

Sustainable finance and ESG investing *Sense or nonsense*

Cambridge April, 2023

Wim Schoutens

Joint work with

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Summary

- **ESG investing is from a quantitative finance point of view a SCAM.**
- It is the implementation of a political agenda leading to suboptimal investment decisions.
- Green washing is omnipresent.
- ESG investing is violating mandates (returns/risks). Informed consent is needed if you want to do politics.
- Litigation risk is enormous.
- **Enforcing ESG via regulation increases systemic risk.**

1. A few ‘Green’ investment products

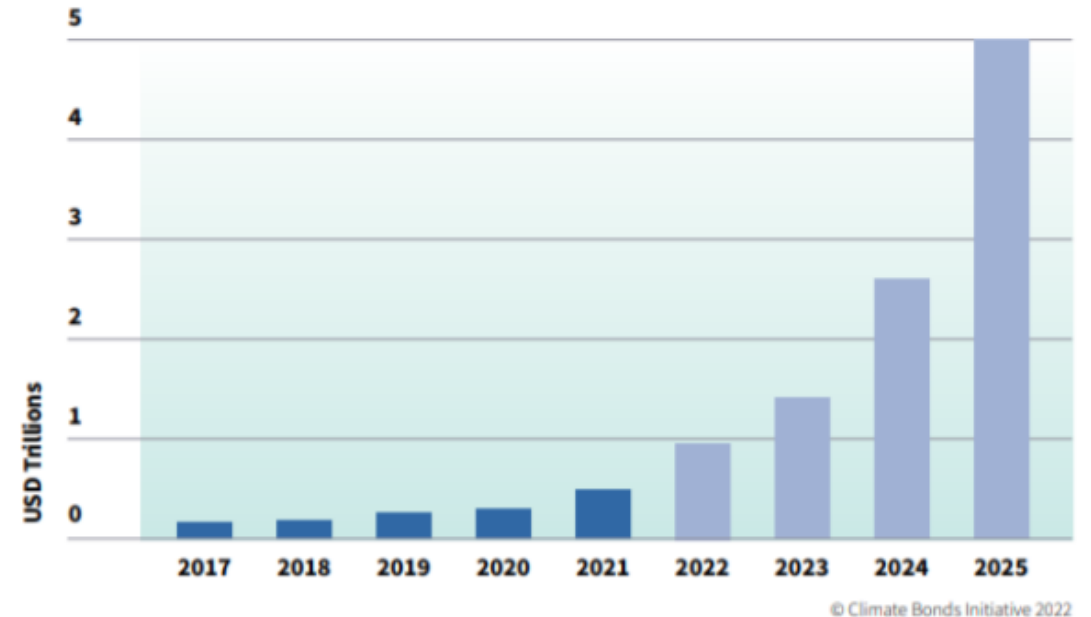
- Green bonds
- Sustainability linked bonds
- ESG-linked interest rate swaps



Green bonds

- Green bonds are fixed income securities which usually differ from conventional debt instruments **only** in that they finance environmental or climate-related activities.
- The green bond market kicked off in 2007 with the AAA-rated issuance from multilateral institutions like the European Investment Bank (EIB) and the World Bank.
- The market of green bonds is rapidly expanding since its inception in 2007, notwithstanding the absence of a commonly agreed definition of ‘greenness’.

Green Bond Issuance (USD Trillion)



Green bonds

A green bond may be issued with lower/higher yield compared to existing debt.
This is termed it **greenium**.

Bloomberg Professional Services

Functions for the Market November 26, 2018

There is no consistent premium in green bonds from European financial companies that is identifiable using Bloomberg Barclays indexes. The “greenium” often perceived by the market may be more elusive or even fail to materialize.

But it’s important to note that, regardless of whether there’s a true “greenium,” green bonds are popular with companies seeking to raise capital. Issuance of green bonds reached a high of \$170 billion last year and eclipsed \$100 billion for 2018 as of early September.

- **7 days after pricing**, 56% of green bonds had tightened more than comparable bonds, 71% of green bonds had tightened more than their comparable index
- **28 days after pricing**, 44% of green bonds had tightened more than comparable bonds, 67% of green bonds had tightened more than their comparable index

Source: the Climate Bonds Initiative and the International Finance Corporation

Where’s the Greenium?

By **David F. Larcker**, Edward M. Watts

February 22, 2019 | Working Paper No. 3766

Accounting, Corporate Governance


STANFORD GRADUATE
BUSINESS SCHOOL OF

This study investigates whether investors are willing to trade-off wealth for societal benefits. We take advantage of unique institutional features of the municipal securities market to provide insight into this question. Since 2013, over \$23 billion Green Bonds have been issued to fund eco-friendly projects. Comparing Green securities to nearly identical securities issued for non-Green purposes by the same issuers on the same day, we observe economically identical pricing for Green and non-Green issues. In contrast to a number of recent theoretical and experimental studies, we find that in real market settings investors appear entirely unwilling to forgo wealth to invest in environmentally sustainable projects. When risk and payoffs are held constant, municipal investors view Green and non-Green securities by the same issuer as almost exact substitutes. Thus, the “greenium” is essentially zero.



