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新聞事件多期效果對於會計盈餘認列速度在穩健原則
下的影響性

Multi-Period Effect of Corporate News on the Speed of
Earnings Recognition under Conservatism

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本論文係陳苡晟君 (r00722038) 在國立臺灣大學會計學系、所完成之碩士學位論文，於民國 102 年 06 月 05 日承下列考試委員審查通過及口試及格，特此證明

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陳苡晟 謹識

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論文摘要



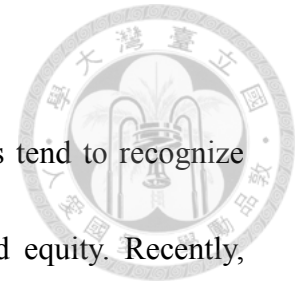
穩健性原則影響會計上對於好消息(收入或利益)以及壞消息(費用或損失)的認列。近年來，學者進一步將穩健性原則區分為條件性穩健和非條件性穩健(Beaver and Ryan 2005)。Basu (1997) 使用股票報酬率以及盈餘作為變數，並使用盈餘對於好(壞)消息認列的不對稱性對於條件性穩健進行衡量。後人並延伸Basu (1997) 的概念對於不同性質的公司進行會計穩健性的測試。Lin and Liu (2012)根據會計穩健的性質，認為盈餘對於資訊反應的不對稱性會隨著時間經過而減弱。因此在以不對稱性對於穩健性進行衡量時，應同時考量多期效果的概念。

經濟事件在會計上的認列，除了依照穩健原則之外，同時也受到事件本身認列速度的影響。本研究進一步對於各別經濟事件以事件相對認列速度進行分類，並沿用前人所提出多期效果的概念以嘗試找出事件本身被反應速度對於穩健原則之下盈餘認列的影響性。

實證研究證實，經濟事件本身的認列速度確實會對於盈餘認列本身產生影響。代表除了依照穩健原則對於經濟事件進行認列之外，認列速度的增減會使得會計上對於好消息以及壞消息之認列產生變化，並同時影響會計認列的不對稱性。顯示前人的研究僅依照好消息以及壞消息之認列的不對稱性對於穩健性進行衡量的方式不夠完善，而同時應該考量經濟事件本身的認列速度。

關鍵字:穩健原則、認列不對稱性

Abstract



Earnings recognition is long affected by conservatism. Firms tend to recognize losses earlier than gains to avoid the overstatement of asset and equity. Recently, researchers further subdivide conservatism into conditional conservatism and unconditional conservatism (Beaver and Ryan 2005). Conditional conservatism is interpreted by Basu (1997) as the lower thresholds for bad news recognition than good news recognition. Basu (1997) measures the different earnings responses to gains and losses, and defines it as conservatism. Piles of studies follow Basu (1997) measurement to test conservatism among companies with different characteristics. Lin and Liu (2012) argue that the asymmetric timeliness of earnings changes with periods (multi-period effect), because Basu (1997) only considers the asymmetric extents in current period. Empirical research shows the asymmetric timeliness is higher in short-term periods than long-term periods, and the multi-period should be considered in measuring asymmetric extents of news recognition.

News contains different recognition speed exclusive of conservatism. This research extends concept of Basu (1997) measurement and measures the effect of different relative recognition speed of news itself on earnings recognition in multi-period.

Key Word: Conservatism 、 Asymmetric Timeliness of Earnings

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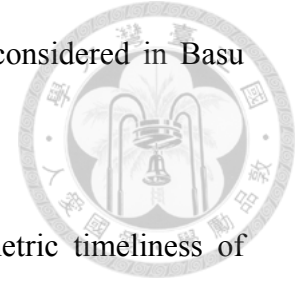
1. Introduction

Conservatism is one of the main essences of accounting. Under conservatism, firms tend to recognize losses earlier than gains to avoid overstatement of assets and equity. Until recently, conservatism is further divided into two types: the conditional and the unconditional form of conservatism. Under unconditional conservatism, which is called news-independent conservatism, firms underestimate the book value of net assets by policies determined at the initial recognition of assets and liabilities. Conditional conservatism, also called news-dependent conservatism, is interpreted by Basu (1997) as the lower threshold for recognition of bad news than good news.

Basu (1997) first examines conditional conservatism, and employs positive (negative) returns as proxies of good (bad) news to measure the asymmetric timeliness of earnings. He implies that the linear relation between returns and earnings in concurrent period represents the extent of conservatism, because firms adopt more conservative accountings when earnings recognize news with asymmetric timeliness. Piles of studies follow Basu (1997) measurement to test conservatism among companies with different characteristics.

Basu (1997) considers only the asymmetric timeliness of earnings in concurrent period, but the asymmetric timeliness changes with periods due to different speeds of recognition of good news and bad news (multi-period effect). Lin and Liu (2012) re-examine the impact of attribute of accounting recognition on measuring the extents

of conservatism, and suggest that multi-period effect should be considered in Basu (1997) measurement.



Basu (1997) and Lin and Liu (2012) investigate the asymmetric timeliness of earnings, and suggest that the asymmetric news recognition is due to the different recognition speeds of good news and bad news under conservatism. Without considering conservatism, it's natural that news itself contains different speeds of recognition, because news itself contains different information. I argue that they only capture part of conservatism, and the relative speed of recognition of news should also be considered.

To examine the speed of recognition of news itself, I classify news into Future Group and Current Group according to relative speed of recognition of news itself. The news in Future Group is expected to be recognized more slowly than in Current Group. For example, liability issue and long-term sales agreement, such kinds of news are classified in Future Group, because firms recognize expense (revenue) of such news slowly through periods. Comparatively, if news contains disaster or one-time charge event, such news is classified in Current Group, because the expense (loss) is recognized soon in concurrent year.

I suggest that the news recognition is not only affected by conservatism, but also by relative speed of recognition of news itself. It's expected that news in Future

Group is recognized more slowly than in Current Group, but due to conservatism, the speed of recognition of news might change. Firms would recognize bad news in Future Group even earlier than in Current Group under conservatism. Comparatively, firms need higher threshold, and take more time to verify information of good news in Future Group than in Current Group under conservatism. Hence, good news in Future Group is recognized later than in Current Group

I further find the difference in asymmetric timeliness between Future Group and Current Group. The information of news in Future Group is spread in longer periods, and it's difficult to measure the information of news in future. Hence, the news in Future Group contains more uncertainties than in Current Group. It's natural that firms recognize news with more asymmetric timeliness (i.e. more conservative) in Future Group to avoid overstatement of net income. I define the difference in asymmetric timeliness between two groups as magnification effect, and will elucidate the magnification effect in detail in the following chapter.

Considering the multi-period effect, the recognition of news alters in long-term periods. The bad news in Future Group is recognized earlier in short-term periods, and thus earnings responses to bad news decay more in Future Group than in Current Group as time periods increase. In another aspect, information of good news in Future Group is gradually recognized in long-term periods, and thus earnings responses to

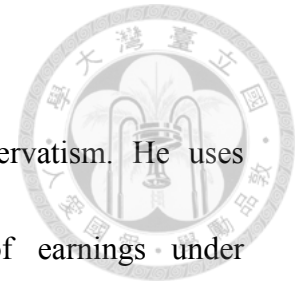
good news in Future Group increase more than in Current Group. Due to the reverse moving directions (decrease and increase) in recognition of bad news and good news in Future Group, the asymmetric timeliness in Future Group decreases more than in Current Group in long-term periods. Hence, the magnification in Future Group decreases in long-term periods.

The rest of the thesis is organized as follows. Section 2 reviews the prior literature of my study. Section 3 describes concepts of models above and the development of my hypotheses. Section 4 discusses the data. Section 5 presents the research methodology and the empirical results. Finally, I conclude my study in Section 6.

2. Literature Review

Under conservatism, firms tend to “anticipate no profits, but recognize all losses”. Gains are recognized slowly because firms take more time to verify and recognize evidences of good news; instead, losses are recognized early due to the lower threshold under conservatism. Beaver and Ryan (2005) further classify conservatism into two types: the conditional and unconditional form of conservatism. Conditional conservatism, also called news-dependent conservatism, refers to asymmetric recognition of news in earnings, depending on favorable or unfavorable news. Under unconditional conservatism, also called news-independent conservatism, firms underestimate the book value at the initial recognitions of assets and liabilities by

using the accounting policy.



Basu (1997) first investigates the news-independent conservatism. He uses reverse regression to measure the asymmetric timeliness of earnings under conservatism, and employs positive (negative) returns as proxies of news. Under the hypothesis of efficient market theory, Ball and Brown (1968) suggest that information of news flows to market fast, and thus stock prices reflect the impact of news quickly. This provides the fundamental ground for Basu (1997) to use stock returns as proxies of news to capture the asymmetric timeliness of earnings. Under conservatism, bad news is recognized earlier than good news in concurrent earnings, and the asymmetric recognition is interpreted as extent of conditional conservatism. Piles of studies later extend the concept of the asymmetric recognition, and estimate the degree of conservatism among firms with different characteristics (e.g. corporate governance schemes (Ahmed and Duellman, 2007) and countries (Ball, Robin and Wu, 2003)).

In Basu (1997) measurement, he implies that the asymmetric timeliness remains constant in each period. Lin and Liu (2012) suggest that the asymmetric timeliness changes with different periods, and argue the bias in Basu (1997) measurement. Under conservatism, the bad news is recognized earlier in short-term periods, because firms tend to pre-recognize information of bad news at ahead of time to avoid overstatement of net income. Due to the early recognition of information of bad news, the earnings

responses to bad news are more likely to decay in long-term periods. Comparatively, good news is recognized steadily and persistently in each period. Under the premise above, the asymmetric timeliness is more in short-term periods, but decreases as time periods increase. Lin and Liu (2012) argue that Basu (1997) measurement contains bias, because he only captures the asymmetric timeliness in concurrent period, but not considers the changes in asymmetric timeliness in multi-period (multi-period effect).

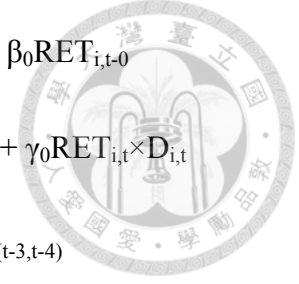
3. Hypothesis

3.1 Multi-Period Effect in Conditional Conservatism

Lin and Liu (2012) extend Basu (1997) measurement, and estimate the asymmetric timeliness changes in multi-period. Under conservatism, firms need more time to verify evidences of good news to recognize gains and revenues, but soon recognize losses to avoid overstatement of net income. Due to the different thresholds in news recognition, bad news is recognized earlier than good news in short-term periods. As time periods increase, earnings responses to bad news decay fast and even become less than good news in long-term periods. Under the premise above, the asymmetric timeliness of earnings is more in short-term period, but gradually decreases as earnings responses to bad news decay.

Lin and Liu (2012) use the following reverse model to measure the asymmetric timeliness in long-term periods.

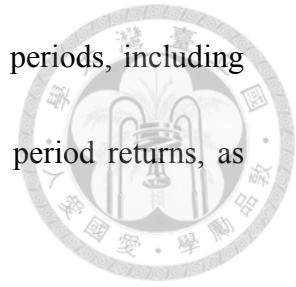
$$\begin{aligned}
E_{i,t} = & \alpha + \alpha_0 D_{i,t-0} + \alpha_1 D_{i,t-1} + \alpha_2 D_{i,t-2} + \alpha_3 D_{i,(t-3,t-4)} + \alpha_4 D_{i,(t-5,t-7)} + \beta_0 RET_{i,t-0} \\
& + \beta_1 RET_{i,t-1} + \beta_2 RET_{i,t-2} + \beta_3 RET_{i,(t-3,t-4)} + \beta_4 RET_{i,(t-5,t-7)} + \gamma_0 RET_{i,t} \times D_{i,t} \\
& + \gamma_1 RET_{i,t-1} \times D_{i,t-1} + \gamma_2 RET_{i,t-2} \times D_{i,t-2} + \gamma_3 RET_{i,(t-3,t-4)} \times D_{i,(t-3,t-4)} \\
& + \gamma_4 RET_{i,(t-5,t-7)} \times D_{i,(t-5,t-7)} + \varepsilon_{i,t}
\end{aligned}$$



$RET_{i,t-n}$ means stock prices difference between the starting price of year $t-n$ and the ending price of year $t-n$ for firm i if $n=0,1$ or 2 . $RET_{i,(t-3,t-4)}$ denotes the stock prices difference between the starting year price of year $t-4$ and the ending price of year $t-3$ for firm i . $RET_{i,(t-5,t-7)}$ denotes the prices difference between the starting year price of year $t-5$ and the ending price of year $t-7$ for firm i . $D_{i,t-n}$, $D_{i,(t-3,t-4)}$ and $D_{i,(t-5,t-7)}$ denote dummy variable of $RET_{i,t}$, $RET_{i,(t-3,t-4)}$ and $RET_{i,(t-5,t-7)}$. If $RET_{i,t-n}$, $RET_{i,(t-3,t-4)}$ and $RET_{i,(t-5,t-7)} < 0$ (bad news), $D_{i,t-n}$, $D_{i,(t-3,t-4)}$ and $D_{i,(t-5,t-7)}$ equal 1; instead, $D_{i,t-n}$, $D_{i,(t-3,t-4)}$ and $D_{i,(t-5,t-7)}$ equal 0 (good news). $E_{i,t}$ denotes the earnings of year t deflated by stock dividends factors and stock prices of firm i at beginning of year t .

