RBC Global Asset Management

Integrating ESG into investment process and valuation

Theory and practice

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October 31, 2019

What is ESG?

What is ESG? Different things to different people.

Eggs So Good

- ESG is different things to different people and different asset classes.
    - Similar to different aspects of “financial” analysis.
- But with certain principles and philosophy which tends to be shared.

Source: Pixabay

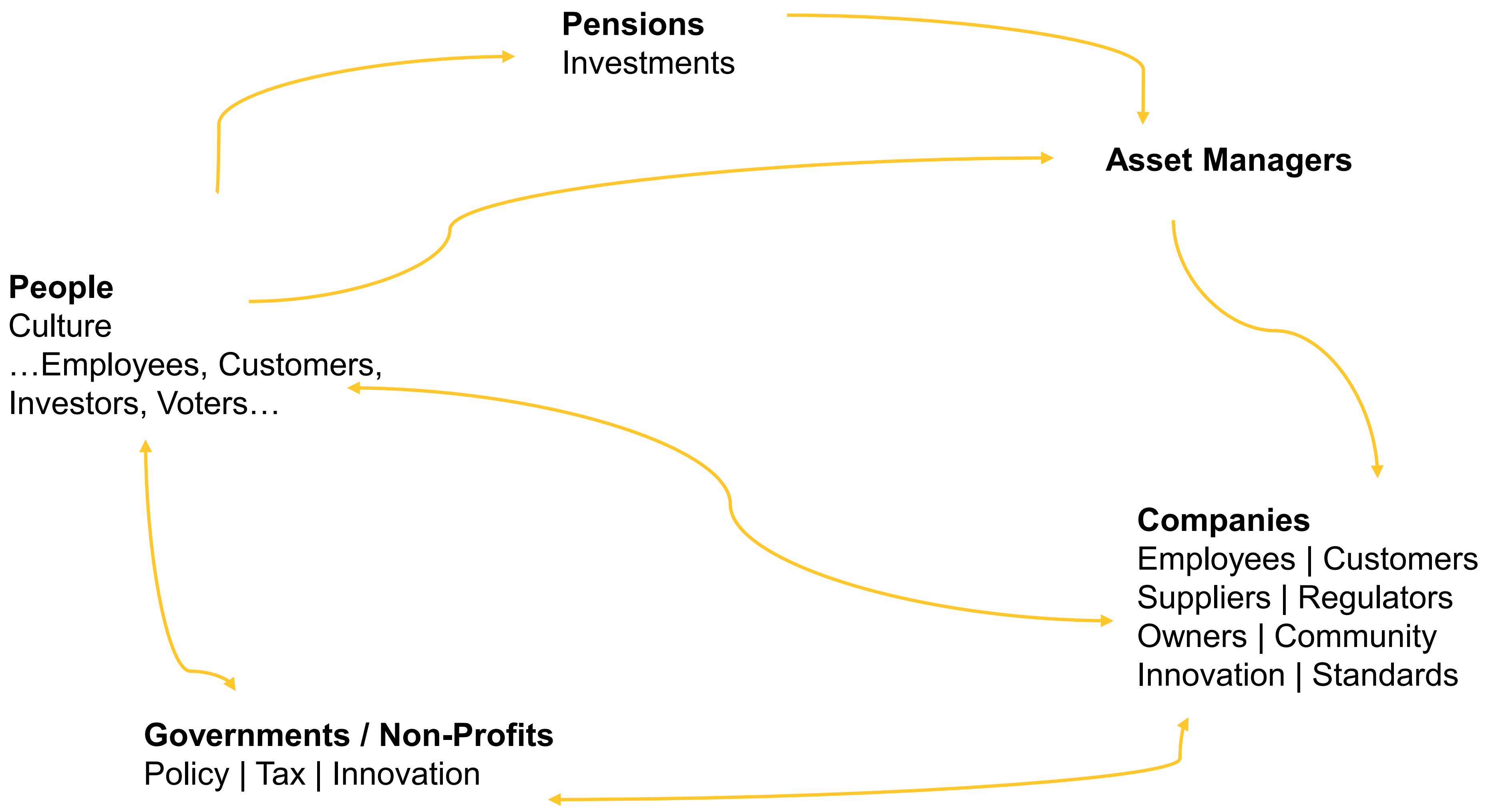
Why do investors care about ESG

Regulators	Client demand	Lowering reputational risk	Better investment risk/return

