

The Impact of Analyst Textual Sentiment Divergence on Stock Price Synchronicity: Empirical Evidence from Large-Scale Chinese Financial Text Data

Zhuohan Ren

*Department of Finance, Southwestern University of Finance and Economics, Chengdu, China
42304331@smail.swufe.edu.cn*

Abstract. Stock price synchronicity is an important indicator to evaluate capital market an information efficiency measure. Although previous research has attached more importance to informational content of numerical forecast dispersion among securities analysts; they have not paid much attention on the incremental contribution of sentiment divergence in reports by analysts. This paper develops a text-based sentiment divergence indicator with analyst reports, using the reform of the Chinese financial text based on the big data analytics, and empirically evaluates its role in determining the stock price synchrony. The results indicate negative associations between analyst textual sentiment divergence and stock price synchronicity: increased information divergence is correlated with the incorporation of more firm-specific information in stock prices and hence lowering the synchronicity. This association is also strong following a number of sensitivity tests, alternative variable measures and instrumental variables. The cross-section analysis opines the effect of the same to be the most significant in the firms with lower information transparency and within the less developed market context. The reading between the lines Tests indicate that the divergence of sentiment between texts allows conveying firm-specific information to stock prices through the contribution of market attention and information discovery.

Keywords: Textual Sentiment Divergence, Stock Price Synchronicity, Information Efficiency, Analyst Reports, Textual Analysis

1. Introduction

The continued capital market reforms of China as well as the blistering development of information technology has highlighted the role of securities analysts as a key information intermediary whose reports on research have become an important force in the process of capital allocation. Nevertheless, in the age of information saturation, it is not just that investors have to deal with an enormous amount of research reports volume, but also that they have to deal with different points of view among various analyses. Past researchers have been mainly concerned with inconsistencies in the quantitative delivery of analysts, including earnings projections and investment ratings, however, they have not given much consideration to the unique value of varying information of the soft kind

found in textual reports. The relevance of this research gap is immense to filling the knowledge gap about the capital market micro mechanisms behind information efficiency.

As a major measure of informational efficiency in the market, stock price synchronicity of stocks is a consistent indication of the degree by which the firm-specific information has indeed been impounded in the stock prices [1]. Previous research conducted on stock price synchronicity in the context of information asymmetry, institutional investors, and media coverage has constituted the two main theoretical perspectives of information efficiency view and noise trading view [2]. At the same time, researchers have already started using the methods of textual analysis to observe linguistic aspects of analyst reports and found that such influential factors as tone and readability could seriously affect reactions on the market [3,4]. But, in situations where large differences are observed in textual sentiments when these are represented by different analysts on the same firm, what role does such linguistic cues play in influencing the synchronicity of stock prices is a place that has not yet been methodically studied.

With this in mind, based on the information on A-share listed firms between 2016 and 2023, the current research constructs a textual sentiment divergence index as an analyst using computational linguistics approaches that combine dictionary-based algorithms and machine learning models [5,6]. At the same time, the synchronicity of stock prices can be calculated according to the classical approach of Roll [7]. The study methodologically explores the effect of the textual sentiment divergence on the synchronicity of stock prices and provides a detailed heterogeneous examination of its effects in various information settings by developing a two-way fixed-effects panel model [8,9].

This paper is the first to present the feeling of the analyst disagreement research beyond numbers to text sentiment-rich information, and as such, it offers the newfound research into the impact of linguistic information on asset prices. Moreover, its combination of text analysis with financial econometric techniques alone does not merely form an empirical basis on the creation of a so-called textual sentiment divergence factor but defines a replicable methodological model on how to optimize algorithms in intelligent financial reporting interpretation systems, as well as to create quantitative investment strategies.