Lin and Liu (2012) employ returns in prior periods as variables, because they measure the asymmetric timeliness of earnings by analyzing the lagged recognition of news in prior periods. Prior studies (e.g. Sloan 1993) suggest that stock returns contain both signal and noise components, and only signal contents of stock returns are informative. As information of stock returns is gradually reflected on earnings, the noises between earnings and returns increase. To mitigate the noises between earning


and returns, Lin and Liu (2012) employ aggregate returns in later periods, including leading three to four ($RET_{i,(t-3,t-4)}$) and five to seven ($RET_{i,(t-5,t-7)}$) period returns, as proxies of news.



The interactive coefficient (γ_n) is the difference in earnings responses (DERs) between good news (β_n) and bad news ($\beta_n + \gamma_n$). Positive γ indicates that earnings respond to bad news in a larger magnitude than to good news, vice versa. In multi-period, firms recognize bad news earlier than good news, and hence the DERs are more in short-term periods. As the lagged periods (time lags) increase, the DERs are supposed to decline due to the decrease in earnings responses to bad news. Hence, the coefficient γ is considered positive in short lagged periods (short-lags), but decays in long lagged periods (long-lags).

Empirical results find that the different earnings responses (DERs) are positive and more in short lags, but gradually decrease ($\gamma_0 > \gamma_1 > \gamma_2 > 0$) as time lags increase. DERs turn negative in γ_4 and γ_5 , indicating the earning responses to bad news turn less than good news in long lags. The results show that asymmetric timeliness of earnings is higher in short lags, but decreases as time lags increase. Lin and Liu (2012) suggest that the multi-period effect should be considered in estimating the asymmetric timeliness in Basu (1997) measurement.

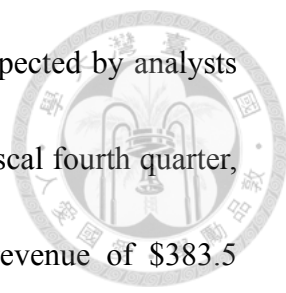
3.2 Concept of Current Group and Future Group



Due to different characteristics of news, firms recognize news in different speeds. To measure the impact of relative speed of recognition of news itself in Basu (1997) measurement, I classify news into Current Group and Future Group according to relative speed of news recognition without considering the possible impact of accounting conservatism on earnings recognition. The speed of news recognition in Future Group is expected to be slower than in Current Group. Namely, the news in Future Group is recognized in longer-term periods, and the news in Current Group is recognized in shorter-term periods.

For example, the following news describes the analysis of fourth-quarter profit of Airgas Inc. Due to the cost fluctuations, Airgas Inc. might fall below the expectation of earnings. The news of cost fluctuation is soon recognized in concurrent earning, and thus such news is classified in Current Group.

“Airgas Inc. warned that its fiscal fourth-quarter profit will fall well short of expectations, because of rising fuel, health and wage costs, some related to electronic commerce initiatives and the integration of regional operations. The news sent the shares of the Radnor, Pa., company down 27%, or \$2.1875, to \$5.875 in 4 p.m. New York Stock Exchange composite trading Friday, the distributor of medical and industrial gasses said it expects earnings for the quarter ended March 31 to be between eight cents to 10

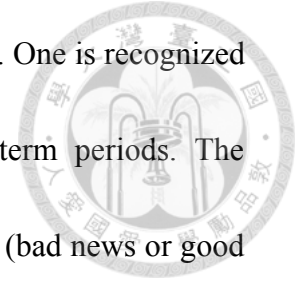


cents a diluted share, well below the 16 cents a share expected by analysts surveyed by First Call/Thomson Financial. In the 1999 fiscal fourth quarter, Airgas earned \$8.1 million, or 11 cents a share, on revenue of \$383.5 million. Excluding one-time items, the profit was 10 cents a share.” (*The Wall Street Journal*, 2000/05/01)

Another example shows that AT&T Wireless will issue liabilities and preferred securities to raise capital. Such news is classified in Future Group, because AT&T Wireless will recognize interest expense and preferred stock dividends through periods.

“As part of the deal, AT&T Wireless will assume \$2.1 billion in net debt plus about \$221 million in preferred securities. AT&T Wireless said it will offer Tele Corp shareholders 0.9 share of AT&T Wireless stock for each share of Tele Corp. For Tele Corp, the deal caps a two-year history as a publicly traded firm. Tele Corp, which is already 23%-owned by AT&T Wireless and is one of its affiliates, has long been considered a potential takeover target for the national firm. "AT&T Wireless is the most logical exit strategy for Tele Corp," said Mike Hannon, a board member of Tele Corp and a founding investor in the firm.” (*The Wall Street Journal*, 2001/10/9)

Examples above show different speeds of recognition of news. One is recognized soon in concurrent year, and the other is recognized in long-term periods. The different speeds of recognition exist even in the same type of news (bad news or good news), and the different in speed of news recognition would affect earnings responses of good news and bad news under conservatism.



3.3 Current Group and Future Group in Conservatism

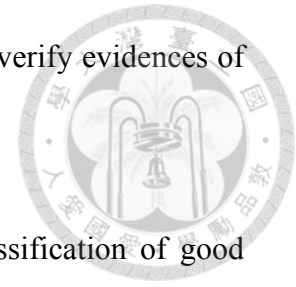
3.3.1 Asymmetric Timeliness in Current Group and Future Group in

Multi-Period

This study extends the Basu (1997) measurement and further elaborates the relative speed in Future Group and Current Group in news recognition. It's natural that news in Future Group is recognized more slowly than in Current Group, but considering conservatism, the nature changes. Under conservatism, firms would oppositely recognize information of bad news in Future Group even earlier than in Current Group. Namely, the speed of news recognition in Future Group changes when facing bad news.

But the reverse recognition phenomenon doesn't exist in all condition. In another aspect, good news in Future Group is expected to be recognized more slowly than in Current Group. Under conservatism, firms recognized only "realizable" and "earned" revenues and gains. In Future Group, the information of news is spread in longer

periods than in Current Group, and hence firms take more time to verify evidences of good news in Future Group.



To sum up, news recognition is not only influenced by classification of good news and bad news, but also by the relative recognition speed of news itself. Basu (1997) measurement considers only different speeds of recognition of news in different types (good news or bad news), but not considers that the different speeds of news recognition even exist in the same type of news. Hence, I argue that Basu (1997) measurement only captures part of conservatism, and the different speeds of recognition of news should be considered in Basu (1997) measurement.

3.3.2 The Magnification Effect on Asymmetric Timeliness in Future Group

The classification of news in Future Group and Current Group not only affects news recognition under conservatism, but also changes the asymmetric timeliness of earnings. The information of news in Future Group is spread in longer periods than news in current group. It's difficult to measure the information in the future, and thus the news in Future Group contains more uncertainties than the news in Current Group. Hence, it's natural that firms take more conservative accounting (i.e. more asymmetric timeliness) to recognize the news in Future Group than in Current Group. Namely, firms recognize bad news in Future Group earlier than in Current Group, but good news in Future Group is recognized later than in Current Group. The reverse moving

direction (increase and decrease) in recognition of bad news and good news magnifies the asymmetric timeliness of earnings in Future Group. I suggest that the magnification effect in Future Group is extent of conservatism.



As mentioned above, firms would take more conservative accountings (i.e. more asymmetric timeliness) to recognize news in Future Group than in Current Group because news in Future Group contains more uncertainties than in Current Group. Under the premise, firms would pre-recognize information of bad news in Future Group in shorter-term periods than in Current Group to avoid overstatement of net income. Namely, the information of bad news in Future Group is recognized more than in Current Group in short-term periods. Hence, the earnings responses to bad news in Future Group decline faster than in Current Group as time periods increase (i.e. in long-term periods). In another aspect, firms need more time to verify the evidences of good news in Future Group, and thus good news in Future Group is recognized in longer-term periods than in Current Group. As time-periods increase, the information of good news is gradually recognized by periods, and thus the earnings responses to good news in Future Group become more than in Current Group. Due to the different moving directions (decrease and increase) in recognition of bad news and good news in long-term periods, the asymmetric timeliness in Future Group decreases more than in Current Group. Hence, the magnification effect decreases as

time periods increase (i.e. in long-term periods).

In summary, the recognition of news in Future Group is expected with more asymmetric timeliness of earnings (i.e. magnification effect) in short-term periods, and the magnification effect decreases as time periods increase. I argue that Basu (1997) measurement contains bias, because he only captures the asymmetric timeliness of earnings between good news and bad news, but not considers the speed of recognition of news itself which also affects asymmetric timeliness of earnings.

In prior chapter, I describe the different earnings responses to good (bad) news in Future Group and Current Group, and measure the asymmetric timeliness in Future Group and Current Group based on conservatism measurement as following hypotheses.

H1 : Bad news in Future Group is recognized earlier than in Current Group.


H2 : Good news in Future Group is recognized more slowly than in Current Group.

H3.a : The recognition of news in Future Group magnifies asymmetric timeliness in Current Group in short-term periods.

H3.b : Magnification effect of asymmetric timeliness in Future Group declines in long-term periods.

4. Data

4.1 The News Collections and Classifications



Different from prior studies which employ returns as proxies of news, I collect and read 5,196 pieces of news of S&P 500 companies covering the periods between years 2000 and 2010 from *The Wall Street Journal* to classify news into Future Group and Current Group. Thompson II, Olsen and Dietrich (1987) classify news of *The Wall Street Journal* into 12 categories depending on characteristics of news. I drop 3 categories¹ of 12, which don't affect earnings, and classify news into main 9 categories to measure the earnings responses to returns. To analyze the signal contents of news, I subdivide 9 main categories of news into subcategories to observe the contents of news in main categories.

I classify news into “Current Group” and “Future Group” from each category. Table 1 shows 9 main categories of news, and different ratio of “C” (Current Group) and “F” (Future Group) in each category. Due to different characteristics in 9 categories, the ratio of “C” and “F” differ in all categories. For example, Asset Change consists of 96.1% “F” and 3.9% “C”, because the news in Asset Change mostly concerns future operations, and is recognized in long-term periods. Comparatively, news in Forecast / Analysis is often classified as “C”, because the

¹ Three categories include “Earnings announcement”, “dividend announcements” and “not classifiable”.

news in the classification is about comment on performance or changes in revenue (cost) of firms, and is soon recognized in concurrent period.



Although most news is definitely identified in “F” and “C”, some news contains obscure information and is ambiguous to be classified, and thus such news is classified into “N” to be separated from “F” and “C”. I drop the 309 pieces of N (5.9% of total news), and keep only “F” and “C” news (4,887 samples of news) in database to mitigate the bias due to subjective determination, and Appendix A presents the subcategories of news and the selected examples.

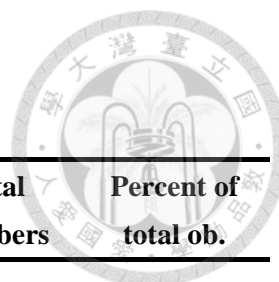
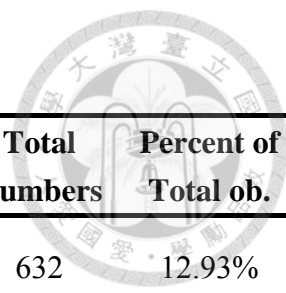


Table 1 News List

Panel A. Categories of New

News Type	Groups	Numbers	Percent	Total Numbers	Percent of total ob.
Asset Changes	C	75	3.90%	1922	39.33%
	F	1,847	96.10%		
Accounting / Corporate	C	107	57.22%	187	3.83%
	F	80	42.78%		
Labor-Related	C	22	6.49%	339	6.94%
	F	317	93.51%		
Product-Related	C	34	12.14%	280	5.73%
	F	246	87.86%		
Financial Distress	C	135	70.68%	191	3.91%
	F	56	29.32%		
Income-Tax-Related	C	16	51.61%	31	0.63%
	F	15	48.39%		
Capital / Ownership	C	13	22.81%	57	1.17%
	F	44	77.19%		
Forecast / Analysis	C	1068	95.78%	1115	22.82%
	F	47	4.22%		
Management-Related	C	104	13.59%	765	15.65%
	F	661	86.41%		
Total Observations	C	1574	47.51%		
	F	3313	67.79%		
	Total	4887	100.00%		

Notes: The column “percent” denotes the percentage of news in “C” or “F” in the category.

Table 1 News List*Panel B. News Divided by Year*


News Years	Group	Numbers	Percent	Total Numbers	Percent of Total ob.
2000	C	489	77.37%	632	12.93%
	F	143	22.63%		
2001	C	555	80.79%	687	14.06%
	F	132	19.21%		
2002	C	389	77.03%	505	10.33%
	F	116	22.97%		
2003	C	354	75.16%	471	9.64%
	F	117	24.84%		
2004	C	426	80.99%	526	10.76%
	F	100	19.01%		
2005	C	414	78.56%	527	10.78%
	F	113	21.44%		
2006	C	392	75.68%	518	10.60%
	F	126	24.32%		
2007	C	215	72.64%	296	6.06%
	F	81	27.36%		
2008	C	256	74.42%	344	7.04%
	F	88	25.58%		
2009	C	195	72.22%	270	5.52%
	F	75	27.78%		
2010	C	103	92.79%	111	2.27%
	F	8	7.21%		
Total Observations	C	1574	47.51%	4887	100.00%
	F	3313	67.79%		
Total		4887	100.00%		

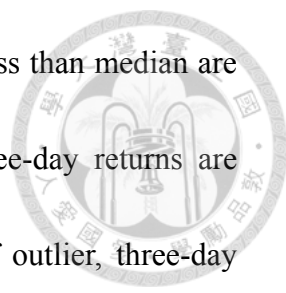
Notes: The panel above shows the categories of news distributions among years. The news in 2010 is less than other years, because the categories of news in 2010 consists more N than other year, so news in 2010 contains less samples than other years. From the panel above, it shows 67.8% of total news contains “F”, much higher than “C” (32.2%), because news itself provides future information to people.

