBE group significantly guides analysts' forecasts downward compared to the base group. Specifically, the coefficient estimate for DOWN in the third column is 0.78 with a chi-square of 8.12, statistically significant at 0.01 significance level.

Panel B of Table 3 also confirms the initial conclusions from analyses of descriptive statistics in Panel A of Table 3. For example, HMBE firms are the largest firms among all four groups (coefficient estimate of SIZE in column 3 is 0.37 with $\chi 2$ of 15.97 and significant at 0.01 significance level), and HMISS firms are the smallest. HJUSTMISS firms are the best in ROA, and largest in increase of analysts following. For example, all coefficient estimates for ROA and ΔAF in columns 1, 3, and 5 are all negative, and statistically significant at least at 0.05 significance level.

Taken together, the results from the multinomial logistic regressions support the predictions of Hypothesis 1. Specifically, compared to HJUSTMISS firms, all three other habitual groups apply more DA, HBEAT firms additionally apply more REM, and HMBE firms additionally apply more downward analysts' forecast guidance.

Valuation Test Results

Table 4 displays correlation matrices of variables used in the valuation tests. Shown above the diagonal are the Spearman correlations, and below are Pearson correlations. Bold-faced values are statistically significant at least at 0.05 significance level. As predicted, TQ is positively correlated with HMBE, MTB, Z_SCORE, ROA, and ΔAF, and it is negatively correlated with HMISS, DA, REM, DOWN, SIZE, and LEV. An interesting correlation is observed. The correlation between DA and REM is positive for the habitual observations (0.14 for Pearson and 0.19 for Spearman), indicating that in the sample of habitual firms, these two schemes are used simultaneously by firms.

TABLE 3
PANEL B: MULTINOMIAL LOGISTIC REGRESSION RESULTS

	(3) = HBEAT; (2) = HMBE; (1) = HMISS; (0) = HJUSTMISS											
	(3)-(0)		(2)-(0)		(1)-(0)		(3)-(2)		(1)-(2)		(1)-(3)	
	β	χ^2	β	χ^2	β	χ^2	β	χ^2	β	χ^2	β	χ^2
Intercept	4.26	47.77***	1.10	3.12*	5.47	76.29***	3.16	307.53***	4.38	417.22***	1.21	40.81***
DA	4.03	13.48***	2.72	6.06**	4.38	15.12***	1.35	15.28***	0.09	0.05	-1.26	10.20***
REM	0.63	3.31*	0.47	1.82	0.42	1.73	0.16	2.18	-0.03	0.06	-0.13	1.14
DOWN	0.27	1.01	0.78	8.12***	0.37	1.76	-0.50	36.88***	-0.41	17.98***	0.09	1.18
SIZE	-0.09	0.91	0.37	15.97***	-0.34	13.19***	-0.46	292.13***	-0.71	445.25***	-0.25	66.46***
MTB	0.03	0.29	0.06	1.76	-0.05	1.12	-0.04	6.81***	-0.12	32.81***	-0.08	15.46***
LEV	-1.90	4.07**	-2.24	5.69**	-0.99	1.09	0.35	1.57	1.25	15.35***	0.90	8.86***
Z_SCORE	0.12	1.18	-0.04	0.15	0.07	0.37	0.16	28.03***	0.11	11.65***	-0.05	2.77*
ROA	-4.98	6.96***	-4.74	6.29**	-6.90	13.14***	-0.24	0.23	-2.16	16.66***	-1.92	14.77***
ΔAF	-0.57	11.94***	-0.78	22.17***	-0.68	16.18***	0.21	20.51***	0.10	3.43*	-0.11	4.16**
SURP	1.25	0.32	0.49	0.05	-1.54	0.48	0.77	2.42	-2.03	14.41***	-2.80	30.55***

This table presents the results from multinomial logistic regressions. ***, **, and * represent statistical significances at 0.01, 0.05, and 0.10 significance levels, respectively. All variables are defined in prior tables.

