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The Performance of Sustainable Investments
An overview of academic research

Presentation for the Swiss Sustainable Finance event

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Zurich, 27 February 2018

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The Performance of Sustainable Investments

Appendix

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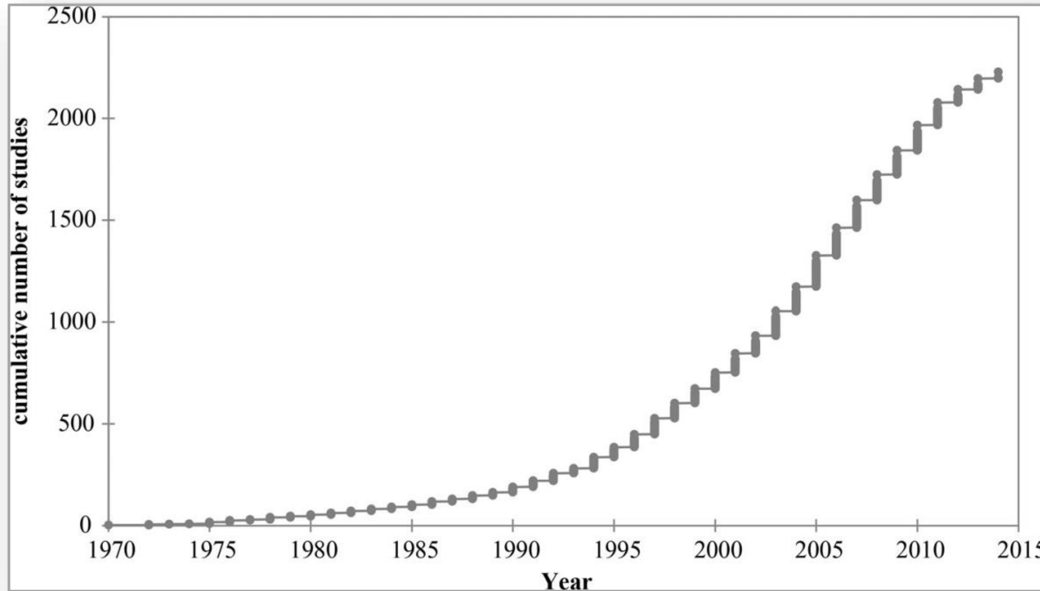
The impact of ESG factors on investment performance has been subject to many studies for a long time

- The number of studies has grown substantially over the last 20 years:



From the early days…

Corporate Social Responsibility and Firm Financial Performance
Jean B. McGuire[1], Alison Sundgren[2] and Thomas Schneeweis[2]
Academy of Management Journal, December 1, 1988 31:4 854-872

… to recent academic XXL format

ESG and financial performance: aggregated evidence from more than 2000 empirical studies

Gunnar Friede[a], Timo Busch[b*] and Alexander Bassen[b]

[a]Deutsche Asset & Wealth Management Investment, Frankfurt am Main, Germany; [b]School of Business, Economics and Social Science, University of Hamburg, Hamburg, Germany

(Received 22 October 2015; accepted 9 November 2015)

Source upper chart: Gunnar Friede, Timo Busch & Alexander Bassen (2015) ESG and financial performance: aggregated evidence from more than 2000 empirical studies, Journal of Sustainable Finance & Investment, 5:4, 210-233

But the topic is still much debated

- Due to the availability of data, the focus is strongly on listed companies
- Usually the studies focus on these definitions of "performance"
  - *Economic (accounting) performance of companies*
  - *Companies' cost of capital*
  - *Performance of companies' shares*
- Also the definition of "ESG" varies considerably:

Substantial body of literature on governance

Corporate Governance and Equity Prices

Paul Gompers, Joy Ishii, Andrew Metrick

The Quarterly Journal of Economics, Volume 118, Issue 1, 1 February 2003, Pages 107–156, https://doi.org/10.1162/00335530360535162

Published: 01 February 2003

Focus on ethically driven exclusions ("sin" stocks)

The price of sin: The effects of social norms on markets ☆

Harrison Hong [a,*], Marcin Kacperczyk [b]

[a] Princeton University, Princeton, NJ 08540, USA and NBER
[b] New York University, New York, NY 10012, USA and NBER

Taking materiality of ESG factors into account

Corporate Sustainability: First Evidence on Materiality

The Accounting Review, Vol. 91, No. 6, pp. 1697-1724.