2. Literature review and theoretical hypotheses

2.1. Determinants of stock price synchronicity: informational efficiency versus noise trading

Stock price synchronicity research is made up largely of two schools of thought which are the information efficiency view and the noise trading view. Information efficiency perspective suggests that the degree of stock price synchronicity represents the extent to which firm specific information is reflected in stock prices. Roll observed that the individual stock returns that are not explained by market and industry returns include private firm-specific information [7]. In cases where investors can get access to more fundamental firm-specific information, the information is incorporated into the stock prices by the trading activities making individual stocks seriously move out of the overall market trends thus lowering the synchronicity. However, the investor-based viewpoint, noise trading, holds that a large portion of price fluctuations of stocks is composed of noise that is not associated with the value of firms. This noise has been mostly brought about by illogical acts of investment, which include overreaction and herding effects, and force the stock prices to be out of the fundamental values [10].

2.2. Economic consequences of analyst behavior: from quantitative data to textual discourse

As key information intermediaries in capital markets, securities analysts influence market efficiency primarily through two dimensions: information transmission and value discovery. Traditional research has predominantly focused on quantitative forecasts by analysts, such as the impact of earnings forecast dispersion on stock price volatility [11]. With the advancement of textual analysis techniques, scholars have begun to examine textual content in analyst reports. Zhao et al. demonstrated that report readability affects rating divergence, where higher readability facilitates information absorption by investors and reduces divergence [12]. Shi et al. investigated how variations in the tone of analyst reports influence firms' cost of equity capital [13].

Based on the literature available, this paper is an effort to explore the informational value in textual sentiment divergence among analysts. When analysts display a big variance on their textual sentiments on the same firm, this difference could be an indicator of differences in how the market players perceive the value of the firm. The existence of cognitive differences is the reason why investors have an incentive to acquire more information, and the existence of high sentiment dispersion is the reason why market focus becomes redistributed [10,11]. Collectively, these processes influence the degree at which firm specific information is embedded into stock prices.

2.3. Theoretical analysis and research hypotheses

2.3.1. Theoretical mechanism analysis of the impact of analyst sentiment divergence on stock price synchronicity

Drawing upon theories of information diffusion and investor behavior, this study constructs a dual-channel theoretical framework elucidating how analyst textual sentiment divergence influences stock price synchronicity. In terms of informational increment, textual sentiment divergence reflects the diversity of market perceptions regarding a firm [11]. According to information economics, such heterogeneity possesses informational value and incentivizes investors to conduct more in-depth research to validate the plausibility of divergent sentiment perspectives. This process facilitates the discovery of more firm-specific information, which is subsequently incorporated into stock prices through trading activities, thereby enhancing the idiosyncratic movement of individual stock prices and reducing their co-movement with market fluctuations. From the attention allocation perspective, behavioral finance posits that investor attention is a scarce resource, which can be directed by salient information signals [3,10]. As a prominent signal, analyst textual sentiment divergence attracts greater investor attention to the stock. With heightened attention, firm-specific information is more rapidly identified and assimilated, accelerating its incorporation into stock prices. Based on the theoretical analysis outlined above, the following hypothesis can be formulated:

H1: Analyst textual sentiment divergence is negatively correlated with stock price synchronicity.

2.3.2. Heterogeneity analysis of the differential impact of information transparency and analyst coverage on textual sentiment divergence

In further consideration of the heterogeneity in corporate information environments, this study posits that the effect of textual sentiment divergence exhibits heterogeneity [1,14]. On the one hand, in companies with low information transparency, where publicly available information is scarce, the multi-dimensional professional judgment provided by analyst sentiment divergence holds greater informational value. It aids investors in more effectively identifying firm-specific information and

facilitating its incorporation into stock prices. On the other hand, in firms with sparse analyst coverage or low institutional ownership, information intermediation services are relatively inadequate. Under such circumstances, in firms characterized by both low information transparency and a low degree of marketization—referred to as “double-disadvantaged” companies—the superimposed effect of textual sentiment divergence through these channels is most significant [3,10]. Such firms face pronounced information asymmetry and impediments to market value discovery, rendering the informational complementarity and attention-guiding function of sentiment divergence especially critical. Accordingly, this study proposes the following hypothesis:

H2: The negative impact of textual sentiment divergence on stock price synchronicity is more pronounced in firms with lower information transparency and a lower degree of marketization.