4.2 Data Collections

As an event-study approach, I examine conservatism in an event-based data structure similar to Shroff, Venkataraman and Zhang (2013). They re-examine Basu (1997) measurement by using material three-day returns and quarterly earnings.

In my study, the annual EPS is employed as variable rather than quarterly EPS, because the news generally contains annualized information rather than quarterly information. I get year-end EPS of S&P 500 firms between the years 2000 and 2010 from COMPUSTAT, and the EPS is further deflated by stock prices at the beginning of the year to exclude the effect of stock prices fluctuation. Companies generally issue stock dividends to replace cash dividends. If firms issue stock dividends after the event date, the EPS in future periods can be diluted comparative with the current period, and hence I adjust EPS by deflating stock dividends factors. To drop the effect of outliers, the samples of EPS_{it} and aggregate EPS_{it+n} in the top or bottom extreme 0.5% of total samples are excluded.

The short-window returns (three-day returns) are employed in event-based approach, because annual returns might contain information of news in full year and obscure the information of specific news. I collect returns covering one day before event date to one day after event day of 4,887 samples. The holding returns represent the changes in returns caused by news during three-day periods.



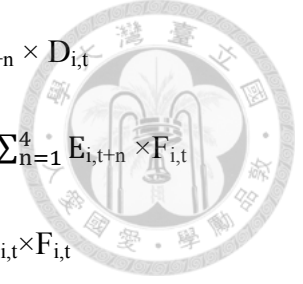
Further, the three-day returns which are 15% greater or 15% less than median are selected and defined as material returns, and those material three-day returns are employed as proxies of good (bad) news. To avoid the effect of outlier, three-day returns fall in the top or bottom 0.5% of the distributions are excluded from samples, and the descriptive statistic results are shown in Appendix B.

5. Model Design and Empirical Results

5.1 Model Design

Lin and Liu (2012) measure the multi-period effect in reverse regression as Basu (1997), and employ multi-period annual returns as proxies of good (bad) news to measure the asymmetric timeliness of earnings. Comparatively, in the event-based approach, I measure the impact of specific news by using short-window returns as proxies of good (bad) news because the annual returns might contain information of news in whole year and obscures the information of specific news. To consider the multi-period effect, I refer to regression in Warfield and Wild (1992), who use regression to measure the explanatory power of earnings over multi-period in explaining specific returns. The following equation is to examine impact of speed of news recognition itself on news recognition and asymmetric timeliness in multi-period under conservatism (i.e. H1, H2, H3.a and H3.b).

$$\begin{aligned}
RET_{i,t} = & \alpha_0 D_{i,t} + \beta_0 E_{i,t} + \beta_1 \sum_{n=1}^4 E_{i,t+n} + \gamma_0 E_t \times D_{i,t} + \gamma_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} \\
& + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_{i,t} \times F_{i,t} + \theta_1 \sum_{n=1}^4 E_{i,t+n} \times F_{i,t} \\
& + \lambda_0 E_{i,t} \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} \times F_{i,t}
\end{aligned}$$



$RET_{i,t}$ are short-window (three-day) stock returns of firm i at year t . $E_{i,t}$ are the earnings of firm i at year t , deflated by the starting stock prices of the year. $\sum_{n=1}^4 E_{i,t+n}$ are the aggregating earnings of firm i in multi-period. I use different lengths of periods as proxies of future periods. If $\max n = 1, 2, 3$ or 4 , the aggregate earnings are EPS_{t+1} , $(EPS_{t+1} + EPS_{t+2})$, $(EPS_{t+1} + EPS_{t+2} + EPS_{t+3})$ or $(EPS_{t+1} + EPS_{t+2} + EPS_{t+3} + EPS_{t+4})$. $D_{i,t}$ denotes dummy variables of $RET_{i,t}$, if $RET_{i,t} < 0$ (bad news), $D_{i,t}$ equals 1; instead, $D_{i,t}$ equals 0 (good news). $F_{i,t}$ denotes dummy variables of Future Group, if news is classified in Future Group, $F_{i,t}$ equals 1; instead, $F_{i,t}$ equals 0.

To measure the news recognition in multi-period, I employ $E_{i,t}$ and $\sum_{n=1}^4 E_{i,t+n}$ as proxies of earnings in current (short-term) period and in future (long-term) periods. Aggregate earnings are employed as variable rather than multi-period earnings for two reasons. (i) The regression is to measure the recognition of news in short-term and long-term periods, rather than recognition of news in each period. (ii) As time periods increase, the noise of news in earnings-returns relation increases, but the information of news is less recognized. Hence, aggregate earnings are employed as

proxies to reduce the noises in the earnings-returns relation.



The information of news in Future Group is recognized in longer-term periods, and it's difficult to measure the information in future. Hence, news in Future Group contains more uncertainties than in Current Group. Due to the uncertainties of news in Future Group, it's natural that firms take more conservative way (i.e. more asymmetric timeliness of earnings) to recognize news in Future Group. Namely, the bad news in Future Group is recognized earlier, and the good news in Future Group is recognized more slowly than in Current Group to avoid overstatement of net income. In the following, I measure the different earnings responses (DERs) to good (bad) news between Future Group and Current Group, and explain the changes in DERs in multi-period.

The coefficient $(\theta + \lambda)$ denotes the DERs of bad news between Future Group ($\beta + \theta + \gamma + \lambda$) and Current Group ($\beta + \gamma$) in different periods. Due to uncertainties of news in Future Group, firms would pre-recognize bad news earlier than in Current Group to avoid overstatement of net income. Namely, the information of bad news in Future Group is recognized more than in Current Group in current period. Hence, the coefficient in current period $(\theta_0 + \lambda_0)$ is considered positive.

In long-term periods, the earnings responses to bad news in Future Group decay

more than in Current Group as time periods increase, because the information of bad news in Future Group is recognized more in short-term periods than in Current Group.

Hence, the coefficient $(\theta_1 + \lambda_1)$ would decrease and turn negative in future periods.

To test H1, I expect that DERs of bad news between Future Group and Current Group are positive in current period, and decrease in future periods.

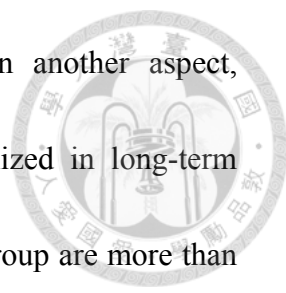
The different earnings responses (DERs) of good news between Future Group ($\beta + \theta$) and Current Group (β) are denoted by value (θ). Firms need more time to verify the good news in Future Group, and recognize good news in Future Group in longer-term periods than in Current Group. Hence, good news in Future Group is recognized less than in Current Group in short-term periods, and the coefficient in current period (θ_0) is considered negative in short-term periods.

As time periods increase, information of good news in Future Group is gradually recognized, and thus earnings responses to good news in Future Group increase in long-term periods. Comparatively, the information of good news in Current Group is recognized in shorter-term periods, and thus earnings responses to good news in Current Group gradually decay in long-term periods. Due to the increase and decrease in recognition of good news in Future Group and Current Group, the earnings responses to good news in Future Group would be more than in Current Group in

long-term periods. Hence, the DERs in future periods (θ_1) to good news between Future Group and Current Group are considered positive. To test H2, I expect that DERs of good news between Future Group and Current Group are negative in current period, and turn positive in future periods.

It's natural that firms take more conservative accountings (i.e. more asymmetric timeliness) to recognize news in Future Group, because the news in Future Group contains more uncertainties than in Current Group. Namely, the bad news in Future Group is recognized earlier, and the good news in Future Group is recognized more slowly than in Current Group to avoid overstatement of net income. The reverse moving direction (increase or decrease) in recognition of bad news and good news magnifies the asymmetric timeliness in Future Group in short-term periods. The asymmetric timeliness of earnings in Future Group ($\gamma + \lambda$) would be more than in Current Group (γ) in current period. I define the difference in asymmetric timeliness of earnings in Future Group and Current Group as magnification effect. To test H3.a, I expect that magnification effect (λ_0) in Future Group is positive in current period.

Considering the multi-period effect, the magnification effect in Future Group decays in future periods. The information of bad news in Future Group is recognized more in short-term periods. Hence, the earnings responses to bad news decay more in



Future Group than in Current Group in long-term periods. In another aspect, information of good news in Future Group is gradually recognized in long-term periods, and thus the earnings responses to good news in Future Group are more than in Current Group. Due to the increase and decrease in recognition of good news and bad news in Future Group, the asymmetric timeliness in Future Group decreases more than in Current Group. To test H3.b, the magnification effect (λ_1) in Future Group is expected to decrease compared with λ_0 .

5.2 Empirical Results

My main results are shown in Panel A, Table 2, and the coefficients of each variable are shown above in four lengths of periods. To simplify the coefficient listed in Panel A and analyze the different earnings responses (DERs) of good (bad) news, the incremental coefficients in current period and future periods are listed in Panel B.

Panel B shows the different earnings responses to bad news between Future Group and Current Group. The DERs of bad news between two groups are positive in current period ($\theta_0 + \lambda_0$), denoting that bad news in Future Group is recognized earlier than in Current Group in current period. In future periods, DERs of bad news between Future Group and Current Group in future periods ($\theta_1 + \lambda_1$) are positive in shorter-term periods (max $n=1$), and turn negative in longer-term periods (max $n=2, 3$ or 4). The

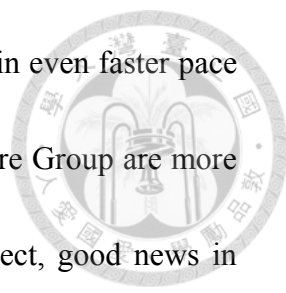
results show that information of bad news in Future Group is still recognized more than in Current Group next year, and is recognized less than in Current Group as time periods increase. These results are consistent with H1.



The different earnings responses (DERs) of good news between Future Group and Current Group (θ_0) in current period are shown in Panel A. The value of θ_0 is negative and statistically significant in current period. This indicates that good news in Future Group is recognized less than in Current Group in current period, consistent with H2. In future periods, the DERs of good news between Future Group and Current Group (θ_1) remain negative, inconsistent with H2. Under conservatism, good news in Future Group is recognized in longer periods than in Current Group, but due to constraints², the time lengths in regression are only up to five years. Hence, the good news in Future Group might not be fully recognized in five years, but is reflected in longer periods.

Due to different speeds of recognition of good (bad) news in Future Group and Current Group, it's suggested that the asymmetric timeliness of earnings is different in Future Group and Current Group. The following paragraph measures the difference in asymmetric timeliness between Future Group and Current Group in current period and future periods. The empirical results are shown in Panel A, Table 2.

² To avoid data missing due to long lags, I refer to Lin and Liu (2012), and adopt the time lags (5 years), containing more signal contents of news.



The results show the bad news in Future Group is recognized in even faster pace than in Current Group, and earnings responses to bad news in Future Group are more than in Current Group in current period ($\theta_0 + \lambda_0$). In another aspect, good news in Future Group is recognized in slower pace than in Current Group, and thus earnings responses to good news in Future Group are less than in Current Group in current period (θ_0). Such reverse moving directions (increase or decrease) in recognition of bad news and good news magnify the asymmetric timeliness in Future Group. The difference in asymmetric timeliness (λ_0) between Future Group ($\gamma_0 + \lambda_0$) and Current Group (γ_0) remains positive and statistically significant, indicating that the magnification effect exists in Future Group in current period. The results are consistent with H3.a.

As mentioned above, the results show the good news in Future Group is still recognized less than in Current Group after 4 years from current period (θ_1). But due to more decay in earnings responses to bad news in Future Group than in Current Group ($\theta_1 + \lambda_1$), the asymmetric timeliness in Future Group decays more than in Current Group in long-term periods. Hence, the magnification effect in Future Group in future periods (λ_1) still exists but decreases. The results are consistent with H3.b.