- Meeting requirements under fiduciary duty or regulations
- Meeting client/beneficiary demands (growing capital source)
- Lowering investment risk
- Increasing investment returns
- Tools and techniques to use in analysis
- Improving the quality of engagement and stewardship

Source: CFA Certificate in ESG investing Official Training Manual

Interconnectedness: Transparency to end user driving change



Intangible and ESG value is hidden from accounts

GDP doesn't include most intangibles or ESG…

Tangibles in GDP since 1940s

Some intangibles added

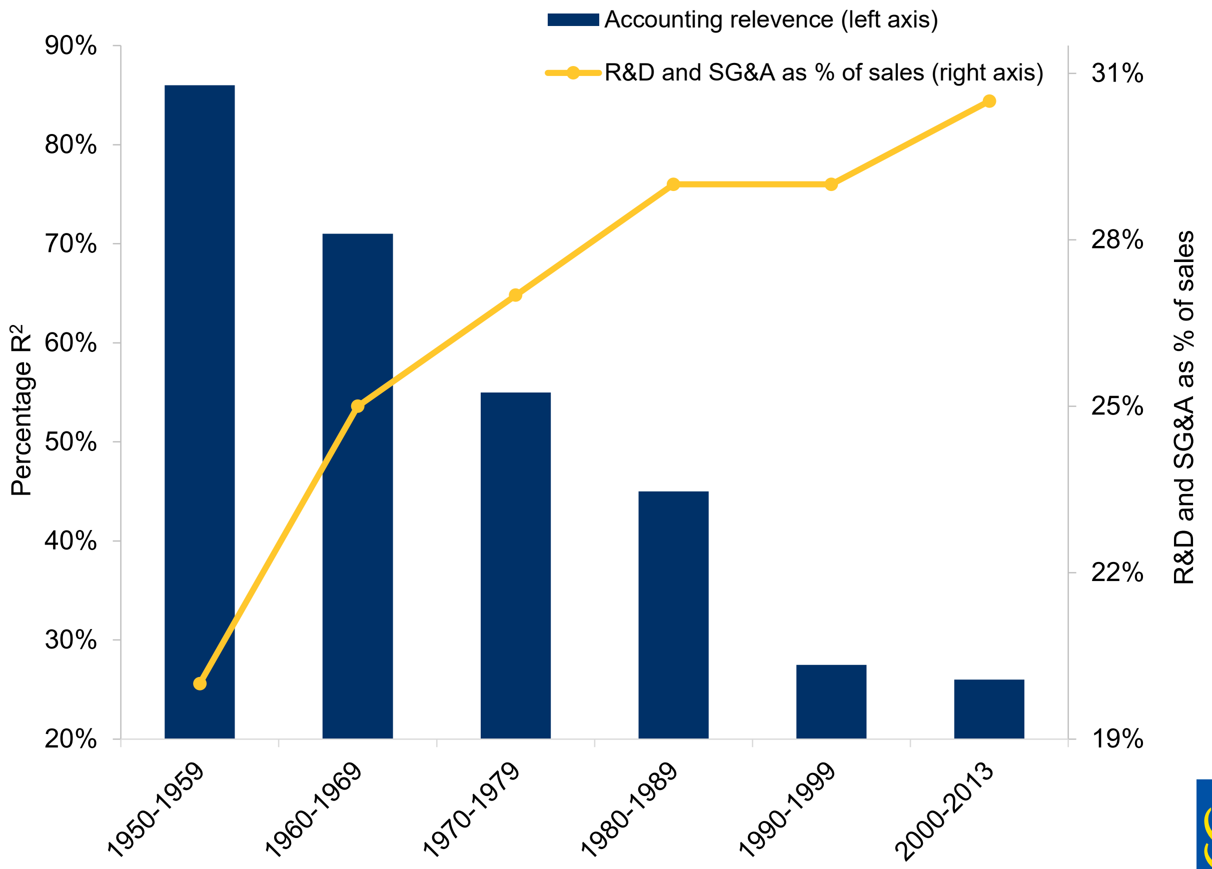
Software (1993) | Artistic originals (1993) | R&D (2008)

Most intangibles still missing

Source: Capital without Capitalism, Westlake & Heskel, 2017.

…neither do company accounts.

R^2s of market values regressed on earnings and book values of companies entering the public market in successive decades 1950-2013



Source: Lev and Gu, 2016.

Value found in items we can not easily account for

Not everything that can be counted,
counts.
Not everything that counts,
can be counted.

