

# ACCOUNTING INFORMATION CONTENT AND TIMELINESS OF ANNUAL REPORT DISCLOSURE

## *An Evidence from China's Listed Companies*

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**Abstract:** In China, new corporate accounting standards and new CPAs auditing standards were mandatory implemented in 2007, which brought in more convergence with international standards. In the same year, the Administrative Measures on Information Disclosure for Listed Companies was also implemented, setting up more specific requirements on information disclosure for annual reports. Based on these institutional changes and current analysis of report disclosure, this study examines the timeliness of accounting information disclosure and related information content. Our findings provide evidences that in current China market, while the pattern of “slack starting and tight ending” continues, most listed corporations still won't disclose their information until latter half of report disclosure period, some evidence of improvements has begun to appear in comparison with previous years. The empirical results further suggest that compared with companies making late disclosures, firms making early disclosures tend to surprise the market with stronger price reactions, larger abnormal earning and more accumulative surplus profits. It also indicates that institutional changes have improved the timeliness of information disclosure; the timeliness does possess information capacity. The earlier a disclosure is made, the larger information content it may carry out, which is particularly reflected non-state enterprises and competition industry.

## 1 INTRODUCTION

Early or late disclosure of information may give rise to different degrees of market reaction. The timelier information disclosure it is, the stronger market reaction will be (Chen et al., 2005). As the market reaction is mainly reflected in the volatility of the stock price, timeliness of accounting information disclosure plays a critical role for investors' decision-making.

Disclosure of accounting information in China has always appeared in a pattern of “slack starting and tight ending”. Distributions of disclosure time are extremely uneven. Most listed companies choose to disclose their information just before the deadline (Haw et al., 2000). Companies with poor performances are even more seriously lagging behind (Chai & Tung, 2002). Compared with

developed countries, Chinese listed companies have more serious problems lagging of information disclosure. However, as the government regulations and business operations get improved over time, the situation may gradually change (McGee & Yuan, 2008).

China has begun to implement “Administrative Measures on Information Disclosure by Listed Companies” since 2007 and has thoroughly changed the disclosure rules of 1993 version, with a special emphasis on the importance of regulated timely information disclosure system. Since then, China Ministry of Finance has also implemented a set of new corporate accounting standards and new CPAs auditing standards with mandatory, which sets the Chinese system in more convergence with international standards. The standards require a higher quality of information disclosure and expand the scope of information disclosed.

With these institutional changes and development, what new trends in information disclosure will show whether the lagging situation will indeed get improved, what relationship between timeliness and market reaction will evolve, and whether the timeliness includes information content? This article will focus on these important issues. We have selected relevant data from 2007-2009 annual reports of listed companies in Shanghai and Shenzhen and developed test models of information content to study timeliness of information disclosure after the systematic changes.

## 2 LITERATURE REVIEW & HYPOTHESIS

Most of the previous studies on timeliness focus on two issues. One is analysis of the timeliness and its influencing factors; the other is the information content of timeliness. On the timeliness and its influencing factors, many scholars have conducted empirical researches based on different samples.

Based on a study of 588 firms' Annual reports in 1998 in Bangladesh, India and Pakistan, Kamran (2003) found that delay in information disclosure popularly exists among the listed companies in all of the three countries. And the results are apparently affected by lagging in auditoria practice of these countries. Whittred (1980) proved in his study that in Australian listed companies with reservation opinion to their audit reports will usually lag longer. More serious the enterprise's unclean opinion is, the longer the delay appears, and the lag of annual report disclosure therefore becomes even longer. There are many factors that may cause delay of audit, such as industry environment, unexpected surplus and the situation of auditors and other financial difficulties etc. Kinney & McDaniel (1993) conducted a research on these factors, and the result is consistent with the conclusion drawn above, that is, the process of unclean opinion leads to a longer delay of audit and therefore leads to delay of the annual disclosure.

Academic studies about the impact of "good news" and "bad news" on the information disclosure delay have obtained different results. The results of Chambers & Penman (1984), Kross & Schroeder (1984) showed that managers tend to release good news early, and bad news late. Compared to the previous studies, this time pattern of accounting information disclosure has been a consistent conclusions among most researches of this nature.

However, it was not the case in France, Germany and the UK. listed companies in these countries tended to report bad news earlier and good news later (Rees & Giner, 2001).