TABLE 4
CORRELATION MATRICES

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
TQ	**(1)**	1	0.02	**0.10**	**-0.15**	**-0.06**	**-0.39**	**-0.12**	-0.01	**0.85**	**-0.26**	**0.26**	**0.48**	**0.12**	**0.10**
HBEAT	**(2)**	0.00	1	**-0.61**	**-0.42**	**0.06**	0.00	**-0.11**	**-0.15**	-0.02	**-0.08**	**0.19**	**0.12**	0.02	**0.31**
HMBE	**(3)**	**0.10**	**-0.61**	1	**-0.43**	**-0.05**	0.00	**0.19**	**0.42**	**0.15**	**0.11**	**-0.09**	**0.04**	**0.08**	**-0.04**
HMISS	**(4)**	**-0.12**	**-0.42**	**-0.43**	1	0.00	0.01	**-0.08**	**-0.32**	**-0.15**	**-0.04**	**-0.12**	**-0.20**	**-0.14**	**-0.30**
DA	**(5)**	**-0.04**	**0.07**	**-0.04**	-0.02	1	**0.19**	-0.03	0.01	**0.04**	-0.01	**0.17**	**0.26**	0.01	**0.04**
REM	**(6)**	**-0.38**	0.00	0.00	0.02	**0.14**	1	**0.05**	**0.09**	**-0.30**	**0.21**	**-0.08**	**-0.20**	-0.01	**-0.05**
DOWN	**(7)**	**-0.13**	**-0.11**	**0.19**	**-0.08**	**-0.03**	**0.05**	1	**0.26**	**-0.06**	**0.13**	**-0.05**	**-0.06**	**0.05**	**-0.10**
SIZE	**(8)**	**-0.05**	**-0.13**	**0.40**	**-0.32**	0.02	**0.09**	**0.26**	1	**0.18**	**0.40**	0.00	**0.11**	**0.35**	0.02
MTB	**(9)**	**0.76**	-0.02	**0.10**	**-0.11**	0.01	**-0.30**	**-0.06**	**0.11**	1	-0.01	**0.19**	**0.39**	**0.17**	**0.09**
LEV	**(10)**	**-0.23**	**-0.07**	**0.10**	**-0.04**	-0.02	**0.18**	**0.11**	**0.33**	**0.05**	1	**-0.16**	**-0.16**	**0.08**	**-0.04**
Z_SCORE	**(11)**	**0.10**	**0.12**	-0.02	**-0.12**	**0.14**	**-0.06**	0.00	**0.10**	0.01	**-0.08**	1	**0.72**	**0.07**	**0.14**
ROA	**(12)**	**0.18**	**0.09**	**0.05**	**-0.18**	**0.35**	**-0.13**	-0.01	**0.17**	**0.11**	**-0.08**	**0.67**	1	**0.11**	**0.17**
ΔAF	**(13)**	**0.09**	0.02	**0.09**	**-0.15**	0.01	-0.02	**0.04**	**0.37**	**0.13**	**0.06**	**0.09**	**0.11**	1	**0.05**
SURP	**(14)**	0.01	**0.07**	**0.05**	**-0.14**	0.03	-0.02	**0.05**	**0.10**	-0.02	0.00	**0.14**	**0.16**	**0.07**	1

This table presents correlation matrix for variables used in the valuation tests. Above the diagonal are the Spearman correlations, and below it are Pearson correlations. All variables are defined in prior tables. The bold-faced values are statistically significant correlations at least at the 0.05 significance level.

Table 5 presents results of the valuation tests (Hypothesis 2). Column (1) presents the main valuation results, and the rest columns display the results from additional tests. Since there exists the non-independence issue of the same firm-year observations in different habitual groups, I control for it by computing t statistics using the Huber-White estimator to correct for firm clusters (Makhil et al., 2004; Gunny, 2010).

TABLE 5
VALUATION TEST RESULTS

	Pred.	(1)	(2)	(3)	(4)
Parameter	Sign	Estimate *(t)*	Estimate *(t)*	Estimate *(t)*	Estimate *(χ^2)*
Intercept		1.619***	0.992***	0.877***	0.579***
		(5.83)	(6.53)	(7.16)	(168.29)
TQ_{t-1}	+		0.355***	0.354***	0.254***
			(9.85)	(35.17)	(3595.96)
HBEAT	-	-0.207	-0.095	-0.090	0.045
		(-0.96)	(-1.12)	(-0.96)	(1.32)
HMBE	+	0.014	0.060	0.060	0.098**
		(0.06)	(0.77)	(0.64)	(6.17)
HMISS	-	-0.291	-0.164**	-0.161*	0.005
		(-1.36)	(-1.98)	(-1.69)	(0.01)
DA	-	-0.563***	-0.130	-0.420*	-0.021
		(-2.83)	(-0.75)	(1.69)	(-0.09)
REM	-	-0.380***	-0.152***	-0.145***	-0.092***
		(-4.56)	(-2.99)	(-4.47)	(43.78)
DOWN	-	-0.130***	-0.148***	-0.145***	-0.038***
		(-3.17)	(-4.69)	(-5.93)	(13.52)
HBEAT*DA*REM	-	-0.327	0.137	0.083	-0.158
		(-0.75)	(0.33)	(0.22)	(0.95)
HMBE*DA*DOWN	-	-1.422***	-1.044***	-0.981***	-0.542***
		(-3.39)	(-3.22)	(-3.58)	(17.18)
HMISS*DA	-	0.141	0.167	0.266	0.026
		(0.53)	(0.70)	(1.30)	(0.06)
SIZE	-	-0.073***	-0.053***	-0.042***	-0.050***
		(-4.12)	(-4.54)	(-4.20)	(221.47)
MTB	+	0.353***	0.261***	0.267***	0.372***
		(9.77)	(7.71)	(40.49)	(30,276.60)
LEV	-	-1.845***	-1.242***	-1.318***	-0.611***
		(-9.32)	(-9.09)	(-13.63)	(299.68)
Z_SCORE	+	0.016	0.002	0.040	-0.008**
		(0.79)	(0.10)	(1.60)	(4.71)
ROA	+	0.663**	0.481*	-1.021	0.567***
		(2.08)	(1.92)	(-1.08)	(98.12)
ΔAF	+	0.035	0.010	0.013	-0.003
		(1.42)	(0.63)	(0.96)	(0.25)