ESG potentially generates sustainable long-term returns

ESG could be a return (Alpha) source due to inefficient markets

Some Academic literature backs up this idea but ultimately will “hard to prove definitively” either way

- Happy and Engaged employees make better companies and make better stock returns
  - Edmans.

    Does the stock market fully value intangibles? Employee satisfaction and equity prices
- Incentives aligned to long term decision making make better companies and make better stock returns
  - Flammer and Bansal.

    Does a Long-Term Orientation Create Value? Evidence from a Regression Discontinuity
- CSR proxy proposals are be positive for companies both in company fundamentals and stock returns
  - Flammer.

    Does Corporate Social Responsibility Lead to Superior Financial Performance? A Regression Discontinuity Approach
- Companies with good performance on material sustainability issues significantly outperform firms with poor performance
  - Khan, Serafeim, Yoon.

    Corporate Sustainability: First Evidence on Materiality
- Active ownership and positive engagements improves company operating performance and stock return
  - Dimson, Karakas, Li.

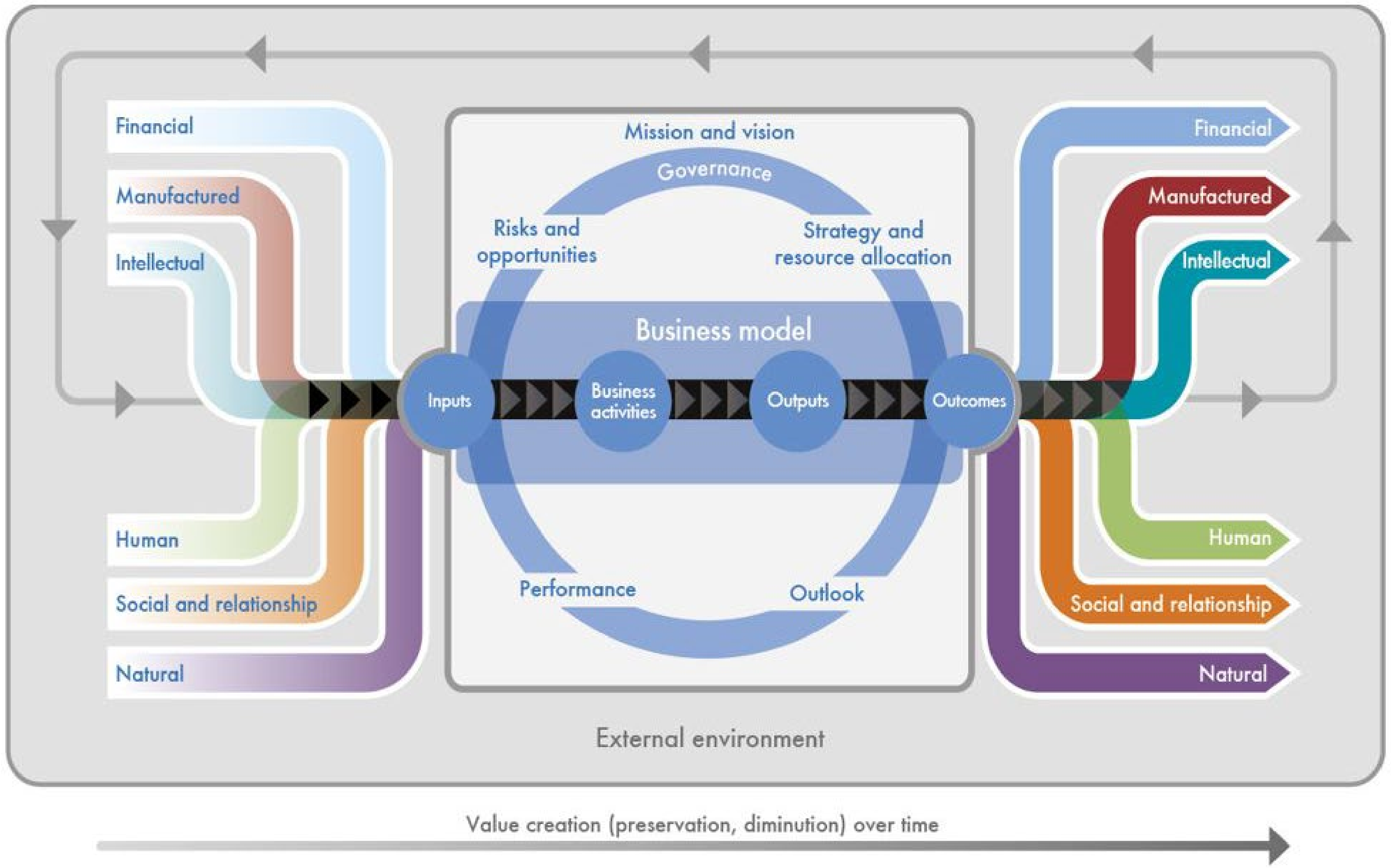
    Active Ownership

Still considerable investor debate on Financial “Value factor”

ESG techniques vary by strategy and asset class

Source: Guidance and Case Studies for ESG Integration: Equities and Fixed Income (CFA Institute 2018 in collaboration with Principles for Responsible Investment (PRI).

