

Do ESG Factors Influence Firm Valuation? Evidence from the Field

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Outline

- 1 Motivations
- 2 Pre-Registered Hypotheses and Method
- 3 Key descriptive statistics
- 4 Key Results
- 5 Conclusions

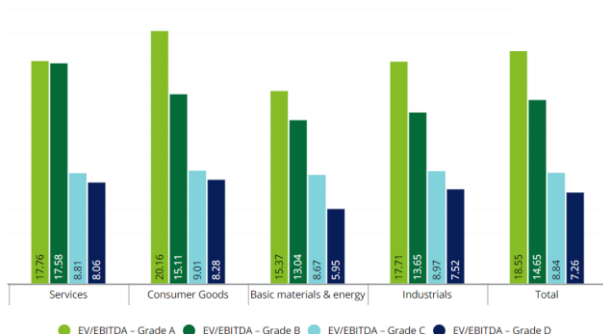
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Motivations

- Global growth of sustainable fund assets from \$1.7tr end of 2020 to \$2.5tr at the end of 2022 (Morningstar, 2023)
- Growing reporting regulations that will provide a greater quantity of ESG data to data providers and investors
- Knowledge gap on current investor practices when integrating ESG in intrinsic valuation

EV/EBITDA



Source: Deloitte (2022)

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Pre-registered hypotheses

- All hypotheses were pre-registered in the Open Science Framework repository
- This practice helps mitigate the publication biases (Franco et al. 2014) and has a proven efficiency in exploratory research (Nosek et al., 2018)
- Our four pre-registered hypotheses:
 - H1: Firm insiders do not integrate the impact of ESG on valuation the same as firm outsiders.
 - H2: The perceived reliability of ESG ratings affects market participants' expected link between ESG and valuation.
 - H3: Industry or sector affiliation of a firm impacts market participants' expected links between ESG and valuation.
 - H4: There is a difference in how a firm's ESG performance is integrated into the valuation process through the firm's cash-flows and/or its discount rate.

Pre-registered hypotheses

- H1: Firm insiders do not integrate the impact of ESG on valuation the same as firm outsiders.
 - Agency theory
 - Expected effects of ESG regulations affecting investors
- H2: The perceived reliability of ESG ratings affects market participants' expected link between ESG and valuation.
 - Unreliable data due to methodology changes (Berg et al., 2020) or low correlation between ESG ratings (Berg et al., 2022)
 - Lack of ESG reporting standards limiting comparability (Amel-Zadeh & Serafeim, 2018)

Pre-registered hypotheses

- H3: Industry or sector affiliation of a firm does not impact market participants' expected links between ESG and valuation.
 - Underpricing of climate risks is the most important pricing factor in some specific industries (Krueger et al., 2020)
 - Green sentiment has differential impacts depending on industry (Bessec and Fouquau, 2020)
- H4: There is a difference in how a firm's ESG performance is integrated into the valuation process through the firm's cash-flows and/or its discount rate.
 - There are two pathways to ESG wealth creation: increased cash flows and a reduced discount rate (Gillan et al., 2021)
 - Debate amongst scholars between cash flows integration supporters and discount rate adjustment supporters (Edmans, 2023; Cornell & Damodaran, 2020)

Method

- We launched an online survey sponsored by 8 European finance professionals' associations and obtained more than 300 responses
- Our sample mainly comprises portfolio managers (21%), financial analysts (20%), valuation experts (14%), chief financial officers or financial managers (8%), investment bankers (4%), and other types of respondents (34%), who primarily include ESG analysts, heads of ESG departments, and risk officers
- A large majority of the respondents were based in France (69%), with other respondents mainly based in Portugal (7%), Germany (4%), and Italy (4%).

Method

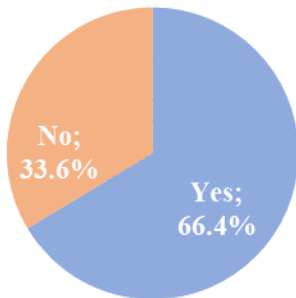
- We conducted 15 interviews with professionals from different financial roles, including asset managers, valuation and ESG consultants, PE fund managers, financial analysts, a CFO, and an investment banker.
- The interviewees represented various areas of finance, clients, industries, and hierarchical positions in their organizations. Eight had participated in the researchers' survey, while seven had not.
- The interview structure began with open-ended questions about ESG and business valuation practices, such as ESG data usage, trust level, and ESG's role in their valuation practices.
- The second part of the interview involved discussing the validity of the four theoretical hypotheses.
- The goal was to use these interviews as additional data to challenge and better understand the mechanisms behind the survey results.

