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Voluntary accounting changes and analyst following

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Abstract

Purpose – This study aims to examine the relation between voluntary accounting changes (VACs) and analyst following.

Design/methodology/approach – A sample of firms was collected with VACs in the period from 1994 to 2008 and their major competitors, as well as industry benchmarking firms without accounting changes. The authors then investigated how VACs affect analysts' following decisions given accounting choice heterogeneity.

Findings – The findings demonstrate that VAC is negatively associated with analysts' following decisions. Such association becomes stronger after taking into account accounting choice heterogeneity before and after VACs.

Originality/value – This study contributes to the literature in the economic consequences of VACs and suggests that analysts presumably are able to comprehend the differences in accounting choices. However, the additional level of effort and the concern of manipulation may affect analysts' behavior. This study documents whether VAC results in different accounting choices from the firm's major competitors or industry benchmarking firms.

Keywords Accounting choice heterogeneity, Analyst following, Voluntary accounting changes

Paper type Research paper

1. Introduction

Accounting research has shown that analysts may fail to fully adapt to the effects of accounting choices that affect stock prices (Maines and McDaniel, 2000; Vincent, 1997). In a quasi-experimental setting, Dearman and Shields (2005) find that an individual's relevant accounting knowledge, general problem-solving capability and intrinsic motivation affect the individual's ability to comprehend the differences in accounting methods. As analysts are sophisticated investors, they presumably have the knowledge, skill set and motivation to adapt to the differences in accounting methods (Libby *et al.*, 2002). These findings seem to contradict those in prior studies.

In this study, we investigate how voluntary accounting changes (VACs) are associated with analyst following given accounting choice heterogeneity, i.e. we

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compare the pre- and post-change accounting methods of VAC firms and their industry peers. The main arguments in this paper rely on the information intermediary role played by analysts, as well as the cost and benefit tradeoffs when analysts make their decisions to follow a firm. Specifically, VACs may increase the transparency of the firm or the demand for analysts' services. However, VACs may also require more effort on the part of analysts to process, digest and integrate information. The cost and benefit tradeoffs may change the analysts' following decisions after VACs, compared to their decisions before VACs. Possible concerns of earnings manipulation through VACs can also affect analysts' following decisions.

To address our research question, we collect a sample of firms with VACs in the period from 1994 to 2008 and their industry peers without accounting changes. The industry peers are major competitors, the market leader in the same industry and firms of a similar size in the same industry. We manually compare the accounting methods of the VAC firms with those of their industry peers. Our findings show that compared to the period before VACs, VAC firms have fewer analysts following the firm. When we compare the accounting methods of the VAC firms and their industry peers, the results demonstrate similar patterns with greater magnitudes. The results suggest that when the accounting choice deviates from a firm's industry peers, analysts are less likely to follow the firm because of potential reputation and cost concerns.

This paper contributes to the literature in VACs and analyst following by showing that not all VACs result in similar changes in analysts' decisions to follow a firm. First, this study contributes to the literature in the economic consequences of VACs. Prior studies suggest that economic consequences of VACs, such as earnings quality and informativeness, are inconclusive. This paper empirically demonstrates that VACs have different economic consequences in terms of the number of analysts following a firm based on accounting choice heterogeneity. Second, prior studies argue that analysts may fail to adapt to the differences in accounting choices. Our study suggests that analysts presumably are able to comprehend the differences in accounting choices. However, the additional level of effort, which varies depending on the task complexity, may be the main factor in analysts' behavior when facing accounting changes. Last, our study documents whether VAC results in different accounting choices from the firm's major competitors or industry benchmarking firms.

The remainder of the paper is organized as follows. In Section 2, we review relevant literature in VACs as well as analyst following and develop our hypotheses. Our research methodology is presented in Section 3. In Section 4, we discuss our results and the robustness test. We conclude in Section 5.

2. Literature review and hypothesis development

2.1 Voluntary accounting changes

There is a huge body of literature about accounting choices. For example, Bowen *et al.* (1999) summarize prior studies and discuss the economic environment factors that affect a firm's accounting choices. These factors are customers, suppliers, employees, capital providers and regulators. Fields *et al.* (2001) also provide a review of the studies that examine the determinants and consequences of accounting choices in the 1990s and suggest that one possible future research avenue is economic implications of the accounting choices. In our study, we focus on one of the economic implications, analyst following and VACs.