- “From the results of hypothesis tests we can conclude there is at first sight **no evidence** that green bonds have significantly different distributions than their conventional counterparts”
- “Comparing the green bonds with the synthetic bonds constructed by interpolation of non-green bonds, we have **no evidence of a significant systematic long term greenium**. Our estimated greenium is fluctuating near zero over time.”
- **The impact of Green bonds on the environment seems very limited, they are purely cosmetic and open for green-washing. Issuers have no skin-in-the-game.**

Sustainability linked bonds

- One links “sustainability goals” with potential *step-ups* if target is missed.
- As investor you hope for a bad scenario ! 
- Call dates are sometimes BEFORE trigger dates.

LVL 3 ¾ 07/15/29 \$173.577 - .270 Yld 9.039	
At 15:38 Source BMRK	
LVL 3 ¾ 07/15/29 Cor	Actions ▾ Settings ▾ Page 1/13 Security Description: Bond
94 No Notes 95 Buy 96 Sell	
25) Bond Description	26) Issuer Description
Pages	Issuer Information
11) Bond Info	Name LEVEL 3 FINANCING INC
12) Addtl Info	Industry Wirelines (BCLASS)
13) Reg/Tax	Security Information
14) Covenants	Mkt Iss PRIV PLACEM...
15) Guarantors	Ctry/Reg US Currency USD
16) Bond Ratings	Rank Sr Unsecured Series 144A
17) Identifiers	Coupon 3.750000 Type Fixed
18) Exchanges	Cpn Freq S/A
19) Inv Parties	Day Cnt 30/360 Iss Price 100.0000
20) Fees, Restrict	Maturity 07/15/2029
21) Schedules	MAKE WHOLE @50.000/ CALL 01/15/24@101.88
22) Coupons	Iss Sprd +278.00bp vs T 2 ¾ 05/15/29
23) Impact	Calc Type (1)STREET CONVENTION
Quick Links	Pricing Date 01/11/2021
32) ALLQ Pricing	Interest Accrual Date 01/13/2021
33) QRD Qt Recap	1st Settle Date 01/13/2021
34) TDH Trade Hist	1st Coupon Date 07/15/2021
35) CACS Corp Action	STEP-UP MARGIN: 12.5BP, STEP-UP EVENT: SUSTAINABILITY PERFORMANCE TARGET.
36) CF Prospectus	
37) CN Sec News	
38) HDS Holders	
60) Send Bond	
	Identifiers
	FIGI BBG00YV1P4Z4
	CUSIP 527298BT9
	ISIN US527298BT90
	Bond Ratings
	Moody's Ba3
	S&P BB *-
	Fitch BB
	Composite BB-
	Issuance & Trading
	Aggregated Amount Issued/Out
	USD 900,000.00 (M) /
	USD 900,000.00 (M)
	Min Piece/Increment
	1,000.00/ 1,000.00
	Par Amount 1,000.00
	Book Runner JOINT LEADS
	Reporting TRACE

- **STEP-UP MARGIN: 12.5BP**
- Science-Based Target No. 1” means Lumen’s target to reduce the sum of its annualized absolute market-based Scope 1 Direct Emissions and Scope 2 Indirect Emissions by 18% **by 2025** compared to Lumen’s 2018 base year emissions
- **CALL DATE : 15/01/2024**

ESG-linked Swaps

ETEnergy Leadership...
Discussing and debating
the most difficult
challenges and solutions,



Energy Leadership Award...
Acknowledges the
outstanding contributors
in the entire spectrum of...



Renewable · 4 Min Read

Siemens Gamesa in ESG-linked interest rate swap

The three-year deal is one of the first ESG interest rate swaps, and converts a 250m tranche of a 2.5bn floating-rate sustainability-linked loan (SLL) that was put in place in December 2019 into fixed-rate funding

