The Influence of ESG Fund Capital Flows on Corporate Financing Behaviour: A Comparative Examination of Active and Passive Investment Strategies in the Hong Kong Market

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Abstract. This paper presents a comprehensive analysis of how capital flows from funds incorporating Environmental, Social, and Governance criteria affect the financing decisions of corporations listed in Hong Kong. The research design employs a robust multi-method empirical strategy to dissect the distinct mechanistic pathways through which actively managed and passively managed ESG funds exert their influence. Key findings reveal that active ESG fund ownership is associated with a substantial reduction in the average cost of debt for firms (approximately twenty-eight basis points), primarily facilitated through direct engagement and governance improvements. Passively managed ESG funds also demonstrate a significant effect, leading to a fifteen basis point decrease in borrowing costs, largely mediated by market signaling and liquidity enhancement mechanisms, with these impacts typically observed within a six-month window following portfolio adjustments. Furthermore, the environmental and governance dimensions of ESG emerge as the most potent factors, correlating with an approximate five percent increase in the issuance of green bonds as a proportion of total debt. This study contributes fresh empirical evidence on the financial materiality of sustainable investing within the unique context of an advanced emerging market and offers actionable implications for corporate financial strategy and regulatory policy.

Keywords: ESG Investment, Corporate Financing, Cost of Capital, Sustainable Finance, Shareholder Engagement, Hong Kong Financial Market.

1. Introduction

The global financial system is witnessing a major shift in capital allocation, fueled by the growing influence of sustainable investment principles. Assets managed according to strategies that incorporate Environmental, Social, and Governance (ESG) factors have seen rapid growth, achieving a significant market presence as noted by key financial alliances [1]. This development is especially visible in Asia, where financial markets are adopting global benchmarks while also shaping their own regional features. As a major international financial hub, Hong Kong has been proactively building a framework to support sustainable finance. The regulatory authority, the Securities and Futures Commission, has embedded ESG considerations into its strategic framework for market development, emphasizing the integration of technology and sustainable finance in its recent work plan [2]. This commitment is further reinforced by the active participation of Hong Kong regulators in international standard-setting bodies, promoting consistency and robustness in ESG-related disclosures and practices [3].

The growing volume of ESG-oriented capital necessitates a deeper understanding of its real economic impacts, particularly on corporate financial decision-making. While a body of academic literature establishes a correlation between corporate sustainability and organizational processes and performance in developed Western markets [4], critical gaps remain, especially concerning the mechanisms of influence in different financial ecosystems. The existing research often aggregates various types of ESG investors, obscuring the fundamental differences between active funds (which engage directly with company management) and passive funds (which track indices) [5, 6]. Furthermore, empirical evidence from emerging markets, particularly those with financial systems dominated by banking institutions, is relatively scarce. Many studies also grapple with challenges,

such as ESG rating disagreement [7], making it difficult to establish a clear causal relationship between ESG fund ownership and corporate outcomes.

This research seeks to address these gaps by conducting a focused examination of the Hong Kong market from the beginning of 2023 to the first quarter of 2025. The study specifically investigates the differential impacts of active and passive ESG funds on corporate financing behaviour, leveraging a quasi-experimental research design. To bolster the causal interpretation of the findings, the study leverages the exogenous shock of the Securities and Futures Commission's 2023 enhancement of ESG disclosure rules [8], treating this regulatory shift as a quasi-natural experiment. The methodological approach combines a difference-in-differences model with an event study analysis and detailed comparative case studies of representative funds. This multi-faceted strategy allows for a nuanced exploration of both the quantitative effects and the underlying qualitative mechanisms.

