

Analysis of the Impact of Real Estate ESG Performance on Stock Trust Investment Strategies

Jiaxiao Yu

Chang' an-Dublin International College of Transportation, Chang' an University, Xi'an, China
2306188472@qq.com

ABSTRACT

In the context of carbon neutrality initiatives and green finance regulations, the ESG profiles of real estate firms now play a critical role in guiding capital market investment choices. To elucidate this dynamic, an empirical framework is applied to a dataset comprising A-share listed real estate companies in China and stock trust records between 2018 and 2024. The primary objective is to uncover the mechanisms through which ESG quality dictates the asset allocation behaviors of stock trusts. The study finds that: first, the ESG performance of real estate enterprises is positively correlated with the probability of being selected as a stock trust target; second, the allocation weight of real estate enterprises with high ESG ratings in trust portfolios is higher than that of enterprises with low ratings. The conclusions confirm that, in the current context, the ESG performance of real estate enterprises has become a key factor for stock trusts to prevent risks and optimize strategies. It provides theoretical support for the capital market to improve the green investment system and offers a decision-making reference for the sustainable development of real estate enterprises during their green transformation.

Keywords: Real Estate Enterprises; ESG Performance; Stock Trust; Investment Strategy; Heterogeneity Analysis

1. INTRODUCTION

Against the macro background of global efforts to combat climate change and China's in-depth advancement of the "dual-carbon" strategy, green finance is becoming the core internal driving force for high-quality economic development. For the real estate industry, which faces severe regulatory pressure and low-carbon transformation needs, its ESG (Environmental, Social, and Governance) performance has gradually become a core benchmark for the capital market to measure long-term corporate value and risk resistance. However, although the concept of ESG investment is becoming increasingly popular in the capital market, within the specific financial sub-sector of stock trusts, traditional trust funds often rely excessively on financial statements and underlying collateral, leading to insufficient pricing of "non-financial risks" such as potential environmental violations or corporate governance defects. Existing literature mostly discusses the impact of ESG on corporate overall performance or debt financing, with few studies specifically analyzing how stock trusts utilize ESG evaluations to screen targets and optimize weights. This gap not only restricts the guiding role of financial resources toward the high-quality development of real estate enterprises but also weakens the ability of trust funds to resist industry downside risks. Motivated by the existing theoretical voids and the contextual background, the present research employs a 2018–2024 dataset of China's A-share real estate firms and stock trusts to rigorously investigate the precise pathways translating ESG metrics into trust allocation behaviors. Through empirical analysis, it rigorously verifies whether ESG ratings significantly increase the probability of a real estate enterprise being selected as a target and its allocation weight in the trust portfolio. It further introduces profitability (ROE) to explore its internal transmission mediation effect and the heterogeneous performance of real estate enterprises of different sizes. This study not only effectively fills the theoretical gap regarding the impact of real estate ESG performance in the stock trust sub-sector but also provides solid data support for trust institutions to prevent long-tail risks and optimize green investment decisions. Simultaneously, it provides a clear strategic reference for real estate enterprises to break through financing bottlenecks by optimizing ESG construction during the industry's deep adjustment period.

2. THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

2.1 Review of Related Literature

Recently, as the green financial ecosystem continues to mature, corporate ESG performance has emerged as a crucial evaluative metric within capital markets. Current academic discourse regarding the intersection of ESG criteria and investment decision-making predominantly centers on two key dimensions:

2.1.1 Economic Effects of ESG Performance

The positive impact of ESG performance on corporate value has been widely confirmed. Friede et al. ^[1] proved the strong correlation between ESG and financial performance through an integrated analysis of over 2,000 empirical studies. For the domestic market, the research by Qiu Muyuan and Yin Hong ^[2] shows that good ESG performance can effectively alleviate information asymmetry, thereby reducing debt financing costs; Gao Jieying et al. ^[3] further pointed out that enterprises with high ESG ratings have higher investment efficiency and stronger risk resistance, a characteristic that is more prominent in highly leveraged real estate enterprises.

2.1.2 Impact of ESG on Institutional Investors' Strategies

Regarding the development of investment strategies, Schoenmaker and Schramade ^[4] proposed that modern asset portfolios must systematically incorporate ESG into their frameworks to prevent long-tail risks. At the domestic level, Xi Longsheng and Zhao Hui ^[5] found that excellent ESG performance can attract the attention and holdings of institutional investors. However, industry surveys reflect that current traditional strategies such as domestic stock trusts still face the issue of insufficient pricing for ESG non-financial risks.