Table 2 Results for Effect of News in “Future Group” and “Current Group” on Multi-Period Earnings

Panel A. Choosing Positive (Negative) 35% Samples of 3-Day Return and Using 3 Day Return

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_{i,t} + \beta_1 \sum_{n=1}^4 E_{i,t+n} + \gamma_0 E_{i,t} \times D_{i,t} + \gamma_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_{i,t} \times F_{i,t} + \theta_1 \sum_{n=1}^4 E_{i,t+n} \times F_{i,t} + \lambda_0 E_{i,t} \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} \times F_{i,t}$$

Max n	1		2		3		4	
Ind. variable	Coefficient	P-Value	Coefficient	P-value	Coefficient	P-Value	Coefficient	P-Value
α_0	-0.1354	0 ^a	-0.1118	0 ^a	-0.1358	0 ^a	-0.1344	0 ^a
β_0	0.0317	0.249	-0.0037	0.871	0.0024	0.919	0.0103	0.668
β_1	-0.0482	0.044 ^b	-0.0103	0.193	-0.0074	0.214	-0.0045	0.318
γ_0	0.0106	0.789	0.0602	0.087 ^c	0.0319	0.366	0.0311	0.396
γ_1	0.1319	0.004 ^a	0.1087	0.002 ^a	0.0983	0.003 ^a	0.0812	0.013 ^b
θ_0	-0.0619	0.05 ^b	-0.0618	0.029 ^b	-0.0532	0.066 ^c	-0.0443	0.133
θ_1	-0.0288	0.35	-0.0321	0.179	-0.0451	0.041 ^b	-0.0692	0 ^a
λ_0	0.089	0.008 ^a	0.0917	0.031 ^b	0.095	0.026 ^b	0.0824	0.063 ^c
λ_1	0.0321	0.558	0.009	0.841	0.0122	0.779	0.0571	0.168
δ_0	-0.0085	0.001 ^a	-0.0078	0.003 ^a	-0.0088	0 ^a	-0.0093	0 ^a
ζ_0	0.0272	0 ^a	0.0255	0 ^a	0.0286	0 ^a	0.0289	0 ^a
Adj-R ²	64.01%		51.85%		63.76%		63.72%	
N	3242		3229		3202		2995	

Notes: $RET_{i,t}$ means short window(3-day) stock return of firm i at year t . $E_{i,t}$ indicates the earnings of firm i at year t deflated by starting stock price of year t . $\sum_{n=1}^4 E_{i,t+n}$ mean the aggregate EPS of firm i at future periods. $E_{i,t+n}$ are each deflated by starting stock price of year $t+n$, and the stock dividend factors. In this model, I drop the 3-day return samples fall in median $\pm 15\%$ to capture the effect of one piece of news on multi-period earnings. To eliminate the effect of outliers, I separately drop 1% of outliers in 3-day return. $E_{i,t}$ and $\sum_{n=1}^4 E_{i,t+n}$. A superscript of ‘a’, ‘b’ or ‘c’ indicates that result is significant at 0.01, 0.05 and 0.1 level in a one-tail test if the coefficient has the predicted sign.

Table 2 Results for Effect of News in “Future Group” and “Current Group” on Multi-period Earnings

Panel B. Difference in earnings responses to good news in Each Period

Max n	1		2		3		4		
Ind. Variable	Coefficien t	P-valu e	Coefficien t	P-valu e	Coefficien t	P-valu e	Coefficien t	P-valu e	
<u>Different Earnings</u>									
<u>Responses in Current</u>									
<u>Period</u>									
Good news	θ_0	-0.0619	0.05 ^b	-0.0618	0.029 ^b	-0.0532	0.066 ^c	-0.0443	0.133
<u>Different Earnings</u>									
<u>Responses in Future</u>									
<u>Periods</u>									
Good news	θ_1	-0.0288	0.35	-0.0321	0.179	-0.0451	0.041 ^b	-0.0692	0 ^a
N		3242		3229		3202		2995	

Notes: Panel C. shows the difference in earnings responses between Future Group and Current Group. The difference between incremental coefficients shows asymmetric timeliness of good news in two groups. A superscript of ‘a’, ‘b’ or ‘c’ indicates that result is significant at 0.01, 0.05 and 0.1 level in a one-tail test if the coefficient has the predicted sign.

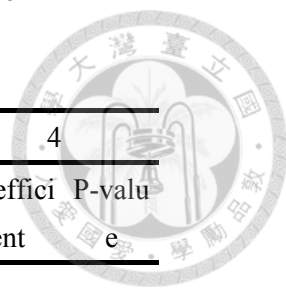
Panel C. Difference in earnings responses to bad news in Each Period

Max n	1		2		3		4		
Ind. Variable	Coefficien t	P-valu e	Coefficien t	P-valu e	Coefficien t	P-valu e	Coefficien t	P-valu e	
<u>Different Earnings</u>									
<u>Responses in Current</u>									
<u>Period</u>									
Bad news	$\theta_0 + \lambda_0$	0.0271	0.41	0.03	0.4076	0.0418	0.2344	0.0381	0.2636
<u>Different Earnings</u>									
<u>Responses in Future</u>									
<u>Periods</u>									
Bad news	$\theta_1 + \lambda_1$	0.0032	0.94	-0.0231	0.5572	-0.033	0.4029	-0.0121	0.7693
N		3242		3229		3202		2995	

Notes: Panel C. shows the difference between incremental coefficients shows asymmetric timeliness of bad news in two groups. A superscript of ‘a’, ‘b’ or ‘c’ indicates that result is significant at 0.01, 0.05 and 0.1 level in a one-tail test if the coefficient has the predicted sign.

Table 2 Results for Effect of News in “Future Group” and “Current Group” on Multi-period Earnings

Panel C. Difference in asymmetric timeliness of earnings in Each Period



Ind. Variable	Max n	1		2		3		4	
		Coefficient	P-value	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
<u>Different Earnings Responses in Current Period</u>									
News in "C"	γ_0	0.0106		0.0602		0.0319		0.0311	
News in "F"	$\gamma_0 + \lambda_0$	0.0996		0.152		0.1269		0.1135	
Magnification Effect	λ_0	0.089	0.008 ^a	0.0918	0.031 ^b	0.095	0.026 ^b	0.0824	0.063 ^c
<u>Different Earnings Responses in Future Periods</u>									
News in "C"	γ_1	0.132		0.1087		0.0983		0.0813	
News in "F"	$\gamma_1 + \lambda_1$	0.164		0.1177		0.1104		0.1384	
Magnification Effect	λ_1	0.032	0.558	0.009	0.841	0.0121	0.779	0.0571	0.168
N		3242		3229		3202		2995	

Notes: Panel D extends the estimation of Panel C., showing the incremental effect of different kinds of news s. I use the incremental coefficient to estimate the asymmetric timeliness of different kinds of news recognition. A superscript of ‘a’, ‘b’ or ‘c’ indicates that result is significant at 0.01, 0.05 and 0.1 level in a one-tail test if the coefficient has the predicted sign.

5.3 Robustness Test

The results are robust under standard of different magnitudes of returns besides positive (negative) extreme 35% of total observations. Other magnitudes of samples, such as positive (negative) extreme 30% and 25% of total samples, are adopted to measure the validity in my study. The results are robust as shown in Appendix C. Further, to measure if the result is consistent in different years, I further subdivide the samples in 3 periods, inclusive of 2000~2003, 2004~2007 and 2008~2010. The results are robust as shown in Appendix D.

6. Conclusion

The paper extends Basu (1997) measurement, and further examines the relative recognition speed of news itself in extent of conservatism. Basu (1997) first investigates the conditional conservatism, and employs positive (negative) returns as proxies of good (bad) news. Under conditional conservatism, firms recognize bad news earlier than good news. Hence, he suggests that the different earnings responses (DERs) to the news are extent of conservatism.

Basu (1997) considers only the asymmetric timeliness of earnings in concurrent period, but the earnings responses to good (bad) news change in each period. Lin and Liu (2012) find that asymmetric timeliness changes in each period (multi-period effect), and suggest that multi-period effect should be considered in measurement of conservatism.

The main empirical research in the paper is to measure relative recognition speed of news itself in asymmetric timeliness under conservatism. Basu (1997) and Lin and Liu (2012) measure the different speeds of news recognition between good news and bad news, but they don't consider the relative recognition speed of news itself. The difference in speed of news recognition exists even in the same type of news (good news or bad news), and affects the news recognition under conservatism.

To measure the impact of speed of recognition of news itself, I classify news into Future Group and Current Group. The news in Future Group is expected to be reflected in longer-term periods than in Current Group. But it's difficult to measure the information in

future periods, and thus the news in Future Group contains more uncertainties than in Current Group. Hence, Firms take more conservative accountings (i.e. more asymmetric timeliness) to recognize news in Future Group. Namely, firms take more time to verify the good news, but pre-recognize bad news in shorter-term periods to avoid overstatement of net income in Future Group. Due to the uncertainties of news in Future Group, the asymmetric timeliness in Future Group is magnified more than in Current Group. I argue that Basu (1997) measurement only captures part of conservatism, and the different recognition speeds of news itself should also be considered.

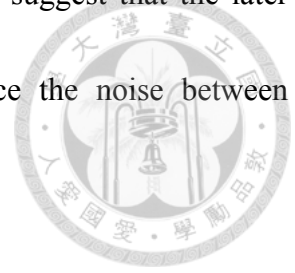
Furthermore, I argue that Lin and Liu (2012) measurement should consider the concept of speed of news recognition itself to capture full conservatism. Considering the different speeds of news recognition itself, the recognitions of bad news and good news alter in each period. Firms recognize more information of bad news in Future Group in short-term periods, and thus the earnings responses to bad news in Future Group decay in faster pace than in Current Group. In another aspect, information of good news in Future Group is recognized in longer-term periods than in Current Group. Namely, the earnings responses to good news in Future Group is more than in Current Group in long-term periods. Due to the different moving directions (decrease and increase) in earnings responses to bad news and good news, the magnification effect of asymmetric timeliness decays in long-term periods. It's suggested that when measuring extent of conservatism, the news should be compared in the same group and the same period. Otherwise, the asymmetric timeliness of earnings might contain bias

due to magnification effect in Future Group in multi-period.

There are some limitations in my research. First, I collect earnings data of S&P 500 firms between years 2000-2010. Firms recognize gain and loss depending on the accounting system, but the accounting system might alter with periods. Hence, the changes in accounting system might cause the data of earnings in my research loss consistency. Second, the earnings data is collected from WRDS. Although I get the complete and audited earnings data of S&P 500 firms, it's difficult to ascertain that firms don't make fraud or accounting mistakes in financial statement. Hence, the limitation in correctness of earnings data might affect my research.

The following lists some suggestion in my research. First, it's difficult to diagnose the pure "Current Group" and "Future Group" in real world. To measure the speed of recognition of news in Basu (1997) measurement, I classify the news directly into "Current Group" and "Future Group", but I don't further measure the degree of speed of news recognition in samples. The later studies may further measure "Current Group" and "Future Group" by the degree of relative news recognition speed. The second suggestion is that three-day returns and annual earnings are employed as variables to capture the earnings-returns relation in multi-period in my study. Due to the difference in daily and annual information, there might contain noise between short-window returns and annual earnings. Employing short-term earnings might mitigate the noise between short-windows returns and earnings, but annual earnings are employed due to annualized news data. Though I still captured the relation

between long-term period earnings and returns, but if it's possible, I suggest that the later studies would adopt quarterly earnings for specific news to reduce the noise between short-window returns and yearly earnings in multi-period.



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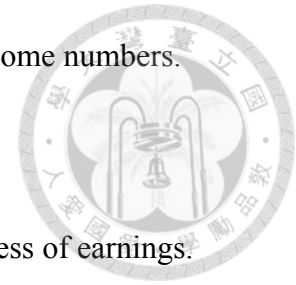
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Appendix

Appendix A. Categories of News

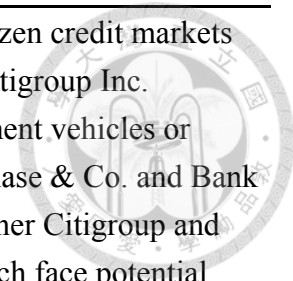
Panel A. Accounting / Corporate

Description of News Categories : The changes in companies' accounting system, fiscal year and corporate by laws

The category contains 187 samples (including 80 "F" and 107 "C")

News Type	Group	N	Example
Accounting Principle change	F	39	BB&T Corp.'s second-quarter net income fell 3.3%, hurt by a lease- accounting adjustment, though the Winston-Salem, N.C., bank-holding company said core operations benefited from growth in loans and fees and improved credit quality. BB&T reported net of \$386.8 million, or 70 cents a share, compared with \$400.1 million, or 72 cents a share, a year earlier. The latest quarter included a charge of \$26.6 million, or five cents a share, related to property and equipment leases.
Accounting Fraudulence	C	22	A former Bank of America Corp. executive alleged in an arbitration filing that the bank used "creative accounting" in booking financial losses and that executives were inappropriately ordered to make charitable and political contributions at the behest of the bank. The allegations are part of a claim filed yesterday by former Bank of America executive Duncan Goldie-Morrison with the National Association of Securities Dealers, which hears employment claims and other disputes in the securities industry. Until March, Mr. Goldie-Morrison was one of the highest-ranking executives at the bank's corporate- and investment-banking division. He ran the debt-raising business for bank clients foreign-exchange products and fixed-income research.
Accounting Mistakes	C	55	Tyco International Ltd. is investigating allegations of "improper" payments made by a non-U.S. subsidiary. Without disclosing the location of the unit, Tyco said the alleged misconduct took place from 1999 to 2003, according to a Securities and Exchange Commission filing. The Bermuda-based conglomerate said it is also trying to determine whether the payments were correctly recorded in the subsidiary's books.

