Accounting and Corporate Management (2024)
Clausius Scientific Press, Canada

DOI: 10.23977/acccm.2024.060112
ISSN 2523-5788 Vol. 6 Num. 1

Moderating Role of Analyst Attention and Internal Control on the Relationship of Corporate ESG Performance and Dividend Smoothing

Nan Meng[1,a,*]

[1]*School of Business, International Studies University, Xi'an, Shaanxi, 710128, China*
[a]*2384825724@qq.com*
[*]*Corresponding author*

Keywords: Dividend Smoothing, ESG Performance, Internal Control, Analyst Attention

Abstract: Based on principal-agent theory and signal transmission theory, this paper explores two possible paths through which corporate ESG performance affects dividend smoothing. Taking Shanghai and Shenzhen A-share listed companies from 2013 to 2022 as the research object, the empirical study finds that corporate ESG performance can significantly improve dividend smoothing, i.e., corporate ESG performance has a facilitating effect on dividend smoothing. This research conclusion still holds after the robustness test, i.e., replacing the dividend smoothing measure and regression model; and the endogeneity test, using the PSM method. Further analysis reveals that the contribution of corporate ESG performance to dividend smoothing is more pronounced when the firms are in an environment with stronger internal control and higher analyst attention. The findings of this research not only expand the research boundaries of principal-agent theory and signaling theory applied to dividend policy, but also enrich the economic consequences of corporate ESG performance, which can provide certain empirical evidence for the healthy and orderly development of China's capital market.

1. Introduction

In recent years, due to increasingly strict economic development requirements and regulatory requirements, the important measure of high-quality development of enterprises has shifted to sustainable development. ESG (Environment, Social, Governance) is an important measure of sustainable development ability of enterprises from three dimensions: environment, social responsibility and corporate governance. The emergence of ESG has led enterprises to begin to focus on exploring its impact on their business as a way to improve their reputation to gain a competitive advantage. There is a considerable literature on how ESG affects firms' financial performance and market valuation with mixed results [1-6]. The lack of consistent findings has prompted scholars to further explore the relationship between ESG and other financial decisions (e.g., innovation, cost of capital, investment efficiency, etc.) [7-10]. However, few studies have addressed how ESG performance affects dividend policy. Based on the dividend smoothing perspective, this paper examines the role of ESG in dividend distribution of Chinese listed

companies and the differences in the relationship between the two in different environments.

Unlike the capital markets of developed countries with dispersed shareholdings, the Chinese capital market is characterized by concentrated shareholdings and one-share dominance [11]. Against this realistic background, there are two different theoretical perspectives on the impact of ESG performance on dividend smoothing. First, the principal-agent theory holds that the degree of dividend

Non-smoothing in Chinese listed companies is influenced by the self-interested motives of controlling shareholders and management [12]. Corporate ESG performance improves the external monitoring mechanism and internal governance mechanism, comprehensively improves the information environment, and reduces the information asymmetry between internal and external enterprises, so as to monitor and constrain the behaviour of controlling shareholders and management to steal private interests [13-15]. At this time, corporate ESG performance can improve dividend smoothing. Second, the dividend signaling theory holds that a stable dividend policy can have both a signaling role of being able to transmit information such as a firm's true earnings to the outside market, and may also disguise true earning information through information management [16, 17]. And ESG performance has a similar effect. Corporate ESG performance can not only convey information such as true internal earning to the outside market and reduce internal and external information asymmetry [18], but also controlling shareholders and management may take advantage of the loopholes in ESG disclosure to perform hypocrisy and cover up information to pursue personal interests [19, 20]. At this time, corporate ESG performance has a dampening effect on dividend smoothing.

This paper examines two possible paths of the impact of corporate ESG performance on dividend smoothing using a sample of A-share listed companies in Shanghai and Shenzhen from 2013 to 2022. The findings suggest that corporate ESG performance promotes dividend smoothing. Next, this paper uses the external governance environment (analyst attention) and internal governance environment (internal control quality) to test the difference in the relationship between the two, and finds that strong internal and external governance mechanisms contribute to the development of corporate ESG performance, which in turn contributes to the improvement of dividend smoothing.

This paper contributes to expanding the research on the influence factors of dividend policy smoothing and the economic consequences of corporate ESG performance in Chinese listed companies. It finds new evidence and theoretical support to address the prevalent phenomenon of dividend non-smoothing in the Chinese capital market. At the same time, it provides empirical evidence to guide the introduction of dividend regulatory policies for Chinese listed companies. After the introduction of China's "semi-compulsory" and "differentiated" dividend policies, the willingness and level of dividend payments by listed companies have increased, but their effects on dividend smoothing have been minimal [21]. This paper examines the impact of corporate ESG performance on dividend smoothing, which provides empirical evidence for further improving dividend regulatory policies and protecting the interests of small and medium-sized shareholders.