Specific to our context, there are studies focusing on the determinants and consequences of discretionary accounting choices or VACs. For example, Pincus and Wasley (1994) show the types, frequency and earnings effect of VACs and the characteristics of firms making the changes. Other studies investigate these issues in specific accounting choice contexts. For instance, Beatty *et al.* (2002) examine how the exclusion of voluntary and mandatory accounting changes from the calculation of covenant compliance affects the interest rate charged, whereas Beatty and Weber (2003) investigate whether providing a firm's bank debt contracts affects the firm's accounting choices. Kalyta (2009) argues that the association between managerial retirement and discretionary accounting choices depends on managerial compensation and finds income-increasing accounting choices in the final pre-retirement year, particularly appealing when their pension depends on firm performance. Wyatt (2005) examines and demonstrates the association between recorded intangible assets and the strength of the technology, the technology cycle time and property rights-related factors. Also, in the context of intangible assets, Beatty and Weber (2006) show that firms are less likely to write off goodwill based on Statement of Financial Accounting Standards No.142, when there is less slack in the net worth covenant, and the covenant is influenced by accounting changes.

Several studies focus on the consequences of discretionary accounting choices or VACs. For instance, Dharan and Lev (1993) investigate the valuation impact of accounting changes. The findings of smaller earnings response coefficients and R^2 suggest a possible concern about reduced earnings quality after the accounting changes. Dearman and Shields (2005) demonstrate that most of the experiment participants do not change their cognitive behavior when there is a change in the costing method (activity-based costing versus volume-based costing). Linck *et al.* (2007) consider whether a VAC results in a change in earnings informativeness, but their findings do not provide strong evidence regarding the relation between VACs and abnormal returns or earnings informativeness. Jackson *et al.* (2010) show that managers sell used capital assets depreciated using accelerated deprecation for lower prices compared to the same assets depreciated using a straight-line method.

Our paper also investigates the consequences of VACs but focuses on analyst following. In particular, we demonstrate that the association of VACs and analyst following is contingent on accounting choice heterogeneity between VAC and non-VAC firms.

2.2 Hypothesis development

Building on prior studies regarding analysts' role in the capital market and how analysts decide whether to follow a firm, in this sub-section, we develop our hypotheses regarding the association between VACs and analyst following.

Prior literature, such as Lang and Lundholm (1996), suggests that analysts play two possible roles in the capital market. On the one hand, analysts can be primarily information intermediaries. That is, information flows from the firm to the analysts. The analysts collect, process and integrate the information and disseminate the processed information to the market. On the other hand, analysts can be primarily information providers in the market. Their information competes with the information provided by the firms. Many empirical studies suggest that analysts are primarily information

intermediaries (Francis *et al.*, 2002; Frankel *et al.*, 2006; Healy *et al.*, 1999; Ivković and Jegadeesh, 2004; Lang and Lundholm, 1996).

Analysts' coverage decisions depend on the costs and benefits from following the firm. Benefits include commission fees for the brokerage house and potential future opportunities to provide underwriting or consulting services. Benefits also derive from identifying potentially mispriced securities. However, analysts also incur costs, mainly from the effort required to follow the firm. Analysts need to digest and integrate market, industry and firm-related information or search for private information.

Analyst following is a proxy for the quantity or richness of the information environment (Roulstone, 2003) and is also commonly used as a proxy for privately held information (Atiase and Bamber, 1994). The level of analyst following is determined by the supply and demand for analyst services (Bhushan, 1989; Lang and Lundholm, 1996), such as firm characteristics (Bhushan, 1989; Brown, 1997; O' Brien and Bhushan, 1990; Roulstone, 2003), informative disclosures (Lang and Lundholm, 1996), disclosure quality and transparency (Healy *et al.*, 1999; Hao *et al.*, 2014; Kaya, 2014; Liu and O'Farrell, 2013; Yu, 2011) and corporate governance (Lang *et al.*, 2004). One recent study by Lobo *et al.* (2012) demonstrates that analyst following increases as accrual quality decreases. They also suggest that analysts can benefit from generating private information with lower accrual quality.