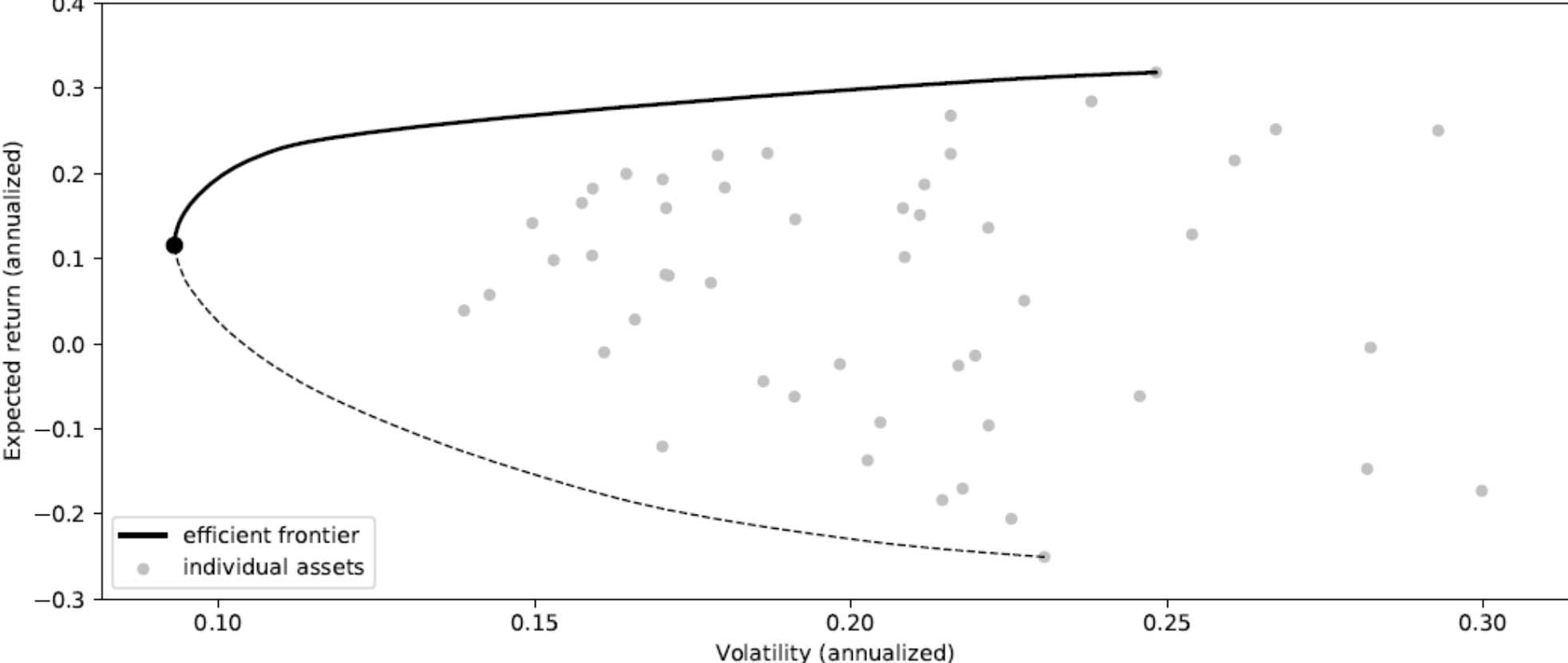
It also includes a trigger that is linked to the company's ESG rating. If the rating improves, HSBC will **donate annually to projects of non-profit organisations**, and if Siemens Gamesa's ESG rating declines, the company will donate.

2. ESG Portfolio Selection



Portfolio allocation: risk and return

EURO STOXX 50 - September 2019



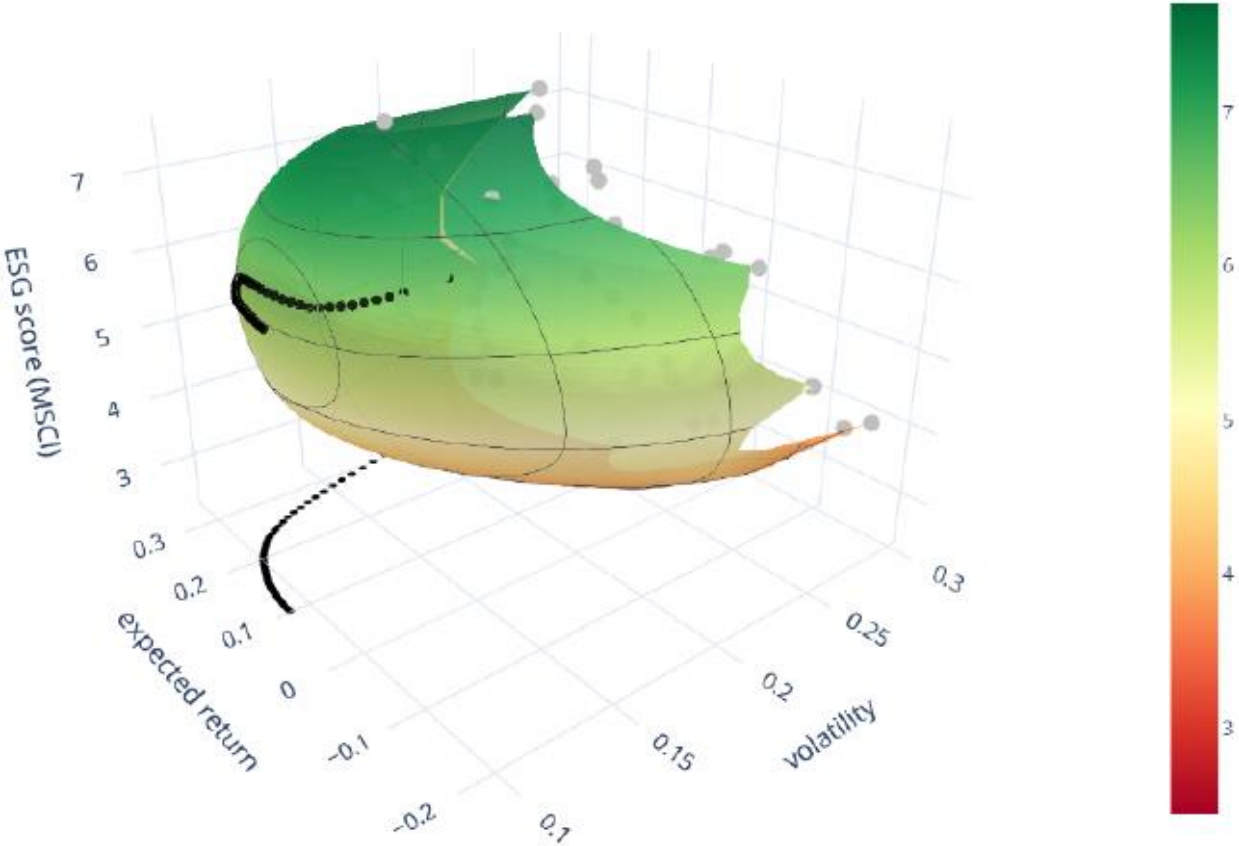
ESG Portfolio Investing

- ▶ Environmental, social and governance (ESG) factors: extra dimension in portfolio allocation
- ▶ ESG investment strategies - based on minimum variance portfolio
- ▶ STOXX 600 study:
 - no clear-cut evidence for enhanced performance

The minimum variance surface

ESG ratings example.