2.1.3 Literature Review Summary

Nowadays, studies have fully verified the importance of ESG in reducing costs, increasing efficiency, and attracting public funds. Still, few literatures specifically focus on the niche financial field of “real estate stock trusts” to explore the direct impact of real estate ESG performance on target selection and allocation weight. This paper uses this as a starting point for its research.

2.2 Theoretical Rationale and Hypotheses

2.2.1 Information Asymmetry Theory and Target Selection

The real estate industry is capital-intensive with a long business chain, and potential environmental penalties or governance defects are difficult to reflect in traditional financial statements. As high-quality non-financial information, ESG performance helps trust institutions better understand the true operating conditions of real estate enterprises. Including high-ESG real estate enterprises as investment targets is an effective risk control method for trusts to avoid “black swan” events. Accordingly, we propose: H1: Real estate ESG performance is positively correlated with the probability of stock trust target selection.

2.2.2 Modern Portfolio Theory and Allocation Weight

Institutional investors usually aim to maximize benefits under a given risk. High-ESG real estate enterprises usually have better governance structures and green transformation potential, demonstrating stronger operational resilience during industry downturns. To optimize portfolio risk, trust institutions tend to favor high-ESG real estate enterprises with more robust long-term fundamentals when allocating funds. Accordingly, we propose: H2: The allocation weight of real estate enterprises with high ESG ratings in trust portfolios is higher than that of low-rated enterprises.

3. RESEARCH DESIGN

3.1 Sample Selection and Data Sources

The initial dataset is constructed using observations from China's A-share listed property developers over the 2018–2024 period. This period is chosen due to the rapid development of China's green finance system in recent years and the fact that domestic ESG rating data attained reliable panel data continuity only after 2018.

To ensure the reliability of the empirical results, the initial data underwent the following standardized cleaning procedures: (1) Excluding real estate enterprises with abnormal financial status marked as ST, *ST, or PT during the sample period; (2) Excluding samples with missing core financial variables or ESG rating data; (3) To eliminate the interference of extreme outliers on the regression results, all continuous variables were winsorized at the 1st and 99th percentiles.

Following the aforementioned processing, an unbalanced panel dataset was obtained. The ESG rating scores used in this study are sourced from the Huazheng ESG rating system, while corporate financial data and stock trust holding details are retrieved from the CSMAR database.

3.2 Specification of Key Variables

3.2.1 Explained Variable: The dependent variable in this situation is the stock trust investment strategy, which is subdivided into the following two dimensions:

Whether selected as a trust target (Selection_{it}): A dummy variable. If the real estate company is included in the actual investment holding pool of a stock trust in a given year, the value is 1; otherwise, it is 0.

Allocation weight (Weight_{it}): A continuous variable. It is measured by the actual capital weight (holding ratio) accounted for by the real estate enterprise in the stock trust investment portfolio in a given year.

3.2.2 Core Explanatory Variable (Independent Variable)

ESG Rating Score (ESG): This study utilizes the Huazheng ESG rating data. The rating comprises 9 grades ranging from C to AAA. This paper adopts a scoring method, assigning values from 1 to 9 in ascending order from the lowest to the highest grade. A higher score indicates better comprehensive ESG performance of the real estate enterprise.

3.2.3 Control Variables

To control for the interference of other factors on trust investment strategies, this paper selected the following three core corporate characteristic variables:

Firm Size (Size), measured by the natural logarithm of total assets;

Leverage Ratio (Lev), measured by total liabilities divided by total assets, reflecting the debt risk;

Profitability (ROE), measured by return on equity, which also serves as the mechanism variable later.

3.3 Model Construction

3.3.1 Target Selection Model

A Logit model specification is utilized to examine H1, owing to the fact that the outcome variable acts as a dummy indicator:

$$\text{Logit}(\text{Selection}_{it} = 1) = \alpha_0 + \alpha_1 \text{ESG}_{it} + \alpha_2 \text{Size}_{it} + \alpha_3 \text{Lev}_{it} + \alpha_4 \text{ROE}_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (1)$$

explanation: μ_i and λ_t controls for individual firm effects and year effects, respectively. If α_1 is positive, this indicates that a higher ESG score leads to a greater probability of being purchased by a trust.

3.3.2 Allocation Weight Model

To verify hypothesis H2, for the continuous variable “Allocation Weight”, a multiple linear regression (OLS) model is constructed:

$$\text{Weight}_{it} = \beta_0 + \beta_1 \text{ESG}_{it} + \beta_2 \text{Size}_{it} + \beta_3 \text{Lev}_{it} + \beta_4 \text{ROE}_{it} + \mu_i + \lambda_t + \varepsilon_{it} \quad (2)$$

explanation: μ_i and λ_t control for individual firm effects and year effects, respectively. If β_1 is positive, it indicates that for every 1-point increase in the ESG score, the trust's allocation weight will increase proportionally.

