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Investor's Inattention and Earnings Announcement Effects on Tomb-Sweeping Day in China

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Abstract

This study investigates the relationship between investor inattention and earnings announcement effects around a Chinese holiday called Tomb-Sweeping Day, which, unlike other holidays, is short. Not only is investor attention distracted, which can generate emotional fluctuation, but a large number of listed companies issue earnings announcements within two days before the holiday. Using a sample of listed firms from 2008 to 2019 that released earnings announcements on Tomb-Sweeping Day, we first find that earnings announcement effects exist around Tomb-Sweeping Day, which are not studied in the previous literature. Second, because investors are more inclined to ignore negative earnings information around the holiday, we find stronger post drift from negative earnings announcements than from positive ones, in contrast to the conventional view. Finally, we confirm that investor inattention causes earnings announcement effects, providing further evidence to support behavioural finance theory.

Keywords: earnings announcement effect, investor inattention, Tomb-Sweeping Day

JEL Classification: G14, G41

I. Introduction

The efficient market hypothesis (EMH) (*Fama* et al., 1969; *Fama*, 1997) holds that the stock price reflects all the information in the market, and it is impossible for investors to obtain continuous excess returns by analysing historical data. However, the emergence of market anomalies challenges the EMH, and the de-

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velopment of behavioural finance theory (*Ritter*, 2003; *Shiller*, 2003) provides a theoretical explanation of these anomalies. Earning announcement effects, as one of the most important and common market anomalies, has long been a focus of academic research. Previous literature demonstrates that investor inattention could explain why the earnings announcement effects exist (*DellaVigna* and *Pollet*, 2009; *Pantzalis* and *Ucar*, 2014; *Frederickson* and *Zolotoy*, 2016). Investors are more inclined to be distracted around holidays, so it is important to determine the impact of earning announcements made on or near holidays.

Behavioural finance theory argues that investors underreact to information because of cognitive limits (*Hong* and *Stein*, 1989). Investor inattention is one form of cognitive limitation, as investors cannot observe and digest all the information in the market. Existing studies find that earnings announcement effects exist around Fridays and Easter week (*Dellavigna* and *Pollet*, 2009; *Pantzalis* and *Ucar*, 2014), which is consistent with behavioural finance theory. However, further research is needed on some other important holidays. In this study, we examine the effects around a Chinese holiday, called Tomb-Sweeping Day, as a sample period of investor inattention and the earnings announcement effect. The holiday lasts for three days, observed by engaging in sweeping the graves of ancestors and other forms of ancestor worship[1]. Many people also spend the holiday hiking or taking other kinds of outings, and the stock market is closed. Because of the structure of investors and the immature capital market in China, holiday effects due to investors' limited attention might influence the activities of investors and corporate managers. We provide new evidence to support behavioural finance theory and find particular investor reactions around Tomb-Sweeping Day.

We study this holiday for several reasons. First, it lasts for three days, during which investors' limited attention is distracted as they engage in recreation, such as tourism[2], grave sweeping or home sacrifice. Second, some existing studies find that Tomb-Sweeping Day can induce extreme emotions, and commercialism contributes to people's strong feelings and experiences, thus generating emotional fluctuation, which might be demonstrated in stock markets (*Morse* and *Neuberg*, 2004; *Close* and *Zinkhan*, 2006). Therefore, it is a holiday with high public attention and participation, which is likely to yield a 'holiday effect'. Third, more samples are available for study to compare Tomb-Sweeping Day with other holidays because a large number of listed companies issue earnings

[1] According to Wikipedia: Tomb-Sweeping Day falls on the first day of the fifth solar month of the traditional Chinese lunisolar calendar. This makes it the fifteenth day after the Spring Equinox, on the fourth, fifth, or sixth day of April in a given year.

[2] During the Tomb Sweeping Day in 2021, there were 102 million domestic tourists, returning to 94.5 % in the same period before the COVID-19. Data source: Ministry of Culture and Tourism of the People's Republic of China.

announcements in the Chinese market two days before it[3]. For these reasons, using this holiday enables us to study the earnings announcement effect and the relationship between investor attention and earnings announcements.

By using an event study to analyse a sample of A-share firms listed in China consisting of 1,057 observations, we show that the cumulative abnormal returns (CARs) in the event window (0, +3) (short-term) are significantly negative, which demonstrates that earning announcement released on the day significantly affects stock price, showing the existence of an earnings announcement effect. In the event window (+11, +30) (long-term), the CARs are significantly positive again, indicating that investors do not respond very much to the new earnings information and may generate post-drifts.

Then, we examine whether investors have different reactions to different earnings information. Our results show that earning announcement effects still exist regardless of whether the news is good or bad. We also find that the good news group has significant impacts on stock returns before the release of earnings announcements, whereas the bad news group has a significant impact on stock returns after the announcement, indicating that good news is more inclined to catch investor attention than bad news. Then, we investigate the relationship between unexpected (earnings per share) and CARs. Our results show that unexpected EPS have significantly positive impacts on CARs after an announcement, which also demonstrates the existence of earnings announcement effects. The direction of earnings drift is positive in both groups. We further examine whether the reason for earnings announcement effects is investor inattention. We provide direct evidence that investor attention has a negative impact on the earnings announcement effects of Tomb-Sweeping Day.

We have two main contributions. First, by dividing the earnings announcements into 'good news' and 'bad news', we provide better evidence to support explanations of post-earnings announcement drift (hereafter, PEAD) based on under-reaction to information caused by limited attention. By examining investor reactions to earnings announcements during the Easter holiday, the previous literature (*Pantzalis* and *Ucar*, 2014) finds that investors have similar immediate reactions to both good and bad news, and the response is more sensitive to bad news during the holiday. Our research investigates investor reactions to earnings announcements during the Tomb-Sweeping holiday. Unlike joyous holidays such as Easter and Christmas, Tomb-Sweeping Day is a sombre though relaxed occasion for commemorating deceased family and friends as well as taking outings and going hiking. We show that investors easily ignore bad news but are more sensitive to good news because of the sad environment surrounding the

[3] Financial statements are generally released every year in January, February, March, April, June, July, August, and October.

holiday, which results in stronger earnings announcement effects from bad news after the announcement. Hence, we explain PEAD more reasonably based on behavioural finance theory.

Second, we introduce the variable of investor attention into the study of earnings announcement effects on holidays. On the one hand, although *Wang* et al. (2018) argue that a high arrival rate of informed traders reduces structural uncertainty and hence weakens PEAD, we illustrate that Tomb-Sweeping Day distracts investor attention to earnings announcements, which leads to PEAD from the perspective of behavioural finance theory. On the other hand, the previous literature (*Dellavigna* and *Pollet*, 2009; *Pantzalis* and *Ucar*, 2014) does not use the direct variable of investor attention as a measurement of investor distraction in studying earnings announcements. Following *Quan* and *Wu* (2010), we use the variable of investor attention directly and sort investor attention from low to high, to examine the relationship between investor inattention and the earnings announcement effect on holidays. The results show that the relationship between investor attention and the earning announcement effect on holidays is significantly negative. It is beneficial to observe investor reactions to the market due to the holiday effect, as doing so can explain the earnings announcement effects on holidays more precisely.

The rest of the article is organised as follows: In Section 2, we present the literature review and hypothesis development. Section 3 describes the data, research design and methodologies. Section 4 reports the empirical results and Section 5 provides some concluding remarks.