	F	5	NEW YORK -- Avon Products Inc., the big direct seller of cosmetics and jewelry, said the Securities and Exchange Commission is investigating a \$10 million charge the company took in 1999 related to the write-off of computer software. The company "firmly believes that it was properly treated as a special charge," said Brian Martin, an Avon spokesman. "It appears to us that the SEC may be questioning more the size -- whether it should have been a larger or a smaller charge -- and the timing of the charge.
Accounting Policies (of corporation)	C	6	Tenet has struggled since disclosing in October that its once-robust growth depended largely on outlier payments. The payments are intended to offset the cost of treating the sickest patients, but Tenet's use of them effectively gouged the Medicare system. Stop-loss payments serve a similar function for private insurers. The disclosure triggered a management shake-up, a change in the company's billing policies, various government investigations and sharply reduced earnings forecasts.
	F	10	AOL Time Warner Inc. will reclassify \$1.5 billion of its mandatory convertible preferred stock issued to Comcast Corp. as liabilities, reducing shareholder equity. The New York media conglomerate said the reclassification in the quarter ending Sept. 30 is required to comply with a new accounting rule. The rule, FAS 150, mandates that an issuer classify certain financial instruments as a liability, or an asset in some circumstances.
Accounting Disputes Settlement	C	24	Citigroup Inc. agreed to settle a lengthy federal investigation into its accounting of Argentina bonds during the debt crisis earlier this decade, a move that will resolve another of the bank's outstanding legal issues. In reaching the settlement with the Securities and Exchange Commission, Citigroup agreed to cease and desist from future securities-law violations, a relatively light sanction. The SEC alleged Citigroup failed to keep accurate books and records and didn't maintain sufficient internal controls over accounting.



	F	5	Wall Street has a lot riding on the financial industry's effort to ease frozen credit markets by creating an \$80 billion rescue fund -- but no company more than Citigroup Inc. Supporting these off-balance-sheet funds, known as structured investment vehicles or SIVs, is the heart of the rescue effort led by Citigroup, J.P. Morgan Chase & Co. and Bank of America Corp. Accounting groups have raised the question of whether Citigroup and other managers of the SIVs should account for the funds, many of which face potential losses, on their own balance sheets.
Other Information	F	6	Audit Regulation
	F	15	Corporate Bylaw



Appendix A. Categories of News

Panel B. Asset Changes

Description of News Categories : The changes in companies' asset, department and business.

The category contains 1922 samples (including 1847 "F" and 75 "C")

News Type	Group	N	Examples
Acquisitions of Corporate Entities / Operations	F	1195	Wells Fargo & Co. said it agreed to buy ACO Brokerage Holdings Corp., parent of Acordia Inc., a privately held property-and-casualty insurance agency. Terms of the deal weren't disclosed, but Wells Fargo, a San Francisco financial-services company, said the acquisition of Chicago's Acordia will be its largest insurance-company purchase to date.
Acquisitions of Tangible and Intangible Assets	F	82	United Parcel Service Inc. confirmed an agreement to purchase as many as 35 converted jumbo jets from Boeing Co. in a transaction that could be valued at more than \$2 billion. UPS plans to add the MD-11s to its existing 234-jet fleet, using the freighters from Boeing for international cargo shipments, particularly from the U.S. to Europe and Asia. The contract is a big boost for Boeing's aircraft-services business.
Dispositions of Corporate Entities / Operations	C	10	Agilent Technologies Inc. said it expects to record a gain of between \$600 million and \$700 million this fiscal year from the sale of its health-care products business to Philips Electronics NV of the Netherlands. The Palo Alto, Calif., maker of test and measurement equipment agreed in November to sell that unit for \$1.7 billion to Philips, the world's largest electronics manufacturer, but it didn't receive U.S. regulatory approval until May 31.
	F	319	Boeing Co., Seattle, said it signed an agreement to sell its sensors and electronic-systems unit for about \$84 million to DRS Technologies Inc. of Parsippany, N.J. The unit is one of the leading makers of electro-optical airborne and naval surveillance-and-targeting systems,

Dispositions of Tangible and Intangible Assets	C	44	El Paso Corp. agreed to sell power plants in Pakistan, Indonesia, Bangladesh and the Philippines to a unit of U.K. power-investment firm Globeleq Ltd. for about \$109 million as part of its plan to divest itself of its Asian power-plant portfolio. The sales are expected to be completed by the end of the fourth quarter, the Houston natural-gas company said. El Paso said it has contracted to sell or has sold all but one of its Asian power plants, for expected proceeds of \$463 million.
	F	58	Brascan Corp. agreed to buy Weyerhaeuser Co.'s timberlands and sawmills along the British Columbia coast for \$1.1 billion. The assets include 635,000 acres of private timberlands, annual harvesting rights to 4.7 million cubic yards of timber on land owned by the provincial government, and five lumber mills with total annual production of 690 million board feet.
Spin off Operations	F	16	The spinoff was announced last August by Abbott Chief Executive Miles White, who said it would allow Abbott to concentrate on higher- growth segments of its medical-products business.
Capital Expansion Plans	F	54	Norfolk Southern Corp. plans to spend \$747.2 million in capital projects this year, primarily to maintain its railroad infrastructure and allow for expansion of track, locomotives and equipment. The plan includes capacity increases to eliminate bottlenecks in Ohio and Pennsylvania.
Form a Joint Venture	F	75	J.P. Morgan & Co. will announce today a new venture with Electronic Data Systems Corp. allowing clients to use Internet-based technology to outsource much of the trade-processing of derivatives trades. The venture, called Arcordia, is one of the first major new initiatives to come out of LabMorgan, the New York bank's new Web incubator.

Merge of Operations	F	12	AT&T Corp., which is close to an agreement with Comcast Corp. that will allow both companies to resume talks on merging their cable operations, has also spoken with all four regional Bell companies about possibly merging with or acquiring AT&T's business and consumer long-distance telephone units, according to people close to the situation.
Restructuring Plan or Reorganization	C	11	Procter & Gamble Co. said its fiscal fourth-quarter earnings would be at the high-end of its forecast, driven by gains in volume and sales and by gross-margin improvements.
	F	23	Intel Corp. announced a major reorganization of its struggling communications efforts, less than a week after announcing a \$600 million write-off in the company's wireless chip business. As part of the changes, Intel's communications group, which makes chips for networking devices, will absorb the separate wireless communications and computing group, which mainly supplies chips for cellular phones.
Write off the Value of Assets	C	7	CSX's first-quarter net reflected increases in some expenses, including write-downs of investments in non-rail affiliates that offset improvements in operating income.
	F	4	Managed-care concerns such as Humana have been hit hard by federal and state reimbursement cuts and higher costs; Physician Corp. of America additionally has had difficulty with its financial relationships with doctors and other providers as well as its troubled workers' compensation business. Humana said it is evaluating the goodwill associated with certain acquisitions, including the purchase of Physician Corp. of America.
Other Information	F	1	Sale Leaseback
	C	1	Removed from or Cancellation of a Joint Venture
	F	3	
	C	2	Shut down
	F	5	



Appendix A. Categories of News

Panel C. Accounting / Corporate

Description of News Categories : The changes in companies’ liabilities or equity to gain (lessen) capital.

The category contains 57 samples (including 44 “F” and 13 “C”)

News Type	Group	N	Examples
Liability Repay / Buyback	F	9	Insurance giant American International Group Inc. said it is bailing out a \$2.5 billion structured investment vehicle, or SIV, managed by its derivatives arm. Under the rescue plan, an arm of AIG will repay the senior debt of the SIV, Nightingale Finance, as it matures and keep financing its portfolio of bank debt and asset-backed securities with repurchase agreements, a type of short-term funding.
Liability Issue	F	35	A Cablevision Systems Corp. unit borrowed \$3.5 billion under its credit pact to finance a special dividend proposed by the company, the cable-television provider said. The company, based in Bethpage, N.Y., reached an agreement Monday that settled a suit filed by shareholders that sought to prevent the company from paying the dividend.
Stock Option	C	13	It said it took a \$55 million charge for stock options exercised last year and a \$57 million charge for increasing the strike price for options that have not yet been exercised. UnitedHealth spent the last year trying to recover from a backdating scandal, which resulted in the resignation of Chief Executive William McGuire.

Appendix A. Categories of News

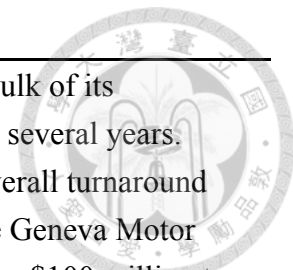
Panel D. Forecast / Analysis

Description of News Categories : Forecast and analysis to changes in companies' operations.

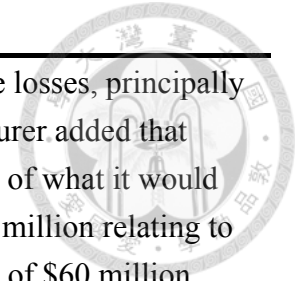
The category contains 57 samples (including 44 "F" and 13 "C")

News Type	Group	N	Examples
Sales Growth (Down)	C	596	3M Co. raised its first-quarter forecast saying sales growth was good in its industrial, safety, consumer and electronics businesses. The St. Paul, Minn., maker of thousands of products from electronics to notepads said it expects to report earnings of \$1.15 to \$1.16 a share, up from its earlier estimate of \$1.10 to \$1.14 a share. The manufacturer also said it expects sales growth of 8%, rather than the 4% to 7% it had forecast.
	F	23	Amgen Inc. said it expects accelerating earnings and revenue growth next year. The biotechnology company said it expects per-share earnings to grow at least 20% in the coming year, compared with its estimate of at least 10% growth in 2001. Product sales, bolstered by a recently approved second-generation anemia treatment Aranesp, could rise as much as 19% next year.
Cost Growth (Down)	C	128	Aetna Inc. warned that its second-quarter earnings would be far lower than expected because of unexpectedly high medical costs, a setback for the nation's largest health insurer as it tries to turn itself around. Investors and analysts said Aetna management has been distracted by internal turmoil surrounding the insurer's decision to split in two and generally recast the company.





	F	10	<p>Ford Motor Co.'s European arm is seeking to reduce spending on the bulk of its components by as much as 13%, or more than \$1 billion, over the next several years. Driving down component costs in 2004 is a key to Ford of Europe's overall turnaround strategy, Lewis Booth, the division's chief operating officer, said at the Geneva Motor Show. Last year, Ford of Europe lost \$1.1 billion and is expected to lose \$100 million to \$200 million this year.</p>
Market Competition	C	19	<p>Advanced Micro Devices Inc.'s second-quarter net income plunged 92%, reflecting falling demand for some memory chips as well as a fierce price battle with rival Intel Corp. amid slowing demand for personal computers. The Sunnyvale, Calif., semiconductor maker said sales may decline further in the third quarter, which could result in a loss for the period. AMD also said it is reducing 2001 capital-spending plans to \$900 million from \$1 billion and may scale it back further.</p>
Price Up (Down)	C	36	<p>Best Buy Co. lowered its estimate for fiscal fourth-quarter earnings, hurt by inventory markdowns and lower prices from promotions. The Richfield, Minn., consumer-electronics retailer said it expects to report earnings at the low end of, or slightly below, its forecast of \$1.56 to \$1.66 a share for the quarter ended Feb. 26. Best Buy had reaffirmed that earnings forecast Jan. 6. For the year- earlier quarter, Best Buy reported net income of \$469 million, or \$1.42 a share, on revenue of \$8.45 billion.</p>
Performance	C	32	<p>Tax preparer H&R Block Inc. posted a bigger-than-expected loss for its fiscal second quarter and cut its earnings forecast for the year, as its poorly performing home-mortgage business dragged down earnings.H&R Block, Kansas City, Mo., had a loss of \$52.2 million, or 32 cents a share, for the period ended Oct. 31.</p>



Disaster / Disease / Terrible Attack	C	30	<p>American International Group Inc. expects its third-quarter catastrophe losses, principally related to Hurricane Katrina, will total \$1.1 billion. The New York insurer added that third-quarter insurance-related losses will total about \$900 million, net of what it would receive from reinsurers. The company expects to post charges of \$170 million relating to reinstatement premiums. In addition, AIG expects noninsurance losses of \$60 million, primarily from consumer- finance operations, investment-portfolio impairments and AIG-owned and -leased facilities. Several analysts said AIG's estimate was roughly in line with their expectations, or even a little better.</p>
Sale Agreement	F	7	<p>L-3 Communications Holdings Inc.'s first-quarter net income rose 17% on growth in its training, aircraft and electronics units, and the New York provider of military surveillance and communications systems raised its full-year outlook. It expects full-year profit of \$5.65 to \$5.75 a share and revenue of \$13.2 billion to \$13.3 billion. It said its 2007 outlook doesn't include estimated sales from a contract to provide Arabic linguists to the U.S. Army, which generated \$174 million in first-quarter sales. The Army in December awarded the contract to a team led by DynCorp International Inc., in a setback to L-3, which had inherited the contract, one of its biggest, when it bought defense company Titan Corp. The Government Accountability Office last month backed L-3's protest over the contract loss, and L-3 is operating under a three-month extension of the pact, valued at as much as \$4.65 billion over five years.</p>

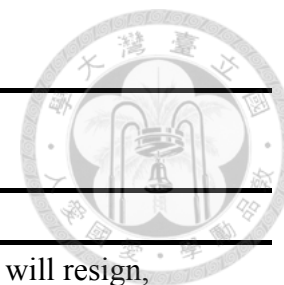
Appendix A. Categories of News

Panel E. Management-Related

Description of News Categories : The turn-over and compensation plans of companies.