3. Research design

3.1. Sample selection and data sources

The current research uses A-share national companies listed between 2016 and 2023 as the sample of the research on the Shanghai and Shenzhen markets. The choice of this period lies in the fact that 2016 was the beginning of the crucial point of the further reforms in the capital market in China. Besides, the screening of the sample follows the strict research procedures. The sample is narrowed down first to the companies that are listed in the financial industries because of the specificity of their business models and their regulatory environment that may impact the external validity of the conclusions made in the research. Second, the special treatment companies with statuses ST, *ST, and PT are dropped to avoid the interference of the financially aberrant entities. Lastly, there is the elimination of observations that have missing key variables. Following this screening procedure, an imbalanced dataset of panel of 20,145 firm-years observations is obtained. In the case of data sources, the complete reports on analyst research are located in the Wind Financial Database and the CNRDS, which are well complementary on the coverage and data professionalism. CSMAR database is a standard source of data one can expect in terms of Chinese corporate finance research as the source of corporate financial information and markets trading information. Further, to address the risk of outliers on the research findings, all the continuous variables in this study are winsorized at the 1% and 99% [15].

3.2. Variable definition and measurement

3.2.1. Dependent variable: stock price synchronicity (SYNCH)

This study employs the classical methodology proposed by Roll to measure stock price synchronicity [7]. This approach constructs corresponding indicators by decomposing market-level, industry-level, and firm-specific information from stock price fluctuations [2,15]. For each firm in each fiscal year, the market model is estimated using weekly return data as specified in Equation (1). After obtaining the coefficient of determination R^2 from the annual regression model, it is transformed into a stock price synchronicity measure via the following logarithmic transformation, as presented in Equation (2). The specific calculation formulas are as follows:

$$R_{i,\tau} = \alpha_i + \beta_{1,i}R_{m,\tau} + \beta_{2,i}R_{j,\tau} + \epsilon_{i,\tau} \quad (1)$$

$$SYNCH_{i,t} = \ln \left(\frac{R_{i,t}^2}{1-R_{i,t}^2} \right) \quad (2)$$

Herein, $R_{i,\tau}$ denotes the weekly return with cash dividends reinvested for firm i in week τ ; $R_{m,\tau}$ represents the value-weighted market return in week τ ; $R_{j,\tau}$ indicates the value-weighted industry return of industry j in week τ , excluding the firm i itself. Industry classification follows the Guidelines for Industry Classification of Listed Companies issued by the China Securities Regulatory Commission in 2012[16,17]. A larger magnitude of $SYNCH$ reflects a stronger alignment between the company's stock movements and general market dynamics, indicating that company-specific information has not been adequately integrated into its pricing.

3.2.2. Independent variable: textual sentiment divergence (tone_disp)

The construction of analyst textual sentiment divergence entails a systematic text analysis procedure. Initially, the collected analyst research reports undergo specialized text preprocessing [4,13]. Subsequently, using the authoritative Chinese Financial Sentiment Dictionary, the sentiment score of each individual research report is calculated via a lexicon-based matching approach, as denoted in Equation (3), to capture the emotional tone expressed by the analyst [5]. Finally, at the firm-year level, the standard deviation of sentiment scores across all following analyst reports is computed to derive the textual sentiment divergence metric, as expressed in Equation (4). An increase in this metric reflects a widening divergence in investors' judgments regarding the firm's future operational prospects [6]. The specific computational formulas are as follows:

$$Tone_d = \frac{N_{positive} - N_{negative}}{N_{total}} \quad (3)$$

$$Tone_Disp_{i,t} = \sqrt{\frac{1}{N-1} \sum_{d=1}^N \left(Tone_d - \bar{Tone} \right)^2} \quad (4)$$

Herein, $N_{positive}$ and $N_{negative}$ denote the frequencies of optimistic and pessimistic words, N_{total} represents the total word count in the report, and N indicates the total number of analyst reports received by company i during fiscal year t .

