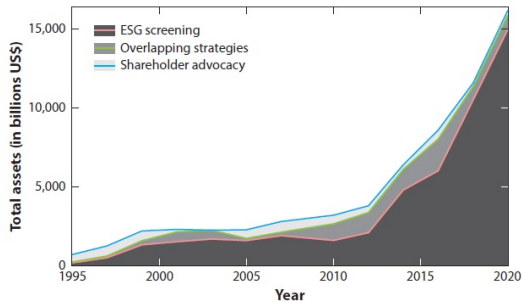


Global Sustainable Leadership

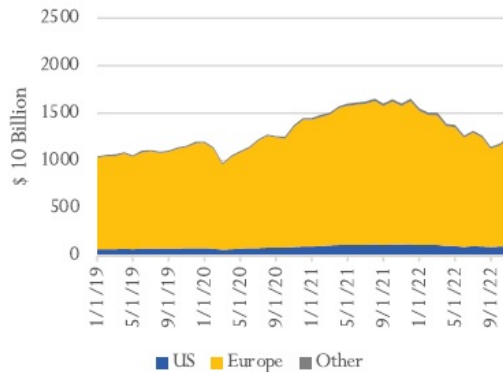
The Role of Investors

Gazi Kabas
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Spring 2025

- Investors provide funds and demand a return in turn
→ Their preference for the portfolio firms (firms that are funded) is crucial
- There is a big increase in ESG funds in the US

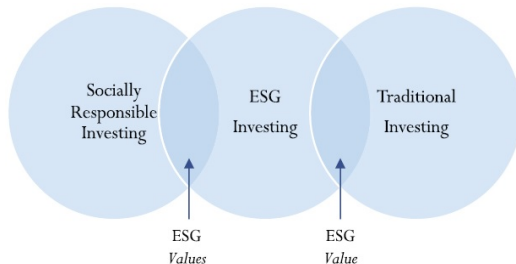


- Investors provide funds and demand a return in turn
→ Their preference for the portfolio firms (firms that are funded) is crucial
- ESG funds are much larger in Europe!



Increase in ESG Investments

- Why is there an increase in ESG-related investments?
 - Two main possible reasons (Starks 2023)
 1. Investors expect that ESG-related investments would yield higher returns
 - Pecuniary reasons
 2. Investors care about ESG-related issues and would like to make an impact
 - Nonpecuniary reasons
 - This preference suggests that investors are willing to accept lower returns



- What are the possible channels through which a better ESG profile improves the returns?
 1. A better ESG profile can improve the firm performance
 - A better ESG profile can be a proxy for good corporate governance
 - A better ESG profile requires long-term investments, indicating that the management team is capable of doing long-term planning
 - A better ESG profile can attract better employees
 2. Capital markets might be inefficient and not pricing ESG-related risks
 - Climate-related risks
 - Legal risks
- Asset management companies use the pecuniary motive to promote their ESG funds
- This motive suggests that ESG-tilted funds/investments should yield higher returns

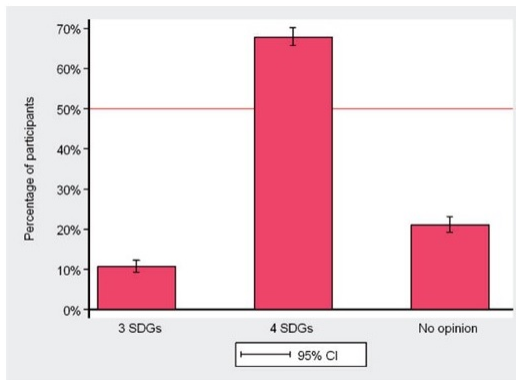
Investors-Nonpecuniary Motives

- Investors are willing to accept lower returns if their investments have a better ESG profile
- This does not mean that the investors have a lower utility
 - The idea of helping the world can generate higher utility, even though the return is lower
- This motive suggests that ESG-tilted funds/investments may yield lower returns
- Thus, finance can facilitate the needed transition by making the funds cheaper
 - How much are investors willing to pay or accept lower returns to have a social impact?
- Issuance of green bonds reflects this motive
 - The issuers hope that the return of such bonds would be lower than the suggested market rate