II. Literature Review and Hypothesis Development

1. Market Anomaly: Earnings Announcement Effect

The traditional asset pricing theory, the efficient market hypothesis (*Fama* et al., 1969; *Fama*, 1997), assumes that all investors are rational brokers who can pay close attention to and respond quickly to all information entering the market. However, the reality is that at every moment millions of pieces of new information appear in the capital market, and investors can pay attention to only partial information because of their limited time, resources, and ability. Inattention limits investors' analysis of all new market information and makes it impossible for them to accurately compare each investment choices, resulting in insufficient responses and affecting the stock price and trading volume (*Engelberg*, 2009; *Feng* et al., 2021). Therefore, many financial anomalies emerge in stock markets, the most dominant of which is the earnings announcement effect.

The earnings announcement effect, also called post-earnings announcement drift (PEAD), was first proposed by *Ball* and *Brown* (1968), who find that as

much as 75 % of the information reflected during the period comes after earnings announcements. For example, they find the cumulative excess return gradually increases after positive information is released but gradually decreases after negative information is released. Later, several papers confirmed the existence of this phenomenon (*Beaver*, *Clarke*, and *Wrigh*, 1979; *Patell* and *Wolfson*, 1984; *Mendenhall*, 2004; *Ding* and *Shi*, 2020).

Two different hypotheses explain the earnings announcement effect. The first is the efficient market hypothesis (EMH), which holds that investors can obtain excess returns from earnings announcements effects because they take on additional risk or transaction costs. But the EMH fails to explain the earnings announcement effect as shown by the fact that many empirical studies still find a significant announcement effect after using a risk-adjusted model. The second is the behavioural finance hypothesis, which argues that the earnings announcement effect is caused by a psychological bias among investors, who react appropriately to earnings announcements (*Dellavigna* and *Pollet*, 2009; *Wang* et al., 2018; *Chapman*, 2018). *Bernard* and *Thomas* (1989) find that, because of inattention, investors cannot deal with all the earnings announcements at the same time, resulting in post drift of earnings announcements. *Hirshleifer* and *Teoh* (2003) examine the effects of investor inattention on the degree of information disclosure, financial reporting policy, and market transactions. They find that investors are overly optimistic about firms' high level of net operating assets, even ignoring the strategic incentives of firms to manipulate investor perceptions. *Dellavigna* and *Pollet* (2009) demonstrate that inattention cause under-reaction to earnings announcements by comparing the reaction on Friday to the reaction on other weekdays. Motivated by psychological evidence on limited investor attention and anchoring, *Li* and *Yu* (2012) propose 52-week measures to proxy for the degree to which traders under- and over-react to news and examine the power of the two measures to predict market returns.

Although these studies prove the existence of earnings announcement effects, some particular events are worth studying. We investigate the market reaction around the Tomb-Sweeping holiday and examine whether the earnings announcement effect anomaly is seen in the Chinese market.

2. Market Anomaly: The Holiday Effect

The holiday effect comes from the 'calendar effect', which is also a kind of market anomaly. The calendar effect is a phenomenon in which abnormal returns are obtained in the market during a specific period, such as a month, a week, or a holiday. *Rozeff* and *Kinney* (1976) find a 'January effect', providing evidence on the existence of large abnormal returns in January. Using a sample of stock returns from 1963 to 1981, *Ariel* (1990) finds that a positive stock re-

turn rate is obtained only on the first nine trading days of each month. *Lakonishok* and *Smith* (1988) also find that the average stock return is significantly higher from the last trading day in the previous month to the third trading day in the present month than on other trading days. Several papers offer empirical evidence that stock returns are significantly negative on Monday but positive on Friday (*Lakonishok* and *Levi*, 1982; *Alt* et al., 2011; *Zhang*, 2017).

The existence of the calendar effect motivates researchers to examine whether a holiday effect is also seen in the stock market. However, the results about the holiday effect are mixed. First, the findings on the existence of holiday effects are different. Many studies find that the market return before a holiday is significantly different from average returns (*Kim* and *Park*, 1994; *Marrett* and *Worthington*, 2009). But, using gold indexes, *Coutts* and *Sheikh* (2002) demonstrate that the weekend effect, the January effect, and the pre-holiday effect do not exist. Second, the results and explanations about the reason for the holiday effect are mixed. *Cao* et al. (2009) argue that firm size might be the reason, as small firms experience a greater pre-holiday effect than large firms do. However, *Pantzalis* and *Ucar* (2014) show that investor attention and emotion have significant impacts on the holiday effect. *Bergsma* and *Jiang* (2016) find that stock markets tend to outperform around the New Year's holiday because of a positive holiday mood and cash infusions.

Taken together, the prior literature identifies mixed reasons and results for different holiday effects. They focus more on the effect of statutory holidays but neglect to the effects of some specific cultural holidays. We extend this stream of literature by examining the existence and reason for the effect a Chinese cultural holiday, the Tomb-Sweeping holiday.

3. Hypothesis Development

We examine investor inattention and earnings announcement effects on Tomb-Sweeping Day. Based on the discussion in the literature review, investors are more inclined to ignore market information before holidays, so earnings announcement effects might exist around Tomb-Sweeping Day. We use an event study to explore the first question: Do earnings announcement effects exists around Tomb-Sweeping Day? Thus, we propose our first hypothesis as follows:

H1: The short-term CARs of earnings announcements around Tomb-Sweeping Day are significant.

To further prove the existence of earnings announcement effects, we investigate the significance of CARs during the period after earnings announcements. According to the previous literature, because of investor inattention, the market has PEAD. Holidays lead fewer investors to spend less time analysing and pro-

cessing the information in earnings announcements. But over time, the market gradually incorporates investor reactions to the earnings announcement. Thus, we propose the second hypothesis as follows:

H2: The CARs of earnings announcements turn insignificant in the days after Tomb-Sweeping Day but become significant again a few days later.

In addition, the earnings information can be divided into two types: good news and bad news. When firms release bad news on a holiday, investors are likely to ignore the bad news because of the joyful atmosphere of the holiday, which means they ignore its importance. However, good news released on a holiday can more easily attract attention from investors. Given this, we expect that investors are more inclined to ignore bad news on Tomb-Sweeping Day, thus they show lagged responses to earnings announcements. By contrast, investors are more inclined to get caught up in good news on Tomb-Sweeping Day, thus they deal with earnings announcements more quickly. Therefore, we take a step further to propose a third hypothesis about the different reactions of investors to different kinds of earnings news.

H3: The CARs of announcements of good news before Tomb-Sweeping Day are significant, whereas CARs of announcements of bad news are insignificant.

Based on the discussion above about the previous literature, it is difficult to obtain abnormal returns if investors pay enough attention to market information because new information is reflected in stock prices quickly. As one type of important information in the stock market, the effect of earnings announcements on stock price gradually declines when investor attention increases. Thus, we state the following hypothesis:

H4: Investor attention has negative effects on CARs.

III. Data and Methodology

1. Data

For our sample, we choose A-share companies listed on the Shenzhen and Shanghai Stock Exchanges, comprising all firms for which earnings announcements (semiannual reports) are released on Tomb-Sweeping Day between 1 January 2008 and 31 December 2019[4]. We exclude firms in the financial service industry or those designated for special treatment (ST) because of events in the

[4] We use data until 2019 because the sudden outbreak of COVID-19 in 2020 might have exogenous effects on the results.