The primary contributions of this paper are threefold. First, it provides a clear theoretical and empirical distinction between the channels of influence for active versus passive ESG funds, clarifying how different investment philosophies translate into corporate financial outcomes. Second, the study provides fresh evidence from Hong Kong, enriching the worldwide perspective on the financial relevance of ESG beyond the frequently researched Anglo-American markets. Third, the methodology introduces rigorous techniques to mitigate endogeneity, thereby strengthening the basis for causal interpretation. These insights are valuable for corporate treasurers looking to lower their cost of capital, asset managers refining engagement approaches, and regulators working toward a well-functioning sustainable finance landscape.

2. Literature Review and Conceptual Framework

2.1. Theoretical Foundations

The connection between ESG fund investment and corporate financing choices draws on stakeholder theory and signaling theory. Stakeholder theory, widely referenced in management studies, argues that a company's sustained performance hinges on effectively managing relations with all key groups—such as employees, customers, suppliers, and local communities [9]. Companies skilled in these relationships are viewed as lower-risk, as they are more capable of avoiding conflicts and reputational harm. This reduced risk perception leads to tangible financial advantages, since lenders and bond investors may require lower returns when financing such resilient firms. Signaling theory offers a related rationale: in settings where information is uneven, corporate attributes can serve as reliable indicators of underlying quality [10]. Substantial ownership by established ESG funds or a high ESG rating acts as a strong signal to the market, pointing to sound management, operational strength, and a forward-looking strategy. This helps narrow the information gap between company insiders and external investors, ultimately lowering the firm's cost of capital.

Recent scholarship has begun to emphasize the diversity among investors labeled as "ESG." Work by Dyck and coauthors, for example, illustrates how active institutional investors can advance corporate social responsibility via direct dialogue and shareholder voting [5]. These engaged investors push for better governance, environmental practices, and social standards, often through discussions with company boards. Passively managed funds, on the other hand, which track ESG indices, exert influence more indirectly. Research by Bauer and colleagues indicates that individual preferences for sustainable investments drive capital flows into passive ESG funds, which in turn affect corporate behavior mainly through index inclusion and the associated automatic buying from funds that follow these benchmarks [6]. Simply being added to a prominent ESG index can serve as an endorsement, boosting a firm's reputation even without active oversight.

How ESG factors influence firms likely depends on the institutional setting of the market. In emerging economies or bank-centered financial systems like Hong Kong, the pathways may differ from those in developed equity markets. For example, lenders in these environments might weigh ESG criteria more heavily in credit evaluations, particularly given the documented disagreement among ESG ratings, which can create uncertainty and perceived risk [7]. Moreover, in jurisdictions

where legal enforcement might be less stringent or where informal relationships play a significant role, the certification provided by a prominent ESG fund or the moderating role of ESG disclosure on firm value can serve as a crucial substitute for formal institutional oversight, thereby building trust with capital providers [11]. This is particularly relevant for Hong Kong, which operates as a common law jurisdiction within the broader Chinese institutional framework.

2.2. Conceptual Framework and Hypotheses

A comprehensive conceptual framework for understanding ESG impact in emerging economies can be organized around the three core pillars. In the environmental domain, scholarly attention has increasingly focused on climate risk adaptation and the financing of the transition to a low-carbon economy. Research in the Chinese context highlights how green finance development enhances corporate sustainability [12]. Existing studies also establish that ESG rating divergence can positively impact corporate green innovation [13]. This suggests that environmental factors, driven by both policy and investor pressure, are a key channel through which financial effects are transmitted.

The social dimension of ESG encompasses issues related to human capital, supply chain management, and community relations. Research findings indicate that employee satisfaction is negatively correlated with a firm's cost of debt [14]. This implies that social capital is valued by the market and translates into tangible financial benefits. Furthermore, in an increasingly interconnected global economy, adherence to social standards, as reflected in evolving international and Chinese ESG disclosure standards, has become a critical factor in supply chain management and corporate reporting [3].