In china market, influenced by the political environment, social system and level of economic development, China is still in a process of economic transformation. Companies in such financial transformation are always far more behind in timeliness of information disclosure than the companies with established management system are, which may have caused the Chinese listed companies weaker in the timeliness (McGee,2007). But with institutional improving, the state gradually regulate the disclosure regime, the cost of late disclosure of listed companies will increase. Under the effect of instutional changes, as the improvement of operating results, internal control and financial system, the possibility of getting an unclean opinion has reduced. It is likely that the timeliness of Chinese companies issuing their financial statements and annual reports will be improved (McGee & Yuan, 2008). However, due to the big gap in general between China and developed countries in level of development, the overall lag in information disclosure will not have a substantial change.

Based on the analysis above, we come up with the first research hypothesis of this article:

H1: After the institutional changes, the overall trend of information disclosure of listed companies in China will continue show a delay, but the timeliness will be improved than before.

Early or late information disclosure has different information content, and there had not shown a information content decline during the last three decades (Landsman & Maydew, 2002). Gilvoly & Palmon (1982) found in their study on timeliness of annual report disclosure of listed companies in New York Stock Exchange during 1960-1974, that market price reacts stronger to earlier disclosure than later. It is suggested that more timely disclosure of information, the greater its information content becomes. This is consistent with China's market research findings (Chen et al., 2005). For companies in the same industry, late information disclosure may cause information leak more easily (Kross & Schroeder, 1984). However, during the Gulf crisis of the 1990s, petroleum refining companies, which delayed reporting extraordinarily high profits because of the political repercussions (Han & Wang, 1998). Research also shows that annual report disclosure in countries with a strong system of investor protection has more information content (DoFond et al., 2007).

Whether for investors or regulators, the listed companies' accounting information is an important tool to understand their business situation. It has important significance for making economic decisions. Timely disclosure of accounting information, on one hand, can reduce the possibility of management using information disclosure delay to engage in insider trading, and help to provide more reliable accounting information for external information users. On the other hand, it can help investors for rationally valuating the companies, preventing excessive pricing error. Conversely, it may lead to "information asymmetry". It will cause information delay and much adverse impact to policymakers, investors, regulators and many other stake holders. Specifically, as for external stakeholders, untimely accounting information may cause hazards. Firstly it increases investor's decision-making risk-lack of a deterministic decision-making basis; Secondly it damages the foundational status of accounting information, so that information users turn to other sources of information; Finally, it may create time condition for some companies to manipulate accounting information and prepare false statements.

According to the provision of China Securities Regulatory Commission (CSRC), the deadline of listed company annual report disclosure is next April 30 generally. If the company has special situation and can't disclose the annual report before April 30, it should apply to the CSRC. But the latest disclosure date can't exceed June 30. In the context of this system, with the impacts of listed companies' ownership structure and industry, early and late disclosure of information will have different market reactions, which will lead to the issues of timely disclosed information content.

In 2007, China implemented the new Enterprise Accounting Standards and the new auditing standards. Based on the changes, are the conclusions on information content still consistent with previous? There has been no evidence.

Based on the analysis above, We propose the second research hypothesis:

H2: Companies with early disclosure of their annual reports will get a stronger market reaction than those with later disclosure.

Since we use Abnormal Return (AR) and Cumulative Abnormal Return (CAR) to measure degrees of market reaction, the above hypothesis may be further explained as:

Companies with early disclosure of their annual reports will have definitely stronger AR and CAR than those with late disclosure.

### 3 METHODOLOGY & MODELS

#### 3.1 Timeliness of Accounting Information disclosure

The paper uses Rlag (Reporting Lag) as the proxy variable of timeliness (Chambers & Penman,1984). It refers to the interval between the date of annual report disclosure and accounting year end. We study the annual disclosure measurement with the specific situation of China's securities market and use trade date method to determine the Rlag. The Rlag is described as the number of trading days between the date of annual report disclosure and Dec.31st. The smaller the Rlag is, the timelier the reports disclosure is. If the company's annual report is disclosed during non-trading days, the disclosure date is determined as the first trading day following the disclosure date. Based on the above considerations, we define two time variables in this paper. One is URLag (Unexpected Reporting Lag), and the other is RLI (Reporting Lag INDUex). In this paper, we use Random-walking model "E(Rlag) = Rlag<sub>t-1</sub>" to calculate the Rlag. Therefore, URLag = Rlag<sub>t</sub> - Rlag<sub>t-1</sub>. Rlag<sub>t</sub> means the company i t-year's Rlag. RLI = n/N, "n" is equal to Rlag. "N" means the sum of trading days within the time limit of annual reports disclosure. In this paper N equals to 81.