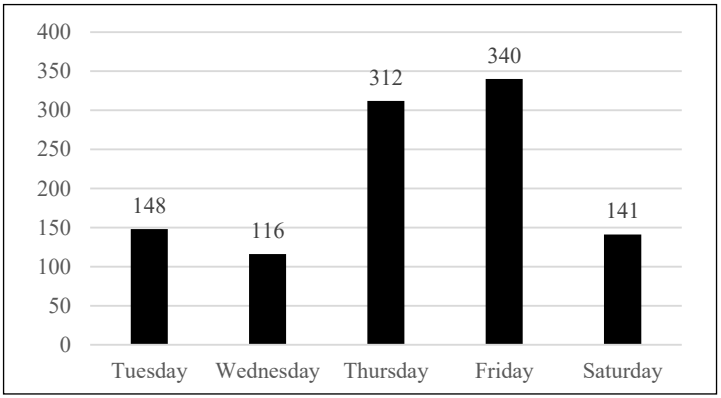


Figure 1: The Weekly Distribution of the Initial Sample (in no. of obs.)

year of the current earnings announcements[5]. Moreover, we exclude stocks with missing returns in the event window. We obtain data on stock returns and accounting information from the China Stock Market and Accounting Research (CSMAR) database. Excluding observations for years when Tomb-Sweeping Day fell on the weekend, the final sample of A-share listed companies totals 1,057. The weekly distribution of the initial samples is shown in Figure 1.

Figure 1 shows that, based on the weekly distribution of the initial sample, companies listed on the Chinese stock market prefer to release public earnings announcements in the middle of the week.

2. Research Design

This paper uses three main variables – *CAR*s (dependent variable), standard unexpected EPS (*SUE*, independent variable), and investor attention (*IA*, independent variable) – as well as four control variables: corporate size, book-to-market ratio, financial leverage ratio, and market risk. Following is a detailed description of the selection of these variables, data acquisition, and the calculation process.

[5] Special treatment is a unique clause in the Chinese capital market denoting that a buffer period has been given to a company in financial difficulty by the stock exchange.

a) CARs

According to the existing research, CARs are common indicators for measuring the degree of drift after an earnings announcement. The day of an earnings announcement is defined as day 0, the estimation window is (–120, –30), and the event windows are (–3, 0), (0, +3), (+4, +10), and (+11, +30). We employ a market model to test the announcement effects.

b) Standardised Unexpected EPS

Unexpected EPS are used in earnings announcements to express the difference between expected earnings and actual earnings (*Ball* and *Brown*, 1968; *Mughal* et al., 2021). *Ball* and *Brown* (1968) segregate the expected and unexpected portions of an income change and investigate the relationship between the magnitude of the unexpected income change and the associated stock price adjustment. They also identify the relationship between a change in stock price after an earnings announcement and unexpected earnings. The change in stock price is actually the correction by investors to expected earnings. *Bernard* and *Thomas* (1989) obtain *SUE* by calculating the difference between actual and forecasted earnings, which is then scaled by the standard deviation of forecast errors over the estimation period. They believe that investors predict earnings based on previous information and adjust the forecast after new earnings information enters the market. They combine existing market information and new expected earnings to predict earnings in the next period.

Following *Wang* et al. (2012) and *Quan* and *Wu* (2010), this paper uses a seasonal random walk (SRW) model to represent the actual earnings in an earnings announcement by the quarterly earnings per share ($EPS_{i,t}$). $EPS_{i,t}$ In addition, we use earnings per share in the same quarter of the prior year ($EPS_{i,t}$) to represent the expected earnings of investors. Therefore, unexpected EPS can be expressed by the difference between the two:

$$UE_i = EPS_{i,t} - EPS_{i,t-1}$$

Because of the differences among individual stocks and in order to ensure the comparability of the unexpected EPS among stocks, we divide the unexpected EPS by the closing price on the trading day before the company releases the earnings announcement $(P_{i,t-1})$ to obtain the *SUE*:

$$SUE_i = \frac{EPS_{i,t} - EPS_{i,t-1}}{P_{i,t-1}}$$

It is good news for investors when SUE_i is greater than 0, which indicates that actual earnings in earnings announcements are higher than investor expectations. But it is bad news for investors when SUE_i is less than 0, which indicates that actual earnings in earnings announcements are lower than investor expectations. Following Ball and Brown (1968), this paper divides the full sample into a good news group ($SUE_i \geq 0$) and a bad news group ($SUE_i < 0$). After adding investor attention, as in *Dellavigana* and *Pollet* (2009), we divided SUE_i into ten groups from low to high, representing the worst news combination ($\text{rank}(SUE_i) = 1$) and the best news combination ($\text{rank}(SUE_i) = 10$).

c) Investor Attention

In Section 2, we described previous studies with a detailed introduction to and comparison of various ways to measure investor attention. Because the data are easily available, the best choice is the turnover rate, which reflects the degree of stock activity in the capital market. The higher the turnover rate is, the more investors are participating in stock trading, which can be used to measure investor attention. Following *Loh* (2009) and *Quan* and *Wu* (2010), this paper uses the average turnover rate for 30 trading days before the company releases an earnings announcement to proxy for investor attention (*IA*) to the stock:

$$IA_i = \frac{1}{30} \sum_{t=-30}^{-1} turnover_{i,t}$$

In addition, we sort the investor attention from low to high, and the samples are divided into ten groups, from the group with the lowest investor attention ($rank(IA_i) = 1$) to the group with the highest investor attention ($rank(IA_i) = 10$).

d) Other Control Variables

Baker and *Wurgler* (2006) study companies that are nonprofit, small, and in financial distress and find that their stock return is inversely proportional to the initial investment sentiment of investors. Following *You* and *Zhang* (2011), *Quan* and *Wu* (2010), *Hua* et al. (2011), and *Xiang* and *Lu* (2020), this paper uses the following five control variables: corporate size (*SIZE*), the book-to-market ratio (*BTM*), market risk (*BETA*), aggregate ownership by institutional investors (*INS*), and the degree of lag in earnings announcements (*DIFF*). In previous studies, these variables have been proved to have a direct or indirect influence on change in the stock price. For definitions of the variables, see the Appendix.

3. Research Models

After we process the sample data using the event-study method, we can calculate the CARs, and their value and significance can confirm H1 and H2. Based on H3, we construct the model as follows:

$$\mathrm{CAR}_i = \alpha + \beta_0 \mathrm{SUE}_i + \sum_{k=1}^{5} \beta_k \mathrm{CV}_{k,i} + \varepsilon_i \tag{1}$$

In equation (1), $CV_{k,i}$ represents the control variables, as shown in the Appendix, including *SIZE, BTM, DIFF*, *INS* and *BETA*. We focus on the coefficients between *CAR* and *SUE*. If β_0 is positive, then *SUE* has the positive effect on the stock price, and vice versa. The volatility of the stock price is greater when more portions of the new earnings information are unexpected. If the coefficient of *SUE* passes the significance test, then the impact of an earnings announcement released on Tomb-Sweeping Day on the corporate stock price has backward drift.