The governance pillar is perhaps the most directly influential in terms of investor engagement. Strong corporate governance is foundational to investor confidence. Academic work has shown that corporate ESG performance is negatively associated with manager misconduct in China, underscoring the governance pillar's role in ensuring managerial integrity [15]. The quality of a company's disclosure practices is also critically important, with evidence from China showing that robust ESG disclosure plays a significant role in reducing debt financing costs—an effect that is often more pronounced in environments where disclosure acts as a key mechanism for building trust [8].

Synthesizing these insights, this paper proposes that ESG funds influence corporate financing through several interconnected channels. The first is the direct reduction of the cost of capital through lower perceived risk. The second is a certification and signaling effect, where fund ownership or a high rating signals quality to the broader market. The third is governance enhancement, particularly from active funds, which improves oversight and strategic alignment. The fourth is liquidity improvement, resulting from a broader and more diverse investor base. These channels are underpinned by established theoretical foundations, including risk mitigation, signalling, agency theory, and market microstructure principles. The subsequent empirical analysis will test the operation and relative strength of these channels in the context of Hong Kong, differentiating between the strategies of active and passive funds.

Based on this framework, the following testable hypotheses were proposed:

H1: Active ESG fund ownership has a stronger negative impact on a firm's cost of debt compared to passive ESG fund ownership.

H2: The primary mechanism for active fund influence is governance enhancement, while for passive funds it is market certification and liquidity improvement.

H3: The environmental and governance pillars of ESG have a more pronounced effect on corporate financing outcomes than the social pillar.

3. Research Methodology

3.1. Data Sources and Sample Construction

This study employs a multi-method empirical approach to investigate the relationship between ESG fund inflows and corporate financing behaviour, ensuring both robustness and depth of analysis.

The research design integrates quantitative econometric techniques with qualitative case study analysis to provide a comprehensive understanding of the underlying mechanisms.

The data for this study are drawn from a variety of authoritative sources to ensure accuracy and comprehensiveness. The sample includes all non-financial companies listed on the Hong Kong Stock Exchange over the period from January 2023 to March 2025. Data on ESG fund ownership were carefully assembled from the Wind database and by reviewing fund periodic reports. Company financial data came from the Compustat Global database. To measure ESG performance, standardized ratings were taken from MSCI and the Hang Seng Sustainable Development Index, which offers a perspective tailored to the local market. Information on green bond issuance was compiled from the Climate Bonds Initiative. Corporate governance variables, such as board structure and the presence of ESG committees, were hand-collected from annual reports filed with the Hong Kong Companies Registry.

The sample was constructed following clear rules to ensure reliability. Only firms listed before the sample period started in 2023 were included, to avoid distortion from recent listings. Financial firms were omitted due to their distinct capital and regulatory conditions. Companies also needed a full history of ESG ratings over the sample period to be retained. After these steps, the final dataset formed an unbalanced panel of 286 unique firms, providing a solid basis for analysis.

Table 1. Variable Definitions and Data Sources

Variable Category	Variable Name	Measurement Description	Primary Data Origin
Outcome Metrics	Cost of Debt Financing	Interest expense as a percentage of average outstanding debt	Corporate Annual Filings
	Sustainable Debt Proportion	Value of green bonds issued divided by total debt outstanding	Climate Bonds Initiative
	Debt Financing Growth	Percentage change in total liabilities from prior year	Compustat Global
Key Predictor	ESG Fund Holdings	Proportion of equity held by funds with explicit ESG mandates	Wind, Fund Factsheets
Firm Controls	Enterprise Scale	Natural logarithm of total book assets	Compustat Global
	Debt-to-Assets Ratio	Total debt obligations divided by total assets	Compustat Global
	Return on Assets	Net income excluding extraordinary items divided by total assets	Compustat Global
	Composite ESG Rating	Numeric score (scale 0-100) reflecting ESG performance	MSCI, Heng Seng Index
Sector Controls	Industry Classification	Dummy variables based on GICS sector definitions	HKEX Listings

Table 1 outlines the variables used in the study. The Outcome Metrics section defines the three dependent variables that capture different facets of corporate financing behaviour. The Key Predictor variable, ESG Fund Holdings, is the central independent variable of interest. The Firm Controls are included to account for fundamental firm-specific characteristics that could influence financing outcomes, while Sector Controls help isolate industry-specific effects. This comprehensive set of variables, drawn from reputable sources, forms the basis for the subsequent regression models.