We use the mean and t-test (Model 1) to measure the improvement of timeliness after the implementation of new institution. We compared the mean of Rlag during 2006-2009 to analyze the improvement of timeliness, especially in the late half of the disclosure period. In order to test hypothesis 1, we also analyzed the variation of March-disclosure percentage.

#### 3.2 Market Reaction

Investors' reaction in stock market is reflected mainly through stock prices. Therefore, we use Abnormal Return (AR) and Cumulative Abnormal Return (CAR) to measure the market reactions. AR is the estimated value of changes in the company stock price of the day caused by the events; it's the income that is unexpected, the difference between the actual return and expected return:  $AR_{it} = R_{it} - R_{mt}$ .  $AR_{it}$  means the company i t-day's abnormal returns.  $R_{it}$  means the company i t-day's daily return.  $R_{mt}$  means the company i t-day's expected daily return rate. In this paper, we count  $R_{mt}$  by using Market-adjustment model. That is, using the daily market yields weighted by total market value as an estimate of the expected rate of return. To a certain time

period, the sum of the daily abnormal returns is CAR.

Since this paper uses event-study to research the impact of timeliness on the stock, when calculating CAR, we need to set a time interval, which is also called event window. We should consider not only the duration of event influence, but also the interference from other events. In normal situation, a market reaction caused by information leaks has occurred usually before the annual report is disclosed, and the reaction does not last long. Based on this assumption, we pick [-20, -3] and [-20, 2] as event windows to measure the possible information leak. At the same time, we also pick [-5, 5], [-2, 2] and [-1, 1] as three symmetric windows to measure the market reaction to the report disclosure.

### 3.3 Research Model Design

The paper uses R<sub>Lag</sub>, U<sub>R</sub>Lag and RLI as variables to measure the timeliness of report disclosure. When measuring improvements of timeliness, we use NMar. We also use AR and CAR as the proxy variables of market reaction.

#### 3.3.1 Research Design for Hypothesis 1

This paper divides the sample into two groups by months and trading days, and uses descriptive statistics to analyze the status of annual reports disclosure during 2007-2009. Then three variables R<sub>Lag</sub>, U<sub>R</sub>Lag and RLI are analyzed to further examine the hypothesis 1.

We use the mean and t-test (Model 1) to measure the improvement of timeliness after the implementation of new institution. We compared the mean of R<sub>Lag</sub> during 2006-2009 to analyze the improvement of timeliness, especially in the late half of the disclosure period. In order to test hypothesis 1, we also analyzed the variation of March-disclosure percentage.

#### 3.3.2 Research Design for Hypothesis 2

By analysing the correlation between AR, CAR and R<sub>Lag</sub>, RLI, and grouping the samples according to certain standards, we can compare AR and CAR of both early and late disclosure companies.

Model 2: AR measures the change of company value caused by important events. We use model 2 to calculate the market reaction, based on the study of the connection between CAR and R<sub>Lag</sub> around the report disclosure date:

$$AR_{it} = \alpha_0 + \alpha_1 R_{Lag_i} + \varepsilon \quad (1)$$

AR<sub>it</sub> is the company i t-day's abnormal returns. R<sub>Lag<sub>i</sub></sub> is the company i t-day's report lag.  $\varepsilon$  is the random error.

Model 3 is used to make sure if CAR of early reporting disclosure companies is significantly higher than the late ones. It needs to compare the sample mean of two groups and make a t-test on the reporting lag. The standards of grouping are below:

(1) Firms disclose report in January and February (Early disclosure group) and firms disclose reports in March and April (Late disclosure group).

(2) U<sub>R</sub>Lag < 0 (Early disclosure group) and U<sub>R</sub>Lag >= 0 (Late disclosure group).

(3) RLI < 0.3 (Early disclosure group) and RLI > 0.7 (Late disclosure group).