To test H4, we construct the following model to study the impact of investor attention on the stock price and the earnings announcement effect, based on Wang et al. (2012) and Quan and Wu (2010).

$$\begin{aligned} \mathrm{CAR}_i = {} & \alpha + \beta_0 rank(\mathrm{SUE}_i) + \beta_1 rank(\mathrm{IA}_i) + \beta_2 \left(rank(\mathrm{SUE}_i) \times rank(\mathrm{IA}_i)\right) \\ & + \sum_{k=3}^{7} \beta_k \mathrm{CV}_{k,i} + \varepsilon_i \end{aligned} \tag{2}$$

In equation (2), rank(SUE_i) represents the *SUE* groups. Rank(IA_i) is the grouping of investor attention. Moreover, rank(SUE_i) × rank(IA_i) is used to measure the sensitivity of *CAR* to earnings information, which becomes more sensitive with an increase in investor attention.

We also test the relationship between the timing of earnings announcements and investor attention. We use a logit regression model as follows:

$$goodnews_i\,(badnews_i) = \alpha + \beta_0 rank(\mathrm{IA}_i) + \sum_{k=1}^{5} \beta_k \mathrm{CV}_{k,i} + \varepsilon_i \tag{3}$$

In equation (3), $goodnews_i(badnews_i)$ is a dummy variable which equals 1 if *SUE* is greater than 0 (*SUE* is less than 0), and 0 otherwise (*Quan* and *Wu*, 2010).

IV. Empirical Analyses

1. CARs

Based on the introduction to the event-study method in the previous section, the *CAR* in a specific event window can be used to express the direction and range of fluctuation in stock returns. Panel A of Table 1 shows the descriptive statistics of the *CARs* for event samples in the event windows (–3, 0), (0, +3), (+4, +10), and (+11, +30). Moreover, after the samples are divided into a good news group and a bad news group according to whether *SUE* is positive or negative, the descriptive statistics of *CAR* for each specific window are shown in Panels B and C, respectively, of Table 1.

Table 1

Sample Distribution

	CAR(–3, 0)	*CAR(0, +3)*	*CAR(+4, +10)*	*CAR(+11,+30)*
Panel A: Descriptive statistics of the CARs (full sample)				
Mean	0.006	–0.003	0.000	0.008
Std. Dev.	0.050	0.055	0.061	0.120
Min	–0.174	–0.210	–0.315	–0.512
Max	0.339	0.377	0.297	0.537
Obs.	2,908	2,908	2,908	2,908
Panel B: Descriptive statistics of the CARs (good news group)				
Mean	0.005	–0.002	0.000	0.008
Std. Dev.	0.046	0.048	0.059	0.120
Min	–0.174	–0.173	–0.183	–0.514
Max	0.255	0.221	0.297	0.537
Obs.	1,446	1,446	1,446	1,446
Panel C: Descriptive statistics of the CARs (bad news group)				
Mean	0.003	–0.005	–0.003	–0.009
Std. Dev.	0.050	0.057	0.067	0.115
Min	–0.147	–0.162	–0.393	–0.366
Max	0.286	0.338	0.284	0.509
Obs.	1,462	1,462	1,462	1,462

Note(s): This table presents the sample distribution of the CARs. We employ the market model to test their announcement effects with data from CSMAR.

The mean value of the *CARs* in Panel A of Table 1 show that the stock returns continually rise from the earnings announcement day to the 30th day after the announcement. The variance indicates that, under the influence of the earnings announcement, fluctuation in the stock price increases over the entire event window. Moreover, Panels B and C show that, after the earnings announcement – that is, in the windows (0, +3), (+4, +10), and (+11, +30) – the direction of change in stock returns reflects whether the news is good or bad, depending on information in the market. Specifically, in the event windows (+4, +10) and (+11, +30), the mean for good news is positive, whereas the mean for bad news is negative.

Abnormal returns and *CARs* for all samples are listed in Table 2, which lists the results from testing H1 and H2. In Panel A, abnormal returns on the day of earnings announcements have high significance. This result shows that investors respond to the announcement on Tomb-Sweeping Day, and it has a significant impact on stock returns, which is consistent with H1. Then, within 10 trading days after the event, the abnormal returns on most trading days are significant at the 1% level. This indicates that investors continue to respond to the event after the announcement, which confirms the existence of earnings announcement drift, supporting H2. Prior papers have demonstrated the abnormal returns or *CARs* for only a partial event window, neglecting the full window during which effects occur.

Panel B of Table 2 shows that the CARs in the event windows (–3, 0) and (0, +3) are 0.6% and –0.5%, respectively. They are significant at the 1% level, which confirms the existence of earnings announcement effects. The result for *CARs* in the event window (–3, 0) illustrates that investors respond positively to an earnings announcement before Tomb-Sweeping Day, which might be due to early disclosure of earnings information. The result for *CARs* in the event window (0, +3) shows that investors respond to earnings announcements on Tomb-Sweeping Day, which is consistent with the results in Panel A of Table 2. The result also confirms the existence of earnings announcement effects around Tomb-Sweeping Day, which supports H1. However, from the fourth to the tenth working days after the announcement, *CARs* are not significant, which indicates that, during this period, the relationship between the change in stock returns and the earnings announcement is not clear. Moreover, from the eleventh to the thirtieth working days after the announcement, *CARs* are significant again, and they are positive and significant at the 5% level. This result demonstrates the existence of post– earnings announcement drift, which might be due to the fact that companies listed on the Chinese market need to disclose EPS in their financial statements before the end of April every year.

Table 2

Abnormal Return and CARs of the Full Sample

Panel A: Abnormal returns of the full sample								
Day	*AR*	*Sig.*	*Day*	*AR*	*Sig.*	*Day*	*AR*	*Sig.*
–3	0.002	***	9	0.000		21	0.000	
–2	0.004	***	10	–0.001		22	0.001	*
–1	0.004	***	11	0.001		23	0.002	**
0	–0.004	***	12	0.000		24	0.002	**
1	–0.001	**	13	–0.001		25	–0.002	*
2	0.001	***	14	–0.002		26	0.000	*
3	–0.001	**	15	–0.001		27	–0.002	
4	0.000	*	16	–0.003		28	0.000	
5	0.001	**	17	0.001		29	0.002	*
6	0.001	**	18	0.003		30	0.004	**
7	–0.001	**	19	0.003				
8	–0.002		20	0.002				

Panel B: CARs of the full sample			
Event Window	*CAR*	*T–value*	*Std. Err.*
(–3, 0)	0.006***	3.034	0.002
(0, +3)	–0.005**	–2.345	0.002
(+4, +10)	–0.001	–0.317	0.002
(+11, +30)	0.010**	2.158	0.004
N		2,908	

Note(s): This table presents the abnormal returns and *CARs* of the full sample. The earnings announcement day is defined as day 0, the estimation window is (-120, -30), and the event windows are (–3, 0), (0, +3), (+4, +10), and (+11, +30). We employ the market model to test their announcement effects. ***, **, and * stand for statistical significance levels of 1 %, 5 %, and 10 %, respectively.

When we divide the sample into subsamples for good news and bad news, we again see abnormal returns (Table 3). Table 3 show that on the day before the earnings announcement, good news has a significant impact on stock returns, whereas bad news has an insignificant impact. From the perspective of information disclosure, this result indicates that good news is more likely to be leaked to the market in advance, especially before the holiday, and investors are more sensitive to good news, which confirms H3. However, within the event window, bad news is released on more trading days than is good news, which is significant at the level of 1 %, indicating that bad news has a longer and deeper impact on the market.