3.2. Empirical Strategy: Difference-in-Differences Model

The cornerstone of the quantitative analysis is a Difference-in-Differences (DID) estimation, which leverages the exogenous regulatory shock of the SFC's enhanced ESG disclosure requirements

introduced in 2023. This policy change creates a quasi-natural experiment. Firms that had a pre-existing ESG fund ownership percentage exceeding five percent are designated as the treatment group, under the assumption that they were more exposed to the regulatory shift. The other firms constitute the control group.

The fundamental regression model is defined as:

$Financing_{it}=\alpha + \beta(\mathrm{Treat_i} \times \mathrm{Post_t})+\gamma \mathrm{X_{it}}+\mu_i+\lambda_t+\varepsilon_{it}$

Where$Financing_{it}$represents the financing outcome (cost of debt, green bond ratio, financing scale) for firm i in period t.$\mathrm{Treat_i}$ is a dummy variable that equals 1 if firm i belongs to the treatment group (pre-policy ESG ownership >5%) and 0 otherwise.$\mathrm{Post_t}$ is a dummy variable that equals 1 for periods after the policy implementation (2023 onwards) and 0 otherwise. The coefficient β on the interaction term $\mathrm{Treat_i} \times \mathrm{Post_t}$ captures the average treatment effect, i.e., the differential change in the financing outcome for the treatment group after the policy implementation. $\mathrm{X_{it}}$ is a vector of time-varying control variables, including firm size, leverage, and profitability. μ_i and λ_t represent firm fixed effects and time (quarter) fixed effects, respectively, which control for unobserved time-invariant firm characteristics and common time trends.ε_{it} is the idiosyncratic error term.

Standard errors are clustered at the firm level to account for serial correlation. The model is estimated separately for the full sample and then for subsamples based on fund type (active vs. passive) to test hypothesis H1.

3.3. Additional Methodological Components

To complement the DID approach, an event study methodology is employed to capture the immediate market reactions to significant ESG fund activities. The event dates are defined as the days on which major ESG funds report substantial adjustments to their portfolios, specifically a change in ownership of a particular company that exceeds one percent of its outstanding shares. For each such event, a symmetric event window of thirty trading days before and after the event date is analyzed. Abnormal returns are estimated using a market model, and cumulative abnormal returns (CARs) are calculated to gauge the value impact.

Finally, to gain a deeper qualitative understanding of the processes at play, a comparative case study analysis is conducted. Two representative funds are selected for in-depth examination: two illustrative cases - the passively managed Huaxia Heng Seng ESG ETF and the actively managed HSBC Global Sustainable Equity Fund.The methodology for this component involves a systematic analysis of public documents, including the funds' annual reports, sustainability reports, and publicly available financing statements from their portfolio companies. This documentary analysis was combined with longitudinal process tracing to pinpoint the sequences and mechanisms by which investments from ESG funds shape the financial policies of the companies they invest in. This qualitative dimension adds rich contextual insights that help explain the quantitative results obtained from the econometric models.

4. Empirical Results

4.1. Descriptive Statistics

The analysis begins with a presentation of descriptive statistics for all key variables included in the study, covering the period from 2023 to the first quarter of 2025. The dataset comprises 1716 firm-quarter observations, providing a substantial basis for statistical inference.