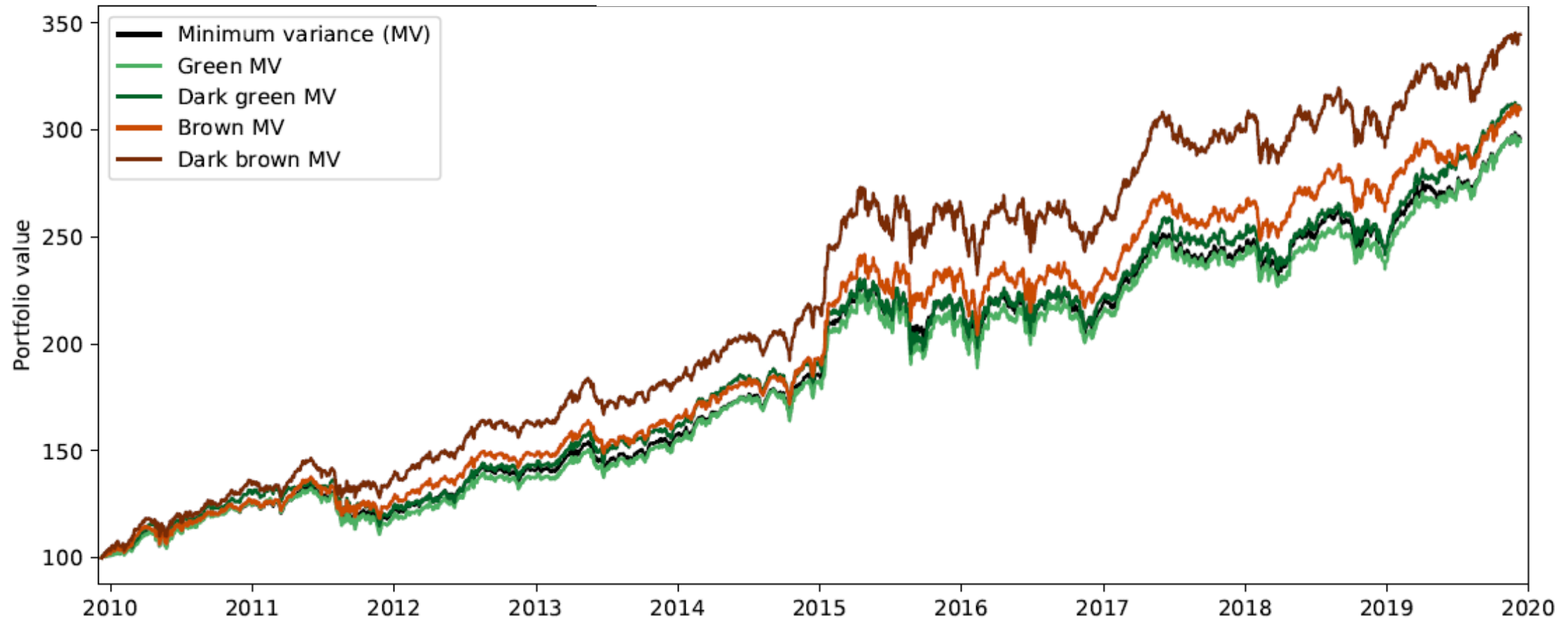
- efficient frontier
- individual assets



Portfolio ESG score = weighted average of company ESG scores.