In our context, analysts are sophisticated investors and presumably have the knowledge, skill set and the financial incentives to adapt to the differences in accounting methods (Libby *et al.*, 2002). However, the complexity of information may affect analysts' ability to process complex information (Hirst and Hopkins, 1998). Based on our discussion of the literature earlier, the VACs increase the quality and transparency of the financial report or reduce information asymmetry between managers and investors, i.e. VAC helps a firm to more appropriately reflect its operation activities, as shown in Holthausen and Leftwich (1983) and Healy and Palepu (1993). Given the information intermediary role played by analysts, the VACs reduce the effort required for analysts to digest and integrate information. In this case, the VAC may attract more interest from analysts. Formally:

H1a. VAC is positively associated with analyst following.

Differently, it is also possible that the VACs make the financial reporting more difficult to comprehend or future performance more difficult to predict. For example, Lilien *et al.* (1988) show that unsuccessful firms are more likely to engage in earnings-increasing accounting changes. Fields *et al.* (2001) state that managers may use their discretion over accounting choices to manipulate earnings. Beatty *et al.* (2002) and Beatty and Weber (2003) show that VACs are used to avoid debt covenant violations or to influence the interest rate charged on outstanding debt. Lang *et al.* (2004) suggest that analysts are less likely to follow firms with the potential to manipulate earnings because of reputation and performance concerns. In this vein, we expect to observe a decrease in the number of analyst following after VAC. Specifically:

H1b. VAC is negatively associated with analyst following.

However, the above-mentioned hypothesis fails to consider VAC firms' accounting choices and those of their industry peers, accounting choice heterogeneity. Prior studies suggest that accounting choices are generally clustered within an industry (Bowen *et al.*,

1999). For example, Foster (1986, p. 138) provides several examples to illustrate that accounting methods tend to be similar within industries, such as "the change was made principally to conform with the predominant depreciation method used by other companies in the industries", or:

> […] to achieve greater comparability with the accounting practices of other companies in the industry […] changed its method of accounting for finance costs it incurs on dealer receivables transferred with recourse to finance companies.

Nevertheless, the intra-industry variation in accounting methods may impose information processing demands for analysts (Dunn and Nathan, 2005) which may increase analysts' interest in a firm if the corresponding increased information processing costs for both firm-level and industry-level information can be justified:

H2. Accounting choice heterogeneity positively moderates the association between the relation between the VAC and analyst following.

3. Research methodology

3.1 Sample

First, we identified a list of firms with VACs in the period from 1994 to 2008 by searching in the filings for letters, issued by audit firms, regarding the change in accounting principles through the Securities and Exchange Commission's Web site. We then read all the letters as well as the corresponding financial and non-financial disclosures in the filings. The resulting sample consisted of 360 firm-quarter events. The frequency distributions of year and industry are given in Table I. Table I shows that the number of accounting changes is largely the same across years, although there are slightly more after 2005. In Table II, to be concise, we present only the industry breakdown based on the one-digit Standard Industrial Classification (SIC) code. The results in Table II show more changes for firms in the manufacturing industry compared to the others.

Table I. Frequency distribution of VAC firms: year breakdown

Year	No. of firms	(%)
1994	1	0.28
1995	14	3.89
1996	24	6.67
1997	25	6.94
1998	21	5.83
1999	24	6.67
2000	22	6.11
2001	25	6.94
2002	21	5.83
2003	30	8.33
2004	25	6.94
2005	33	9.17
2006	33	9.17
2007	21	5.83
2008	41	11.39
Total	360	100.00

To address our research question, we further gather a set of firms *without* VACs in the same quarter in the same year. These non-event firms are selected based on the following criteria:

- firms in the same industry (measured as the four-digit SIC code) as the event firm based on a one-to-one matching of total assets;
- firms that are major competitors of a firm from Yahoo! Finance (http://finance.yahoo.com); and
- the firm with the highest market share (i.e. the market leader) in the same industry (measured as the four-digit SIC code) as the event firm for the event year.

These criteria are set because accounting method choices tended to cluster by industry (Bowen *et al.*, 1999; Bradshaw *et al.*, 2008), and the competitors might be the main benchmark a firm chooses (McNamara *et al.*, 2003).

From the steps above, we compile a list of firms with and without accounting changes. We manually read the corresponding accounting methods for all the VAC and non-VAC firms on the list to determine whether the pre- and the post-change accounting methods of the VAC firms are the same as those of the non-VAC firms. Furthermore, to investigate whether the number of analysts following the firm changes after the VAC, we expand the dataset to include 12 quarters before and after the VAC for the following analyses.

