

Introduction

This research project aims to investigate the impact of CSR gap or decoupling on firm risk and the value/glamour effect. In the first part, the regression results reveal a weak positive relationship between CSR gap and firm risk, and this relationship is reinforced by analyst coverage. The second part contributes to the ongoing debate on the value/glamour effect and explores the role of CSR gap on expectation errors. The value premium is calculated as the average return difference between two portfolios sorted by fundamental strength and book to market ratio. Undervalued Minus Overvalued (UMO), a misvaluation factor, is created using a long position in firms with low CSR gap scores and a short position in firms with high CSR gap scores. The risk factor regression suggests that CSR gap is a relevant factor in discussing the value premium.

Data and Methodology

- In terms of data, we start with all firms in Thomson Reuters ASSET4 and Bloomberg databases.
 - Research period from 2003 to 2022.
 - We retrieve ESG performance and individual pillar score data from ASSET4.
 - We retrieve ESG disclosure data from Bloomberg.
 - We retrieve fundamental and return data from Datastream.
- CSR gap calculation method:
 $CSR_Decoupling/Gap = (Standardized\ Bloomberg\ ESG\ Disclosure\ Score - Standardized\ ASSET4\ ESG\ Performance\ Score)/10$

CSR Gap and Firm Risk

- **Reco_Mean** = Average Analyst Recommendation (1=strong sell, 2=sell, 3=hold, 4=buy, 5=strong buy)
- **No_Analyst** = Number of analysts following the firm
- **Risk Factors:** TOTR = Total Risk, IDIOR = Idiosyncratic Risk, BETA = Systematic Risk.

✓ First-step panel-regression:

$$Reco_Mean_{i,t} = \alpha_0 + \beta_1 CSR_Gap_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 ROA_{i,t} + \beta_4 LEV_{i,t} + \beta_5 MTBV_{i,t} + \beta_6 LIQ_{i,t} + \beta_7 SDROA_{i,t} + \beta_8 DIV_{i,t} + \beta_9 CAPEX_{i,t} + \beta_{10} CASH_{i,t} + TIME + FIRM + \epsilon_{i,t}$$

✓ Second-step panel-regression:

$$TOTR_{i,t} / IDIOR_{i,t} / BETA_{i,t} = \alpha_0 + \beta_1 CSR_Gap_{i,t} + \beta_2 No_Analyst_{i,t} + \beta_3 CSR_Gap_{i,t} * No_Analyst_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 ROA_{i,t} + \beta_6 LEV_{i,t} + \beta_7 MTBV_{i,t} + \beta_8 LIQ_{i,t} + \beta_9 SDROA_{i,t} + \beta_{10} DIV_{i,t} + \beta_{11} CAPEX_{i,t} + \beta_{12} CASH_{i,t} + TIME + FIRM + \epsilon_{i,t}$$

CSR Gap and Value Premium

		Value/Glamour Portfolios		
		Low BM Firms "Glamour" (Strong Expectations)	Middle BM Firms	High BM Firms "Value" (Weak Expectations)
Low FSCORE (Weak Fundamentals)	$E[E BM] > E[E FSCORE]$ Overvalued Firms	Potential for overvalued firms	$E[E BM] \approx E[E FSCORE]$	$E[E BM] \approx E[E FSCORE]$
Middle FSCORE	Potential for overvalued firms	$E[E BM] \approx E[E FSCORE]$	Potential for undervalued firms	Potential for undervalued firms
High FSCORE (Strong Fundamentals)	$E[E BM] \approx E[E FSCORE]$	Potential for undervalued firms	$E[E BM] < E[E FSCORE]$ Undervalued firms	

- **Value premium (VP):** the average return difference between the top left corner and bottom right corner portfolios
- **UMO:** the weekly return difference between low CSR gap portfolio and high CSR gap portfolio.

$$VP_t = \beta_0 + \beta_1 \cdot UMO_t + \beta_2 \cdot MKT_t + \beta_3 \cdot SMB_t + \beta_4 \cdot HML_t + \beta_5 \cdot WML_t + \epsilon_t$$

Results

CSR Gap and Firm Risk

	Dependent variable:		
	TOTR (1)	IDIOR (2)	BETA (3)
CSR_Gap	0.005*** (0.002)	0.004*** (0.001)	0.046 (0.088)
No_Analyst	-0.0001*** (0.00003)	-0.0001*** (0.00002)	-0.007*** (0.002)
CSR_Gap*No_Analyst	-0.0002** (0.0001)	-0.0001** (0.0001)	-0.002 (0.005)
SIZE	-0.001*** (0.0002)	-0.001*** (0.0002)	0.011 (0.014)
ROA	-0.006*** (0.002)	-0.006*** (0.001)	-0.115 (0.094)
LEV	0.007*** (0.001)	0.007*** (0.001)	0.282*** (0.055)
OBS	8,185	8,185	8,185
R ²	0.049	0.053	0.020
Adjusted R ²	-0.206	-0.202	-0.244

CSR gap has a significant positive impact on firms' total risk and idiosyncratic risk. Analyst coverage reinforces this relationship.

CSR Gap and Value Premium

	Glamour	Middle	Value
Low FSCORE	-0.11158569	-0.05689760	0.008893101
Middle FSCORE	-0.05785993	-0.03022585	0.026142318
High FSCORE	-0.04808292	-0.02107444	0.027644453

We discover a significant value premium over a research period of 20 years.

- Value firms with good fundamental characters in general have a higher CSR gap score, which indicates that they bear high CSR risk, consequently compensating the investors with higher returns.

Conclusion

The positive relationship between CSR gap and firm risk as discovered in the first part of the project directly contributes to a better understanding of the risk materiality of CSR factors. The second part of the project links CSR topics with the traditional value growth debate, which broadens the research angle on non-sustainable finance topics. Understanding CSR and its impact on a company's financial performance is becoming more important than ever for investors. In addition to mitigating potential risks associated with greenwashing, investing in socially re-sponsible companies can also lead to positive social and environmental outcomes, which can benefit both investors and society as a whole. By prioritizing ESG factors in their investment decisions, investors can encourage companies to adopt more responsible practices, promoting positive social change and contributing to a more sustainable future.