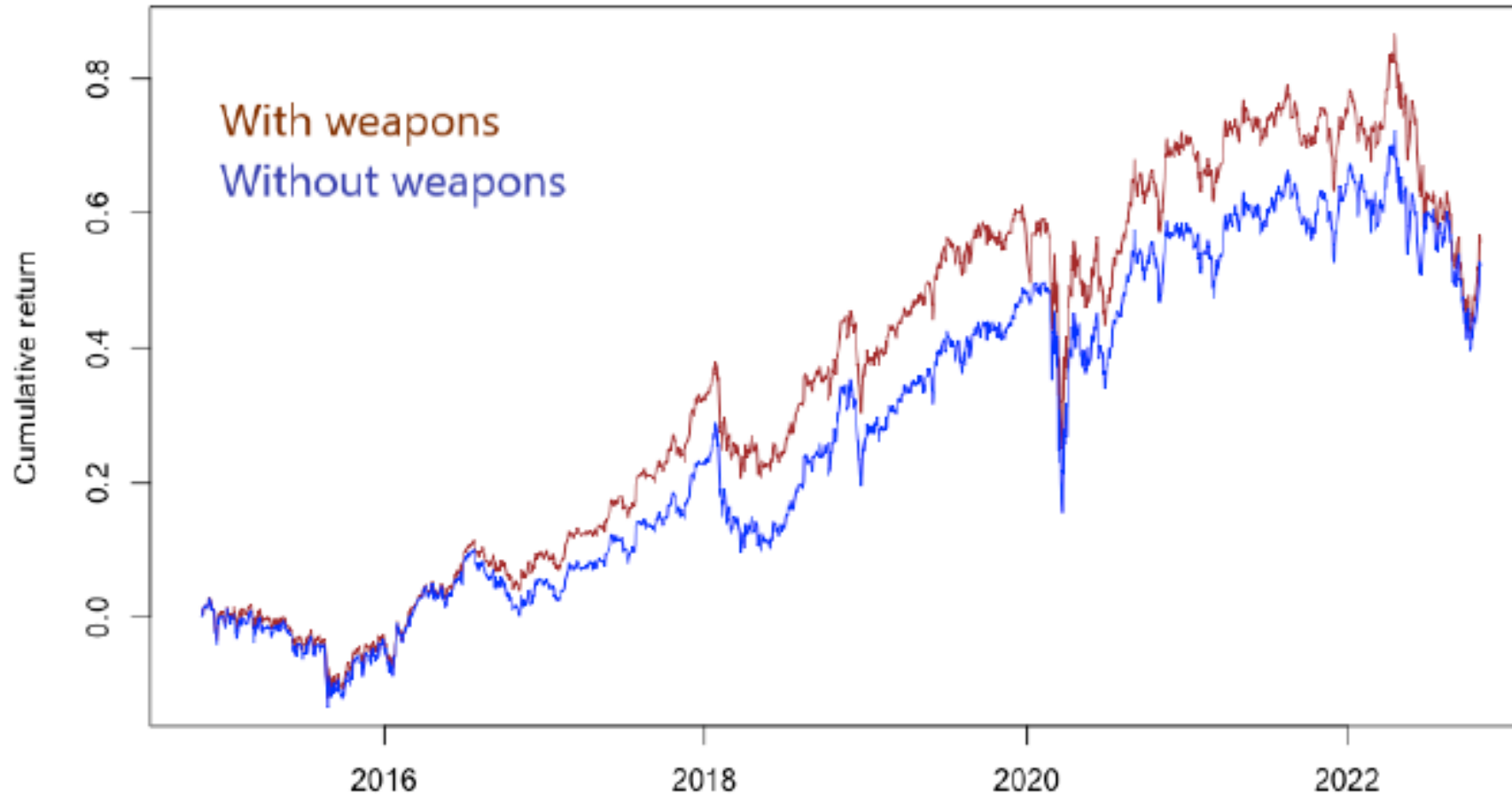
Strategy performance

- ▶ quarterly portfolio rebalancing
- ▶ Invest in the minimum variance portfolio satisfying ESG targets
→ minimize risk, subject to ESG constraints



Enlarging the space of underliers

Figure 5.6: Cumulative returns of minimum-variance portfolio with weapons has outperformed the portfolio without weapons since 2017 already

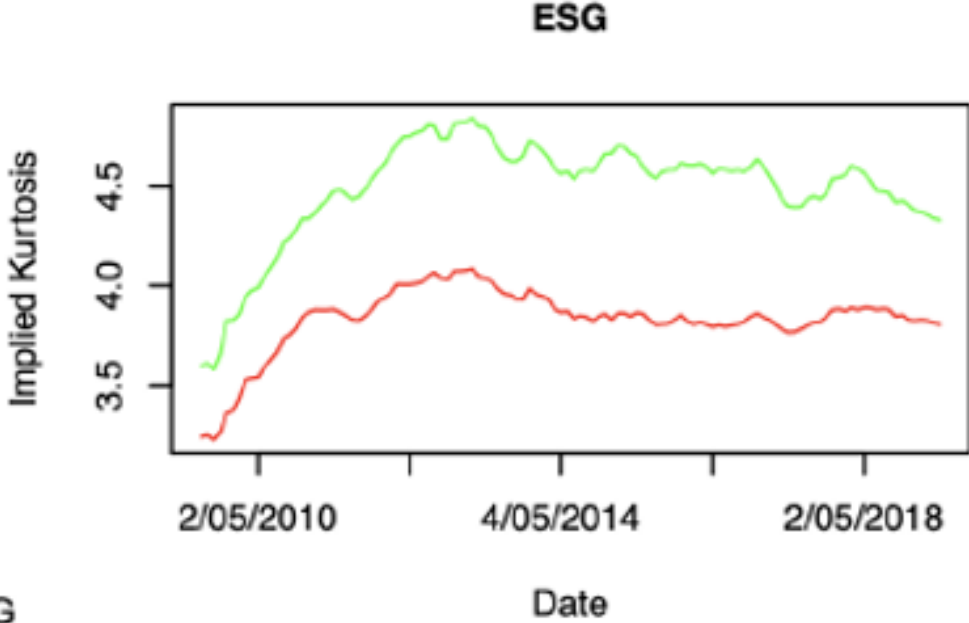
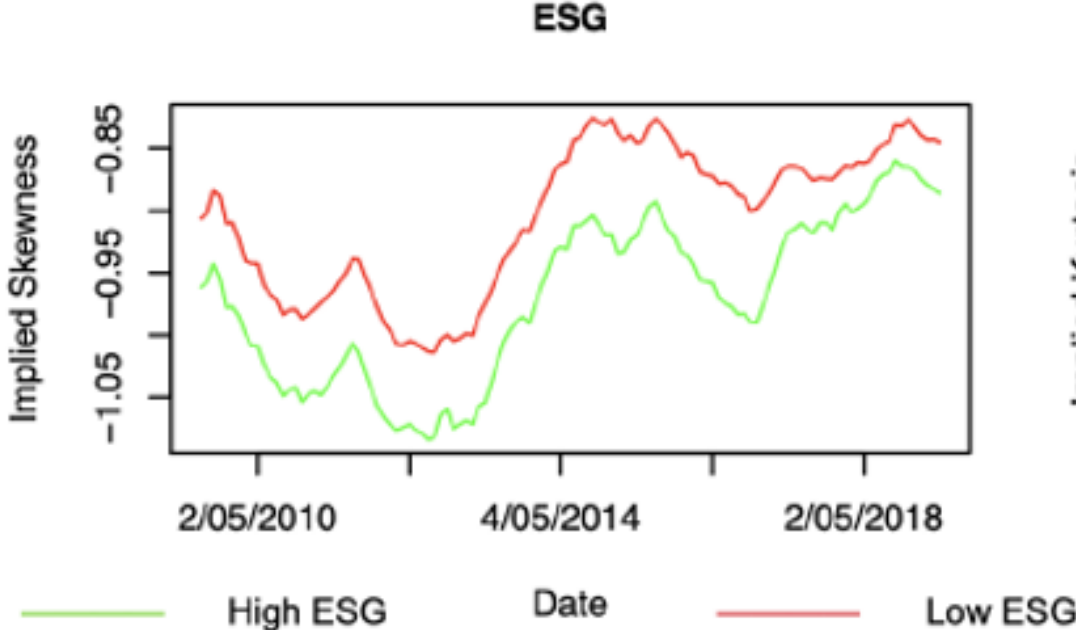