3.2 Econometric model

We use equation (1) to investigate how the association between VACs and the number of analyst following changes given types of accounting changes. Equation (1) is estimated by using an ordinary least squares model with clustered (by firm) standard errors, as shown in Petersen (2009):

$$\begin{aligned} NUMBER = {} & \beta_0 + \beta_1 VAC + \beta_2 POST + \beta_3 VAC\_POST + \beta_4 SIZE \\ & + \beta_5 EVOL + \beta_6 DVOLUME + \beta_7 FACC \\ & + \sum \text{Industry} + \sum \text{Year} + \varepsilon \end{aligned} \tag{1}$$

Table II. Frequency distribution of VAC firms: industry breakdown

One-digit SIC code	Description	No. of firms	(%)
1	Mining and construction	24	6.67
2	Manufacturing	62	17.22
3	Manufacturing	93	25.83
4	Transportation, communications, electric, gas and sanitary services	57	15.83
5	Wholesale and retail trade	54	15.00
6	Finance, insurance and real estate	33	9.17
7	Services	23	6.39
8	Services	10	2.78
9	Public administration	4	1.11
Total		360	100.0

where *NUMBER* is the number of analysts following a firm in a certain quarter. *VAC* is a dummy variable, indicating whether a firm in our sample has VACs and equals 1 if a firm has VACs, and 0 otherwise. *POST* indicates whether a firm-quarter observation is before the VAC (*POST* = 0) or after the VAC (*POST* = 1). *VAC_POST* is the interaction term of *VAC* and *POST*. From our hypotheses, β_3 is expected to be significant.

In equation (1), we control for the following variables as given in prior literature. First, we control for the size of the firm (*SIZE*). Size is related to the amount of information available about a firm (Atiase, 1985). Prior studies, such as Bhushan (1989), O'Brien and Bhushan (1990), Lang and Lundholm (1996) and Barth *et al.* (2001), suggest that larger firms tend to have more analyst followings. In this study, *SIZE* is captured by the market capitalization of the firm at the beginning of the quarter (Roulstone, 2003). In addition, we take into account earnings volatility (*EVOL*) and dollar trading volume (*DVOLUME*). Earnings volatility (*EVOL*) negatively affects the number of analyst following (Roulstone, 2003). *EVOL* is defined as the standard deviation of the earnings per share (EPS), excluding extraordinary items from four prior quarters. We control for dollar trading volume (*DVOLUME*), as analysts are more likely to follow high-volume stocks (Roulstone, 2003). That is, we expect to observe a positive association between trading volume, and the number of analyst following. *DVOLUME* is calculated by dividing a firm's dollar trading volume by the firm's market value at the beginning of the quarter. Third, we consider analyst forecast accuracy (*FACC*), as shown in Roulstone (2003). *FACC* is defined as the forecast error multiplied by minus one. The forecast error is calculated by deflating the absolute difference between actual EPS and the consensus of analyst forecast EPS with the stock price at the beginning of the quarter. Last, our model takes into account industry and year fixed effects.

The descriptive statistics of the variables in equation (1) are given in Table III. On average, approximately ten analysts follow a firm (*NUMBER*). In addition, about 28 per cent, on average, of the firms are VAC firms (*VAC*). The median size of the firms in our sample (*SIZE*) is about 8.77 billion (after logarithm transformation) with a median of earnings volatility (*EVOL*) of 0.16 and a median of *DVOLUME* (dollar trading volume divided by the market value) of 0.34. The median of analyst forecast accuracy is −0.01. When we compare the means of all the variables for VAC and non-VAC firms, on average, more analysts (*NUMBER*) follow non-VAC firms ($p < 0.01$), and the firm size (*SIZE*) is larger for non-VAC firms ($p < 0.05$). Earnings volatility (*EVOL*) is also larger for non-VAC firms ($p < 0.05$) and with higher analyst forecast accuracy ($p < 0.01$).

The correlations of the variables are given in Table IV. As expected, *SIZE*, *DVOLUME* and *FACC* are positively associated with *NUMBER*, whereas *VAC* and *EVOL* are negatively related to *NUMBER*. We do not observe any large correlation that may be problematic for our analyses.