2. Research Design

2.1 Sample Selection and Data Sources

This paper takes Shanghai and Shenzhen A-share listed companies from 2013 to 2022 as the research sample, and the data is from CSMAR. The sample excludes: samples that have been delisted, ST, PT, and *ST samples; samples in the financial industry and those listed in the current year; and samples with missing main variables or control variables. In order to avoid the influence of extreme values on the empirical results, this paper Winsorize all continuous variables at 1% and

99% quantile. Finally, this paper obtains a total of 14,933 observations from 2508 listed companies.

2.2 Variable Definition and Measurement

2.2.1 Explained variable: dividend smoothing

Dividend smoothing (Divs) is measured using the fluctuation of dividends relative to earnings, that is, the standard deviation of cash dividends per share for the last three years/the standard deviation of earnings per share for the last three years. This indicator is a reverse indicator, with larger values indicating lower dividend smoothing.

2.2.2 Explanatory variables: corporate ESG performance

Based on China's national conditions, this paper uses CSI ESG rating data as a proxy variable for corporate ESG performance. Specifically, the weighted average composite score from CSI ESG ratings is used for empirical analysis.

2.2.3 Control variables

In this paper, return on total assets (Roa), shareholding ratio of the first largest shareholder (Top), board size (Board), leverage (Lev), firm size (Size), and firm age (Listage) are selected as control variables. Year (Year) and industry (Ind) dummy variables are also set. The details are shown in Table 1.

Table 1: List of variable definitions

Variable type	variable symbol	variable name	Description of variables
explained variable	Div	Dividend smoothing	Three-year(t-2,0)standard deviation of cash dividends per share/three-year(t-2,0)standard deviation of earnings per share
explanatory variable	Esg	Corporate ESG performance	CSI ESG Rating Composite Score
Control variables	Roa	return on total assets	Net profit/total assets
	Top	shareholding ratio of the first largest shareholder	Total number of shares held by the first controlling shareholder/total number of shares
	Board	Board size	The number of board members is taken as a natural logarithm
	Lev	Leverage	Total liabilities/total assets
	Size	Firm size	Natural logarithm of total assets
	Listage	Firm age	(Years on market + 1) in natural logarithms
	Year	Year	Annual dummy variables
	Ind	Industry	Industry dummy variables

2.3.4 Modelling

In this paper, the following model is constructed for benchmark regression analysis in order to test the effect of corporate ESG performance on dividend smoothing:

$$Divs_{i,t} = \beta_0 + \beta_1 Esg_{i,t} + \beta_2 Controls_{i,t} + \Sigma Year_{i,t} + \Sigma Ind_{i,t} + \varepsilon_{i,t} \quad (1)$$

Among, Divsi,t and Esgi,t are the dividend smoothing and ESG performance of firm i in period t,

Controlsi, t denotes all control variables, and εi,t is the error term.

3. Empirical Results and Analyses

3.1 Descriptive Statistical Analyses

Table 2 reports the results of descriptive statistics. The mean value of dividend smoothing (Divs) is 0.548, indicating that the smoothing of dividends of the sample firms is low, and the standard deviation is 0.823, indicating that the overall volatility is high, with the maximum and minimum values of 5.647 and 0, respectively, suggesting that there are large differences in dividend smoothing among different firms due to the "one-share-one-bigger" equity distribution in China. The mean value of ESG composite score is 0.734, indicating that the overall ESG performance of the sample firms is good. The distributional characteristics of the remaining control variables are basically consistent with previous studies.

Table 2: Results of descriptive statistics

variable	observed value	average value	standard deviation	median	minimum value	maximum values
Div	14933	0.548	0.823	0.299	0.000	5.647
Esg	14933	0.734	0.050	0.737	0.504	0.902
Roa	14933	0.055	0.044	0.044	0.002	0.225
Top	14933	0.356	0.149	0.337	0.091	0.750
Board	14933	2.135	0.189	2.197	1.609	2.639
Lev	14933	0.429	0.187	0.422	0.069	0.851
Size	14933	22.586	1.212	22.438	20.279	26.262
Listage	14933	2.398	0.667	2.565	1.099	3.367

3.2 Analysis of Regression Results of Corporate ESG Performance and Dividend Smoothing

Table 3 reports the regression results of corporate ESG performance and dividend smoothing as shown in column (1).The Esg coefficients are -0.473 and significant at 5% level respectively. This indicates that corporate ESG performance improves dividend smoothing. This shows that, there is a facilitating effect between the two.