Since some firm characteristics and market variables such as size, message type, audit opinion and the nature of ownership may affect the cumulative abnormal returns, they have to be controlled, in order to have a better review on the factors that affect the reaction proceeds during the period of annual report disclosure. Therefore, we have designed a multiple regression model (Model 4):

$$CAR = \beta_0 + \beta_1 U_{R}Lag + \beta_2 SIZE + \beta_3 PUBL + \beta_4 UE + \beta_5 EPS + \beta_6 LAR + \beta_7 AUDI + \beta_8 CONT + \beta_9 EXCH + \beta_{10} INDU + \beta_{11} YEAR + \varepsilon \quad (2)$$

In this model, SIZE means the company size. PUBL is the proportion of tradable shares. INDU means the industry. UE is the unexpected earnings. EPS is earnings per share. LAR is the asset-liability ratio. AUDI is the audit opinion. CONT is the nature of ownership. EXCH is type of the exchange. YEAR means for the year of reporting disclosure.  $\varepsilon$  is the random error.

### 3.4 Sample & Variables

Table 1 shows the interpretation of variables appeared in this paper:

Table 1: Variables.

Variable	Variable Description
R <sub>Lag</sub>	Trading days between the date of annual report released and Dec.31st
U <sub>R</sub> Lag	$U_{R}Lag = R_{Lag_i} - R_{Lag_{i-1}}$
RLI	$RLI = n/N$
AR	$AR_{it} = R_{it} - R_{mt}$
CAR	$CAR(t_1, t_2) = \sum AR_t$
SIZE	Natural logarithm of final total assets

Table1: Variables (cont.).

Variable	Variable Description
PUBL	PUBL=number of year-end floating stock/ total shares
INDU	Competitive industry INDU=1;else INDU=0
EPS	EPS= retained profits /year-end total shares
UE	UE=EPS <sub>t</sub> -EPS <sub>t-1</sub>
LAR	LAR=year-end total liability / year-end total assets
AUDI	clean opinion AUDI=; else AUDI=1
CONT	State-owned, CONT=0; else CONT=1
EXCH	Shenzhen exchange EXCH=1,Shanghai exchange EXCH=0
YEAR	Setting two dummy variables based on 2007

Considering the impacts of new accounting standards, we choose all companies that publish A share and listed on the Shenzhen or Shanghai exchanges as our sample. On this basis, the paper has removed the following types of listed companies:

- (1) Financial companies
- (2) ST / PT companies
- (3) Companies that disclose their annual reports later than Apr.30th.
- (4) Companies that miss part of the data or data can't be obtained.

Thus, there are a total of 2,927 sample companies in the paper.

### 3.5 Data Sources & Tools

In addition to the audit opinion data obtained from the wind database, other data are all from CSMAR database. The statistical tools used are STATA 11.0, Access2010 and SPSS 19.0.

## 4 FINDINGS

### 4.1 Describe Statistical Analysis

When examining research hypotheses 1, we make a basic descriptive statistical analysis on the variables of timeliness:

Table 2 reflects the descriptive statistics of distribution of listed companies annual reports disclosure time by month. It can be seen from the distribution that the number (1358) and the percentage (46.40%) of sample companies which choose to disclose annual reports in March is significantly more than that in January (63,2.15%)

Table 2: Frequency statistics of annual report disclosure 1.

Year/Sample	Months			
	Jan.		Feb.	
	Number	(%)	Number	(%)
2007(901)	34	3.77%	131	14.54%
2008(940)	7	0.74%	82	8.72%
2009(1086)	22	2.03%	121	11.14%
Sum(2927)	63	2.15%	334	11.41%

Year/Sample	Months			
	Mar.		Apr.	
	Number	(%)	Number	(%)
2007(901)	378	41.95%	358	39.73%
2008(940)	462	49.15%	389	41.38%
2009(1086)	518	47.70%	425	39.13%
Sum(2927)	1358	46.40%	1172	40.04%

and in February (334, 11.41%). It is slightly more than that in April (1172, 40.04%). The result shows that the number of firms choosing to disclose annual report in January and February is far less than that in March and April. The disclosure of annual report reflects hysteresis phenomena of delay as a whole.

Table 3: Frequency statistics of annual report disclosure 2.

Days	Year			Sum
	2007	2008	2009	
0-15	0	7	10	17
16-25	42	17	39	98
26-35	53	65	94	212
36-45	119	105	111	335
46-55	135	256	249	640
56-65	276	255	289	820
66-77	276	235	294	805
Sum	901	940	1086	2927

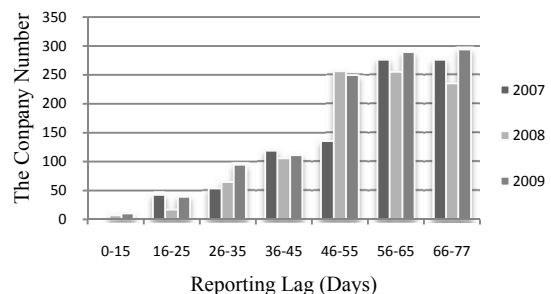


Figure1: Frequency distribution of annual report disclosure.