4. Empirical results

4.1 Main results

Our results are given in Tables V and VI. Table V presents the results for equation (1) without considering the heterogeneity of accounting choices. The results in Table V indicate that the associations between the control variables and the number of analyst following are consistent with those in prior literature, as mentioned earlier. Market value of the firm (*SIZE*), the ratio of dollar trading volume to market value of a firm (*DVOLUME*), and analyst forecast accuracy (*FACC*) are positively associated with the

Table III.
Descriptive statistics

Variables	*N*	Mean	SD	Quartiles Q1	Q2	Q3	VAC *N*	Mean	Median	Non-VAC *N*	Mean	Median
NUMBER	8,453	10.170	6.970	5.000	9.000	14.000	2,344	8.070	7.000	6,109	10.980	10.000
VAC	8,453	0.280	0.450	0.000	0.000	1.000	2,344	1.000	1.000	6,109	0.000	0.000
SIZE	8,453	8.690	1.960	7.310	8.770	10.070	2,344	7.690	7.540	6,109	9.070	9.190
EVOL	8,453	0.700	20.930	0.080	0.160	0.360	2,344	0.350	0.160	6,109	0.830	0.170
DVOLUME	8,453	0.470	0.440	0.200	0.340	0.560	2,344	0.490	0.350	6,109	0.460	0.330
FACC	8,453	−0.050	1.210	−0.010	−0.010	0.000	2,344	−0.020	−0.010	6,109	−0.060	0.000

number of analyst followings (*NUMBER*). That is, larger firms and the firms with higher trading volume can attract analysts through a higher demand for analyst services. In addition, higher analyst forecast accuracy also increases analysts' interest in the firm. Differently, earnings volatility is negatively related to the number of analyst following (*NUMBER*). Specifically, firms with higher earnings volatility may be more uncertain and have higher information asymmetry, characteristics which reduce analysts' interest in a firm.

The results in Table V further demonstrate that, compared to the firms without VACs, VAC firms have fewer analyst following (the coefficient of *VAC* is −0.402, $p < 0.01$). The insignificant coefficient of *POST* (−0.063, *n.s.*) suggests that the number of analyst following does not change significantly in the period after the VAC, compared to the time before the VAC. However, the interaction term is significantly negative (−0.465, $p < 0.01$). This significant coefficient suggests that there are fewer analysts following the firm after the VAC for VAC firms, compared to non-VAC firms. This result is consistent with prior literature that VAC may indicate possible earnings manipulation.

The above-mentioned results fail to take into account whether the pre- and post-change accounting methods for VAC firms are different from those for

Table IV.
Pearson correlation

Variables	*NUMBER*	*VAC*	*SIZE*	*EVOL*	*DVOLUME*	*FACC*
NUMBER	1.000					
VAC	−0.187*	1.000				
SIZE	0.524*	−0.314*	1.000			
EVOL	−0.023*	−0.010	0.034*	1.000		
DVOLUME	0.178*	0.041*	−0.132*	−0.005	1.000	
FACC	0.039*	0.014	0.009	−0.003	−0.039*	1.000

Note: *Significant at 5%

Table V.
Results for VAC and analyst following: dependent variable: *NUMBER*

Variables	Expected sign	Model (1)
Intercept		−8.526*** (−26.06)
VAC	?	−0.402*** (−2.77)
POST	?	−0.063 (−0.50)
VAC_POST	?	−0.465*** (−2.68)
SIZE	+	1.954*** (58.42)
EVOL	−	−0.013*** (−4.51)
DVOLUME	+	4.050*** (28.01)
FACC	+	0.251*** (4.91)
Industry effect		Yes
Year effect		Yes
N		8,453
Adjusted R^2		0.34

Notes: *Significant at 10%; **significant at 5%; ***significant at 1%; *t* statistics are in parentheses and are estimated with clustered standard errors, as in Petersen (2009). See Appendix for variable definitions

Variables	With heterogeneity	Without heterogeneity
Intercept	−7.772 (−0.21)	−10.382 (−0.25)
VAC	2.316 (0.05)	−2.922 (−0.05)
POST	3.006** (2.01)	−0.018 (−0.01)
VAC_POST	−11.300* (−1.69)	−4.890 (−0.77)
SIZE	1.962 (0.66)	2.588 (0.79)
EVOL	−1.902*** (−3.21)	−3.577*** (−3.09)
DVOLUME	4.333*** (3.00)	9.909*** (2.99)
FACC	1.006*** (3.61)	4.161 (0.39)
Industry Effect	Yes	Yes
Year Effect	Yes	Yes
N	1,490	737
Adjusted R^2	0.29	0.48