Table 3: Benchmark regression and robustness test results

	(1)	(2)	(3)	(4)	(5)	(6)
variable	Divs	D_sd	Divs	Divs	Divs	Divs
Esg	-0.473**	-0.059***	-0.450***	-0.478**	-0.615***	-0.614***
	(-2.38)	(-3.93)	(-2.86)	(-2.352)	(-4.222)	(-4.215)
Constant	2.029**	-0.231***	0.416*	1.297***	1.345***	1.351***
	(2.57)	(-11.01)	(1.88)	(4.292)	(6.615)	(6.641)
observed value	14,933	14,933	14,933	7777	14921	14918
Controls	Yes	Yes	Yes	Yes	Yes	Yes
vintages	Yes	Yes	Yes	Yes	Yes	Yes
sector	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.3703	0.2085	0.0400	0.026	0.037	0.037

Note: T values are in brackets, and *, * * and * * *mean significant at the level of 10%, 5% and 1% respectively.

3.3 Robustness Tests

3.3.1 Replacement of explanatory variables

In this paper, the model (1) is re-regressed using the standard deviation of cash dividends per share (D_sd) for the last three years. The regression results are shown in column (2) of Table 3, and the findings remain unchanged.

3.3.2 Change in measurement method

Considering that the dividend smoothing indicator has a truncated tail on the statistical distribution, this paper chooses the Tobit model for the robustness test, and the regression results, as shown in column (3) of Table 3, do not change the basic conclusions of this paper.

3.3.3 Endogeneity test

(1) Propensity score matching method

Considering that empirical results may be confounded by data bias and confounding factors, leading to challenges to the reliability and robustness of the underlying results. With reference to the specific method of propensity score matching, through nearest neighbour matching, the results are shown in Column (4) of Table 3; kernel matching, the results are shown in Column (5) of Table 3; and radius matching, the results are shown in Column (6) of Table 3, and the regression coefficients of the above Esg are significant at the 1% level, which suggests that the conclusions of this paper remain robust.

4. Further Studies

This paper focuses on the external and internal environments of firms to consider how the moderating effect of the relationship between corporate ESG performance and dividend smoothing is examined in terms of analyst attention and internal control.

4.1 Analyst Attention

Analyst attention, as an important part of the external corporate governance mechanism, can play a good role in guaranteeing the quality of corporate ESG performance, and this paper adopts the analyst tracking number indicator (Ana) to measure analyst attention and test the change in the relationship between corporate ESG performance and dividend smoothing.

4.2 Internal Control

Internal control, as a proven management tool and a check and balance of power, is an important basis for enterprises to fulfil their internal oversight role. Good internal control can provide a solid guarantee for ESG performance to achieve the role of corporate governance. This paper examines the changes in the relationship between corporate ESG performance and dividend smoothing based on the results of internal control ratings issued by Dibble.

Specifically dividing the full sample by the median of the indicators, the model (1) was regressed on groups. The test results are shown in Table 4.

Table 4: Results of further research tests

	Analyst attention		Internal control	
	(1)	(2)	(3)	(4)
	higher	lower	stronger	weaker
variable	Divs	Divs	Divs	Divs
Esg	-1.014***	0.056	-0.633***	-0.705
	(-3.61)	(0.18)	(-2.79)	(-1.13)
Constant	2.605**	1.240	2.374***	-2.212
	(2.21)	(1.03)	(2.77)	(-1.02)
observed value	7,401	7,532	12,884	2,049
Controls	Yes	Yes	Yes	Yes
vintages	Yes	Yes	Yes	Yes
sector	Yes	Yes	Yes	Yes
R-squared	0.2288	0.2885	0.2298	0.3557

Note: T values are in brackets, and *, * * and * * *mean significant at the level of 10%, 5% and 1% respectively.

5. Conclusions and Implications of the Study

This paper takes Shanghai and Shenzhen A-share listed companies from 2013 to 2022 as the research sample to analyse the impact of corporate ESG performance on dividend smoothing, and finds that corporate ESG performance significantly improves dividend smoothing, which still holds after robustness and endogeneity tests. It is further found that the facilitating effect between corporate ESG performance and dividend smoothing is more pronounced in firms with higher analyst attention and stronger internal control.