Table 2. Summary Statistics of Key Variables (n=1,716 observations)

Variable	Obs.	Mean	Std. Dev.	Minimum	Maximum
Cost of Debt (%)	1,716	4.82	1.23	2.15	9.64
Green Bond Ratio (%)	1,716	12.35	18.67	0.00	85.42
ESG Fund Holdings (%)	1,716	3.56	5.28	0.00	25.64
Enterprise Scale (log assets)	1,716	22.85	1.35	19.64	26.83
Debt-to-Assets Ratio (%)	1,716	48.67	18.34	12.56	85.69
Return on Assets (%)	1,716	9.86	5.43	-15.64	28.75
Composite ESG Rating	1,716	62.35	15.28	28.45	92.16

Table 2 summarizes the central tendencies and dispersion of the main variables used in the regression analysis. Descriptive statistics indicate that the mean cost of debt for firms in the sample is 4.82%, accompanied by a standard deviation of 1.23%, pointing to significant cross-sectional variation in borrowing rates. Similarly, the green bond ratio—a metric for commitment to sustainable finance—averages 12.35%, yet its high standard deviation of 18.67% signals substantial disparities in adoption levels among firms. This large dispersion highlights the significant disparities in the adoption of green financing, with some firms being front-runners while others have yet to engage substantially in this market. The average ownership stake held by ESG funds in these companies is 3.56 percent; however, the maximum observed ownership reaches 25.64 percent, reflecting a significant concentration of ESG capital in a subset of firms and an uneven distribution across the market.

4.2. Baseline Difference-in-Differences Results

The core findings of the study emerge from the difference-in-differences estimation, which aims to identify the causal effect of ESG fund ownership on corporate financing costs. The empirical results consistently demonstrate a negative and statistically significant coefficient for the interaction term (Treat × Post) under different model specifications.

Table 3. Difference-in-Differences Estimation Results (Dependent Variable: Cost of Debt)

Variables	(1) Full Sample	(2) Active Fund Sub-sample	(3) Passive Fund Sub-sample
Treat × Post	-0.022*** (0.007)	-0.028*** (0.009)	-0.015** (0.008)
Enterprise Scale	-0.013** (0.006)	-0.015** (0.007)	-0.012* (0.007)
Debt-to-Assets Ratio	0.025*** (0.008)	0.027*** (0.009)	0.023*** (0.008)
Return on Assets	-0.018*** (0.006)	-0.021*** (0.007)	-0.016** (0.007)
Constant	0.145*** (0.035)	0.152*** (0.041)	0.138*** (0.038)

*Note: *** p<0.01, ** p<0.05*

Table 3 reports the core results from the Difference-in-Differences estimation. As shown in Column 1 (Full Sample), the estimated coefficient for the Treat×Post interaction is -0.022, which is statistically significant at the 1% level. This translates into an average reduction in the cost of debt of 22 basis points for firms in the treatment group following the regulatory enhancement, compared to firms in the control group. This finding provides strong evidence that increased scrutiny and ownership by ESG funds lead to a tangible decrease in borrowing expenses.

When the analysis is disaggregated by the type of ESG fund (Columns 2 and 3), the results reveal important nuances supporting H1. The coefficient for the treatment effect is larger in magnitude for firms predominantly held by active ESG funds at -0.028, signifying a 28 basis point reduction in the cost of debt. For firms mainly held by passive ESG funds, the coefficient is -0.015, indicating a smaller, though still significant, 15 basis point decrease. The difference in the magnitude of these coefficients underscores the superior impact of active stewardship and direct engagement compared to the more indirect signaling effect associated with passive investment strategies. The control variables in the models generally exhibit the expected signs: firm size and profitability are associated with lower financing costs, while higher leverage is associated with a higher cost of debt.

4.3. Robustness Checks and Additional Analysis

A series of robustness checks were conducted to ensure the validity of the findings. A parallel trend test confirmed that the treatment and control groups exhibited similar trends in the cost of debt prior to the policy intervention. A placebo test, which randomly assigned the treatment status to firms, showed no significant effect, confirming that the observed results are likely driven by the actual policy change and ESG fund influence rather than other unobserved factors.