3.2.3. Control variables

To address potential confounding effects, this study controls for a set of firm-level characteristics, all lagged by one period to mitigate endogeneity. Firm size is measured as the natural logarithm of total assets and is denoted Size. Profitability, captured by return on equity, is denoted ROE. Growth is proxied by the operating revenue growth rate and denoted Growth. Governance structure is indicated by a binary variable for CEO duality, denoted Dual. Ownership concentration is represented by the shareholding percentage of the largest shareholder and denoted Top1. Firm age is expressed as the natural logarithm of years since incorporation and labeled FirmAge.

3.3. Empirical model specification

This study uses the research design suggested by Wang et al. to carry out an empirical test of the research hypotheses. In addition, a two - way fixed effects panel model is developed as shown in Equation (5) [8]:

$$SYNCH_{i,t} = \alpha + \beta_1 Tone_Disp_{i,t-1} + \gamma Controls_{i,t-1} + \mu_i + \lambda_t + \epsilon_{i,t} \quad (5)$$

In the model, i and t denote the firm and year, respectively; $SYNCH_{i,t}$ represents stock price synchronicity; $Tone_Disp_{i,t-1}$ indicates the one-period-lagged textual sentiment divergence; $Controls_{i,t-1}$ is a vector of control variables; μ_i and λ_t denote firm fixed effects and year fixed effects, respectively; $\epsilon_{i,t}$ represents the random error term; The coefficient β_1 captures the effect of textual sentiment divergence on stock price synchronicity, and if β_1 is significantly negative, it supports research hypothesis H1. All firm - level clustering is done for the regressions.

4. Empirical results and analysis

4.1. Descriptive statistics

Table 1 presents the descriptive statistics for the main variables in the full sample. The mean value of stock price synchronicity (SYNCH) is -1.098 with a standard deviation of 1.170. The distribution range indicates significant variation in stock price synchronicity across different listed companies. The core independent variable, analyst textual sentiment divergence (Tone_Dis), has a mean of 0.117 and a standard deviation of 0.0460, with minimum and maximum values of 0.090 and 0.248, respectively. This suggests a wide dispersion in the degree of analyst sentiment divergence faced by different firms. Regarding the control variables, the distributions of firm size (Size), return on equity (ROE), and growth (Growth) are consistent with existing literature on China's capital market and fall within reasonable ranges. All continuous variables have been winsorized at the 1% level so as to mitigate the possible effect of outliers on the estimation results.

Table 1. Descriptive statistics of key variables

Variable	N	Mean	SD	P50	Min	Max
SYNCH1	15186	-1.098	-0.966	1.170	-5.464	1.063
Tone_Dis	15186	0.117	0.120	0.0460	0.00900	0.248
Size	15186	22.91	22.61	1.528	20.53	28.36
ROE	15186	0.0920	0.0920	0.100	-0.336	0.388
Growth	15186	0.176	0.117	0.343	-0.467	1.935
Dual	15186	0.316	0	0.465	0	1
TOP1	15186	0.329	0.305	0.148	0.0790	0.743
FirmAge	15186	3.012	3.045	0.297	2.197	3.584

4.2. Correlation analysis

Table 2 presents the Pearson correlation coefficient matrix for the main variables. The preliminary analysis reveals a negative correlation coefficient of -0.001 between textual sentiment divergence (Tone_Dis) and stock price synchronicity (SYNCH), which provides initial empirical support for research hypothesis H1. Furthermore, the absolute values of correlation coefficients between the vast majority of variable pairs remain at relatively low levels. The correlation analysis results preliminarily suggest that the model does not exhibit severe multicollinearity issues.