55 Pages • Posted: 11 Mar 2015 • Last revised: 1 Feb 2017

Mozaffar Khan
University of Minnesota - Twin Cities - Carlson School of Management

George Serafeim
Harvard University - Harvard Business School

Aaron Yoon
Harvard University - Harvard Business School

Looking at composite ESG ratings and interaction with other factors

CAN ESG ADD ALPHA?

An Analysis of ESG Tilt and Momentum Strategies

Zoltán Nagy, Altaf Kassam, Linda-Eling Lee

June 2015

The conceptual view

- The (orthodox) starting point: return expectations of assets are driven by their exposure to non-diversifiable risk factors
  - *Economic risk (aggregate consumption)*
    ➔ *CAPM*
  - *Extensions including other factors: e.g. Fama – French three factor model (Including book-to-price and company size)*

- Clear assessment: exclusion of certain assets or use of other information in formulating return expectations (like ESG factors) leads to sub-optimal portfolios

- So why could the inclusion of ESG factors still be beneficial?
  ➔ failure of financial markets to assess impact of different levels of ESG performance correctly

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The conceptual view

The “G”: Governance

- Providers of (equity) capital face agency costs: they have to rely on managers that put their capital to work
- Corporate governance addresses this issue by installing means to ensure agents acting in the best interest of the capital providers
- Empirical evidence can be found that strong governance correlates with superior stock returns, indicating that financial markets fail in prizing the impact of different levels of governance correctly

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The conceptual view

The “E” and “S”: Environmental and Social Issues

- Social welfare theorem: let companies maximize profits, and all will be fine
  - *Necessary prerequisite: no externalities*

- Many E and S aspects deal with externalities, i.e. costs that are not borne by the responsible entity
  - *Examples: Tobacco industry, environmental damages*

- Externalities give rise to the risk that the externalized costs become internal:
  - *Litigation*
  - *Damage of reputation*
  - *Regulation or other legal action*

- If markets fail to prize in the risks embedded in low E and S standards correctly, a higher ESG performance can lead to superior stock returns

- There is also empirical evidence supporting this assumption

- Remarks:
  - The unfolding of global warming will presumably trigger regulations and legal actions at levels that have not been covered by studies to date
  - For social factors, there can also be an positive impact of high social performance on reputation, customer loyalty and employee satisfaction, leading to higher productivity, less costs from staff turnover and less fraud incidents

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Taking materiality into account

- We have seen that many studies focus on particular topics from the E, S and G space, and that there is some empirical evidence from these studies that the factors researched lead to superior stock returns
- Another area is to look at aggregate ESG measures and how they influence stock returns
- There is a well thought out study in this respect, also focussing on **material** ESG factors, i.e. focusing on factors that are supposed to have a material impact on companies. These factors naturally vary widely across different industries

Corporate Sustainability: First Evidence on Materiality

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- The study finds strong evidence that good performance on **material ESG issues** leads to superior stock returns compared to weak ESG performers