Table 3 shows the results of detailed statistical analysis of annual report disclosure frequency with 10 trading day as an unit. It further reflects the distribution of annual report disclosure time. The number of companies is respectively 640, 820 and 805, which choose to disclose annual report in the intervals of [46, 55], [56, 65] and [66, 77]. The number of the three intervals increases suddenly relative to the interval of [36, 45]. This phenomenon can be more intuitively observed in Figure 1. The result above further explains that a majority of companies disclose their reports in March and April. It also reflects the pattern of " slack starting and tight ending " mentioned previously.

Table 4: Frequency statistics of annual report lag.

Variable	Mean	Median	St. Dev	Min.	Max.
Rlag	55.2156	57	14.3224	9	77
RLI	0.6817	0.7037	22.5611	0.1111	0.9506
URLag	3.2928	0	0.1768	-64	77

Table 4 presents descriptive statistical analysis results of Rlag, RLI and URLag. The mean of Rlag is 55.2156 and the median of Rlag is 57. The mean of RLI is 0.6817 and the median of RLI is 0.7037. The evidence shows that a majority of China's listed companies choose relatively late disclosure of their annual reports and that the distribution of report disclosure time is not random.

The result of descriptive statistical analysis powerfully supports the relevant content of hypotheses 1: Disclosure of corporate annual reports in China is serious lagging.

Table 5: Compare of mean of Rlag.

mean-Rlag		t-test	
2006	2007	t-Value	p-Value
57.2433	55.4022	-2.6591	0.004**

Table 6: Mean of Rlag during 2006 - 2009.

Year	2006	2007	2008	2009
Rlag	57.2433	55.4022	55.1610	54.7360

Table 5 reflects the results of compare of mean-Rlag between 2006 and 2007. The result shows that in 2007 mean of Rlag is significantly less than that in 2006 ( $t=-2.6591$ ). It confirms that the timeliness of report disclosure has improved due to the

institutional changes in 2007.

Table 6 reflects the change of mean-Rlag during 2006 to 2009, and it finds that mean of Rlag decreased significantly in 2007 compared with 2006 while it maintained at the same level in 2008 and 2009. The result above suggest that the reform of new system has improved the situation of annual report disclosure lag overall, and the improvement was Long-term effective.

Table 7: Percentage of company disclosing report in Mar.

Year	2006	2007	2008	2009
Mar. (%)	35.6	41.9	49.1	47.7

Table 7 reflects the percentage of the number of companies disclosing annual report in March in 2006-2009. We can find that the percentage increased significantly during 2006 to 2008, and it tended to recede in 2009. The result shows that the percentage of the number of companies disclosing annual report in March had increased significantly due to the institutional reform.

The result suggest that the situation of timeliness of annual report disclosure has significantly improved in China after the reform of institution and the improvement mainly concentrated in the second half of the disclosure period combined with the analysis of Table 2 and Table 3.

## 4.2 Market Response Analysis

This paper uses two variables (AR and CAR) to measure the strength of the market reaction, and then studies the information content of timeliness. Table 8 to Table 12 present the results of AR and CAR caused by the timeliness of annual reports disclosure (Model 2-Model 4).

Table 8 presents the result of relevance analysis between AR and Rlag (Model 2). It shows that 12 trading days out of 17 observation days have significant regression coefficients at the 0.05 or 0.01 level. The statistical significance is more clearly reflected during the day 11 and the day 3 before the disclosure day. In addition, 14 regression coefficients are less than zero. The evidences above show that the smaller Rlag is, the bigger AR is, meaning that the more timely the disclosure of report is, the stronger the market reaction is.

Table 8: Abnormal returns around disclosure.