The findings of this paper suggest that firms' engagement in ESG activities promotes a stable dividend policy. This may have important implications for firms and investors. Stable dividends can motivate investors to support ESG-quality firms and punish ESG-risky firms, and promote the rational allocation of market resources. Chinese regulators are further called upon to strengthen the supervision of the internal and external governance environment of firms to better protect the interests of small and medium-sized shareholders. Future research could examine the impact of ESG on other areas of dividend distribution, such as stock dividends, or further explore other potential channels through which ESG affects dividend smoothing.

References

[1] Brogi M, Lagasio V. Environmental, social, and governance and company profitability: are financial intermediaries different? Corporate Social Responsibility and Environmental Management, 2018, 26(3): 576-587.

[2] Duque G E, Aguilera C J. Environmental, social and governance (ESG) scores and financial performance of multilatinas: moderating effects of geographic international diversification and financial slack. Journal of Business Ethics, 2021, 168(2): 315-334.

[3] Azmi W, Hassan M K, Houston R, Karim M S.ESG activities and banking performance: International evidence from emerging economies. International Financial Markets, Institutions and Money, 2021, 70: 101277.

[4] Shanaev S, Ghimire B. When ESG meets AAA: The effect of ESG rating changes on stock returns. Finance Research Letters, 2022, 46: 102302.

[5] Serafeim G, Yoon A. Stock price reactions to ESG news: The role of ESG ratings and disagreement. Review of Accounting Studies, 2022, 1-31.

[6] Chouaibi S, Chouaibi J, Rossi M. ESG and Corporate Financial Performance: The Mediating Role of Green Innovation: UK Common Law Versus Germany Civil Law. EuroMed Journal of Business, 2022, 17(1): 46-71.

[7] Diaz A, Escribano A. Sustainability premium in energy bonds. Energy Economics, 2021, (95): 105113.

[8] Gao J. Y., Chu D. X., Lian Y. H., Zheng J. Can ESG performance improve corporate investment efficiency. Securities Market Herald, 2021, (11): 24-34+72.
[9] Barth F, Hübel B, Scholz H. ESG and corporate credit spreads.The Journal of Risk Finance, 2022.
[10] Zhou B, Lv J, Lv P. Research on the technological innovation promotion effect of improved corporate ESG performance. Western Forum, 2023, 33(06): 81-95.
[11] Chen Y L, Jiang Y F, Xin Z P. Shareholding Concentration and Dividend Smoothing-Analyses and Tests Based on the Controlling Shareholder Hollowing Out Hypothesis. Journal of Shanxi University of Finance and Economics, 2020, 42(09): 85-98.
[12] Chen M Q, Liu X, Yao M, etc. Re-examination of the neutral supervision of dividends of listed companies in China-based on the perspective of unstable motivation of dividends. Financial Forum, 2019, 24 (07): 60-70.
[13] Liu B, Lu J R, Ju T. Formalism or Substantivism: A Study of Green Innovation under Soft Regulation of ESG Ratings. Nankai Management Review: 2022, 1-24.
[14] Pedersen L H, Fitzgibbons S, Pomorski L. Responsible investing: The ESG efficient frontier. Journal of Financial Economics, 2021, 142(2): 572-597.
[15] Eccles R G, Ioannou I, Serafeim G. The impact of corporate sustainability on organisational processes and performance. Management Science, 2014, 60 (11): 2835-2857.
[16] Miller M, Rock K. Dividend policy under asymmetric information. Journal of Finance, 1985, 40: 1031-1051.
[17] Guttman I, Kadan O, Kandel E. Dividend stickiness and strategic pooling. Review of Financial Studies, 2010, 23: 4455-4495.
[18] Luo K, Wu S. Corporate sustainability and analysts' earnings forecast accuracy: evidence from environmental, social and governance ratings. Corporate Social Responsibility and Environmental Management, 2022, 29(5): 1465-1481.
[19] Brooks C, Oikonomou I. The effects of environmental, social and governance disclosures and performance on Firm Value: a review of the literature in accounting and finance. British Accounting Review, 2018, 50(1): 1-15.
[20] Raghunandan A, Rajgopal S. Do ESG Funds Make Stakeholder-Friendly Investments? Review of Accounting Studies, 2022, 27(3): 822-863.
[21] Li Q F, Liu H W. Are cash dividends sticky in China?—Empirical Evidence from Chinese A-share Listed Companies. Dongyue Discussion Series, 2021, 42(06): 36-45.