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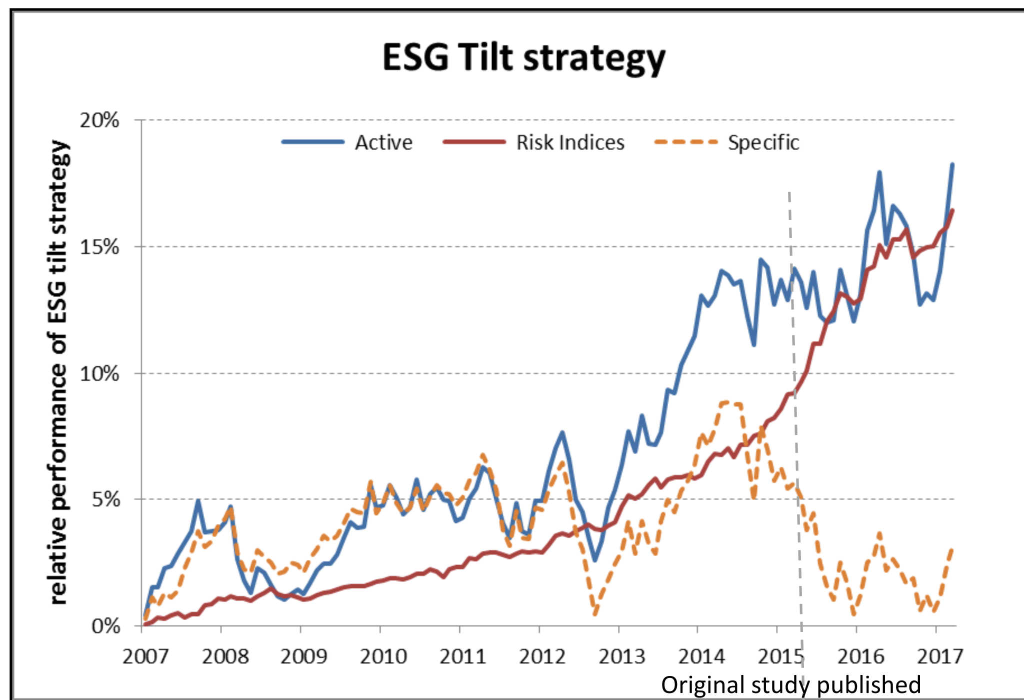
Taking other factors into account

- There is a nice study available from MSCI, analysing the relative performance of a broad global stock portfolio having an ESG tilt on MSCI's own ESG ratings against a benchmark index

- This approach has a strong advantage over most of the academic studies: the impact of other factors influencing stock returns can be ***controlled*** and ***measured***



Take aways

- The ESG tilt strategy outperforms over time

- The outperformance is almost completely attributable to exposure to other factors ("risk indices")

- Here, the strongest contributions result from
  - *Exposure to less volatile stocks*
  - *Exposure to smaller stocks*

Source: CAN ESG ADD ALPHA? An Analysis of ESG Tilt and Momentum Strategies
Zoltán Nagy, Altaf Kassam, Linda-Eling Lee, June 2015

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Looking at the risk side

- The link between stocks' risk level and ESG performance is clearly visible: research from AQR Capital Management

Assessing Risk through Environmental, Social and Governance Exposures

February 24, 2017

Contributors: Jeff Dunn, Shaun Fitzgibbons, Lukasz Pomorski
Topic: Portfolio Construction, Risk Management, ESG

	Q1 (poor ESG)	Q2	Q3	Q4	Q5 (best ESG)
Industry-adjusted ESG score	1.5	3.4	4.7	6.2	8.4
Risk Metrics					
Total risk	34.5%	33.1%	33.0%	31.8%	30.4%
Stock-specific risk	24.9%	23.8%	23.7%	22.7%	21.4%
Quality Indicators					
Earnings variability	0.55	0.54	0.53	0.51	0.49
Ohlson's credit score	4.29	4.52	4.75	4.55	4.70
Profitability	0.29	0.30	0.31	0.32	0.33

Take aways

- High ESG ratings coincide with lower risks
- High ESG ratings also coincide with higher ratings on traditional "quality" ratings
- Changes in ESG ratings are also able to predict changes in risk level

Source: Assessing Risk through Environmental, Social and Governance Exposures, February 24, 2017
Contributors: Jeff Dunn, Shaun Fitzgibbons, Lukasz Pomorski

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Mixed evidence from funds

- Another significant amount of studies focus on the performance of ESG/SRI funds compared to conventional peers
- The overall result is that there is no significant return difference between ESG and non-ESG funds
- From there results the question: why is it so difficult to transport the positive relations documented in the literature into portfolios?