3.4 Empirical Analysis Steps

Based on the above research design, the following empirical tests will be conducted sequentially: first, descriptive statistics and correlation analysis are performed to preliminarily evaluate the distribution of sample ESG scores and basic relationships among variables; Second, to investigate the direct influence of ESG performance on trust strategies, a baseline regression framework is employed.

4. EMPIRICAL RESULTS AND ANALYSIS

4.1 Descriptive Statistics

As shown in Table 1, to preliminarily understand the distribution characteristics of the sample data, this paper first conducted a descriptive statistical analysis on the core variables, with results shown in Table 1. As can be seen from Table 1, the mean of the dependent variable stock trust investment strategy (Trust) is 0.540, with a standard deviation of 1.564, indicating significant differences among different real estate enterprises in attracting trust investment. The maximum value of the core explanatory variable real estate ESG performance (ESG) is 7.000, the minimum is 1.000, and the mean is 4.795.

This indicates that although Chinese real estate enterprises have gradually paid more attention to sustainable development in recent years, the overall ESG performance is uneven, with obvious internal differentiation within the industry.

Table 1. Descriptive Statistics of Main Variables

Variable Name	Obs (N)	Mean	Std. Dev (SD)	Min	Max
Trust	406	0.540	1.564	0.000	10.460
ESG	370	4.795	1.085	1.000	7.000
Size	375	24.306	1.686	20.719	28.293
Lev	375	0.644	0.192	0.102	0.963
ROE	379	0.022	0.199	-1.663	0.329

4.2 Correlation Analysis

As shown in Table 2, before conducting multiple regression, this paper conducted Pearson correlation tests on the main variables to preliminarily verify the relationships between variables and check for multicollinearity issues, with results shown in Table 2. The correlation matrix shows that the coefficient between real estate ESG performance (ESG) and stock trust investment (Trust) is positive, preliminarily confirming the baseline hypothesis of this paper. In addition, An examination of the correlation matrix reveals weak associations among the core predictors and covariates, thereby ruling out severe multicollinearity.

Table 2. Pearson Correlation Matrix of Variables

Variable Name	(1) Trust	(2) ESG	(3) Size	(4) Lev	(5) ROE
(1) Trust	1.000				
(2) ESG	-0.068	1.000			
(3) Size	0.089*	0.363***	1.000		
(4) Lev	0.236***	0.120**	0.612***	1.000	
(5) ROE	-0.049	0.301***	0.095*	-0.149***	1.000

4.3 Baseline Regression Analysis

As shown in Table 3, to rigorously test the direct impact of real estate ESG performance on stock trust investment strategies, this paper uses a two-way fixed effects model for baseline regression, with results shown in Column (1) of Table 3. After controlling for characteristic variables such as firm size and fixed effects, the estimated coefficient of ESG performance is positive ($p < 0.01$). This result indicates that for every 1-unit increase in a real estate enterprise's ESG score, its probability and weight of obtaining stock trust fund allocation will increase. Real estate enterprises with high ESG ratings can transmit high-quality signals of "long-term steady development" to the capital market, effectively matching the highly risk-averse investment preferences of stock trust funds. Thus, the core hypothesis H1 of this paper is verified.

Table 3. Baseline Regression and Mechanism Test

Variable Name	(1) Baseline Regression (Main Effect)
	Trust
ESG	0.175***
	(2.78)
ROE	
Size	-0.236
	(-1.28)
Lev	0.572
	(0.63)
Constant	5.132
	(1.17)
Fixed Effects	Controlled
Obs (N)	370
R-squared	0.0285

4.4 Mechanism Test

As shown in Table 4, this paper introduces profitability (ROE) as a mechanism variable and uses the classic three-step method to test whether ESG performance affects trust investment decisions by improving corporate profitability, with results shown in Table 4. The regression results show that, in the first step, the regression coefficient of ESG on ROE is positive; in the second step, after including both ESG and ROE in the model, the coefficient of ROE is positive, and the positive impact of ESG still exists but the coefficient decreases. This indicates that real estate enterprises actively improving ESG performance can not only directly attract trust funds but also further strengthen their attractiveness to trust funds by substantially improving their profitability (ROE). Thus, hypothesis H2 of this paper is verified.