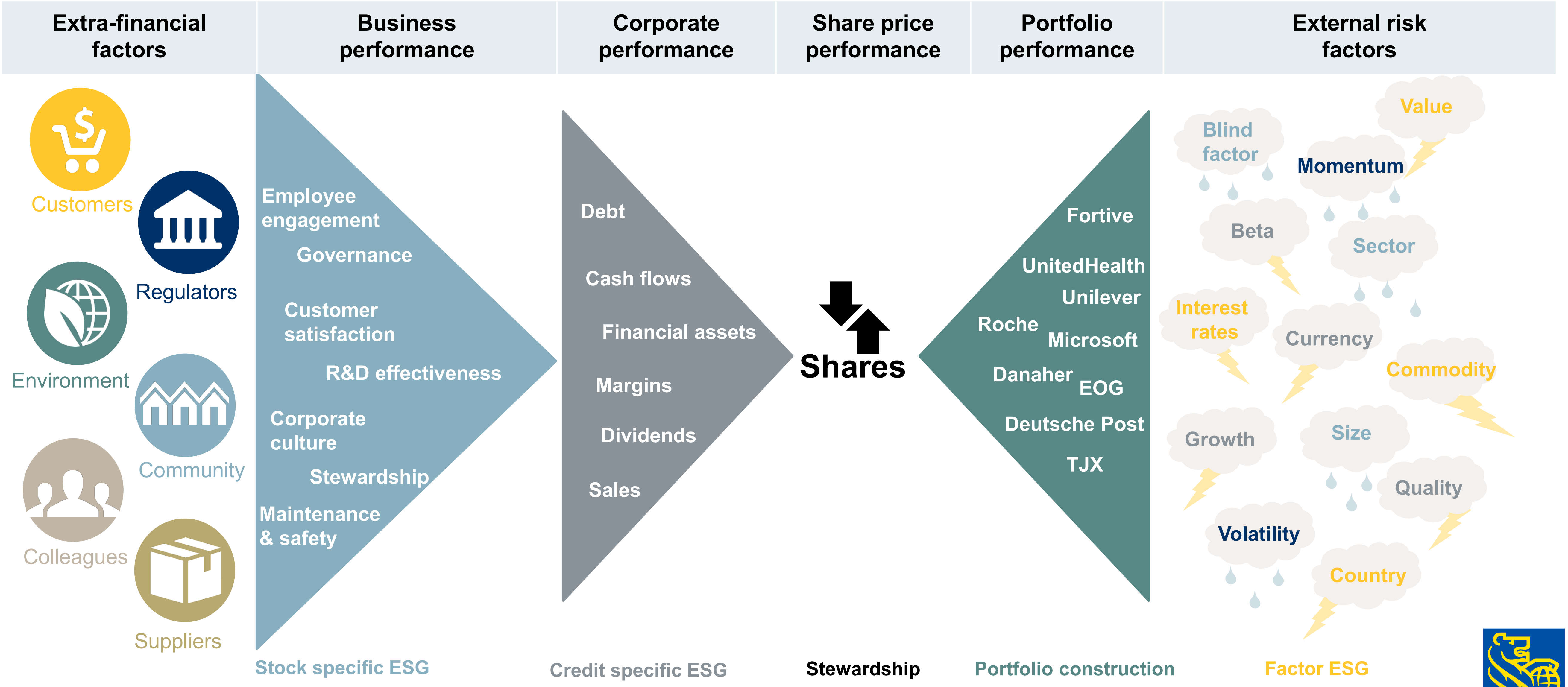
Theory: How do firms create long-term value?



Combine various “capitals” to produce goods/services and more “capitals”

Source: Integrated Reporting Council

Where ESG fits into a theory of firm & portfolio value



Fundamental active: Philosophy and process

Starts with philosophy (or purpose).