This table exhibits market valuation test results. The dependent variable is *TQ*, Tobin's Q, which is defined as the ratio between the sum of market value of common equity at the end of the year, book value of preferred stock, long-term debt, and debt in current liabilities and total assets; TQ_{t-1} is the lagged *TQ*; all other variables are define in prior tables; ***, **, and * represent statistical significances at 0.01, 0.05, and 0.10 significance levels, respectively; Columns (1) and (2) show valuation test results using Huber-White robust standard errors correcting for firm clusters; Column (3) presents valuation test result using two-stage least squares; Column (4) presents the valuation result using robust regression.

In Column (1) of Table 5, the intercept of 1.619 represents the average TQ of HJUSTMISS firms. All the other three habitual firms exhibit the predicted signs, but none is statistically significant. For example, the coefficient estimate of HBEAT is -0.207 with a t value of -0.96. All DA, REM and DOWN show the predicted signs and are also statistically significant at 0.01 significance level. For example, the coefficient estimate of DA is -0.563 with a t-value of -2.83. All three interaction terms display the predicted signs, but only the interaction term with HMBE is statistically significant (coefficient estimate of -1.422, t-value of -3.39, and significant at 0.01 significance level).

Results from Column (1) indicate that considering managerial behavior of these habitual firms, none of the three habitual firms fares better than HJUSTMISS firms, with HMBE group featuring the sharpest reduction in firm value, supporting Hypothesis 2. For instance, the TQ for HBEAT firms that apply EM is 0.142 (calculated as 1.619 – 0.207 – 0.563 - 0.327), a 91.23 percent reduction in TQ compared to that of HJUSTMISS. With similar approach of calculating TQ, the TQ for HMBE firms that apply both DA and DOWN is -0.482, a 129.77 percent reduction in TQ compared to that of HJUSTMISS. The TQ for HMISS firms that apply DA is 0.906, a 44.04 percent reduction in TQ compared to that of HJUSTMISS.

All control variables show predicted signs. For example, the coefficient estimate of SIZE is -0.073, with a t-value of -4.12, and significant at 0.01 significance level. ΔAF show the predicted sign, (coefficient estimate of 0.035), however, it is not statistically significant at any meaningful significance level.

Additional Analyses

Lagged-dependent Variable

One way to deal with omitted variable problems when it is hard to find proxies for variables of interest is to add the lagged dependent variable in the valuation analysis (Woodridge, 2009, p. 310). Column (2) of Table 5 presents the valuation test results by adding the lagged dependent variable. The valuation results remain qualitatively the same. Noticeable changes are the coefficient estimates of TQ_{t-1}, HMISS and DA. The coefficient estimate of TQ_{t-1} is 0.355 and statistically significant. HMISS becomes statistically significant at 0.05 significance level with a coefficient estimate of -0.164. DA is not significant any more, but it is still negative (coefficient estimate of -0.130). The coefficient estimate of the interaction term HMBE*DA*DOWN is still statistically significant (coefficient estimate -1.044) at 0.01 significance level. Compared to the base TQ value of 0.992 for the HJUSTMISS group, the TQs for HBEAT, HMBE, and HMISS are 0.752, -0.27, and 0.865, representing value decreases of 24.19 percent, 127.22 percent, and 12.80 percent respectively.

Two-stage Least Squares

Dechow and Dichev (2002) find a positive and significant correlation between DA and operating cycle (OC). Zang (2012) uses OC as one of the costs associated with DA. The correlation between DA and OC is 0.057, and the p-value is 0.0001. The correlation between TQ and OC is 0.022, and the p-value is 0.137, not statistically significant. Therefore, I use OC as an instrumental variable (IV) for DA in estimating the valuation test.