- Why do investors have nonpecuniary motives?
 1. Social norms (Hong&Kacperczyk, 2009)
 - Investors don't want to make money by using questionable assets
 - Sin stocks: Tobacco, alcohol, gaming
 2. Citizen values (Benabou&Tirole, 2010)
 - Delegated philanthropy
 3. Legal framework (Liang&Renneboog, 2017)
 - Common law prefers private market solutions and ex-post interventions. Civil law tries to fix market failures with ex-ante interventions.
 - If existing laws handle market failures well, firms in civil law do not have to pursue ESG-related activities. If civil law broadens firms' responsibilities to stakeholders from shareholders, firms may engage in ESG-related activities.
 - Firms in civil law countries have higher ESG scores

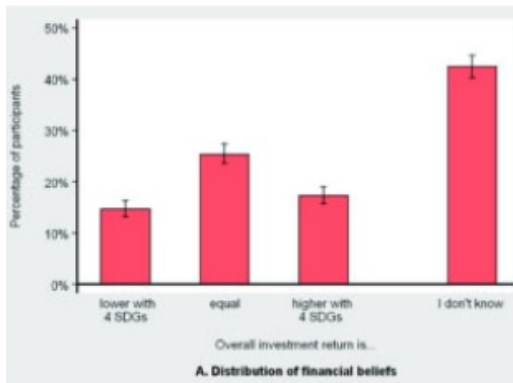
Evidence for Nonpecuniary Motives

- Are pensioners willing to accept lower returns if the fund invests in green assets? (Bauer, Ruof, Smeets 2021)
- Question: Do you want Pensioenfonds Detailhandel to add the fourth sustainable development goal 'Responsible consumption and production'?



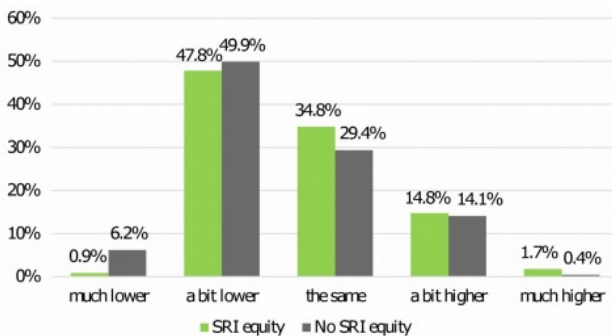
Evidence for Nonpecuniary Motives

- What do pensioners think about the investments of their pension fund? (Bauer, Ruof, Smeets 2021)
- Question: When do you think the investment return is highest?



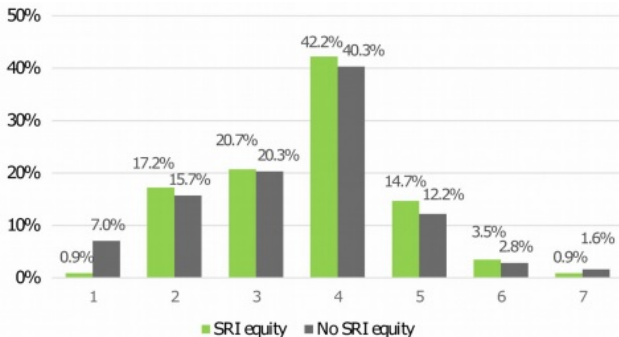
Evidence for Nonpecuniary Motives

- How do Dutch mutual fund investors think about ESG-related investments? (Bauer, Ruof, Smeets 2021)
- Question: I expect that the returns of socially responsible equity funds compared to conventional equity funds are



Evidence for Nonpecuniary Motives

- How do Dutch mutual fund investors think about ESG-related investments? (Bauer, Ruof, Smeets 2021)
- “Socially responsible equity funds are more risky than conventional equity funds,” where 1 corresponds to “Fully disagree” and 7 to “Fully agree”



Evidence for Nonpecuniary Motives

- How do American retail investors think about ESG-related investments? (Giglio et al., 2023)
- What is your expected returns of ESG investments?