Table 3

Abnormal Returns of Good News Group vs. Bad News Group

	Good news group		*Bad news group*			*Good news group*		*Bad news group*	
Day	*AR*	*Sig.*	*AR*	*Sig.*	*Day*	*AR*	*Sig.*	*AR*	*Sig.*
–3	0.003	**	0.001		14	0.000		–0.003	*
–2	0.002	***	0.003	**	15	–0.002		–0.003	**
–1	0.002	***	0.003	***	16	–0.002		–0.006	***
0	–0.003	**	–0.004		17	0.002		0.000	***
1	0.000	*	0.000		18	0.004		0.003	**
2	0.001	**	0.001		19	0.004		0.000	**
3	–0.002		–0.003		20	0.002		0.002	**
4	–0.001		0.001		21	–0.001		0.001	*
5	0.001		0.000		22	0.001		–0.001	**
6	0.002		0.001		23	–0.002		0.002	
7	0.000		–0.001		24	0.001		0.001	
8	0.000		–0.002		25	–0.004		–0.003	*
9	0.000		0.000		26	0.000		–0.001	*
10	–0.002		–0.002		27	–0.001		–0.001	**
11	0.000		0.000		28	0.000		0.000	*
12	0.000		–0.002		29	0.003		0.000	*
13	–0.002		–0.002		30	0.004		0.003	*

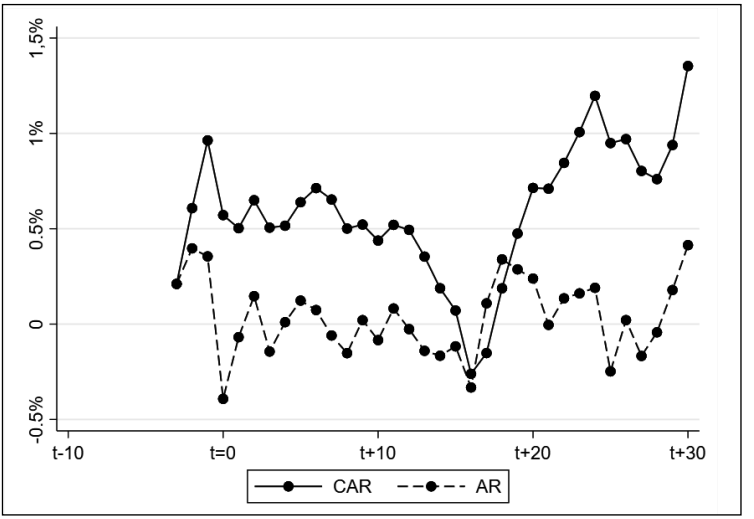
Panel B: CARs of good news group

Event Window	*CAR*	*T–value*	*Std. Err.*
(–3, 0)	0.004*	1.891	0.002
(0, +3)	–0.004	–1.470	0.002
(+4, +10)	–0.001	0.181	0.003
(+11, +30)	0.007	1.150	0.006
N		1,446	

Panel C: CARs of bad news group

Event Window	*CAR*	*T–value*	*Std. Err.*
(–3, 0)	0.003	1.014	0.003
(0, +3)	–0.006**	–2.060	0.003
(+4, +10)	–0.003	–0.707	0.004
(+11, +30)	–0.010*	–1.690	0.006
N		1,462	

Note(s): This table presents the abnormal returns of the good news group vs. the bad news group. The earnings announcement day is defined as day 0, the estimation window is (-120, -30), and the event windows are (–3, 0), (0, +3), (+4, +10), and (+11, +30). We employ the market model to test their announcement effects. ***, **, and * stand for statistical significance levels of 1 %, 5 %, and 10 %, respectively.



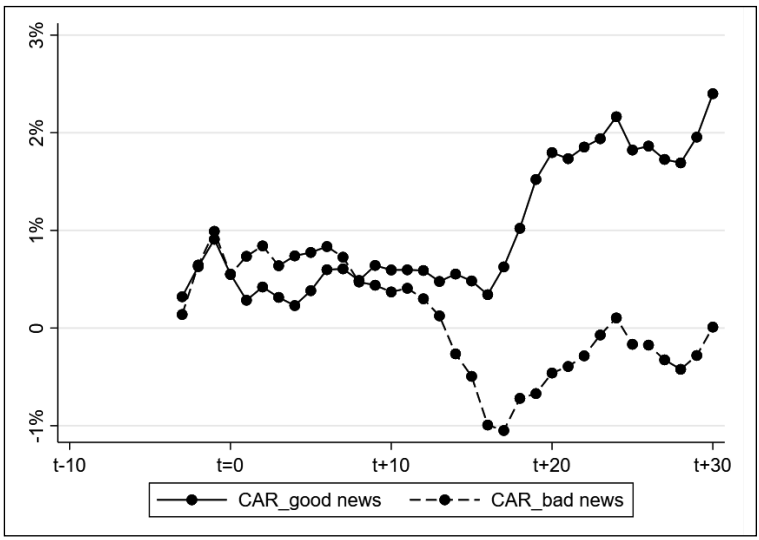
Note(s): This figure shows the *CARs* of all samples in the event window (3, +30). The estimation window is (−120, −30).

Figure 2: CARs of All Samples Calculated by the Market Model

Figure 2 shows a more intuitive *CARs* pattern of change in the full sample in the event period. In addition, we illustrate the comparative trends in *CAR* between the good news group and the bad news group (shown in Figure 3), so as to compare the reaction of investors with differences in earnings information.

Figure 2 shows that when an earnings announcement is released on Tomb-Sweeping Day, the market reacts to the news. This reaction leads first to fluctuation in the stock returns and then to an increase in the period after the event, which demonstrates market volatility. Beginning on the eleventh day after the announcement, the *CARs* increase significantly, which indicates that investors do not respond enough to the new earnings information, and they begin to respond more after the eleventh day, showing that earnings announcement effects emerge in the market.

In Figure 3, *CARs (+SUE)* for the good news group are represented by the solid line, and *CARs (–SUE)* for the bad news group are represented by the dotted line. Overall, after the tenth day after the announcement, the solid line is higher than the dotted line, meanign that *CARs* due to good news are higher than those due to bad news. Regardless of whether the earnings information is good or bad, the earnings announcement effect exists until the fifteenth trading day after the announcement, when the downward drift phenomenon starts again. The direction of the trends in the two groups are basically the same, a result that varies from that in previous research on earnings announcements. *Ball* and *Brown*



Note(s): This figure shows the CARs of the good news group and the bad news group in the event window (−3, +30). The estimation window is (120, −30).

Figure 3: CARs of the Good News Group and the Bad News Group Calculated by the Market Model

(1968) show that the *CAR* trends in both groups are almost completely symmetrical. However, the trend in the immediate response is generally consistent with Pantzalis and Ucar (2014) on the effect of earnings announcements made on religious holidays, and the market has a similar immediate response to good news and bad news. At the same time, based on *Fabozzi* et al. (1994) as well as *Yi* and *Liu* (2005) on the impact of holidays on investor sentiment, we believe that investor emotion owing to the holiday differs from that on other trading days, and they engage in different investment behaviour based on this change in their mentality. Therefore, the abnormal trend in Figure 3 is due to the positive impact on the mood of investors of the traditional atmosphere on Tomb-Sweeping Day, which leads investor attention to be limited and thereby an 'abnormal response'.