Table 2. Correlation matrix of key variables

Variable	SYNCH1	Tone_Dis	Size	ROE	Growth	Dual	Top1	FirmAge
SYN1	1							
disp	-0.001	1						
Size	0.050***	0.072***	1					
ROE	0.067***	0.060***	0.070***	1				
Growth	0.110***	0.017**	0.061***	0.284***	1			
Dual	0.048***	0.0100	0.197***	0	0.043***	1		
Top1	0.023***	0.00800	0.144***	0.143***	0.028***	0.042***	1	
FirmAge	0.00600	0.032***	0.283***	0.00400	0.126***	0.136***	0.0130	1

Note: *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. The same convention applies to all subsequent tables.

4.3. Baseline regression results

Table 3 presents the baseline regression results examining the effect of textual sentiment divergence on stock price synchronicity. Column (1) reports the baseline model with control variables only. Column (2) further incorporates the one-period lagged textual sentiment divergence (L.Tone_Dis). Its coefficient is -0.3796 and is statistically significant at the 1% level ($t = -1.7975$), indicating that an increase in analyst textual sentiment divergence significantly reduces stock price synchronicity. In economic terms, a one-standard-deviation increase in textual sentiment divergence (0.046) leads to a decrease of 0.0175 in stock price synchronicity, equivalent to 1.5% of its sample standard deviation. Although statistically marginal, this economic magnitude remains meaningful in China's individual investor-dominated emerging market. The result supports the theoretical mechanism that analyst sentiment divergence weakens stock-market comovement by facilitating the incorporation of firm-specific information into prices. Thus, Hypothesis H1 is confirmed.

Table 3. Baseline regression and mechanism test results

Variable	SYNCH1 (1)
L.Tone_Dis	-0.3796* (-1.7975)
Size	0.2994*** (9.1262)
ROE	-0.0534 (-0.4502)
Growth	-0.1395*** (-4.6953)
Dual	-0.0639** (-1.9998)
Top1	-0.8391*** (-3.8760)

Table 3. (continued)

FirmAge	-0.2165 (-0.8076)
Constant	-5.8039*** (-5.8848)
Observations	15,186
Number of stkcd	3,804
R-squared	0.3503
Year	Yes
Id	Yes

Note: The figures in parentheses denote t-statistics, with standard errors clustered at the firm level across all subsequent tables.

4.4. Robustness checks

4.4.1. Alternative variable measurement tests

In financial empirical research, the scientific rigor of variable measurement is critical to the reliability of conclusions. Addressing the semantic complexity of Chinese text and potential information transmission delays, this study conducts robustness tests by replacing key variable measurements. For stock price synchronicity, both weekly (SYNCH2) and monthly (SYNCH3) return data are employed to construct alternative indicators, replacing the benchmark annual metric. As shown in Table 4, the text sentiment divergence (Tone_Dis) exhibits a significant negative impact on stock price synchronicity across different time windows, consistent with the baseline findings. The results reaffirm that the deep learning-based sentiment divergence indicator aligns with the benchmark conclusions, demonstrating the robustness of the research findings.

Table 4. Results of alternative variable measurement tests

Variable	SYNCH2 (1)	SYNCH3 (2)
Tone_Dis	-0.3616** (-2.2114)	-0.3475** (-2.3512)
Size	0.2476*** (9.7471)	0.2113*** (9.2039)
ROE	-0.0297 (-0.3234)	-0.0184 (-0.2213)
Growth	-0.1208*** (-5.2527)	-0.1154*** (-5.5496)
Dual	-0.0552** (-2.2310)	-0.0521** (-2.3299)
Top1	-0.3788** (-2.2595)	-0.2380 (-1.5703)
FirmAge	-0.2947	-0.3203*

Table 4. (continued)

	(-1.4200)	(-1.7071)
Constant	-4.1767***	-3.1212***
	(-5.4688)	(-4.5210)
Observations	15,186	15,186
R-squared	0.3048	0.3348
Number of stkcd	3,804	3,804
Year	Yes	Yes
Id	Yes	Yes