	Panel A: Expected 10Y Return of ESG Investments & Stock Market (% p.a.)									
	Mean	SD	P5	P10	P25	P50	P75	P90	P95	N
Pooled ESG	5.60	5.58	0.1	2	3	5	7	10	12	18,232
Pooled Market	6.98	3.53	2.5	3	5	7	8	10	12	18,090

Evidence for Nonpecuniary Motives

- How do American retail investors think about ESG-related investments? (Giglio et al., 2023)
- Exposure to climate change and political view

By Flood Risk Exposure

Low	-1.38
Medium	-1.42
High	-1.41

By Political View in Location

Democratic	-1.27
Republican	-1.62

Evidence for Nonpecuniary Motives

- How do American retail investors think about ESG-related investments? (Giglio et al., 2023)
- Opinion on ESG investment

Panel C: Expected Excess 10Y Return of ESG Investments (% p.a.) by Other Questions										
	Mean	SD	P5	P10	P25	P50	P75	P90	P95	N
By Reasons of ESG Investment										
ESG will outperform	1.39	4.23	-4	-2	0	1	3	5	9	1,214
ESG hedges climate risk	-0.40	4.12	-6	-4	-2	0	1	3	6	3,986
It's the right thing to do	-0.82	3.40	-5	-4	-2	-1	0	2	4	4,503
No specific reason	-2.68	3.87	-10	-7	-4	-2	0	0	2	7,989
By Climate Change Concerns										
Low	-3.35	4.67	-13	-9	-5	-3	-1	0.5	2	2,985
Moderate	-1.64	3.70	-8	-5	-3	-1	0	1.1	3	3,137
High	-0.76	3.77	-6	-4	-2	-0.5	0.5	2	5	6,044

Evidence for Nonpecuniary Motives

- How do American retail investors think about ESG-related investments? (Giglio et al., 2023)
- Actual ESG investment

Panel D: Expected Excess 10Y Return of ESG Investments (% p.a.) by ESG Holdings										
	Mean	SD	P5	P10	P25	P50	P75	P90	P95	N
By ESG Investments										
Has no ESG Investments	-1.48	4.04	-8	-5.3	-3	-1	0	2	4	17,137
Has ESG Investments	0.30	3.75	-5	-3	-1	0	2	4	6.5	633

Evidence for Nonpecuniary Motives

- These are retail investors. What about institutional investors?
- Krueger et al. (2020)
 - ESG profile is not the main concern!

<i>A. Ranking of importance of investment risks (N = 406)</i>						
	Financial risk	Operating risk	Governance risk	Social risk	Climate risk	Other environ. risk
Percentage top risk	51	15	12	11	10	4
Mean ranking	2.2	2.9	3.3	3.7	4.0	4.6

Evidence for Nonpecuniary Motives

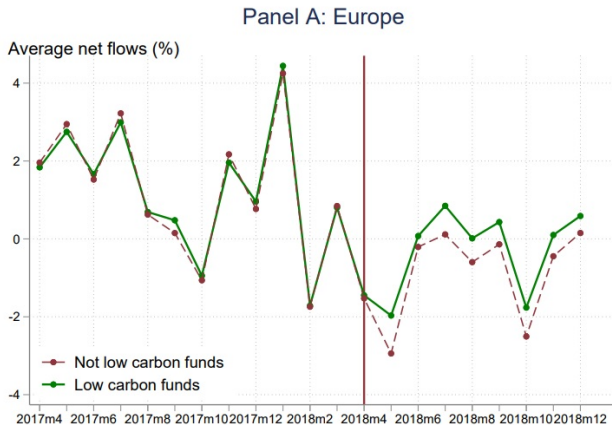
- The importance of reputation for climate risks
(Krueger et al. (2020))