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Key Descriptive Statistics

When you value a firm, do you
use ESG ratings data? (Question 9)
All Respondents



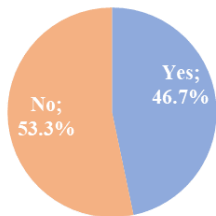
Key reasons not to use ESG data:

- ESG data are not sufficiently reliable to be used
- It is not possible to evaluate the impact of ESG data on the firm value
- ESG data do not significantly impact the financial value of a firm

Key Descriptive Statistics

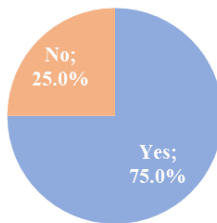
When you value a firm, do you
use ESG ratings data? (Question 9)

Insiders Only



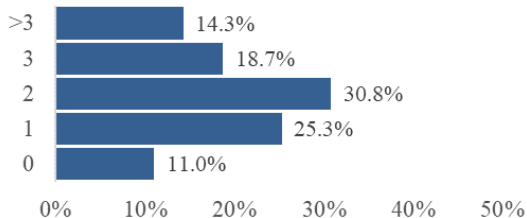
When you value a firm, do you
use ESG ratings data? (Question 9)

Outsiders Only

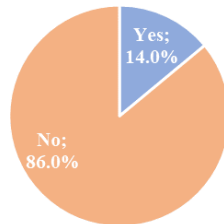


Key Descriptive Statistics

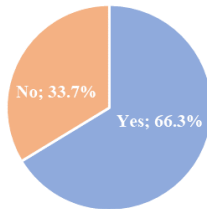
How many ESG data providers do you use?
(Question 12)



Do you think ESG ratings data are sufficiently standardized?
(Question 14)



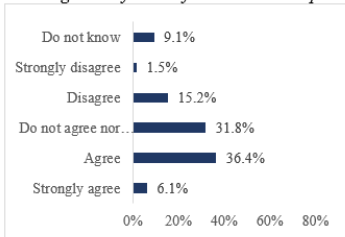
Do you use an internal ESG scoring system?
(Question 13)



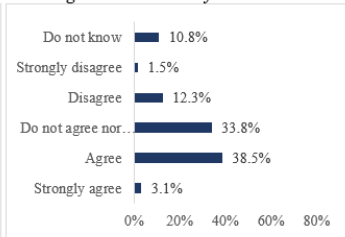
Key Descriptive Statistics

When implementing a discounted cash flow (DCF)-style approach, do you integrate ESG into the following parameters? 1 (Strongly agree) to 5 (Strongly disagree)
(Question 30)

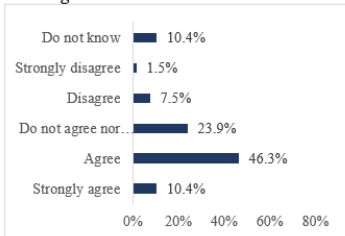
Through cash-flows defined in business plan



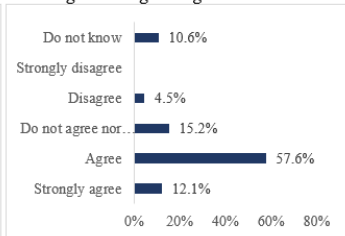
Through normative cash flows



Through the discount rate



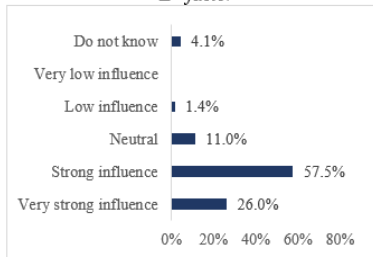
Through the long-term growth rate



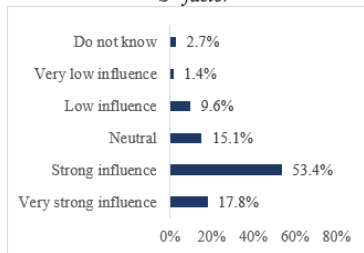
Key Descriptive Statistics

*Do you think “E”, “S”, or “G” factors influence firm value?
1 (Very strong influence) to 5 (No influence) (Question 21)*