2. The Earnings Announcement Effect on Tomb-Sweeping Day

In this section, we study the relationship between unexpected earnings and *CARs* and research the impact of unexpected earnings on stock returns based on the estimated value and significance of the variable coefficient of unexpected earnings to test H3. The dependent variables are *CARs* in the event windows

Table 4

The Impact of Unexpected Earnings on CARs

dependent variables	*CAR(–3, 0)*	*CAR(0, +3)*	*CAR(+4, +10)*	*CAR(+11, +30)*
SUE	0.024	0.015	0.058**	0.069**
	(1.067)	(0.591)	(2.040)	(2.165)
SIZE	–0.000w	0.001	0.000	–0.002
	(–0.044)	(1.265)	(0.007)	(–0.868)
BTM	–0.001	–0.003	0.011**	–0.027**
	(–0.182)	(–0.448)	(2.141)	(–2.054)
BETA	0.065**	0.024	0.028	0.045
	(2.109)	(0.722)	(0.748)	(0.597)
INS	–0.001	–0.014***	0.002	0.008
	(–0.201)	(–2.819)	(0.358)	(0.707)
DIFF	–0.000	0.003	–0.007	–0.008
	(–0.032)	(0.354)	(–0.903)	(–0.530)
cons	–0.015	–0.036	–0.012	0.030
	(–0.417)	(–0.891)	(–0.268)	(0.336)
α_t (YEAR)	YES	YES	YES	YES
β_i (INDUSTRY)	YES	YES	YES	YES
Adj. R^2	0.080	0.029	0.042	0.073
F-test	8.424	3.510	4.766	7.754
N	2,908	2,908	2,908	2,908

Note(s): This table presents the relationship between unexpected earnings and *CARs*. The dependent variables are *CARs* in the event windows (-3, 0), (0, +3), (+4, +10), and (+11, +30). Variable definitions are provided in the Appendix. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively.

(–3, 0), (0, +3), (+4, +10), and (+11, +30). We test the earnings announcement effect using an ordinary least squares (OLS) model. The results are shown in Table 4.

The regression results in Table 4 show, first, that during the event periods (+4, +10) and (+11, +30), the coefficients of *SUE* are positive, which indicates an earnings announcement effect after Tomb-Sweeping Day. Second, from the perspective of significance, in the event windows (+4, +10) and (+11, +30), the coefficients of *SUE* are significant, whereas in the windows (–3, 0) and (0, +3), the coefficients of *SUE* are not significant. The significant coefficients confirm the existence of earnings announcement effects in the market, but those that are not significant indicate that earnings caused by the announcement released before or on Tomb-Sweeping Day cannot be explained by *SUE*. This lagged response time is longer than in previous research results, which can be explained by the fact that on the holiday investors relax, and before the holiday they are

less focused on investment decisions. As the change in the stock price is actually a correction by investors to expected earnings (*Ball* and *Brown*, 1968), investors can correct their expected earnings after the earnings information on Tomb-Sweeping Day and fully reflect the new information in the stock price in the post-event window.

To further explore the characteristics of earnings announcement effects on Tomb-Sweeping Day, we conduct a regression on the subsamples for good and bad news. The results are in Table 5.

Table 5 shows, first, that for the good news group, the coefficients of *SUE* are positive and significant in the event windows (0, +3) and (+4, +10), which indicates that the release of good news can lead to positive *CARs*, and the direction of drift in earnings announcements does not change. Second, for the bad news group, the coefficient of *SUE* is positive and significant in the event window (+11, +30), which indicates that the release of bad news can lead to negative *CARs*, and the direction of drift in earnings announcements does not change. Third, the good news and the bad news groups differ in terms of significance. The *SUE* coefficients of the good news group are not significant in the windows (-3, 0) and (+11, +30), but significant in the windows (0, +3) and (+4, +10). However, the *SUE* coefficient of the bad news group is significant in the window (+11, +30), but insignificant in the windows (–3, 0), (0, +3), and (+4, +10). That is, the earnings announcement effect of good news is more significant, and in the days after the announcement of bad news, the stock price fully adjusts to the new information. Fourth, although investors have different reactions in the good news group and bad news group in the windows (–3, 0) and (0, +3), they correct their expected earnings based on the information in earnings announcements in the post-event windows-confirming the existence of post-earnings announcement drift. Investors have insufficient reactions to the earnings announcement due to Tomb-Sweeping Day. Hence, they correct their expected earnings in post-event windows. Therefore, in the event window (–3, 0) for the *CARs* in Table 5, the coefficients of *SUE* are not significant.

Table 5

The Impact of Unexpected Earnings on CARs Based on Different Sample Groups

dependent variables	*CAR(–3, 0)*		*CAR(0, +3)*		*CAR(+4, +10)*		*CAR(+11, +30)*	
	Good news	Bad news	Good news	Bad news	Good news	Bad news	Good news	Bad news
SUE	–0.056 (–1.151)	–0.031 (–0.834)	0.114** (2.189)	–0.046 (–1.087)	0.106* (1.654)	–0.050 (–0.986)	–0.071 (–0.562)	0.145* (1.720)
SIZE	0.000 (0.290)	–0.002 (–1.246)	0.002 (1.504)	–0.002 (–1.079)	0.003 (1.634)	–0.003 (–1.311)	–0.001 (–0.143)	–0.013*** (–3.508)
BTM	0.007 (0.951)	–0.002 (–0.201)	–0.014* (–1.772)	0.019** (1.962)	–0.013 (–1.381)	0.024** (2.050)	–0.000 (–0.015)	–0.026* (–1.947)
BETA	0.040 (0.971)	0.044 (0.921)	–0.034 (–0.738)	0.001 (0.015)	0.040 (0.713)	–0.051 (–0.858)	0.009 (0.081)	0.054 (0.554)
INS	–0.003 (–0.442)	0.001 (0.141)	–0.007 (–1.033)	–0.009 (–1.218)	–0.025*** (–3.139)	0.003 (0.296)	–0.022 (–1.363)	0.039*** (2.637)
DIFF	–0.012 (–1.597)	0.013 (1.497)	–0.013 (–1.621)	–0.002 (–0.237)	0.008 (0.825)	0.001 (0.063)	–0.008 (–0.428)	–0.004 (–0.217)
cons	0.040 (0.882)	–0.029 (–0.538)	0.067 (1.380)	0.078 (1.237)	–0.129** (–2.147)	0.017 (0.233)	–0.047 (–0.395)	0.330*** (2.660)
α_t (YEAR)	YES	YES	YES	YES	YES	YES	YES	YES
β_i (INDUSTRY)	YES	YES	YES	YES	YES	YES	YES	YES
Adj. R^2	0.083	0.079	0.024	0.050	0.036	0.045	0.061	0.101
F–test	4.580	4.289	1.970	2.999	2.498	2.803	3.562	5.312
N	1,446	1,462	1,446	1,462	1,446	1,462	1,446	1,462

Note(s): This table presents the relationship between unexpected earnings and *CARs* based on the good news group and the bad news group. The dependent variables are *CARs* in the event windows (-3, 0), (0, +3), (+4, +10), and (+11, +30). Variable definitions are provided in the Appendix. ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

3. Investor Attention and the Earnings Announcement Effect on Tomb-Sweeping Day

To study the relationship between investor attention and earnings announcement effects, we construct regression model 2. In this section, we construct the variable *investor attention* (*IA*) and then use interaction between *SUE* and *IA* as an explanatory variable. *IA* is ranked from low to high and divided into 11 groups, from *IA1* to *IA11*. *IA1* is the group of investors with the least attention, and *IA11* represents investors with the highest attention.