Possible reasons

→ Fund returns also contain the results of fundamentals-driven stock picking

→ Many studies here focus on the US and are somewhat outdated, also looking at exclusion of “sin” stocks as SRI

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Other asset classes

Corporate bonds

→ Evidence that high ESG performance is linked to better credit ratings and lower spread levels

Sovereigns

→ Evidence that high ESG performance is linked to lower credit risk and higher performance

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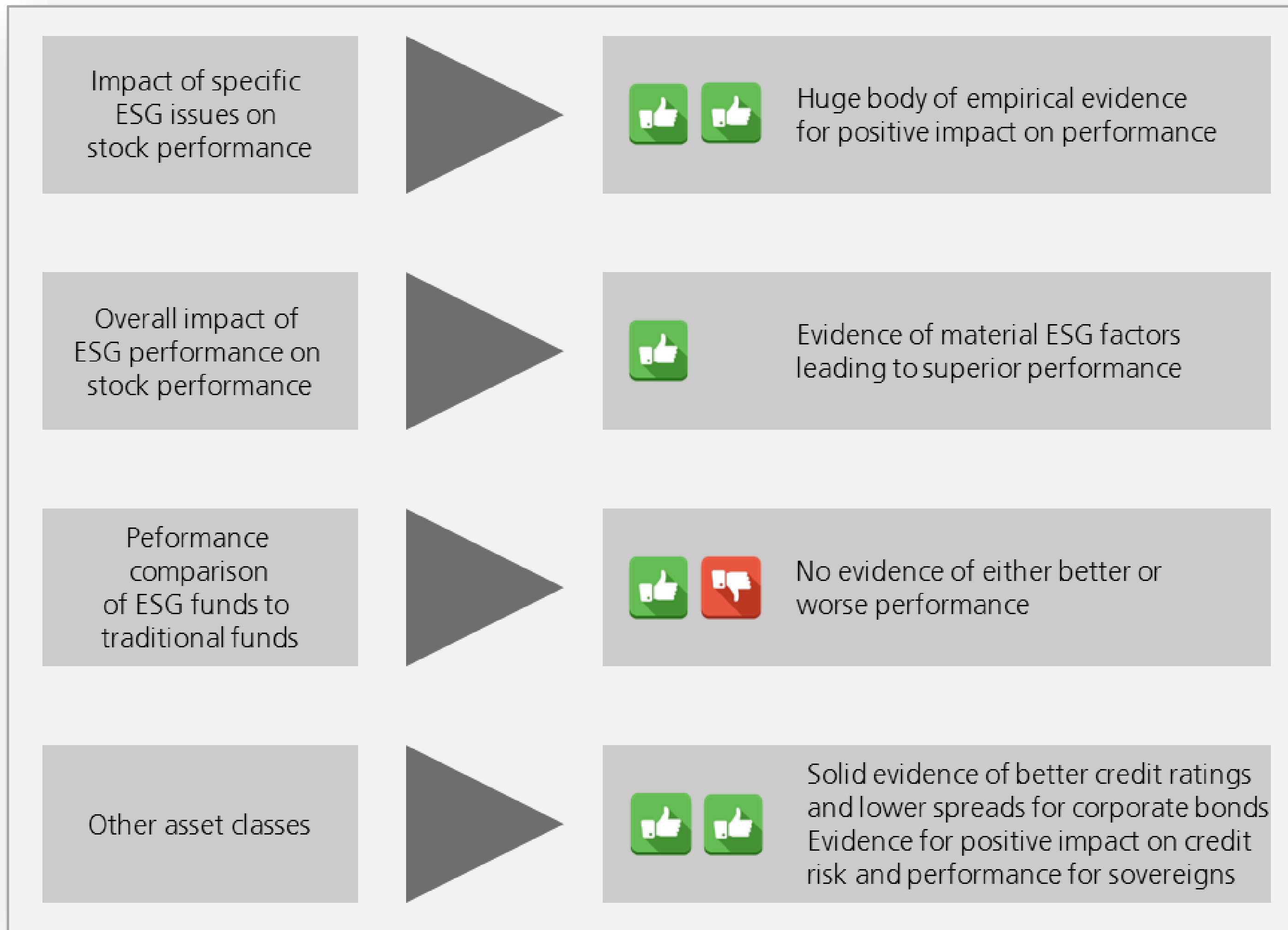
Summary



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