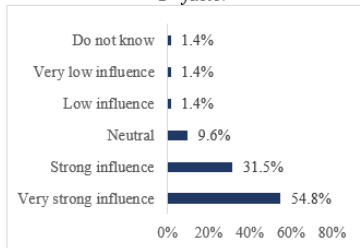
“E” factor



“S” factor

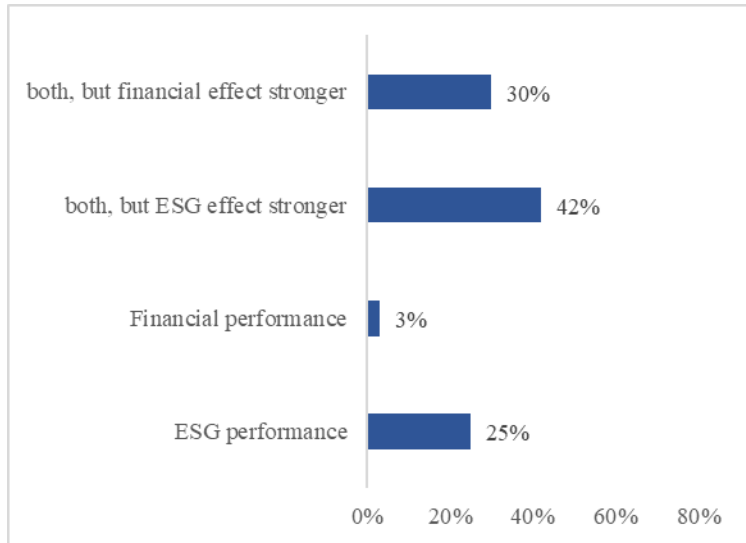


“G” factor



Key Descriptive Statistics

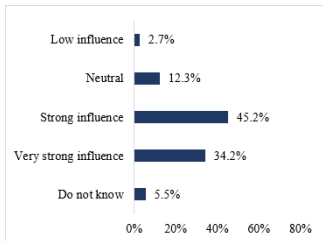
What is the causal relationship between ESG and financial performance? (Question 19)



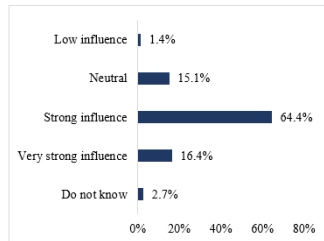
Key Descriptive Statistics

Do you think the following “E” factors influence firm value? 1 (Very strong influence) to 5 (No influence) (Question 22)

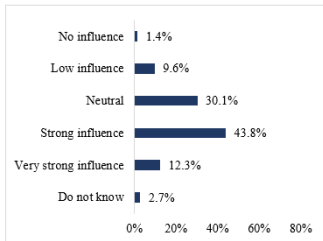
GHG emissions



Resource Use



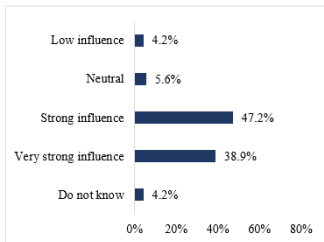
Waste Management



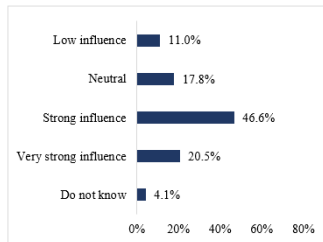
Key Descriptive Statistics

Do you think the following "S" factors influence firm value? 1 (Very strong influence) to 5 (No influence) (Question 24)

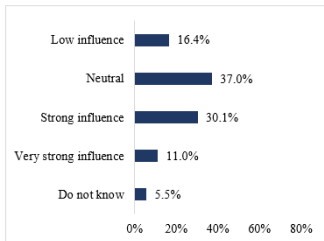
Workforce



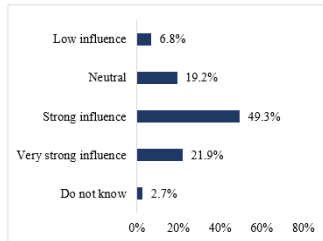
Human rights



Community



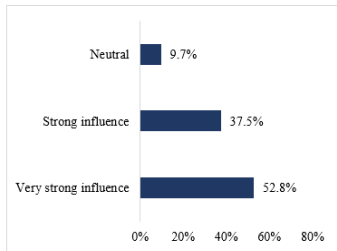
Product responsibility



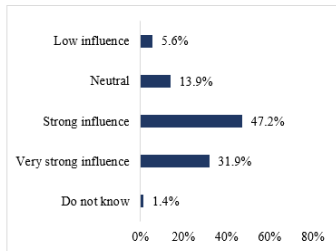
Key Descriptive Statistics

Do you think the following "G" factors influence firm value? 1 (Very strong influence) to 5 (No influence) (Question 25)

