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

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Abstract

We investigate price differences in the terms of equity capital linked to ESG properties. Do green firms get lower cost of capital? The laboratory for our investigation is new issues at Euronext Oslo. We find evidence of differences in underpricing associated with ESG. Firms with prospectuses that scored higher on the ESG environmental content had less underpricing. On the other hand, firms in the fossil fuel industry, and with high CO_2 emissions, had more underpricing.

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?

Literature

Modelling differences in cost of capital due to ESG

- The pecuniary view.
  - Stock prices do not fully reflect future ESG consequences (e.g. climate).
  - Short-termism (Stein, 1989)
- The non-pecuniary view
  - Equilibrium models – tradeoff ESG/Cost of Capital
    – Pástor, Stambaugh, and Taylor (2021)
    Pedersen, Fitzgibbons, and Pomorski (2021)
  - Question magnitude exclusion effects (Berk and van Binsbergen, 2022)
  - ESG ranking uncertainty muddle tradeoff (Avramov, Cheng, Lioui, and Tarelli, 2022)

Initial Public Offers

Classical IPO literature

- Underpricing in bookbuilding – Informational issues

Newer issues in IPOs

- "The decline of the listed corporation" Reactions:
  - Intermediaries: Fiddling with form of IPO
    - Auction IPOs, Direct Listings, SPACs
  - Exhanges: Create menu of market places, differing on
    - Direct cost of being listed, Listing requirements, Regulation

ESG and IPOs

Argument from asset pricing discussion:
Cost of capital depend on ESG
Directly transferrable to IPO pricing:

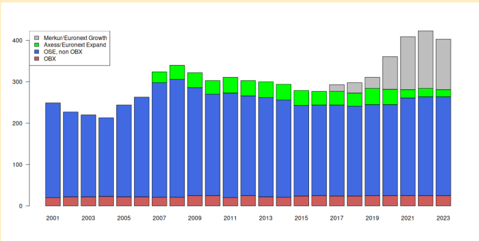
- First day return (underpricing) linked to ESG?

If cost of capital lower, higher issue price?
Post-IPO returns: Do green stocks realize lower returns?

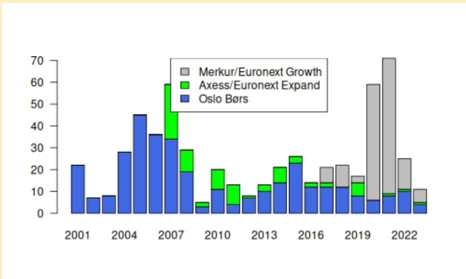
Euronext/Oslo

Three Market Places

- Merkur / Euronext Growth
- Axess
- OSE

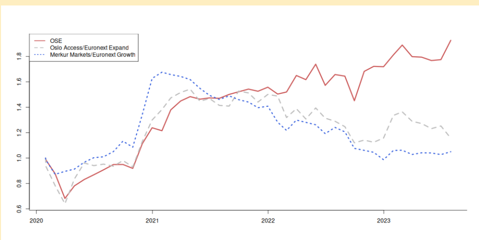


IPO's by market



Stock Market Data

Cumulative stock returns for the three market places



ESG data

ESG - how to measure?
ESG - Environmental Social Governance issues
Concentrate on E:
Environment/Sustainability/Climate

1. ESG proxy – Inferring ESG from prospectus
   Text analysis – To what degree is the information in prospectuses positive towards environment?
2. ESG proxy – Reported
   Reporting requirements – Verified data
3. ESG proxies – Green/Brown grouping
   Manual grouping into green/neutral/brown

Is IPO underpricing influenced by ESG?

First day premium – the typical measure of underpricing.
Does ESG properties of the company covary with the magnitude of underpricing?
If it easier for a green company to get capital, underpricing will be less.

Regressing First Day Return ESG proxies

Significant coefficients

- *ESG Environment* (text analysis of prospectus)
  (negative)
  → better ESG, less underpricing
  (lower first day return)
- *Reported variables*
  Fossil fuel sector (binary variable)
  Scope 1 CO2 Emissions
  (positive)
  → worse ESG, more underpricing
  (higher first day return)
- *Green* (binary variable – manual categorization)
  (negative)
  → better ESG, less underpricing
  (lower first day return)

Post-IPO Green vs Brown portfolio

Construct Difference Portfolio p: Green minus Brown

$$R_{pt} - R_{ft} =$$

$$\alpha_p + b^m(R_{mt} - R_{ft}) + b^{HML} HML_t + b^{SMB} SMB_t$$

Alpha estimate $= 0.028^*$ (10% significance)

Key takeaways

1. Research Question:
   Does ESG affect the terms of issuance of IPO's?
2. First day return:
   "Good ESG" – lower return (less underpricing)
   "Bad ESG" – higher return (more underpricing)
   Possibilities
   → Issuer set a higher issue price?
   → Higher demand on first day?
3. First year post-IPO
   Green stocks higher returns

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