The category contains 765 samples (including 661 “F” and 104 “C”)

News Type	Group	N	Examples
Management Personnel Leave (Resign / Retire / Fired)	F	154	Abercrombie & Fitch Co. said Chief Financial Officer Susan J. Riley will resign, effective Friday, for "family reasons" and to return to her home in New York. The New Albany, Ohio, casual-apparel retailer said it has begun a search for a successor to Ms. Riley.
Management Personnel Employment	F	427	AON Corp., the nation's No. 2 insurance broker, named Gregory C. Case president and chief executive, succeeding founder and longtime boss Patrick Ryan. The appointment comes a month after Aon settled a regulatory and legal investigation for \$190 million.
Compensation Plan	C	104	Coca-Cola Co. Chairman and Chief Executive Officer Douglas Daft received a \$4 million bonus for 2002, a 14% increase from his 2001 bonus of \$3.5 million. But he didn't receive any stock options or awards of restricted stock, according to the company's proxy filed with the Securities and Exchange Commission.
	F	80	Tyco International Ltd., said its board granted Edward Breen, the company's chairman and chief executive, restricted company shares valued at \$5.6 million at current market prices and options to purchase another 600,000 shares of stock at various strike prices over the next three years.



Appendix A. Categories of News

Panel F. Product-Related

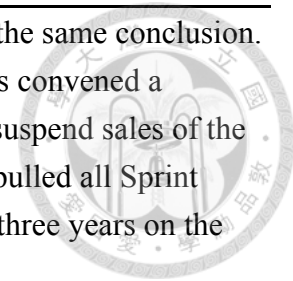
Description of News Categories : Changes in product, inclusive of design, manufacture and marketing.

The category contains 280 samples (including 246 "F" and 34 "C")

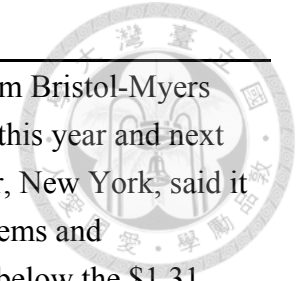
News Type	Group	Numbers	Examples
New Type of Products or Service	F	156	Wells Fargo & Co. plans to announce today a new online-banking tool that will help consumers figure how much they will need to sock away to reach certain savings goals. The tool expands the bank's money-management offerings that are available to customers who sign up for online banking and comes on top of an online tool the bank introduced last year that analyzes customer's spending patterns.
	C	1	Six years after it began testing a payment device that attaches to a key chain, American Express Co. is discontinuing its "Express Pay" fob that was touted as a convenience for consumers who didn't want to dig into their wallets for a credit card. The fob is one of a slew of newfangled payment methods introduced by the credit-card industry in recent years.
Discontinuance of Productions or Service	F	11	Southwest Airlines said it will discontinue service from one of the two Houston airports it serves, citing money-losing flights that are unsustainable in the troubled airline industry. The Dallas discount carrier said it will cease flights from Houston George Bush Intercontinental Airport -- one of its "smallest operations" -- in early April.
Marketing Activities	F	18	International Business Machines Corp., which coined the term "e-business," is teaming up with i2 Technologies Inc. and Ariba Inc. to launch a \$90 million global advertising campaign. The aim: To brand the trio's partnership.



	C	3	The Food and Drug Administration alerted health-care professionals to a recall of a Baxter Healthcare Corp. hemodialysis device used to filter blood in patients with damaged kidneys.
Regulatory Actions	F	13	Home Depot Inc. will pay \$510,000 in fines and revise its business practices as part of an agreement reached with the New Jersey attorney general's office following an investigation into whether the home-improvement retailer violated the state Consumer Fraud Act. The New Jersey Department of Consumer Affairs opened the investigation following dozens of consumer complaints against the Atlanta-based company related to its home-improvement practices, advertising policies and delivery of household furniture of its refund policy.
	C	1	Specialty pharmaceutical company Cephalon Inc. said a narcolepsy drug that it had been testing as a treatment for attention-deficit-hyperactivity disorder in adults failed to produce better results than a placebo.
R&D	F	13	Pfizer Inc. and Medarex Inc. agreed to collaborate on the discovery and development of as many as 50 antibody products over 10 years. The companies also cross-licensed some patents related to their antibody programs for patients with advanced prostate cancer.
Recalling	C	21	General Motors Corp. voluntarily recalled 450 Generation I EV1 electric cars and 450 Chevrolet S-10 electric pickup trucks. GM said the recall doesn't affect Generation II cars.



	F	1	It wasn't until this month that Medtronic of Minneapolis reached the same conclusion. On Oct. 7, Medtronic President and Chief Executive Bill Hawkins convened a meeting of top executives who decided that the company should suspend sales of the Fidelis leads. In one of the biggest recalls of a medical device, it pulled all Sprint Fidelis models from the market, citing five deaths in the devices' three years on the market.
Product	C	1	TD Ameritrade Holding Corp. and Ameriprise Financial Inc. said they will reimburse clients for up to a 3% loss in the Reserve Primary Fund, a money-market fund that broke the buck last week. The firms would commit as much as \$50 million and \$33 million, respectively, to mitigate possible client losses. Meanwhile, there is a bigger fight developing over who will get stuck with the losses from the fund. The drop stemmed from a combination of its investments in Lehman Brothers Holdings Inc. and a rapid exodus of large investors before the fund made its announcement and stopped permitting redemptions.
	F	11	Qualcomm Inc. signed an agreement yesterday with China's biggest mobile-phone maker to provide chipsets, software and technical support, a move that could make up for a costly delay in a deal with another Chinese phone company. The phone maker Eastcom said it would develop mobile handsets and wireless phone equipment based on Qualcomm's technology. The contract could be worth several million dollars to Qualcomm.
Production	C	6	Deere said sales of its construction and grounds-care equipment were dampened by a soggy spring, as were sales of its big tractors. As a result, the company will shut its Waterloo, Iowa, tractor-making facility for a week in April.



			<p>Pfizer Inc. soothed investors shaken by recent profit warnings from Bristol-Myers Squibb Co. and Merck & Co. by affirming earnings forecasts for this year and next and painting an upbeat picture for several years further out. Pfizer, New York, said it expects to earn at least \$1.30 a share in 2001, excluding certain items and merger-related costs, in line with previous guidance and a penny below the \$1.31 consensus compiled by Thomson Financial/First Call. Next year, Pfizer said it would earn \$1.56 to \$1.60 a share on the same basis, a 20% increase from 2001, and roughly in line with the consensus of \$1.59. Pfizer expects profit margins will continue rising, as sales grow and productivity improves.</p>
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	F	1	Diversification
	F	2	Reorganization of Products Businesses
	F	5	Product Overhaul or Upgrade
	F	2	Product Delivery
	F	3	New Market
	F	4	License
	C	1	Miscellaneous
	F	3	

Other Information



Appendix A. Categories of News

Panel G. Financial Distress

Description of News Categories : Contains news related to liabilities negotiation, lawsuit and bankruptcy negotiation.

The category contains 191 samples (including 56 “F” and 135 “C”

News Type	Group	N	Examples
Lawsuit	C	125	Energy company Dominion Resources Inc. agreed to pay a \$4.25 million penalty to settle Commodity Futures Trading Commission claims that its traders knowingly reported inaccurate natural-gas trading information to three energy publications that use the data to calculate price indexes.
	F	44	A former chief operating officer at a Marsh & McLennan Cos. unit sued the insurance broker, alleging he wasn't properly compensated after being fired in the wake of a 2004 bid-rigging scandal. Roger Egan, , said Marsh & McLennan refused to make payments owed to him despite saying he wasn't responsible for issues raised in the scandal.
Financial Distress	C	4	Berkshire Hathaway Inc., the investment vehicle of billionaire investor Warren Buffett, filed to offer \$700 million of debt securities to repay outstanding debt of two subsidiaries, according to a filing with the Securities and Exchange Commission.
	F	3	Because AMR Corp.'s American Airlines has been an all-Boeing customer for years, any potential trip to bankruptcy court could further add to Boeing Co.'s woes, both in the production of new airplanes and the financing of existing ones. Not only does Boeing finance a healthy chunk of debt for American, the airline is on the hook to take half of the jet manufacturer's already depressed 767 production this year, raising questions about whether Boeing might potentially be forced to lay off more people.
Bankruptcy Proceedings	C	3	Halliburton Co. and Honeywell International Inc., trying a new legal strategy, are hoping

the recent bankruptcy filings of two former units will help stanch their escalating asbestos-litigation woes. In essence, Halliburton and Honeywell have agreed to pay a combined \$260 million to RHI AG, an Austrian maker of fire-proof products, which now owns the two former units, to ease the bankruptcy-court proceedings.

A federal bankruptcy judge approved California's multibillion dollar bailout of Pacific Gas & Electric Co., clearing the way for the state's largest power utility to complete a stark reversal of fortune. U.S. Bankruptcy Judge Dennis Montali confirmed the utility's reorganization plan after several hours of legal wrangling over mostly administrative matters.

Other Information	C	3	Default on Debt Contracts
	F	3	
	F	1	Restructuring of Loan Agreements
	F	1	Miscellaneous

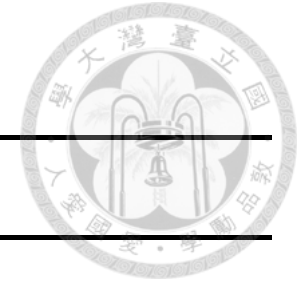
Appendix A. Categories of News

Panel H. Income Tax-Related

Description of News Categories : Disputes in income tax issue and increase (decrease) in income tax.

The category contains 31 samples (including 15 “F” and 16 “C”)

News Type	Group	Numbers	Examples
Internal Revenue Service Actions	C	6	AutoNation Inc., the big automotive retailer, said it will pay the Internal Revenue Service about \$470 million to settle a dispute over the company's handling of deductions for certain employee benefits. AutoNation, Fort Lauderdale, Fla., said that because it had already set aside \$670 million in reserves to cover a larger payment.
	F	11	The pending \$15 billion sale of a large foreign life-insurance unit of American International Group Inc. to MetLife Inc. is being held up by a tax dispute that may require a ruling from the Internal Revenue Service, according to people familiar with the matter. The tax issue could put the Department of the Treasury in an awkward situation.
Tax Refund and Benefit	C	5	J.P. Morgan Chase & Co. is nearing a deal that would allow it to benefit from a tax refund of as much as \$1.4 billion, becoming the latest company to tap a little-noticed plank in an economic stimulus bill. Law let companies apply losses from 2008 or '09 against taxes paid in the previous five years, instead of the previous two years.
	F	3	Corporate taxpayers won a round in the Supreme Court Tuesday in a case challenging the long arm of state tax collectors. In a unanimous decision, the justices said Illinois courts must take another look at whether the state can tax Ohio-based Mead Corp.
Other Information	C	2	American Jobs Creation Act (repatriation)
	C	1	Tax Expense
	F	1	
	C	2	Tax Rate



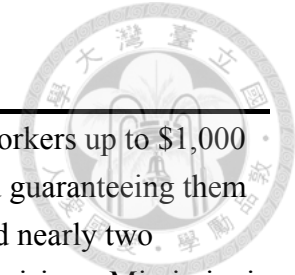
Appendix A. Categories of News

Panel F Labor-Related

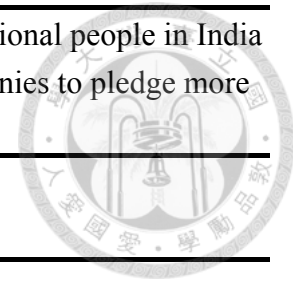
Description of News Categories : Changes in companies' employment, inclusive of salary, lay-off and employment of labors.

The category contains 339 samples (including 317 "F" and 22 "C")

News Type	Group	N	Examples
Employee Benefits (Non-Management Personnel)	C	3	Xerox Corp.'s pension plan was ordered by a federal judge to pay \$284 million to former workers as compensation for underpayment of retirement benefits. The ruling hits the company at a time when it is still straining under a heavy debt load and fierce competition in its core copying and printing markets.
	F	12	3M Co. confirmed it would eventually stop offering its health-insurance plan to retirees, citing the federal health overhaul as a factor. The changes won't start to phase in until 2013. But they show how companies are beginning to respond to the new law, which should make it easier for people in their 50s and early-60s to find affordable policies on their own.
Layoffs/Termination of Offer	C	5	Cummins Inc., Columbus, Ind., expects to eliminate 200 jobs as it folds heavy-duty engine assembly and test operations into a modern assembly line at its Jamestown, N.Y., engine plant. The diesel-engine maker said the affected employees are at its Columbus engine plant. The cuts represent less than 1% of the company's 24,900 employees.
	F	242	Yahoo Inc. is preparing to cut as many as 650 jobs, or almost 5% of its workforce, as early as Tuesday, according to people familiar with the situation. The cuts will be targeted at Yahoo's products group.



Job or Compensation Agreements	C	4	By the end of the week, the company was also offering its displaced workers up to \$1,000 in emergency assistance (roughly three weeks wages, and tax free) and guaranteeing them replacement jobs at any store in the U.S. In addition, Wal-Mart shipped nearly two thousand truckloads of merchandise to evacuation centers in Texas, Louisiana, Mississippi and Arkansas.
	F	13	Alcoa Inc. and the United Steelworkers reached a tentative agreement on a four-year contract last night, avoiding a strike by 9,000 workers at 15 U.S. plants, a company spokesman said. The deal was reached less than two hours before the contract expired at midnight Central time in St. Louis.
Closure / Idling Facilities or Plants	C	3	Eli Lilly & Co. closed two plants in July, according to a Securities and Exchange Commission filing. As a result of a review of its world-wide manufacturing capacity, the Indianapolis drug maker decided to close an Indianapolis plant where Elanco animal health-care products were produced, and a Taiwan plant where antibiotics for humans were made, Lilly spokeswoman Joan Todd said. Since the plants had "very small" operations, their closings affected a limited number of people, Ms. Todd said. Final numbers weren't immediately available.
	F	17	Eli Lilly & Co. said it may close two research facilities and one manufacturing plant in Europe in a step to bring development costs down from \$1.1 billion per drug to \$800 million per drug. Together, the three facilities employ just over 900 workers, said Philip Belt, a spokesman for the Indianapolis pharmaceutical company. Mr. Belt said the company notified workers' councils at each site that it wants to discuss the facilities' closure. He said consultation periods are required in Europe before facilities can close.