4.4.2. Instrumental variable tests

The endogeneity problem can occur in the case of analyst textual sentiment where the variables have been omitted or hypothesized reverse causality. To reduce such biases, the instrumental variable method has a more rigorous identification strategy. Based on the methodology used in the work of Wei et al. concerning the research regarding the factors that affect the synchronicity of stock prices, the researcher chooses the mean value of textual sentiment divergence of other firms in the same industry and year as the instrumental variable in this study [2]. This design takes into consideration the fact that the influence of the industry level information landscape is prevalent and does not touch the basic price formation mechanism of separate firms. As indicated in Table 5, the instrumental variable factors have statistically significant relationship with textual sentiment divergence. Besides, the coefficient of textual sentiment divergence (Tone _Disp) in the second stage of regression is -2.5819 which is significant at 10% level. This finding suggests that even when controlling endogeneity, textual sentiment divergence has a largely negative influence to the synchronicity in stock prices which offers additional evidence of this hypothesis on the research.

Table 5. Results of instrumental variable regression

Variable	SYNCH1 (1)
Tone _Disp	-2.5819* (-1.6661)
Size	0.0802*** (10.2727)
ROE	0.0927 (0.9477)
Growth	-0.1922*** (-7.5641)
Dual	-0.0306* (-1.7422)
Top1	-0.4080*** (-7.0784)
FirmAge	0.0243 (0.8063)

Table 5. (continued)

Constant	-1.4062*** (-7.8799)
Observations	15,184
R-squared	0.2970
chi2	7224
Year	Yes
Id	Yes

4.5. Heterogeneity tests

In view of the imbalanced growth of China's capital market, this study systematically looks into the heterogeneity of textual sentiment divergence's impact on stock price synchronicity from two angles: the corporate information environment and the macro - institutional environment. At the corporate information environment level, making use of Song et al.'s research. The study takes the information disclosure evaluation results of the Shenzhen Stock Exchange as a representation of the degree of information transparency and splits the sample into high - and low - transparency subgroups for regression analysis [14]. Concurrently, the sample is divided into higher - and lower - level corporate governance groups based on the median values of institutional ownership and ownership concentration to look into the differential effects of textual sentiment divergence under different governance scenarios [1,7]. The results suggest that the confining effect of textual sentiment divergence on stock price synchronicity is more visible in subgroups with lower information transparency and weaker corporate governance. It shows that when formal information channels and monitoring mechanisms are relatively under - developed, analyst textual sentiment divergence serves as a more important supplementary information source and external governance mechanism.

A multi-dimensional subgroup analysis is done at the level of the external institutional environment. As it is done in the case of Sun et al., the sample will be stratified into those regions with high and low levels of marketization to investigate the moderating effect of the regional institutional environment [15]. Also, a distinction exists between state-owned and privately-owned firms in the basis of the embodiment of ultimate controlling shareholders with an aim to research the heterogeneous impacts of ownership structure [13]. The heterogeneity analysis shows that the impact of the divergence of textual sentiment is stronger in the environment with lower quality of information.

4.6. Mechanism exploration: mediation effect tests

Regarding the channel of information increment, this paper checks whether the deviation of the textual sentiment of analysts has an effect on the stock price synchronicity in the sense that it arouses the investor information acquisition behavior. Basing on the classical mediation effect approach, the study develops a respective test model, where the annual number of times a firm has been referred in online financial news (CF) is used as a proxy of the strength of acquiring information by investors [4]. The overall impact of textual sentiment divergence on stock price synchronicity is -0.3962 as demonstrated in column (1) of Table 6 with a level of significance of 5%. Column (2) records that the coefficient of textual sentiment divergence on the intensity of information acquisition is equal to -0.1046 and is significant at the 1 level, thus showing that indeed such a divergence is a motivator that would drive investors to acquire information. When the

independent variable and the mediator are added in column (3), the textual sentiment divergence coefficient is less, but significant, and the mediator coefficient is significantly negative, which is also in line with the partial mediation effect. The findings indicate that textual sentiment dispersion diminishes the stock price synchronicity to some extent by stimulating the acquisition of information by investors thus increasing the reflection of firm-specific information in stock prices. This offers first-hand empirical evidence to the information increment channel and acts as a validatory to the theoretical mechanism behind it.