	% with 5 ("strongly agree") score	Mean score
Motivation to incorporate climate risks into the investment process	(1)	(2)
(1) Protects our reputation	29.7	4.03
(2) Is a moral/ethical obligation	27.5	3.88
(3) Is a legal obligation/fiduciary duty	27.0	3.87
(4) Is beneficial to investment returns	25.2	3.85
(5) Reduces overall portfolio risk	23.5	3.85
(6) Reflects our asset owners' investment preferences	22.6	3.88
(7) Reduces tail risks	21.4	3.81
(8) Allows us to address negative spillovers	19.7	3.77
(9) Helps attract fund flows	18.5	3.69
(10) Is increasingly stressed by proxy voting advisors	18.2	3.68
(11) Follows the concerns of other institutional investors	15.6	3.68

- These are all surveys. Is there a way to assess the motives in the real world?
- Morningstar introduced a mutual fund carbon score for the first time in April 2018.
- How do investors react to this release of new information?
 1. If investors care about carbon scores, they may reduce their investments in high-carbon funds
 2. If investors do not care about carbon scores, nothing will change

Evidence for Nonpecuniary Motives

- Ceccarelli et al. (2023) find that



- What do these findings suggest for the returns?
- Preference for ESG should increase the price of better ESG stocks, lowering the returns
- But, we need to consider how firms would react
 - Value maximizing managers would want to exploit the preference for ESG
 - These managers may make the needed investment to make their firms attractive
 - If demand and supply increase in tandem, the price may not even change!
- The return difference between good (green) and bad (brown) firms can be given by

$$r_b - r_g = \frac{m}{q}$$

where r is return, m is the cost of firm transformation to "g", q is Tobin's q (the price of firm capital)

- Why do we care about the stock price?
- What is the relationship between stock price and cost of capital?

Cost of Capital

- Cost of capital is the cost of raising funds that a firm faces
- The return of a project must be higher than the cost of capital to generate positive yields for the investors
 - Cost of capital is also known as the hurdle rate
- Typically, firms use both debt and equity to fund a project (capital). Thus, a firm's cost of capital is a weighted average of the costs of equity and debt
 - This is known as the Weighted Average Cost of Capital (WACC)

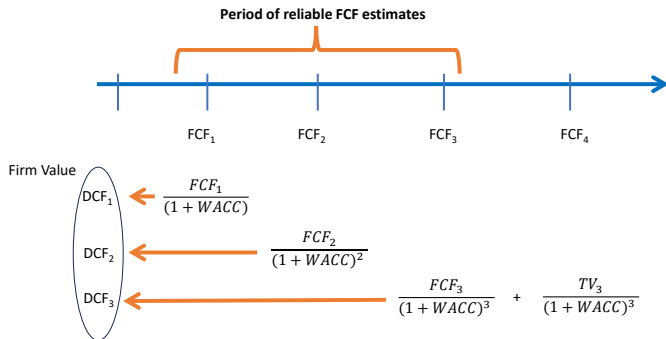
$$WACC = (r_e \times \frac{E}{(E + D)}) + (r_d \times (1 - T) \times \frac{D}{(E + D)})$$

r_e : cost of equity (return), r_d : cost of debt, T : corporate tax rate, E : equity, D : debt

- Lower the r_e , the lower the WACC, and vice versa

Cost of Capital and Firm Value

- Firm value is the sum of the free cash flow (FCF) that the firm will generate
- Due to risk, we need to discount the cash flows with the appropriate risk factor
- WACC is the appropriate risk factor as it reflects the firm risk correctly
 - Higher the WACC, lower the firm value, and vice versa



- How is firms' ESG profile related to stock market returns?
- The main finding is that a worse ESG profile is associated with higher returns!
 - Different ESG profile proxies: Sin stocks, ESG scores, carbon emissions
 - Different samples: industries, regions, time periods
- E.g., Bolton and Kacperczyk (2021) find that firms with high carbon emissions yield 2.3 percent higher stock market returns

- Some investors that have nonpecuniary motives would like to change (improve) the invested firm
→ Impact investing
- Note that ESG investing aims to invest in good firms. It does not aim at changing the firms
- How can investors impact a firm?
- Does impact investing create value for the shareholders?