In order to highlight and compare the characteristics of *IA1* to those of *IA11*, we draw create a chart to illustrate the *CARs* trends of the two groups in the event window (shown in Figure 4). Figure 4 show that the group with the highest investor attention has a wider range of fluctuation in the *CARs*, which indicates that because they are paying close attention, these investors respond to information quickly. However, the group with the least investor attention has a narrower range of fluctuation in the *CARs,* and it is basically positive, which might be due to the lower attention by this group to a certain extent. These investors are more optimistic about the stocks. Around the second trading day after the announcement, the cumulative excess return of the most concerned (paying most attention) group began to decline, which was the opposite of that of the least concerned (paying least attention) group, indicating that investor attention had a negative impact on earnings announcement effects.

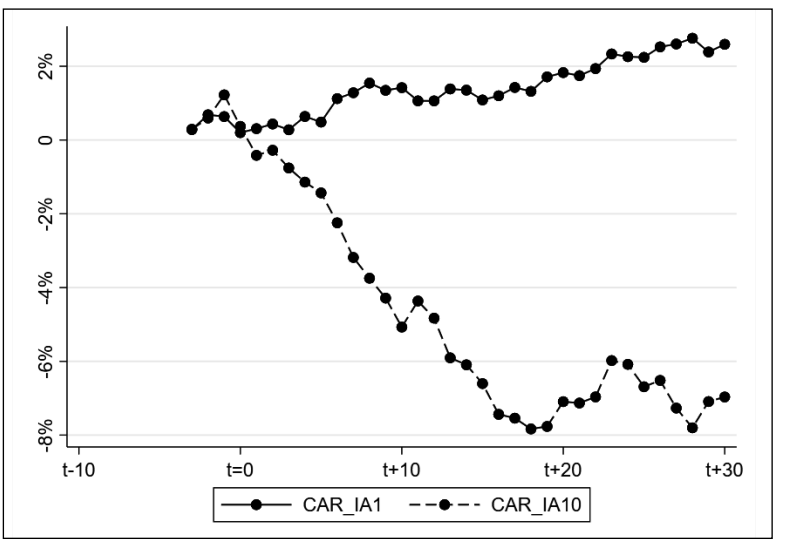


Figure 4: CARs of IA1 and IA11 Calculated by the Market Model

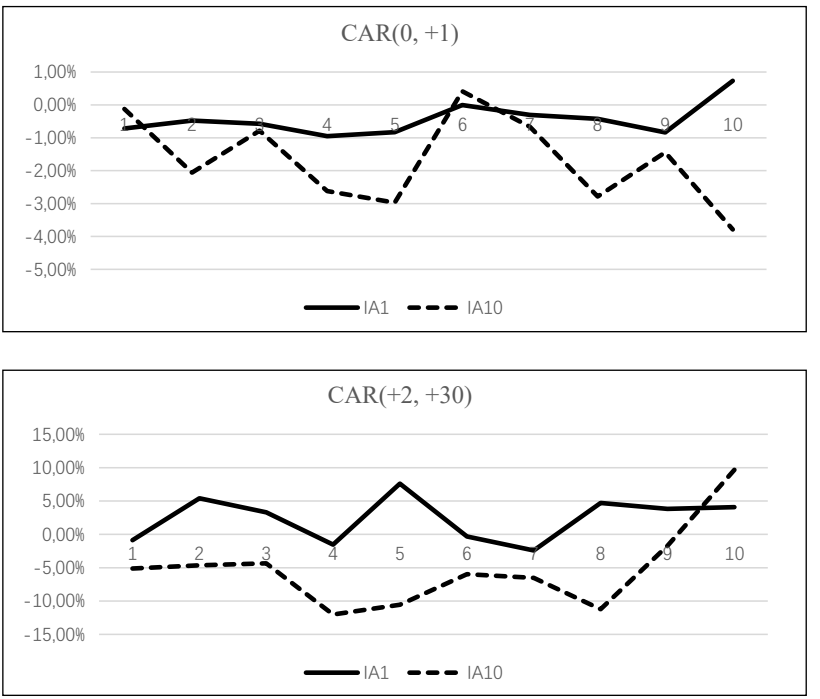


Figure 5: The Immediate Response (above) and Lagged Response (below) of the Market to Earnings Information

In addition, following *Quan* and *Wu* (2010), we test the market return response to good and bad news using the grouped data on *SUE* and *IA*. Figure 5, at the top, shows the immediate response *CAR*s (0,+1) of the market to different degrees of earnings information, and Figure 5, at the bottom, shows the lagged response *CAR*s (+2,+30) of the market to different degrees of earnings information. The abscissa in Figure 5 is the grouping of *SUE*. The larger the number is, the better the information is, which represents good news. However, the smaller the number is, the worse the information is, which represents bad news. Figure 5 illustrates that when the company releases good news on Tomb-Sweeping Day, the immediate response of the investor group paying the least attention is significantly higher than that of the investor group paying the highest attention. When the company releases bad news, the immediate response of the investor group with the highest attention is significantly higher than that of the group with the least attention. However, in the lagged response (that is, for the *CAR*s in the window of (+2, +30)) to earnings information, the trend after bad news is just the opposite, which confirms H3.

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Last, we run the regression on the full sample using model 2, and the results are in Table 6. First, the coefficients of *CARs* (+4, +10) and *CARs* (+11, +30) on rank(SUE_i) are significantly positive, indicating earnings announcement effects in the stock market after Tomb-Sweeping Day. Second, in the latter three windows (that is *CARs* (0, +3), *CARs* (+4, +10) and *CARs* (+11, +30)), the coefficients of *CARs* and rank(IA_i) are significantly negative. Third, according to the explanation of *Quan* and *Wu* (2010), the coefficient of rank(SUE_i) × rank(IA_i) is used to express the sensitivity of *CARs* to *SUE*. Table 6 shows that the coefficient of rank(SUE_i) × rank(IA_i) is not significant at all. This result indicates that with an increase in investor attention, the sensitivity of earnings announcement effects to unexpected earnings does not have a trend that changes significantly.

Table 6

The Impact of Unexpected Earnings and Investor Attention on CARs

dependent variables	*CAR(−3, 0)*	*CAR(0,+ 3)*	*CAR(+4, +10)*	*CAR(+11, +30)*
rank(SUE)	0.021 (0.884)	0.018 (0.676)	0.065** (2.175)	0.136** (2.307)
rank(IA)	0.000 (0.009)	−0.395*** (−7.062)	−0.634*** (−10.178)	−0.592*** (−4.839)
rank(SUE) × rank(IA)	0.000 (0.290)	−0.000 (−0.213)	−0.000 (−0.996)	−0.000*** (−2.581)
SIZE	0.000 (0.005)	−0.000 (−0.352)	−0.002* (−1.883)	−0.005** (−1.980)
BTM	−0.001 (−0.201)	−0.000 (−0.061)	0.015** (2.211)	−0.026** (−2.030)
BETA	0.014 (0.461)	0.025 (0.764)	0.034 (0.918)	0.042 (0.557)
INS	−0.001 (−0.197)	−0.020*** (−4.073)	−0.005 (−0.922)	−0.008 (−0.768)
DIFF	0.000 (0.009)	0.005 (0.704)	−0.003 (−0.361)	−0.003 (−0.213)
cons	−0.018 (−0.483)	0.017 (0.407)	0.062 (1.349)	0.050 (0.554)
α_t (YEAR)	YES	YES	YES	YES
β_i (INDUSTRY)	YES	YES	YES	YES
Adj. R^2	0.079	0.049	0.075	0.074
F-test	8.104	5.237	7.714	7.617
N	2,908	2,908	2,908	2,908

Note(s): This table presents the impact of unexpected earnings as well as investor attention on *CARs*. The dependent variables are *CARs* in the event windows (-3, 0), (0, +3), (+4, +10), and (+11, +30). Variable definitions are provided in the Appendix. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively.