Source: Rebecca Baijer

3. ESG and the pricing distribution (Q)



ESG under Q



High ESG rating group has higher implied tail risk than low ESG rating group;

4. Just a few more things ...

LARRY FINK'S 2022 LETTER TO CEOS:

“We need to be honest about the fact that green products often come at a higher cost.”

Source: <https://www.blackrock.com/corporate/investor-relations/larry-fink-ceo-letter>

A recent study of U.S. fund fees referred to investors in so-called sustainable funds paying “greeniums” compared to conventional funds.

Investors in Sustainable Funds Are Paying a “Greenium”

Investors in sustainable funds are paying a “greenium” relative to investors in conventional funds. This is evidenced by these funds’ higher asset-weighted average expense ratio, which stood at 0.61% at the end of 2020 versus 0.41% for their traditional peers. That said, sustainable funds’ fees have been falling on both an equal- and asset-weighted basis. Over the past decade, the average fee charged by

Source: <https://www.morningstar.com/content/dam/marketing/shared/pdfs/Research/annual-us-fund-fee-study-updated.pdf>

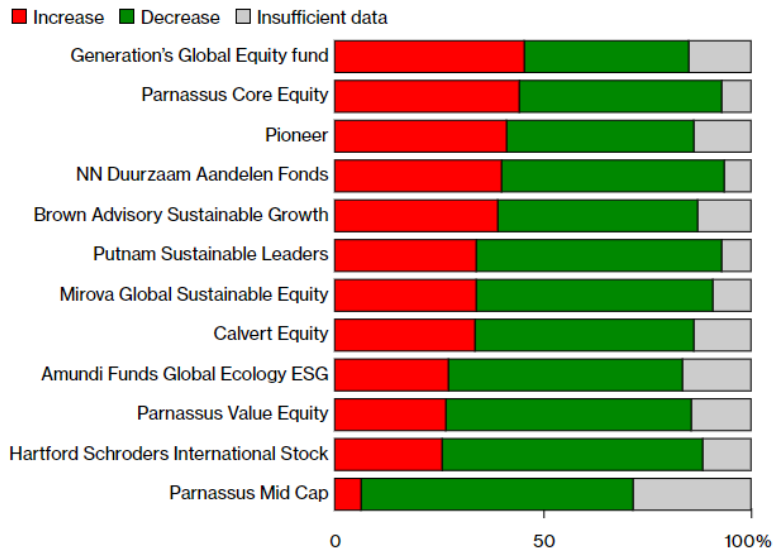
Businessweek
+ Green

AI Gore's Struggles With ESG Show the Messiness of Green Investing

If the former veep's Generation investment firm has trouble meeting lofty environmental and financial goals, who can?

