Is investment capital cheaper for green firms? Evidence from equity listings at Euronext – Oslo

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Dec 2024

Abstract

We investigate whether the sustainability profile of a firm affects the terms at which the firm list on a stock market. Given the evidence that sustainable firms have a lower cost of capital, we expect this to also be reflected in the issue terms at an IPO. The laboratory for our investigation is stock listings (IPOs) at Euronext Oslo. We find that firms which emphasize environmental issues in their prospectus have lower implied cost of capital. We find no link between the degree of (first day) underpricing and environmental issues. We also provide evidence on recent changes in the IPO landscape, where pure listings are becoming more common, and stock exchanges introduce tiered markets that attract younger and smaller companies.

Research issue

Stock markets key to financing the circular economy

- Financing large green investments (e.g. Renewable energy generation).
- Financing green innovations – IPO and subsequent SEO's finance the scaling up of startups – particularly green innovations.

Question: Is "green" investment different?

- Do investor demand different returns depending on ESG properties?
  - Is there an additional "green glow"? → investors demand less return from green projects (subsidized financing)
  - Reluctance to finance "brown" projects (exclusions)? → brown projects have to offer higher returns?

Our angle on question: Is the terms of listing on an exchange (IPO) also affected by ESG issues?

Literature

Why should ESG affect firms cost of capital?

- The pecuniary view.
  - Stock prices do not fully reflect future ESG consequences (e.g. climate).
  - Short-termism (Stein, 1989)

  → Higher long term returns for better ESG.
- The non-pecuniary view. Investors assumed to put extra utility on "good ESG" (e.g. sustainable) firms.
  - Equilibrium models – tradeoff ESG/Cost of Capital – Pástor, Stambaugh, and Taylor (2021) Pedersen, Fitzgibbons, and Pomorski (2021)

  → "Good" ESG can sustain lower returns.

Empirical research

- Favor the non-pecuniary view (negative green return premium)

Initial Public Offers (IPOs)

Listing on an exchange: Cost of easily accessing equity capital (SEOs)
Academic focus on costs of listing.

- What can explain *underpricing*? (IPO price set too low, excess demand).

Also issues related to how exchange listing works, spurred by worldwide decline in listed firms. (Doidge, Karolyi, and Stulz, 2013)

- Intermediaries: Fiddling with form of IPO
  - Auction IPOs, Direct Listings, SPACs
- Exchanges: Create menu of market places, differing on
  - Direct cost of being listed, Listing requirements, Regulation

Why should ESG affect IPO terms?

Argument from asset pricing discussion:
Cost of capital depend on ESG
Transfer to IPO setting:

- Cost of capital → issue price in IPO.
- Uncertainty about cost of capital
  → Underpricing (issue price too low)
  → Better liquidity (more trading necessary to establish efficient price).
- Cost of capital difference
  → Post-IPO return difference.

Test predictions on sample of IPOs at Euronext–Oslo.

Hypotheses to be tested

Is ESG linked to

1. cost of capital implied in issue price?
2. magnitude of underpricing?
3. first day trading volume?
4. return post-IPO?

ESG. How to measure?

ESG – Environment, Social & Governance concerns
Concentrate on E: Environment, Sustainability, Climate, etc.

- ESG proxy 1. Using prospectus (IPO issue document). Text analysis – To what degree is the nonstandard parts of the prospectus (business plan) concerned with environmental issues?
- ESG proxy 2. Reported greenhouse gas emissions
- ESG proxy 3. Manual grouping into green(sustainable, etc) / neutral / brown(oil& gas, etc) based on main business area of company

Euronext/Oslo

Analysis start in 2018 (Limited by ESG data).
Stocks list either on main board, or alternative markets with lower requirements.

	IPO	Listing
Oslo Børs(Main List)	26	7
Euronext Expand(Axess)	3	1
Euronext Growth(Merkur)	78	62

Distinguish

- IPO – raising additional capital
- Pure listing – no additional capital

Results

Inferring cost of capital from IPO price

Basic NPV relationship used to estimate *implied cost of capital*

$$P_i = \frac{EPS_i}{r_i} \quad \rightarrow \quad \widehat{r_i} = \frac{EPS_i}{P_i}$$

Asking whether ESG matters:

$$\widehat{r_i} = \alpha + \beta^{ESG}\mathbf{ESG}_i + \beta^2\mathbf{Controls}_i + \varepsilon_i$$

Results: Significant negative relationship between ESG and implied cost of capital when ESG measured from prospectus discussion.

Is IPO underpricing influenced by ESG?

Underpricing:

- IPO: Compare IPO issue price to close at day of IPO
- Listing: Compare opening to close prices at day of listing

Average Underpricing

	IPO	Listing
Oslo Bors	2.82	-4.28
Axess	-1.72	
Merkur	4.96	-3.70

Asking whether ESG matters

$$\text{Underpricing}_i = \alpha + \beta^{ESG}\mathbf{ESG}_i + \beta^2\mathbf{Controls}_i + \varepsilon_i$$

Results: No significant relationships with ESG

Other hypotheses

- Post-IPO return differences.

Results: No significant relationships with ESG

Concluding

Our question: How does ESG affect IPOs?
Answer: More sustainable firms have lower costs of capital and higher price at issue.
Attempting to estimate magnitude:

- Do not find significant return difference post-IPO – the effect, if there, is small.

Caveat

- Norway in the period – external shock from Ukrainian war – increased demand for North Sea oil & gas.

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