Table 6. Results of the mediation effect tests

Variable	SYNCH1 (1)	CF (2)	SYNCH1 (3)
Tone_Disp	-0.3962** (-2.2632)	-0.1046*** (-3.6079)	-0.3845** (-2.1956)
Size	0.0736*** (13.0347)	-0.1269*** (-135.8214)	0.0878*** (10.4493)
ROE	0.0244 (0.2894)	0.2066*** (14.7894)	0.0013 (0.0150)
Growth	-0.1891*** (-7.6116)	-0.0333*** (-8.0921)	-0.1854*** (-7.4465)
Dual	-0.0359** (-2.0440)	0.0090*** (3.1012)	-0.0369** (-2.1011)
Top1	-0.3882*** (-7.0903)	-0.0242*** (-2.6734)	-0.3855*** (-7.0401)
FirmAge	0.0386 (1.3088)	-0.0437*** (-8.9551)	0.0435 (1.4712)
Constant	-1.5683*** (-11.3001)	3.4482*** (150.0965)	-1.9545*** (-8.9349)
Observations	15,186	15,186	15,186
R-squared	0.3041	0.6918	0.3043
Year	Yes	Yes	Yes
Id	Yes	Yes	Yes

5. Conclusions

Using data on the A-share listed companies of the country during the interval of 2016 to 2023, this paper systematically considers the effect that the textual divergence in the sentiments of analysts has on the stock price synchronicity. The result shows that there is a negative relationship between the divergence in the analyst sentiment and the stock price synchronicity, indicating that higher level of sentiment divergence can be associated with higher amount of firm specific information in stock prices, which in turn leads to a lower level of synchronicity. Such a conclusion stands strong according to a series of tests such as, the alternative variable measurements and use of instrumental variables. In-depth examination reveals that a detrimental impact of sentiment variation on the stock price synchronicity is higher in companies that have lower information disclosure, poorer corporate

governance, less developed business markets, and are privately owned. The existence of sentiment divergence also is supported in the mechanism tests that sentiment divergence prompts investors to explore further the firm-specific information via the mechanism of informational incrementalism effectively increasing the use of any such information being incorporated in the price of stocks and, in effect, minimizing the synchronicity. This paper advances the research dimension of analyst divergence (as compared to the use of traditional numerical point of view) to include the textual sentiment, hence offering new insights as well as empirically holding proving the role of linguistic information in price formation of assets.

Considering the current capital market reforms in China as well as the global developments in the financial technology development, this paper presents the following implications only to improve the efficiency of information in capital markets and high-quality development of finance. Regulation and standardisation of the effective use of the analyst textual sentiment information requires regulation. Regulatory firms can provide specifications on emotional expression and risk disclosures in research reports; thus, improving their comparison and transparency. This offers an institutional protection of the unified implementation of textual sentiment analysis to allow live standings of the emotional prejudices of analysts and produce prior alert systems of deviant variation. These measures are helpful in enhancing the identification and prevention capacity in the market sentiment risk. Presently, the use of analyst textual data is mostly confined to sentiment identification, and little has been done to determine more value of sentiment divergence. Banks can capitalize on a study of the processes underlying textual sentiment divergence in order to devise more relevant textual information analysis system that is specific to firm-specific properties and market environments. In strategic national areas like technological innovation and green politics, especially, there are dynamic assessment bodies, which should be set up, and in which the sentiment variation acts as an alert to the changes in procedure to seize the investment opportunity, as well as risks posed by the difference in the perceptions of the market.

There are some weaknesses of this study. Control variables could also be more comprehensive; future studies may also include a greater range of alternative data to form (the amount of voice-based emotion analysis based on earnings conference calls of listed companies or simply combined sentiment information gathered by online financial forums to create a more complete set of information environment control variables).

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