Green Funds' Rising Emissions

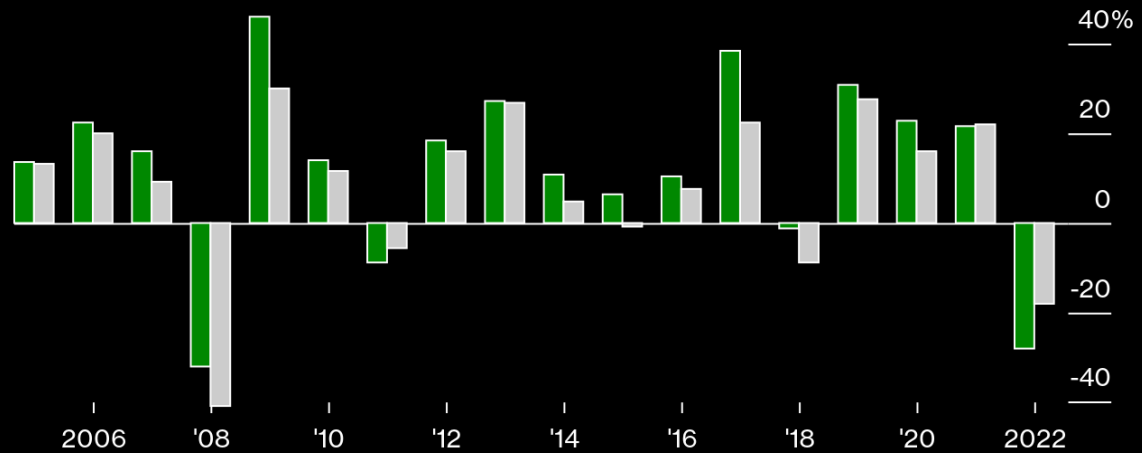
Share of investment portfolio assets by net change in emissions between 2015 and 2021



Companies whose absolute Scope 1 and Scope 2 emissions rose from the first year of reported data in the period to the last are categorized as increasing. Market-based Scope 2 data are used where available. Insufficient data category includes bonds, cash and other non-publicly traded securities, as well as companies with no data or only one year of data.
Sources: Generation (Global Equity holdings), Bloomberg (company emissions data and holdings of other funds)

After a Long Stretch of Outperformance, Gore's Fund Slips

Total return



2005 return is for May through December.
Source: Bloomberg reporting

In addition, according to my legal counsel, Environmental, Social and Governance (ESG) investing is contrary to Louisiana law on fiduciary duties, which requires a sole focus on financial returns for the beneficiaries of state funds. Focusing on ESG's political and social goals

or placing those goals above the duty to enhance investors' returns is unacceptable under Louisiana law. A letter signed by 19 state attorneys general sent to you recently emphasized this same point.

Under Louisiana law, investors' returns take precedence.

I'm convinced that ESG investing is more than bad business; **it's a threat to our founding principles: democracy, economic freedom, and individual liberty.** It threatens our democracy, bypasses the ballot box and **allows large investment firms to push political agendas.** It threatens our economic freedom because these firms use their massive shareholdings to compel CEOs to put political motivations above a company's profits and investors' returns. Finally, it threatens our personal liberty because these firms are using our money to push their agendas contrary to the best interests of the people whose money they are using! There is a difference between offering an ESG investment option for those investors so inclined, and using other peoples' non-ESG investments to promote ESG shareholder initiatives.



JOHN M. SCHRODER
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P.O. Box 44154
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October 5, 2022

Mr. Laurence D. Fink
CEO
BlackRock, Inc.
55 East 52nd Street
New York, NY 10055

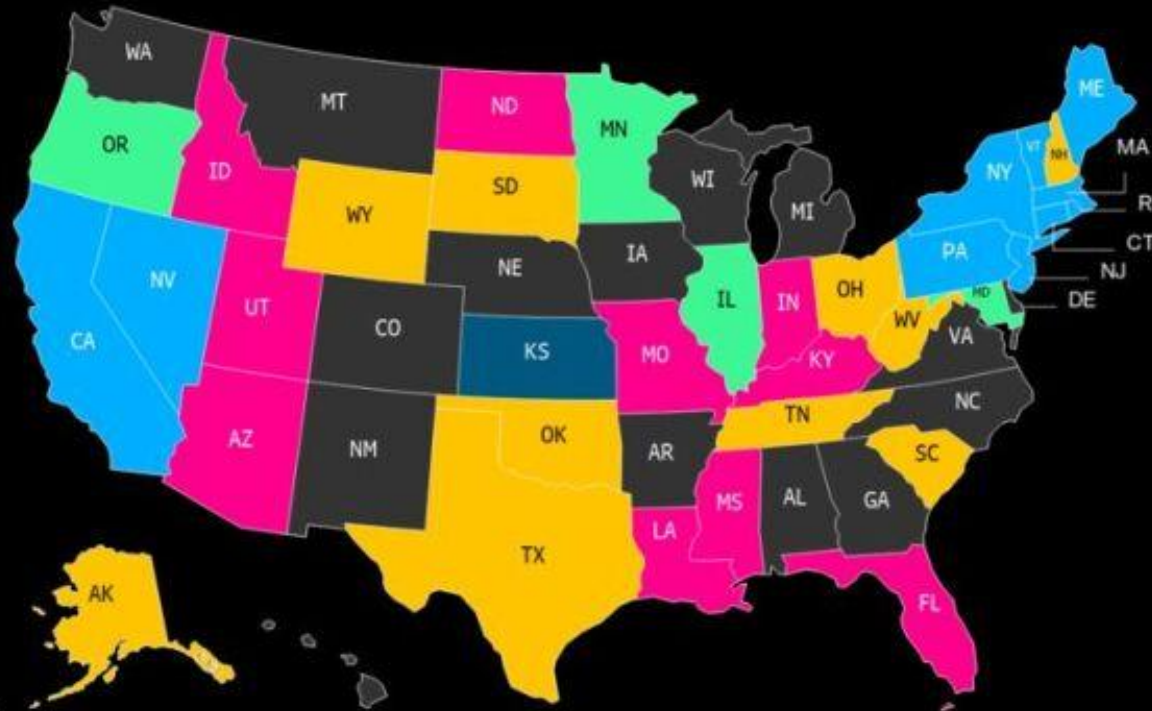
Dear Mr. Fink:

I write today on behalf of the hardworking citizens of the great state of Louisiana. Thank

State Decisions on ESG

Republican-led states push back on ESG while Democratic-led states seek to incorporate it.