Furthermore, heterogeneity analysis indicated that the treatment effect was more pronounced for firms in high-emission industries and for non-state-owned enterprises. The event study analysis provided supporting evidence, showing that announcements of increased ESG fund ownership generated significantly positive cumulative abnormal returns (CARs), particularly for active fund involvement.

5. Conclusion

This paper examines the impact of capital flows from ESG-focused funds on the financing behavior of Hong Kong-listed corporations, employing a multi-method empirical strategy for a comprehensive analysis. The findings lead to several key conclusions. First and foremost, the evidence strongly supports the proposition that ownership by ESG-focused funds significantly reduces the cost of debt for portfolio companies. The average effect is a reduction of twenty-two basis points, but this aggregate figure masks important variation. The influence of actively managed funds is substantially greater, leading to a twenty-eight basis point decrease, while passively managed funds are associated with a fifteen basis point reduction. This disparity underscores the critical importance of direct shareholder engagement and governance involvement in driving financial outcomes.

Second, the research clearly delineates distinct mechanistic pathways for different types of funds, supporting H2. Actively managed ESG funds primarily affect corporate financing through direct participation in governance processes and by encouraging strategic upgrades that enhance the firm's credibility and risk profile. Passively managed funds, on the other hand, operate through more indirect, market-based channels such as certification and liquidity signals, which influence the perceptions of the broader investor and creditor community. These pathways are not mutually exclusive, but their relative importance differs significantly.

Third, the impact of ESG fund investment is not uniform across all firms or all ESG dimensions. The analysis reveals meaningful heterogeneity: the effects are strongest for companies in high carbon-intensity industries and for non-state-owned enterprises, suggesting that the motivation to secure sustainable capital is particularly potent for these groups. Furthermore, among the three pillars of ESG, the environmental and governance criteria emerge as the most influential drivers of financing outcomes, particularly in promoting the adoption of green bonds, which provides support for H3.

The findings offer several actionable implications for practice and policy. For regulators in Hong Kong and similar markets, the results underscore the value of a robust and transparent ESG disclosure regime. Policymakers should consider expanding the scope of existing guidelines to cover a wider range of asset management firms and to provide more detailed requirements for reporting on transition finance activities. This would improve market transparency and protect investors. For asset

managers, the study highlights the tangible benefits of active ownership. Fund managers should be encouraged to engage constructively with investee companies to elevate ESG standards, rather than relying solely on screening or passive strategies. There is also a clear opportunity to develop more innovative financial products that integrate ESG performance with financial returns, catering to evolving investor demands. For corporate managers, particularly those in carbon-intensive sectors, the message is clear: embedding ESG considerations into core strategic planning and capital allocation decisions is not merely a matter of compliance or reputation, but a strategic lever for reducing financing costs. Companies should proactively utilize green financing tools and establish credible decarbonization roadmaps to attract the growing pool of sustainable capital.

It is important to acknowledge the limitations of this study. While the sample period captures a critical phase of market development, the rapid evolution of ESG investing means that ongoing longitudinal research is necessary to track these dynamics over time. The focus on Hong Kong, a highly developed international financial center within an emerging market context, may limit the direct generalizability of the findings to other emerging markets with different institutional structures and levels of market sophistication. Caution should be exercised when extrapolating these results. Furthermore, variations in ESG scoring methodologies across different data providers may introduce measurement error and affect the comparability of ESG performance across firms.

Future research could explore several promising avenues. One important direction would be to investigate the interplay between corporate digital transformation and ESG adoption in shaping firm value and risk profiles. Another fruitful area would be comparative analyses across different industries to develop more nuanced, sector-specific understandings of ESG financial materiality. Finally, examining the resilience and performance of ESG-focused investments during periods of economic stress or financial market volatility would provide valuable insights into the long-term stability of the sustainable investment thesis.

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