Personnel Hiring	F	19	Microsoft Corp. said it plans to invest \$1.7 billion and hire 3,000 additional people in India over the next four years, making it the latest in a line of foreign companies to pledge more than \$1 billion each to tap growth and talent in the subcontinent.
	C	1	
Other Information	F	1	Time Off without Pay
	C	2	
	F	4	Lawsuit
	F	5	Outsourcing
	C	3	
	F	2	Strike
	C	1	Occupational Safety
	F	1	Promotion
	F	1	Miscellaneous

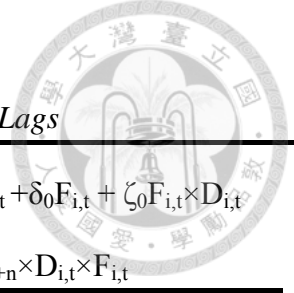
Appendix B. Descriptive Statistics

Panel A. Descriptive Statistics of Regression with One period Time-Lag

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_t + \beta_1 \sum_{n=1}^1 E_{t+n} + \gamma_0 E_t \times D_{i,t} + \gamma_1 \sum_{n=1}^1 E_{t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} \\ + \theta_0 E_t \times F_{i,t} + \theta_1 \sum_{n=1}^1 E_{t+n} \times F_{i,t} + \lambda_0 E_t \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^1 E_{t+n} \times D_{i,t} \times F_{i,t}$$

Ind. variable	Avg.	Min	Median	Max	Std.	Obs.
$RET_{i,t}$	-0.0028	-0.281	-0.1399	0.231	0.0712	3259
E_t	0.0292	-0.68	0.043	0.2471	0.0898	3247
$\sum_{n=1}^1 E_{t+n}$	0.0333	-0.6468	0.0487	0.2301	0.084	3257
$D_{i,t}$	0.4998	0	0	1	0.5	3261
$D_{i,t} * E_t$	0.012	-0.68	0	0.2471	0.0682	3247
$D_{i,t} * \sum_{n=1}^1 E_{t+n}$	0.0154	-0.6468	0	0.2301	0.0635	3257
$F_{i,t}$	0.647	0	1	1	0.478	3261
$F_{i,t} * D_{i,t}$	0.3177	0	0	1	0.4657	3261
$F_{i,t} * E_t$	0.0174	-0.68	0.01377	0.2471	0.0763	3247
$F_{i,t} * \sum_{n=1}^1 E_{t+n}$	0.0206	-0.6468	0.016	0.2192	0.0696	3257
$F_{i,t} * D_{i,t} * E_t$	0.007	-0.68	0	0.2471	0.0568	3247
$F_{i,t} * D_{i,t} * \sum_{n=1}^1 E_{t+n}$	0.0092	-0.6468	0	0.2192	0.0533	3257

Notes: $RET_{i,t}$ is short window (3-Day) stock return of firm i at year t . $E_{i,t}$ is the earnings of firm i at year t , deflated by the starting stock price of the year. $\sum_{n=1}^4 E_{t+n}$ is the aggregating earnings in future periods, I use different lengths of periods in aggregate earnings to measure in different aggregate time periods. The aggregate EPS consists of EPS_{t+1} in the regression. $D_{i,t}$ denotes dummy variable of $RET_{i,t}$, if $RET_{i,t} < 0$ (bad news), $D_{i,t}$ equals 1; instead, $D_{i,t}$ equals 0 (good news). $F_{i,t}$ denotes dummy variable of Future Group, if news is classified in Future Group, $F_{i,t}$ equals 1; instead, $F_{i,t}$ equals 0.



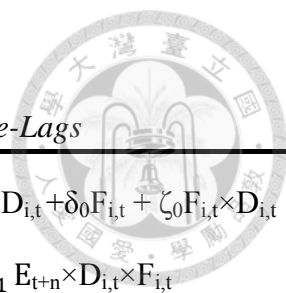
Appendix B. Descriptive Statistics

Panel B. Descriptive Statistics of Regression with Two period Time-Lags

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_t + \beta_1 \sum_{n=1}^2 E_{t+n} + \gamma_0 E_t \times D_{i,t} + \gamma_1 \sum_{n=1}^2 E_{t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_t \times F_{i,t} + \theta_1 \sum_{n=1}^2 E_{t+n} \times F_{i,t} + \lambda_0 E_t \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^2 E_{t+n} \times D_{i,t} \times F_{i,t}$$

Ind. variable	Avg.	Min	Median	Max	Std.	Obs.
RET _{i,t}	-0.0033	-0.281	-0.0011	0.231	0.0634	3271
E _t	0.0291	-0.68	0.0444	0.2471	0.0957	3259
∑ _{n=1} ² E _{t+n}	0.0666	-0.9506	0.1207	0.4319	0.1623	3241
D _{i,t}	0.510	0	1	1	0.5	3272
D _{i,t} * E _t	0.0126	-0.68	0	0.2471	0.0717	3259
D _{i,t} * ∑ _{n=1} ² E _{t+n}	0.0155	-0.8016	0	0.4294	0.0762	3266
F _{i,t}	0.6672	0	1	1	0.4713	3272
F _{i,t} * D _{i,t}	0.3392	0	0	1	0.4735	3272
F _{i,t} * E _t	0.0186	-0.68	0.0151	0.2471	0.0806	3259
F _{i,t} * ∑ _{n=1} ² E _{t+n}	0.0215	-0.8016	0.0138	0.4294	0.0782	3266
F _{i,t} * D _{i,t} * E _t	0.0083	-0.68	0	0.2471	0.0594	3259
F _{i,t} * D _{i,t} * ∑ _{n=1} ² E _{t+n}	0.01	-0.8016	0	0.4294	0.0616	3266

Notes: RET_{i,t} is short window (3-Day) stock return of firm i at year t. E_{i,t} is the earnings of firm I at year t, deflated by the starting stock price of the year. ∑_{n=1}⁴ E_{t+n} is the aggregating earnings in future periods, I use different lengths of periods in aggregate earnings to measure in different aggregate time periods. The aggregate EPS consists of (EPS_{t+1} + EPS_{t+2}) in the regression. D_{i,t} denotes dummy variable of RET_{i,t}, if RET_{i,t} < 0 (bad news), D_{i,t} equals 1; instead, D_{i,t} equals 0 (good news). F_{i,t} denotes dummy variable of Future Group, if news is classified in Future Group, F_{i,t} equals 1; instead, F_{i,t} equals 0.



Appendix B. Descriptive Statistics

Panel C. Descriptive Statistics of Regression with Three period Time-Lags

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_t + \beta_1 \sum_{n=1}^3 E_{t+n} + \gamma_0 E_t \times D_{i,t} + \gamma_1 \sum_{n=1}^3 E_{t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_t \times F_{i,t} + \theta_1 \sum_{n=1}^3 E_{t+n} \times F_{i,t} + \lambda_0 E_t \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^3 E_{t+n} \times D_{i,t} \times F_{i,t}$$

Ind. variable	Avg.	Min	Median	Max	Std.	Obs.
RET _{i,t}	-0.0023	-0.281	0.0145	0.231	0.0712	3296
E _t	0.0282	-0.68	0.0428	0.2471	0.0929	3284
$\sum_{n=1}^3 E_{t+n}$	0.1107	-1.1593	0.1529	0.6748	0.1987	3216
D _{i,t}	0.4818	0	0	1	0.4997	3298
D _{i,t} * E _t	0.0107	-0.68	0	0.2471	0.0695	3284
D _{i,t} * $\sum_{n=1}^2 E_{t+n}$	0.0134	-1.0261	0	0.4294	0.0762	3294
F _{i,t}	0.6471	0	1	1	0.478	3298
F _{i,t} * D _{i,t}	0.3041	0	0	1	0.4601	3298
F _{i,t} * E _t	0.017	-0.68	0.0138	0.2471	0.0786	3284
F _{i,t} * $\sum_{n=1}^3 E_{t+n}$	0.0203	-1.0261	0.01593	0.4294	0.0804	3294
F _{i,t} * D _{i,t} * E _t	0.006	-0.68	0	0.2471	0.0579	3284
F _{i,t} * D _{i,t} * $\sum_{n=1}^3 E_{t+n}$	0.0078	-1.0261	0	0.4294	0.0638	3294

Notes: RET_{i,t} is short window (3-Day) stock return of firm i at year t. E_{i,t} is the earnings of firm i at year t, deflated by the starting stock price of the year. $\sum_{n=1}^4 E_{t+n}$ is the aggregating earnings in future periods, I use different lengths of periods in aggregate earnings to measure in different aggregate time periods. The aggregate EPS consists of (EPS_{t+1} + EPS_{t+2} + EPS_{t+3}) in the regression. D_{i,t} denotes dummy variable of RET_{i,t}, if RET_{i,t} < 0 (bad news), D_{i,t} equals 1; instead, D_{i,t} equals 0 (good news). F_{i,t} denote dummy variable of Future Group, if news is classified in Future Group, F_{i,t} equals 1; instead, F_{i,t} equals 0.

Appendix B. Descriptive Statistics

Panel D. Descriptive Statistics of Regression with Four period Time-Lags

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_t + \beta_1 \sum_{n=1}^4 E_{t+n} + \gamma_0 E_t \times D_{i,t} + \gamma_1 \sum_{n=1}^4 E_{t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} \\ + \theta_0 E_t \times F_{i,t} + \theta_1 \sum_{n=1}^4 E_{t+n} \times F_{i,t} + \lambda_0 E_t \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^4 E_{t+n} \times D_{i,t} \times F_{i,t}$$

Ind. variable	Avg.	Min	Median	Max	Std.	Obs.
$RET_{i,t}$	-0.0028	-0.281	-0.0134	0.231	0.07105	3007
E_t	0.0275	-0.68	0.0411	0.2471	0.0889	2996
$\sum_{n=1}^4 E_{t+n}$	0.1513	-1.388	0.2036	0.7766	0.2404	3009
$D_{i,t}$	0.4998	0	0	1	0.5001	3009
$D_{i,t} * E_t$	0.011	-0.68	0	0.2471	0.0683	2996
$D_{i,t} * \sum_{n=1}^4 E_{t+n}$	0.0122	-1.0261	0	0.4294	0.0777	3009
$F_{i,t}$	0.6427	0	1	1	0.4793	3009
$F_{i,t} * D_{i,t}$	0.3147	0	0	1	0.4645	3009
$F_{i,t} * E_t$	0.017	-0.68	0.0131	0.2471	0.0736	2996
$F_{i,t} * \sum_{n=1}^4 E_{t+n}$	0.0177	-1.0261	0.0138	0.4294	0.0817	3009
$F_{i,t} * D_{i,t} * E_t$	0.0066	-0.68	0	0.2471	0.0557	2996
$F_{i,t} * D_{i,t} * \sum_{n=1}^4 E_{t+n}$	0.007	-1.0261	0	0.4294	0.0651	3009

Notes: $RET_{i,t}$ is short window (3-Day) stock return of firm i at year t . $E_{i,t}$ is the earnings of firm i at year t , deflated by the starting stock price of the year. $\sum_{n=1}^4 E_{t+n}$ is the aggregating earnings in future period use different lengths of periods in aggregate earnings to measure in different aggregate time periods. The aggregate EPS consists of $(EPS_{t+1} + EPS_{t+2} + EPS_{t+3} + EPS_{t+4})$ in the regression. $D_{i,t}$ denotes dummy variable of $RET_{i,t}$, if $RET_{i,t} < 0$ (bad news), $D_{i,t}$ equals 1; instead, $D_{i,t}$ equals 0 (good news). $F_{i,t}$ denote dummy variable of Future Group, if news is classified in Future Group, $F_{i,t}$ equals 1; instead, $F_{i,t}$ equals 0.

Appendix C. Categories of News Results for Effect of News on Multi-period Earnings in Different Magnitudes of Samples

Panel A. Choosing Extreme Positive (Negative) 25% Samples of 3-Day Return

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_{i,t} + \beta_1 \sum_{n=1}^4 E_{i,t+n} + \gamma_0 E_{i,t} \times D_{i,t} + \gamma_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_{i,t} \times F_{i,t} + \theta_1 \sum_{n=1}^4 E_{i,t+n} \times F_{i,t} + \lambda_0 E_{i,t} \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} \times F_{i,t}$$

Max n	1		2		3		4	
Ind. variable	Coefficient	P-Value	Coefficient	P-value	Coefficient	P-Value	Coefficient	P-Value
α_0	-0.1636	0 ^a	-0.1634	0 ^a	-0.1641	0 ^a	-0.162	0 ^a
β_0	0.0172	0.569	-0.0016	0.95	-0.0199	0.418	-0.0139	0.584
β_1	-0.0446	0.08 ^c	-0.019	0.079 ^c	-0.0027	0.705	-0.0025	0.629
γ_0	0.016	0.7	0.0286	0.446	0.0474	0.197	0.0491	0.201
γ_1	0.172	0.001 ^a	0.1355	0 ^a	0.1102	0.002 ^a	0.0977	0.006 ^a
θ_0	-0.0268	0.436	-0.0309	0.331	-0.0167	0.591	0.0014	0.964
θ_1	-0.0171	0.605	-0.0205	0.506	-0.0507	0.039 ^b	-0.0715	0 ^a
λ_0	0.0488	0.312	0.0715	0.116	0.0553	0.221	0.0292	0.533
λ_1	-0.0199	0.74	-0.0212	0.687	-0.0055	0.907	0.0275	0.537
δ_0	-0.0082	0.004 ^a	-0.0081	0.005 ^b	-0.0078	0.006 ^a	-0.0097	0.001 ^a
ζ_0	0.0301	0 ^a	0.0293	0 ^a	0.0295	0 ^a	0.0315	0 ^a
Adj-R ²	72.69%		72.74%		72.69%		72.25%	
N	2312		2300		2256		2135	

Notes: $RET_{i,t}$ means short window(3-Day) stock return of firm i at year t . I drop samples with less immaterial 3-day return. In this model, I drop the 3-day return samples fall in median $\pm 25\%$, and keep the extreme positive (negative) 25% to capture the effect of one piece of news on multi-period earnings.