Days	Coefficient	t-Value	F-Value	Sig.
-11	-0.00008	-2.2556	5.0878	0.02418*
-10	-0.00020	-4.1674	17.3673	0.00003**
-9	-0.00011	-3.0942	9.5742	0.00199**
-8	-0.00012	-4.0002	16.0017	0.00006**
-7	-0.00011	-3.3588	11.2817	0.00079**
-6	-0.00014	-3.9048	15.2477	0.00009**
-5	-0.00007	-1.9650	3.8612	0.04952*
-4	-0.00007	-2.0294	4.1183	0.04252*
-3	-0.00012	-3.0250	9.1505	0.00251**
-2	-0.00003	-0.8820	0.7780	0.37783
-1	0.00003	0.8940	0.7993	0.37137
0	-0.00004	-1.0693	1.1433	0.28502
1	-0.00005	-1.3110	1.7187	0.18998
2	0.00002	0.4445	0.1976	0.65672
3	-0.00012	-2.9276	8.5706	0.00344**
4	-0.00012	-2.8417	8.0753	0.00452**
5	0.00008	2.1906	4.7988	0.02856*

\* Significant at the 0.05 level.

\*\* Significant at the 0.01 level.

Table 9 presents the result of mean differences comparative analysis of CAR grouped by report disclosure earlier and later (Model 3). Result shows that among all 5 intervals, there are 4 intervals who's CAR in early disclosure group (Jan. & Feb.) is significantly bigger than that in late disclosure group (Mar. & Apr.). This shows that listed companies with annual reports disclosed earlier will get better market reaction. It supports the hypothesis 2 of this paper.

Table 10 and Table 11 respectively show the results of comparative analysis of CAR while the samples are grouped by URLag and RLI (Model 3). The analysis results show that CAR in early disclosure group (RLI<0.3, URLag<0) is bigger than that in late disclosure group (RLI>0.7, URLag>0) among all the 5 intervals. And the result is significant in the intervals of [-20, -3], [-20, +2] and [-5, +5]. This reflects that the market reaction of early disclosure group is stronger than that of late disclosure group. The above results further support the research hypotheses 2 of this paper: Companies with early disclosure of their annual reports deliver a stronger market reaction than those with later disclosure.

Table 9: Cumulative Abnormal Return by bi-monthly sample.

Interval	Mean	
	Jan. & Feb.	Mar. & Apr.
[-20, -3]	0.090845	0.023563
[-20,+2]	0.098488	0.021351
[-5, +5]	0.039215	0.004218
[-2, +2]	0.007642	-0.002212
[-1, +1]	-0.001936	-0.00431
Interval	St. Dev	
	Jan. & Feb.	Mar. & Apr.
[-20, -3]	0.113971	0.110172
[-20,+2]	0.129946	0.126724
[-5, +5]	0.100501	0.096095
[-2, +2]	0.079571	0.073968
[-1, +1]	0.071061	0.057869
Interval	Z-Value	Sig.
[-20, -3]	-10.9849	0**
[-20,+2]	-11.0329	0**
[-5, +5]	-6.48868	0**
[-2, +2]	-2.31545	0.010294*
[-1, +1]	-0.63346	0.263215

\* Significant at the 0.05 level.

\*\* Significant at the 0.01 level.

Table 10: Cumulative Abnormal Return by RLI.

Interval	Mean	
	RLI<0.3	RLI>0.7
[-20, -3]	0.115494	0.014266
[-20,+2]	0.118977	0.009399
[-5, +5]	0.023766	0.002502
[-2, +2]	0.003483	-0.004867
[-1, +1]	-0.005702	-0.005694
Interval	St. Dev	
	RLI<0.3	RLI>0.7
[-20, -3]	0.119024	0.118076
[-20,+2]	0.128209	0.136097
[-5, +5]	0.110129	0.105047
[-2, +2]	0.090953	0.081236
[-1, +1]	0.080079	0.061966
Interval	Z-Value	Sig.
[-20, -3]	-8.323938	0**
[-20,+2]	-8.320053	0**
[-5, +5]	-1.894145	0.029103*
[-2, +2]	-0.903715	0.183073
[-1, +1]	0.001005	0.499599

\* Significant at the 0.05 level.

\*\* Significant at the 0.01 level.

Table 11: Cumulative Abnormal Return by URLag.

Interval	Mean	
	URLag<0	URLag>=0
[-20, -3]	0.041738	0.024931
[-20,+2]	0.043843	0.021501
[-5, +5]	0.015183	0.003634
[-2, +2]	0.002105	-0.00343
[-1, +1]	-0.001133	-0.006436
Interval	St. Dev	
	URLag<0	URLag>=0
[-20, -3]	0.107114	0.117377
[-20,+2]	0.124877	0.133158
[-5, +5]	0.094637	0.099478
[-2, +2]	0.072653	0.07655
[-1, +1]	0.059161	0.060292
Interval	Z-Value	Sig.
[-20, -3]	-8.323938	0.000026**
[-20,+2]	-8.320053	0**
[-5, +5]	-1.894145	0.000653**
[-2, +2]	-0.903715	0.022506*
[-1, +1]	0.001005	0.008280**

\* Significant at the 0.05 level.