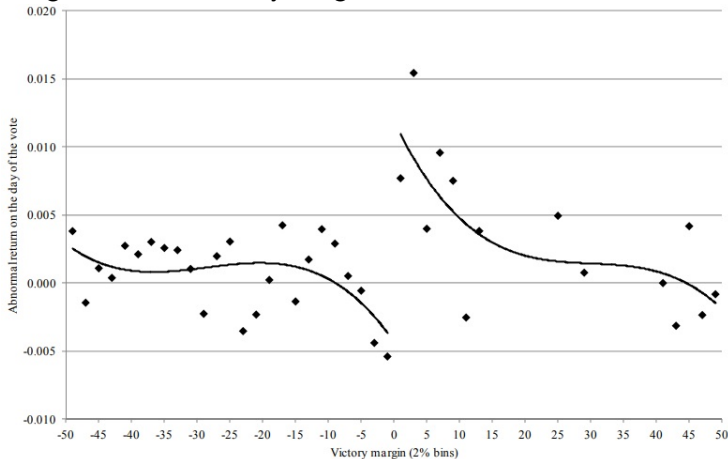
- Flammer (2015) studies impact investing in ESG framework
- Investors use proposals to impact firms and shareholders vote on these proposals

Company:	Lear Corporation
Meeting Date:	May 11, 2006
Proposal:	(...) [T]he shareholders request that the company commit itself to the implementation of a code of conduct based on the aforementioned ILO human rights standards and United Nations' Norms on the Responsibilities of Transnational Corporations with Regard to Human Rights, by its international suppliers and in its own international production facilities, and commit to a program of outside, independent monitoring of compliance with these standards.
Voting Result:	Rejected (49.8% of the votes)

- Flammer (2015) studies impact investing in ESG framework
- Investors use proposals to impact firms and shareholders vote on these proposals

Company:	HCC Insurance Holdings, Inc.
Meeting Date:	May 10, 2007
Proposal:	The Shareholders request that management implement equal employment opportunity policies based on the aforementioned principles prohibiting discrimination based on sexual orientation and gender identity.
Voting Result:	Passed (52.2% of the votes)

- Flammer (2015) finds that proposals that favor ESG increase firm value
→ She uses a regression discontinuity design to show the causal effect



- Divestment or exclusion can be used by impact investors
- Main idea: Divestment-exclusion reduces the stock prices. Lower stock prices can alter the firm business, e.g., via managers' compensation.
- Literature finds that excluded assets (i.e., sin stocks) tend to have higher yields
- Divestment/exclusion may not be ideal ways to affect firms
 - The negative stock market effect does not last long
 - Investors who do not share the same values collect the excluded shares with low prices
 - After selling the shares, the investor loses her right to vote, meaning that the investor cannot offer any changes anymore

Asset Managers vs Investors

- Asset managers collect funds from investors and make investments on their behalf. The fiduciary duty of these managers is to generate the highest returns while catering to investors' needs.
- What happens if managers care about ESG profiles of their portfolios but investors don't?
→ Climate-focused mutual funds have experienced a 75% decline in investments in the last two years
- Aiming at better ESG profiles could be against the fiduciary duty if better ESG profiles do not translate into higher returns.
→ Ex: An employee sues his employer, American Airlines. Blackrock manages American's pension funds and it considers ESG profiles of the portfolio. Judge O'Connor agrees that American violated its fiduciary duty since Blackrock does ESG investment (, which is not profit maximizing).
- Blackrock, JPMorgan, and State Street have left climate-related initiatives recently.

Edmans, Gosling, Jenter (2024)

- Survey 509 equity portfolio managers between Nov 2023 and Feb 2024.
- Managers think that ES profile is the least important factor for firm performance. The ES could be a good return predictor because it is correlated with other firm-level characteristics.
- Most managers do not sacrifice even one basis point due to poor ES performance, which is driven by fiduciary duties.
- Managers take actions that may improve ES profiles only if their mandates say so.
- Thus, a change in investor demand will affect how managers behave.