- Actions targeting entities boycotting certain industries
- Actions restricting use of ESG factors
- Actions promoting divestment from certain industries
- Actions neutral on use of ESG factors
- Actions promoting integration of ESG
- No significant action



Source: Ropes & Gray LLP
Note: As of Dec. 12

Bloomberg



Carol Roth  @caroljsroth · 3h

Remember when @ElonMusk wanted to bring free speech to Twitter and then S&P removed Tesla from their ESG 500 index, but kept in Exxon?

ESG is business social credit. It's a means to control capital, keep business people in line with the narrative, and, ultimately, control you.

 117

 878

 4,797



Elon Musk 

@elonmusk

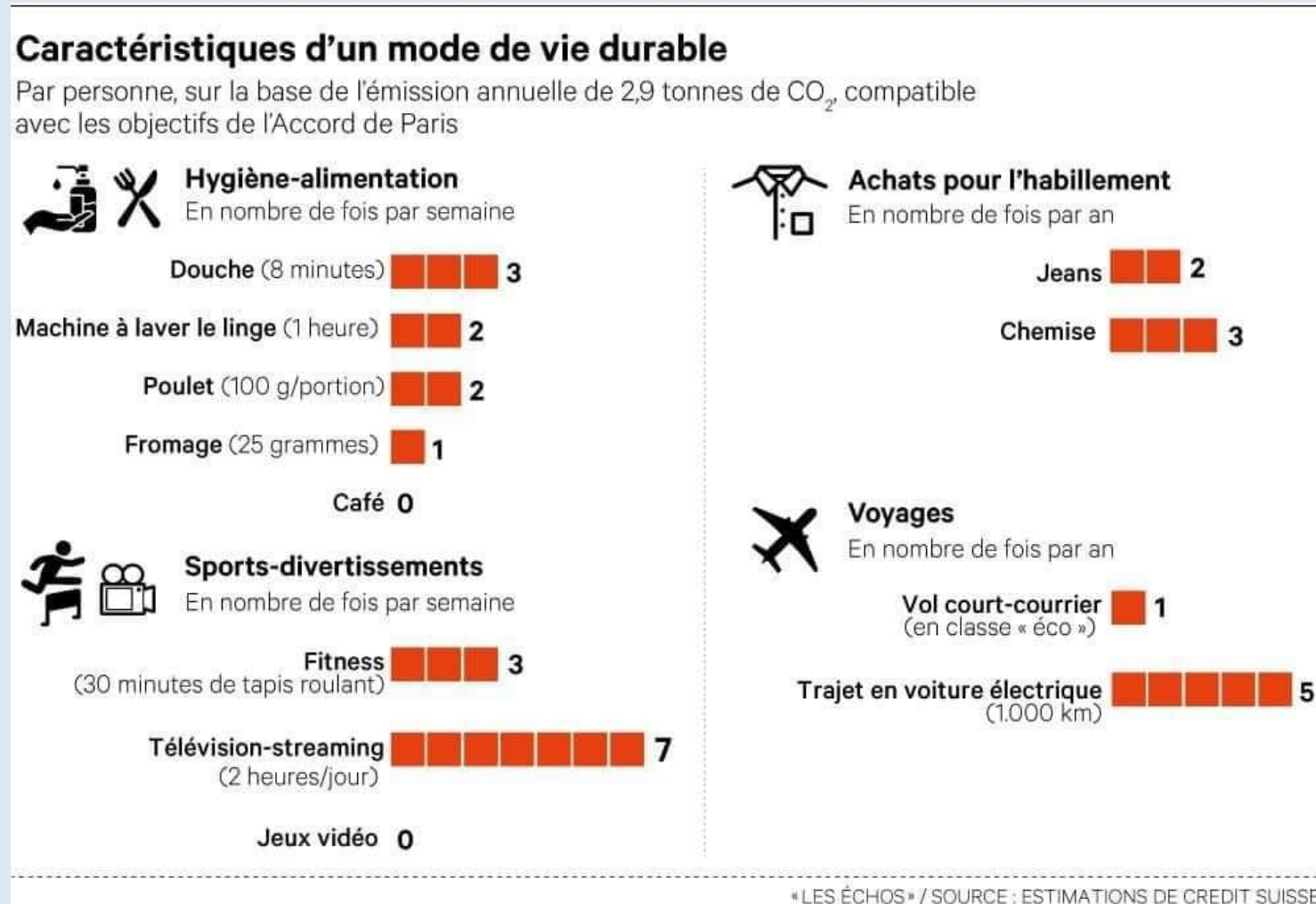
Replying to @caroljsroth

ESG is the devil

9:24 PM · Nov 27, 2022 · Twitter for iPhone

1,537 Retweets **183** Quote Tweets **9,334** Likes

The "ideal" consumer in the eyes of the Paris agreement



Source: <https://www.lesechos.fr/idees-debats/crible/climat-cop26-aupres-de-mon-arbre-1363836>

Thank you!