\*\* Significant at the 0.01 level.

Finally, table 12 presents the result of relativity analysis between timeliness and CAR, after controlling the variables such as company features and market factors (Model 3). The regression analysis of CAR in the intervals of [-20,-3] and [-20, +2] shows similar features, i.e., the regression coefficient of URLag is negative number and it is statistically significant at the 0.01 level. The result shows that the CAR of early disclosure group is bigger than that of the late disclosure group.

Besides the performance variable EPS and CAR is positively correlated and the relationship of the audit opinion and the CAR is significant negative, which is consistent with previous researches. In addition, the nature of ownership variable CONT and CAR are positively correlated; reflecting that investor's expectations on the performance of non-state enterprises is lower than that of the state-owned enterprises in the Chinese market.

Therefore, the annual reports of non-state enterprises are more likely to surprise the market and achieve higher abnormal returns those of state enterprises do. The result also shows that INDU and CAR are positively correlated; meaning that compared with non-competitive industry protected

Table 12: Multivariate regression.

R <sup>2</sup>	CAR(-20,-3)		CAR(-20,2)	
	0.0434		0.0442	
Var.	coefficient	t-Value	coefficient	t-Value
URLag	-0.000912	-7.3**	-0.000959	-6.56**
SIZE	-0.01313	-6.65**	-0.014054	-6.08**
LAR	0.020623	1.77*	0.015413	1.13
PUBL	-0.013033	-1.46	-0.01297	-1.24
EPS	0.006208	1.21	0.010268	1.71*
UE	0.002824	0.53	0.001611	0.26
AUDI	-0.034434	-1.74*	-0.040022	-1.73*
EXCH	-0.01132	-2.65**	-0.005558	-1.11
INDU	0.006902	1.63	-0.002025	-0.41

\* Significant at the 0.05 level.

\*\* Significant at the 0.01 level.

by the government, the timeliness of report disclosure of competitive industry may cause stronger market reaction, and has more information content.

The above analysis shows that annual reports of the non-state listed company in a competitive industry have a strong market reaction with earlier disclosure, better performance and cleaner opinion, which further confirms the research hypothesis 2.

## 5 CONCLUDING COMMENTS

The paper empirically examines whether timeliness of China's accounting information has improved and possesses information content after a series of institutional changes, based on a sample of 2927 non-financial Chinese listed corporations during 2007-2009. We uses abnormal return (AR) and accumulative abnormal return (CAR) as proxy variables of market reaction and process the data through statistics and multiple regression analysis.

In the analysis of current situation and timeliness improvement, this paper firstly divides the sample into two groups by months and trading days, and uses descriptive statistic to analyze the current situation and the improvement of timeliness over time. The results prove that the information disclosure of listed companies in China has a trail in general. By comparing the mean of the Rlag during 2006-2007, it confirms that the timeliness of report disclosure has improved due to the institutional changes. This kind of improvement will last long



and mainly reflect on the late half of disclosure period.

In analysis of information content of timeliness, we firstly analyze the co-efficiency between reporting lag and abnormal returns. The empirical evidence suggests that the relationship between abnormal returns around announcement date and the reporting lag is obviously negative. Secondly, this paper conducts a comparative average analysis on the cumulative abnormal returns of the early disclosure group and the late disclosure group around the announcement date. The results show that the cumulative abnormal returns of early disclosure groups are greater than that of the late disclosure groups. Finally, in control of the company size, ownership nature, revenue, exchange and other variables, we further discussed the relationship between reporting delay and cumulative abnormal returns. Results of a multiple regression analysis confirm that early disclosure always has a stronger market response. All of the results above are consistent with the second hypothesis: In comparison with companies that make late announcements, companies that make early announcements tend to surprise the market with higher price reactions, which proves that timeliness has information content.

The new findings of this paper is that timeliness of information disclosure has improved and has information content in China market with some new characteristics since the new institutions were implemented. The results also confirm that in the emerging market of China, state-owned enterprises and enterprises in a competitive industry, the information content of timeliness of annual reports disclosures is more obvious.

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