Asymmetric Timeliness of Recognition in Each Period

Max n	1		2		3		4	
Ind. variable	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	
Asymmetric Timeliness in Current Period								
News in "C"	γ_0	0.016	0.0286	0.0474	0.0491			
News in "F"	$\gamma_0 + \lambda_0$	0.0648	0.1001	0.1027	0.0783			
Asymmetric Timeliness in Future Periods								
News in "C"	γ_1	0.172	0.1355	0.1102	0.0977			
News in "F"	$\gamma_1 + \lambda_1$	0.1521	0.1143	0.1047	0.1252			

Appendix C. Results for Effect of News on Multi-period Earnings in Different Magnitudes of Samples

Panel B. Choosing Extreme Positive (Negative) 30% Samples of 3-Day Return

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_{i,t} + \beta_1 \sum_{n=1}^4 E_{i,t+n} + \gamma_0 E_{i,t} \times D_{i,t} + \gamma_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_{i,t} \times F_{i,t} + \theta_1 \sum_{n=1}^4 E_{i,t+n} \times F_{i,t} + \lambda_0 E_{i,t} \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} \times F_{i,t}$$

Max n	1		2		3		4	
Ind. variable	Coefficient	P-Value	Coefficient	P-value	Coefficient	P-Value	Coefficient	P-Value
α_0	-0.1481	0 ^a	-0.1487	0 ^a	-0.1497	0 ^a	-0.1473	0 ^a
β_0	0.0267	0.319	0.0151	0.538	0.002	0.931	0.0075	0.758
β_1	-0.0398	0.096 ^c	-0.0184	0.056 ^b	-0.0066	0.284	-0.004	0.394
γ_0	0.0233	0.565	0.0256	0.491	0.0403	0.272	0.0416	0.276
γ_1	0.1165	0.015 ^b	0.1075	0.002 ^a	0.09	0.009 ^a	0.0712	0.035 ^b
θ_0	-0.0471	0.132	-0.0539	0.074 ^c	-0.0425	0.154	-0.0293	0.331
θ_1	-0.0229	0.463	-0.0219	0.447	-0.0465	0.05 ^b	-0.0694	0 ^a
λ_0	0.0591	0.207	0.0863	0.054 ^c	0.0727	0.103	0.0501	0.278
λ_1	0.027	0.635	0.005	0.918	0.0153	0.734	0.0618	0.146
δ_0	-0.008	0.002 ^a	-0.008	0.003 ^a	-0.008	0.002 ^a	-0.0092	0.001 ^a
ζ_0	0.0296	0 ^a	0.0297	0 ^a	0.0305	0 ^a	0.0313	0 ^a
Adj-R ²	68.24%		68.35%		68.34%		67.98%	
N	2778		2763		2710		2565	

Notes: RET_{i,t} means short window(3-Day) stock return of firm i at year t. I drop samples with less immaterial 3-day return. In this model, I keep the extreme positive (negative) 30% to capture the effect of news on multi-period earnings.

Asymmetric Timeliness of Recognition in Each Period

Max n	1	2	3	4	
Ind. variable	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	
Asymmetric Timeliness in Current Period					
News in "C"	γ_0	0.0233	0.025611	0.040297	0.04164
News in "F"	$\gamma_0 + \lambda_0$	0.0824	0.111899	0.11295	0.091707
Asymmetric Timeliness in Future Periods					
News in "C"	γ_1	0.116459	0.107531	0.089981	0.071232
News in "F"	$\gamma_1 + \lambda_1$	0.143458	0.112557	0.105249	0.133036

Appendix D. Results for Effect of News on Multi-period Earnings in Different Periods

Panel A Choosing Positive (Negative) 35% Samples of 3-Day Return and Using 3 Day Return between 2000 and 2003.

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_{i,t} + \beta_1 \sum_{n=1}^4 E_{i,t+n} + \gamma_0 E_{i,t} \times D_{i,t} + \gamma_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_{i,t} \times F_{i,t} + \theta_1 \sum_{n=1}^4 E_{i,t+n} \times F_{i,t} + \lambda_0 E_{i,t} \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} \times F_{i,t}$$

Max n	1		2		3		4	
Ind. variable	Coefficient	P-Value	Coefficient	P-value	Coefficient	P-Value	Coefficient	P-Value
α_0	-0.0767	0 ^a	-0.1228	0 ^a	-0.1227	0 ^a	-0.1219	0 ^a
β_0	0.1201	0.145	0.0129	0.71	0.0101	0.762	0.0235	0.51
β_1	-0.0062	0.858	-0.0151	0.222	-0.0085	0.243	-0.0074	0.223
γ_0	-0.0977	0.262	0.0323	0.496	0.0361	0.434	0.0223	0.642
γ_1	0.0139	0.805	0.0986	0.035 ^b	0.0917	0.04 ^b	0.091	0.04 ^b
θ_0	-0.1624	0.057 ^c	-0.0584	0.152	-0.0558	0.157	-0.0706	0.092 ^v
θ_1	-0.051	0.214	-0.0205	0.521	-0.0333	0.227	-0.0350	0.141
λ_0	0.2175	0.019 ^b	0.1078	0.056 ^c	0.101	0.067 ^v	0.1181	0.038 ^b
λ_1	0.1539	0.022 ^b	0.0398	0.5130	0.0533	0.364	0.0445	0.426
δ_0	0.0227	0 ^a	-0.0084	0.013 ^b	-0.0082	0.014 ^b	-0.0073	0.028 ^b
ζ_0	-0.0327	0 ^a	0.0302	0 ^a	0.0301	0 ^a	0.0295	0 ^a
Adj-R ²	47.6%		53.48%		53.47%		53.45%	
N	2133		2138		2143		2146	

Notes: $RET_{i,t}$ means short window(3-Day) stock return of firm i at year t. I drop samples with less immaterial 3-day return. In this model, I use the samples at event date between 2000 and 2003.

Asymmetric Timeliness of Recognition in Each Period

Max n		1	2	3	4
Ind. variable		Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient
Asymmetric Timeliness in Current Period					
News in "C"	γ_0	-0.0977	0.0323	0.0361	0.0223
News in "F"	$\gamma_0 + \lambda_0$	0.1198	0.1401	0.1371	0.1404
Asymmetric Timeliness in Future Periods					
News in "C"	γ_1	0.0139	0.0986	0.0917	0.091
News in "F"	$\gamma_1 + \lambda_1$	0.1678	0.1384	0.145	0.1355

Appendix D. Results for Effect of News on Multi-period Earnings in Different Periods

Panel B Choosing Positive (Negative) 35% Samples of 3-Day Return and Using 3 Day Return between 2004 and 2007.

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_{i,t} + \beta_1 \sum_{n=1}^4 E_{i,t+n} + \gamma_0 E_{i,t} \times D_{i,t} + \gamma_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_{i,t} \times F_{i,t} + \theta_1 \sum_{n=1}^4 E_{i,t+n} \times F_{i,t} + \lambda_0 E_{i,t} \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} \times F_{i,t}$$

Max n	1		2		3		4	
Ind. variable	Coefficient	P-Value	Coefficient	P-value	Coefficient	P-Value	Coefficient	P-Value
α_0	-0.0877	0 ^a	-0.0849	0 ^a	-0.084	0 ^a	-0.0819	0 ^a
β_0	0.0553	0.111	0.0274	0.328	0.0275	0.326	0.0292	0.297
β_1	-0.1046	0.023 ^b	0.0054	0.558	0.0065	0.388	0.0052	0.263
γ_0	0.0557	0.388	0.0989	0.099 ^c	0.1232	0.035 ^b	0.1077	0.066 ^c
γ_1	0.1621	0.015 ^b	0.0609	0.154	0.0239	0.443	0.0068	0.82
θ_0	-0.0779	0.133	-0.0519	0.274	-0.0519	0.274	-0.0475	0.321
θ_1	0.052	0.354	-0.0558	0.105	-0.0586	0.089 ^c	-0.0761	0.021 ^b
λ_0	0.0491	0.592	0.0135	0.882	-0.0183	0.833	-0.0156	0.858
λ_1	-0.0635	0.415	0.0351	0.547	0.0713	0.162	0.1245	0.014 ^b
δ_0	-0.0133	0.001 ^a	-0.009	0.004 ^a	-0.0088	0.006 ^a	-0.0079	0.011 ^b
ζ_0	0.0281	0 ^a	0.0249	0 ^a	0.0245	0 ^a	0.0212	0 ^a
Adj-R ²	50.36%		50.46%		50.34%		50.24%	
N	1813		1810		1808		1802	

Notes: RET_{i,t} means short window(3-Day) stock return of firm i at year t. I drop samples with less immaterial 3-day return. In this model, I use the samples at event date between 2004 and 2007.

Asymmetric Timeliness of Recognition in Each Period

Max n		1	2	3	4
Ind. variable		Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient
Asymmetric Timeliness in Current Period					
News in "C"	γ_0	0.0557	0.388	0.0989	0.099
News in "F"	$\gamma_0 + \lambda_0$	0.1048	0.98	0.1124	0.981
Asymmetric Timeliness in Future Periods					
News in "C"	γ_1	0.1621	0.015	0.0609	0.154
News in "F"	$\gamma_1 + \lambda_1$	0.0986	0.43	0.096	0.701

Appendix D. Results for Effect of News on Multi-period Earnings in Different Periods

Panel C Choosing Positive (Negative) 35% Samples of 3-Day Return and Using 3 Day Return between 2008 and 2010.

$$RET_{i,t} = \alpha_0 D_{i,t} + \beta_0 E_{i,t} + \beta_1 \sum_{n=1}^4 E_{i,t+n} + \gamma_0 E_{i,t} \times D_{i,t} + \gamma_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} + \delta_0 F_{i,t} + \zeta_0 F_{i,t} \times D_{i,t} + \theta_0 E_{i,t} \times F_{i,t} + \theta_1 \sum_{n=1}^4 E_{i,t+n} \times F_{i,t} + \lambda_0 E_{i,t} \times D_{i,t} \times F_{i,t} + \lambda_1 \sum_{n=1}^4 E_{i,t+n} \times D_{i,t} \times F_{i,t}$$

Max n	1		2		3		4	
Ind. variable	Coefficient	P-Value	Coefficient	P-value	Coefficient	P-Value	Coefficient	P-Value
α_0	-0.1324	0 ^a	-0.1328	0 ^a	-0.1411	0 ^a	-0.1412	0 ^a
β_0	0.0627	0.141	0.01	0.774	-0.0407	0.349	-0.0718	0.108
β_1	-0.1237	0.042 ^b	-0.0419	0.161	-0.0211	0.336	-0.0053	0.789
γ_0	-0.1255	0.121	-0.0659	0.367	-0.0047	0.954	0.0299	0.775
γ_1	0.2911	0.003 ^a	0.2153	0.004 ^a	0.217	0.004 ^a	0.1828	0.101
θ_0	-0.0917	0.056 ^c	-0.0784	0.074 ^c	-0.0212	0.673	0.0521	0.307
θ_1	0.0246	0.737	-0.004	0.954	-0.0076	0.882	-0.0528	0.314
λ_0	0.2087	0.016	0.1914	0.019 ^b	0.1296	0.143	0.0506	0.648
λ_1	-0.1774	0.098 ^c	-0.1503	0.123	-0.1657	0.074 ^c	-0.093	0.446
δ_0	-0.0135	0.023 ^b	-0.0125	0.048 ^b	-0.0126	0.059 ^c	-0.0203	0.008 ^a
ζ_0	0.0421	0 ^a	0.0430	0 ^a	0.0466	0 ^a	0.0598	0 ^a
Adj-R ²	55.63%		55.98%		67.61%		58.02%	
N	690		665		575		336	

Notes: RET_{i,t} means short window(3-Day) stock return of firm i at year t. In this model, I use the samples at event date between 2008 and 2010.

Asymmetric Timeliness of Recognition in Each Period					
Max n		1	2	3	4
Ind. variable		Incremental Coefficient	Incremental Coefficient	Incremental Coefficient	Incremental Coefficient
Asymmetric Timeliness in Current Period					
News in "C"	γ_0	-0.1255	-0.0659	-0.0047	0.0299
News in "F"	$\gamma_0 + \lambda_0$	0.0832	0.1255	0.1249	0.0805
Asymmetric Timeliness in Future Periods					
News in "C"	γ_1	0.2911	0.2153	0.217	0.1828
News in "F"	$\gamma_1 + \lambda_1$	0.1137	0.065	0.0513	0.0898