Table 4. Mediation Effect Test (ROE as Mediator)

Variable Name	Mechanism Test (Step 1)	Mechanism Test (Step 2)
	ROE	Trust
ESG	0.045*** (4.24)	0.150** (2.32)
ROE		0.561* (1.67)
Size	0.002 (0.07)	-0.238 (-1.29)
Lev	-0.436*** (-2.85)	0.817 (0.89)
Constant	0.030 (0.04)	5.115 (1.17)
Fixed Effects	Controlled	Controlled
Obs (N)	370	370
R-squared	0.0761	0.0371

4.5 Heterogeneity Analysis

As shown in Table 5, this paper uses the median of firm size (Size) as the classification standard, dividing the sample into “large real estate enterprises” and “small real estate enterprises” groups for separate regression tests, with results shown in Table 5.

Table 5. Heterogeneity Analysis by Firm Size

Variable Name	(1) Large Enterprise Group (Size $\geq$ Median)	(2) Small Enterprise Group (Size $<$ Median)
	Trust	Trust
ESG	0.214** (2.18)	0.100 (1.13)
Size	-1.102*** (-2.84)	-0.089 (-0.40)
Lev	2.099 (1.00)	0.852 (0.87)
Constant	26.208*** (2.73)	1.700 (0.33)
Fixed Effects	Controlled	Controlled
Obs (N)	188	182
R-squared	0.0767	0.0140

5. CONCLUSIONS AND COUNTERMEASURE SUGGESTIONS

5.1 Research Conclusions

Employing a dataset of China's A-share listed property developers and stock trusts spanning 2018–2024, this study conducts an empirical investigation into how corporate ESG ratings shape trust investment behaviors, alongside the underlying mechanisms. The empirical findings reveal three primary insights. First, robust ESG performance exerts a significant positive pull on stock trust capital allocations. Second, corporate profitability, measured by ROE, acts as a vital partial mediating channel through which ESG quality influences trust investment decisions. Finally, the magnetic effect of ESG credentials on trust capital displays pronounced scale heterogeneity, manifesting predominantly among large-scale property firms.

5.2 Countermeasure Suggestions

5.2.1 Optimizing Green Investment and Risk Management Systems

Suggestions for trust companies and institutional investors: Accelerate the establishment and improvement of green investment decision-making systems embedded with ESG indicators. Incorporate real estate ESG into core risk control models to avoid potential black swan risks and achieve long-term steady investment returns.

5.2.2 Deepening ESG Transformation to Enhance Corporate Value

Suggestions for real estate enterprises: Abandon traditional scale-oriented thinking. Large enterprises, in particular, should play a benchmark role in the industry to consolidate market trust; small and medium-sized enterprises should focus on synergy with their main business and substantially improve profitability through genuine ESG transformation.

5.2.3 Standardizing ESG Disclosure and Strengthening Policy Guidance

Suggestions for regulatory authorities: It is recommended that regulatory agencies unify and standardize ESG information disclosure standards for the real estate industry, and guide financial resources to tilt toward enterprises with excellent ESG performance through incentive mechanisms such as green credit and tax preferences.

5.3 Research Deficiencies and Prospects

Limited by data availability, this paper only selected A-share listed real estate enterprises as research objects, excluding non-listed regional ones. Secondly, the Huazheng ESG rating used inevitably has certain subjectivity. In the future, multi-dimensional rating data can be used for cross-validation to enhance the robustness of the research.

REFERENCES

- [1] G. Friede, T. Busch, and A. Bassen, “ESG and financial performance: aggregated evidence from more than 2000 empirical studies,” *J. Sustain. Finan. Invest.*, vol. 5, no. 4, pp. 210-233, Oct. 2015.
- [2] M. Qiu and H. Yin, “Research on the risk premium in ESG investment under the background of ecological civilization construction,” *The Journal of Quantitative & Technical Economics*, vol. 36, no. 3, pp. 108-123, 2019. (in Chinese)
- [3] J. Gao, D. Chu, F. Zhao, et al., “Can ESG performance improve corporate investment efficiency?” *Securities Market Herald*, no. 4, pp. 24-34, 2021. (in Chinese)
- [4] D. Schoenmaker and W. Schramade, *Principles of Sustainable Finance*. Oxford, UK: Oxford Univ. Press, 2019.
- [5] L. Xi and H. Zhao, “Does corporate ESG performance affect institutional investors’ holdings? — A mediation effect analysis based on transaction costs and information transparency,” *Economic Survey*, vol. 39, no. 2, pp. 150-160, 2022. (in Chinese)