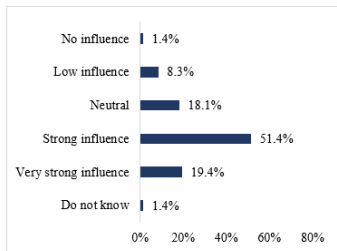
Management



Shareholders



CSR Strategy



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Key Results

Table IV: Impact of insiders, outsiders and intermediaries on ESG use in valuation.

Variables	(1) ESG use	(2) ESG use	(3) ESG use
<i>Insider</i>	-1.165*** (0.389)	-0.935** (0.409)	-0.920** (0.468)
Observations	145	145	144
Pseudo R-Squared	0.09	0.12	0.20
Prob > chi2	0.003	0.001	0.000
Control variables included	Yes	Yes	Yes
Respondent Attributes – Operation Side	No	Yes	Yes
Questionnaire Attribute – Distribution Channel	No	No	Yes

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Key Results

Table V: Impact of ESG data quality on trust in link between ESG and value

Variables	(1) ESG Materiality	(2) ESG Materiality	(3) ESG Materiality
<i>ESG Reliability</i>	1.111 (0.751)	1.187 (0.761)	1.606* (0.862)
<i>Insider</i>	0.100 (0.660)	0.107 (0.699)	0.378 (0.736)
<i>ESG Reliability*Insider</i>	-1.130 (2.125)	-1.021 (2.149)	-2.141 (2.345)
Observations	71	71	71
Pseudo R-squared	0.03	0.04	0.07
Prob > Chi2	0.581	0.708	0.719
Control variables included	Yes	Yes	Yes
Respondent Attributes – Operation side	No	Yes	Yes
Questionnaire Attribute – Distribution Channel	No	No	Yes

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Key Results

Table VI: Impact of respondent's sector on trust in ESG data.

Variables	(1) ESG materiality	(2) ESG materiality
<i>Sector specialist</i>		-1.663* (0.972)
<i>Size</i>	0.255 (0.267)	0.200 (0.270)
<i>Diploma</i>	-0.292 (0.611)	-0.604 (0.673)
<i>Experience</i>	-0.052 (0.651)	-0.258 (0.640)
Observations	71	69
Pseudo R-Squared	0.05	0.07
AIC	162.78	160.01
BIC	194.46	193.52
Respondent Attributes – Operation Side	Yes	Yes
Questionnaire Attribute – Distribution Channel	Yes	Yes

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Key Results

Table VII: DCF inputs adjusted to take into account ESG factors.

Variables	(1) ESG Cash Flows	(2) ESG Terminal Value	(3) ESG Discount Rate	(4) ESG Long Term Growth Rate
<i>ESG Materiality</i>	0.772** (0.361)	0.619* (0.364)	1.462*** (0.394)	0.224 (0.352)
Observations	64	63	65	64
Pseudo R-squared	0.11	0.09	0.20	0.14
Prob > Chi2	0.188	0.425	0.003	0.125
Control variables included	Yes	Yes	Yes	Yes
Respondent Attributes – Operation Side	Yes	Yes	Yes	Yes
Questionnaire Attribute – Distribution Channel	Yes	Yes	Yes	Yes

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

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Conclusions

- ESG factors are being integrated into company valuation processes, primarily driven by outside investors, transforming ESG from a niche to a mainstream practice.
- The study involved numerous finance professionals and showed mixed results on the influence of data quality and sector specialization in the link between ESG and valuation.
- Most practitioners adjust Discounted Cash Flow (DCF) models by modifying the discount rate, with ESG data primarily seen to impact financial performance, not vice versa.
- The study supports regulatory measures incentivizing investors to integrate ESG data, with investors under regulatory pressure more likely to do so and respondents pushing for further standardization of ESG data.