Therefore, based on these regression results, investor attention has a negative impact on the stock market after Tomb-Sweeping Day, which is consistent with H4 – that is, lower investor attention leads to higher *CARs*. Investor attention declines on the day before the holiday, resulting in abnormal regression results after the holiday.

We also test the timing of earnings announcements and investor attention in Table 7, with the results of logit regression. For the good news group, the coefficient for rank(IA_i) is significantly positive (1.457), indicating that higher investor attention makes it more likely that the company will release positive earnings information. Moreover, for the bad news group, the coefficient for rank(IA_i) is –0.841 and significant at the 5 % level. The result shows that higher investor attention makes it less likely for the company to release negative earnings information. Therefore, based on concerns about investor attention, the company releases earnings announcements at different times based on whether they are positive or negative.

Table 7

Timing of Earnings Announcements and Investor Attention

dependent variables	*Good news*	*Bad news*
rank(IA)	1.457**	–0.841**
	(2.358)	(–1.982)
SIZE	0.166***	–0.126***
	(11.330)	(–8.557)
BTM	–0.713***	1.173***
	(–9.797)	(16.003)
BETA	1.781***	–1.392***
	(5.125)	(–4.055)
INS	0.346***	–0.284***
	(5.528)	(–4.562)
DIFF	–0.644***	0.614***
	(–10.276)	(9.613)
cons	–0.481	–0.828*
	(–1.151)	(–1.956)
α_t (YEAR)	YES	YES
β_i (INDUSTRY)	YES	YES
Pseudo R^2	0.033	0.035
N	25,263	25,263

Note(s): This table presents the logit regression of earnings announcements timing and investor attention. The dependent variables are the dummy variables of good news and bad news. Variable definitions are provided in the Appendix. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively.

4. Endogeneity Problem

To address endogeneity problems, we use the number of analysts who track and forecast corporate earnings (*Analyst*) as an instrumental variable (IV) and run a two-stage least squares (2SLS) regression. We make this choice for two reasons. First, the number of analysts is highly correlated with investor attention (*Lin* et al., 2014). Second, no direct correlation exists in the existing literature between the timing of earnings announcements and the number of analysts. Therefore, the number of analysts who track and forecast corporate earnings can be our IV, and we can use it to run a 2SLS regression.

The results of the endogeneity test are in Table 8, showing a significantly positive relationship between the number of analysts and investor attention. The coefficient for *Analyst* is 0.003 and is significant at 1 %. Moreover, the F-statistic

Table 8

Endogeneity Test Results

variables	*First-stage regression*	*2SLS regression*
	rank(IA)	*CAR(0, +30)*
Analyst	0.003*** (4.280)	
rank(IA) (Fitted)		–0.061*** (–2.830)
SIZE	–0.549*** (–11.800)	–0.042*** (–2.780)
BTM	0.532** (2.340)	0.041 (1.400)
BETA	–0.743 (–0.670)	0.052 (0.430)
INS	–2.020*** (–11.480)	–0.126*** (–2.840)
DIFF	0.305 (1.330)	0.006 (0.250)
cons	17.720*** (12.820)	1.186** (2.590)
α_t (YEAR)	YES	YES
β_i (INDUSTRY)	YES	YES
Adj. R^2	0.350	0.171
N	2,908	2,908
F-statistic for weak instrument	36.560***	

Note(s): This table presents the results of the endogeneity test. Variable definitions are provided in the Appendix. ***, **, and * denote significance at the 1 %, 5 %, and 10 % levels, respectively.

for weak instruments is 36.560, so the number of analysts who track and forecast corporate earnings is not a weak instrument. Then, we use the fitted rank(IA_i) obtained in the first-stage regression to run the second-stage regression. The coefficient for rank(IA_i) (fitted) is significantly negative. Therefore, our results coincide, and we avoid endogeneity problems.

V. Conclusions

The development of behavioural finance injects new theoretical blood into traditional finance and provides an explanation for market anomalies. Following *Pantzalis* and *Ucar* (2014), we focus on a Chinese traditional holiday, using a sample of listed companies that issue earnings announcements during that holiday, to explore the market anomaly of earnings announcement effects with investors' limited attention, to fill a gap in the literature.

Our research yields the following findings. First, consistent with previous research results, we find that earnings announcements released on Tomb-Sweeping Day have a significant impact on the stock price because of investors' inattention. Moreover, although investors react to the earnings announcement due to the influence of the holiday, the reaction is insufficient. Second, good news is more likely to be disclosed in advance, and bad news has a far-reaching impact on the market. Third, the earnings announcement effects of Tomb-Sweeping Day have a longer lag time than those found in previous studies. Investors feel relaxed on the holiday, and it is harder to focus on their on market information before the holiday, thus it can take longer than usual for stock prices to be corrected. Moreover, investors are slow to respond to bad news because of the holiday. Tomb-Sweeping Day has an impact on the earnings announcement effect due to investor inattention. But investor attention has a negative impact on earnings announcement effects – that is, an increase in investor attention makes investor responses to earnings information timelier and more accurate. Therefore, the earnings announcement effect gradually diminishes or even disappears.

Unlike previous papers (*Pantzalis* and *Ucar*, 2014), which focus on Western holidays, which tend to be cheerful, we study a traditional Chinese holiday (Tomb-Sweeping Day), which is sad yet relaxing as an occasion for people to sweep the graves of ancestors and spend time on recreational outings and hiking, to investigate investor reactions to earnings announcements. Investors can easily ignore bad news and are more sensitive to good news because of the relaxed atmosphere due to the holiday. The release of a negative earnings announcement is followed by stronger earnings announcement effects, which explains the post-earnings announcement drift more reasonably based on behavioural finance theory. In addition, we use the variable of investor attention directly to examine the relationship between investor inattention and the earn-

ings announcement effect from holidays, unlike the previous literature (*Dellavigna* and *Pollet*, 2009; *Pantzalis* and *Ucar*, 2014), which does not use the direct variable of investor attention to measure investor distraction when they study earnings announcements. Our study provide direct evidence that investor attention has negative effects on earnings announcement effects.

Our results have the following policy implications. First, managers of listed companies should release negative earnings announcements but time it for investors are paying less attention to the market. They should release positive earnings announcements when investors are paying great attention to the market, so that investors will have positive expectations about the company's future prospects. Second, because investor attention is crucial in the imperfect environment of policies, laws, and regulations on the disclosure of earnings information, academics and practioners countries outside China should focus more on investor attention when they research Chinese stock markets.

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