Notes: *Significant at 10%; **significant at 5%; ***significant at 1%; *t* statistics are in parentheses and are estimated with clustered standard errors, as in Petersen (2009). See Appendix for variable definitions

Table VI.
Results by VAC types: dependent variable: *NUMBER*

non-VAC firms. We continue our analysis by considering the differences or similarities between VAC firms' and non-VAC firms' accounting choices. The results are given in Table VI. Table VI demonstrates that for accounting changes with heterogeneity, the interaction term between *VAC* and *POST* is significantly negative (−11.300, $p < 0.10$), suggesting that when the accounting change deviates from the VAC firms' peers, there are fewer analysts following the firm after VAC, compared to non-VAC firms. However, such a result is not for accounting changes without heterogeneity. The result is consistent with our second hypothesis that when a firm changes its accounting policies and choices that deviate from its peers, analysts are less willing to follow the firm because of potential reputation and cost concerns.

In summary, our results support both our hypotheses that VACs lead to a reduction in analyst following and that the impact is greater after taking into account the accounting choice heterogeneity of VAC firms and their industry peers.

4.2 Endogeneity

VACs and accounting choices are managerial decisions. Accordingly, our variable *VAC* is endogenous. To deal with this issue, we use a two-stage model to further verify our results. The first-stage model estimates the likelihood of being in the VAC group. That is, we regress *VAC* on the following firm characteristics, as in prior studies (Bradshaw *et al.*, 2008), by using a logistic regression model: size of a firm (*SIZE*), leverage ratio (*LEVERAGE*), EPS before extraordinary items (*EPS*), indication of losses (*LOSS*) and return on assets (*ROA*). Detailed variable definitions are given in the Appendix. The second stage takes into account the ranked possibility of being in the VAC group from the first stage and re-estimates the association between the ranked possibility and the number of analyst followings, as guided by Larcker and Rusticus (2010). The results are qualitatively similar to our main results.

5. Conclusions

This study investigates the association between VACs and analyst following. We argue that the complexity of accounting changes is the main factor that affects analysts' decisions to follow a firm. Using a sample of firms with VACs and their industry peers without VACs, we consider accounting choice heterogeneity as the complexity of accounting changes which affects analysts' following decisions after the VAC. Our results suggest that accounting choice heterogeneity further increases the negative association between VAC and the number of analyst following the firm. Specifically, although analysts are presumably to be able to comprehend accounting policy changes, the additional efforts and the potential concerns of earnings manipulation as well as forecast accuracy may reduce analysts' willingness to continue to follow the firm. Accordingly, the action of voluntarily change accounting policies that deviate from a firm's major competitors or industry peers may signal the management's consideration when making such decision, which result in different economic consequences, as documented in prior studies.

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Appendix

Variable	Definition	Data source
NUMBER	Number of analyst followings of a firm in a certain quarter	IBES
VAC	A dummy variable indicating whether a firm in our sample has voluntary accounting changes; it equals 1 if a firm has voluntary accounting changes, and 0 otherwise	10-K
POST	A dummy variable indicating whether a firm-quarter observation is before the voluntary accounting changes (*POST* = 0) or after the voluntary accounting changes (*POST* = 1)	
VAC_POST	The interaction term of *VAC* and *POST*	
SIZE	Size of a firm, which is the market capitalization of a firm at the beginning of the quarter	Compustat
EVOL	Earnings volatility, which is the standard deviation of the EPS, excluding extraordinary items of four prior quarters	Compustat
DVOLUME	Dollar trading volume scaled by the firm's market value at the beginning of the quarter	CRSP
FACC	Analyst forecast accuracy, which is defined as the forecast error times minus one. The forecast error is calculated by deflating the absolute difference between actual EPS and the consensus of analyst forecast EPS with the stock price at the beginning of the quarter	IBES
For the two-stage model		
LEVERAGE	Leverage ratio of a firm at the beginning of the quarter equals to total liabilities divided by total assets	Compustat
EPS	EPS before extraordinary items at the beginning of the quarter	Compustat
LOSS	A dummy variable equal to 1 if a firm has a loss in the prior quarter, and 0 otherwise	Compustat
ROA	Return on assets, which equals the net income divided by total assets at the beginning of the quarter	Compustat

Table AI.
Variable definitions

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