Column (3) of Table 5 presents results for the valuation test using two-stage least squares (2SLS). In the reduced model when DA is the dependent variable, I include as control variables SIZE, MTB, LEV, Z_SCORE, ROA, ΔAF, and SURP. The coefficient estimate of OC is 0.000041, and the t-value is 3.52, significant at 0.01 significance level. Empirical analyses above support the determination of using OC as an IV (coefficient estimate positive and significant, Wooldridge, 2009, p. 516).

Valuation results remain qualitatively the same as those in Column (1). Compared to Column (1), the coefficient estimates of HMISS becomes significant, with a coefficient estimate of -0.161 and a t-value of -1.69. DA remains statistically significant but at a lower level (coefficient estimate of -0.420, significant at 0.10 significance level). The coefficient estimate of HMBE*DA*DOWN is -0.981, still statistically significant at 0.01 significance level. TQs for HBEAT, HMBE, and HMISS firms that apply managerial schemes are 0.305, -0.609, and 0.562, respectively compared to 0.877 of HJUSTMISS, representing a value reduction in TQ of 65.22, 169.44 and 35.92 percent respectively. In sum, after considering managerial

behavior of DA, REM, and DOWN, none of the three habitual firms fare better than the base group, HJUSTMISS, and HMBE group features the most reduction in TQ.

Heteroscedasticity-robust Regression

Analyses above support consistency and unbiasedness of coefficient estimates in the regressions. To further address the issue of normality of the error term, I apply robust regression to conduct the valuation test. Column (4) of Table 5 presents the results. The conclusion remains unchanged. For example, the average TQ of HJUSTMISS is 0.579, and the average TQs for HBEAT and HMBE after considering the managerial behaviors are 0.353 and 0.076, representing TQ decreases of 39.03 percent and 86.87percent, respectively. Even though the average TQ for HMISS is 0.589, it shows only 1.73 percent increase in TQ, insignificant amount. In conclusion, the normality robust test results still support the predictions of Hypothesis 2 that after considering managerial myopic behaviors, none of the other firms fares better than HJUSTMISS firms. In particular, the HMBE firms incur the most value reductions.

CONCLUSION

Prior studies find mixed results of whether habitual meeting/beating firms claim a market premium, and the mixed results are likely due to indirect measure of earnings surprises, lack of a common ground for habitual firms to refer to, and lack of a complete consideration of managerial myopic behavior including accruals-based earning management, real-activities earnings management, and analysts' expectations management. This study answers the calls to these questions and finds that compared to habitual marginal missing firms, all other habitual firms exhibit managerial myopic behavior by applying higher levels of accrual-based earnings management, firms that habitually beat analysts' forecast with a big margin additionally apply income-increasing real earnings management, and firms that habitually meet/marginally beat analysts' forecasts also guide analysts' forecasts downward to a greater extent. The valuation tests show that none of the other habitual firms fare better than firms that habitually miss analysts' forecasts by a small margin, and firms that habitually meet/marginally beat analysts' forecasts experience the most significant value reduction.

This study makes the following contributions. It contributes to literature related to habitual meeting/beating earnings benchmarks, specifically in this study, analysts' forecasts. Analysts' forecast is the most important benchmark (Brown & Caylor, 2005). A study of firms' habitual behavior in meeting/beating this benchmark is instrumental in understanding their managerial characteristics and the corresponding market valuations. More importantly, the direct measure of earnings surprises in cents, instead of the scaled measure, is more straightforward and easier to understand for investors that are not sophisticated enough to undo certain financial measurements. This study considers habitual behavior only from the perspective of frequency, not from the perspective of firms' meeting/beating on a consecutive basis (Kasznik & McNichols, 2002). Future studies can take that approach to complementing to the string literature research.

The findings of this study are invaluable references to equity investor. The mere fact that a firm consistently misses analysts' forecasts with a small margin does not mean that investing in this firm is unwise. The fact that these firms are of higher growth, better financial health and accounting performance should also be considered. Conversely, investing in firms that habitually beat analysts' forecasts with big margins isn't necessarily the smart choice.

The findings of this study are also of great values to regulators and practitioners. Compared to firms that habitually miss analysts' forecasts by a small margin, all other habitual firms are earnings managers, either in individual or a combination of accrual-based earnings management, real earnings management, and constant downward analysts' forecast guidance. Practitioners think earnings management is common and serious, different from the perspectives of the accounting academic (Dechow & Skinner, 2000). The findings of this study should be of value to them.

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