“A sustainable company is: (1) one whose current earnings *do not borrow from its future earnings (2) one whose sustainability practices, products and services drive revenues, profitability and competitive positioning, and (3) one that provides goods and services consistent with a low-carbon, prosperous, equitable, healthy and safe society.” (Generation)*

“Our purpose is to make a positive difference to our clients, to the companies we own and society as a whole through responsible long-term investment.” (RBC Global Equities)

However, “Purpose” not pre-requisite to using ESG techniques.

Broad techniques: Materiality or risk maps & scorecards

Investment process typically has these stages:

1. Research stage
    - Data gather primary, secondary; quantitative/qualitative
    - Generate ideas, may screen, checklists, scorecards
    - Assess materiality
2. Valuation stage
3. Portfolio construction stage

ESG Integration techniques at all stages possible

Broad techniques: Materiality / Risk maps and scorecards

Issues	Health Care	Financials	Technology and Communications	Non-Renewable Resources	Transportation	Services	Resource Transformation	Consumption	Renewable Resources & Alternative Energy	Infrastructure
Environment										
GHG emissions										
Air Quality										
Energy management										
Fuel management										
Waste and wastewater management										
Waste and hazardous materials management										
Biodiversity impacts										
Social Capital										
Human rights and community relations										
Access and affordability										
Customer welfare										
Data security and customer privacy										
Fair disclosure and labelling										
Fair marketing and advertising										
Human capital										
Labour relations										
Fair labour practices										
Employee health, safety and wellbeing										
Diversity and inclusion										
Compensation and benefits										
Recruitment, development and retention										
Business model and innovation										
Lifecycle impacts of products and services										
Environmental, social impacts on assets and ops										
Product packaging										
Product quality and safety										
Leadership and governance										
Systemic risk management										
Accident and safety management										
Business ethics and transparency of payments										
Competitive behaviour										
Regulatory capture and political influence										
Materials sourcing										
Supply chain management										

Example map. Different authorities can disagree.

Source: CFA Certificate in ESG investing Official Training Manual; SASB

Broad techniques: Materiality / risk maps and scorecards

Health care

Issues	Biotechnology	Pharmaceuticals	Medical equipment and supplies	Health care delivery	Health care distribution	Managed care
Environment						
GHG emissions						
Air Quality						
Energy management	■	■	■	■		
Fuel management					■	
Waste and wastewater management	■	■	■			
Waste and hazardous materials management	■	■	■	■		
Biodiversity impacts						
Social Capital						
Human rights and community relations	■	■				
Access and affordability	■	■	■	■		■
Customer welfare	■	■	■	■		■
Data security and customer privacy				■		■
Fair disclosure and labelling				■		■
Fair marketing and advertising	■	■	■			
Human capital						
Labour relations						
Fair labour practices						
Employee health, safety and wellbeing	■	■				
Diversity and inclusion						
Compensation and benefits						
Recruitment, development and retention	■	■		■		
Business model and innovation						
Lifecycle impacts of products and services	■	■	■		■	
Environmental, social impacts on assets and ops				■		■
Product packaging					■	
Product quality and safety	■	■	■		■	
Leadership and governance						
Systemic risk management						
Accident and safety management						
Business ethics and transparency of payments	■	■	■	■	■	
Competitive behaviour						
Regulatory capture and political influence						
Materials sourcing			■			
Supply chain management	■	■	■			

Source: CFA Certificate in ESG investing Official Training Manual; SASB

Example sector map

- Often varies by company and/or subsector
- The actual score can differ

Fundamental: ESG valuation and assessment techniques

Adjust DCF inputs: cost of capital / fade rates / terminal growth etc.

Scenario analysis

- Explicit adjustments
  - e.g. P&L sales, balance sheet, cash flow and margin adjustments from ESG assessment
- Valuation radio adjustments
  - e.g. price to earnings ratio
- Sustainability of business model: ESG opportunities
- Asset quality or efficiency assessment
- Employee retention or incentive assessment
- Precedent Transactions +/- “ESG Premiums”

Source: CFA Certificate in ESG investing Official Training Manual

Fundamental: ESG techniques | Pros & Cons

Adjust DCF inputs: cost of capital / fade rates / terminal growth etc.

-Theoretical Strong Basis of Intrinsic value

-Open to manipulations; economic justification of “50bps” spreads weak

-Cross-comparisons harder / relative values; complexity, sensitive to assumptions

-Overconfidence in details

Scenario analysis

-Complexity, no “correct” answer

Source: CFA Certificate in ESG investing Official Training Manual

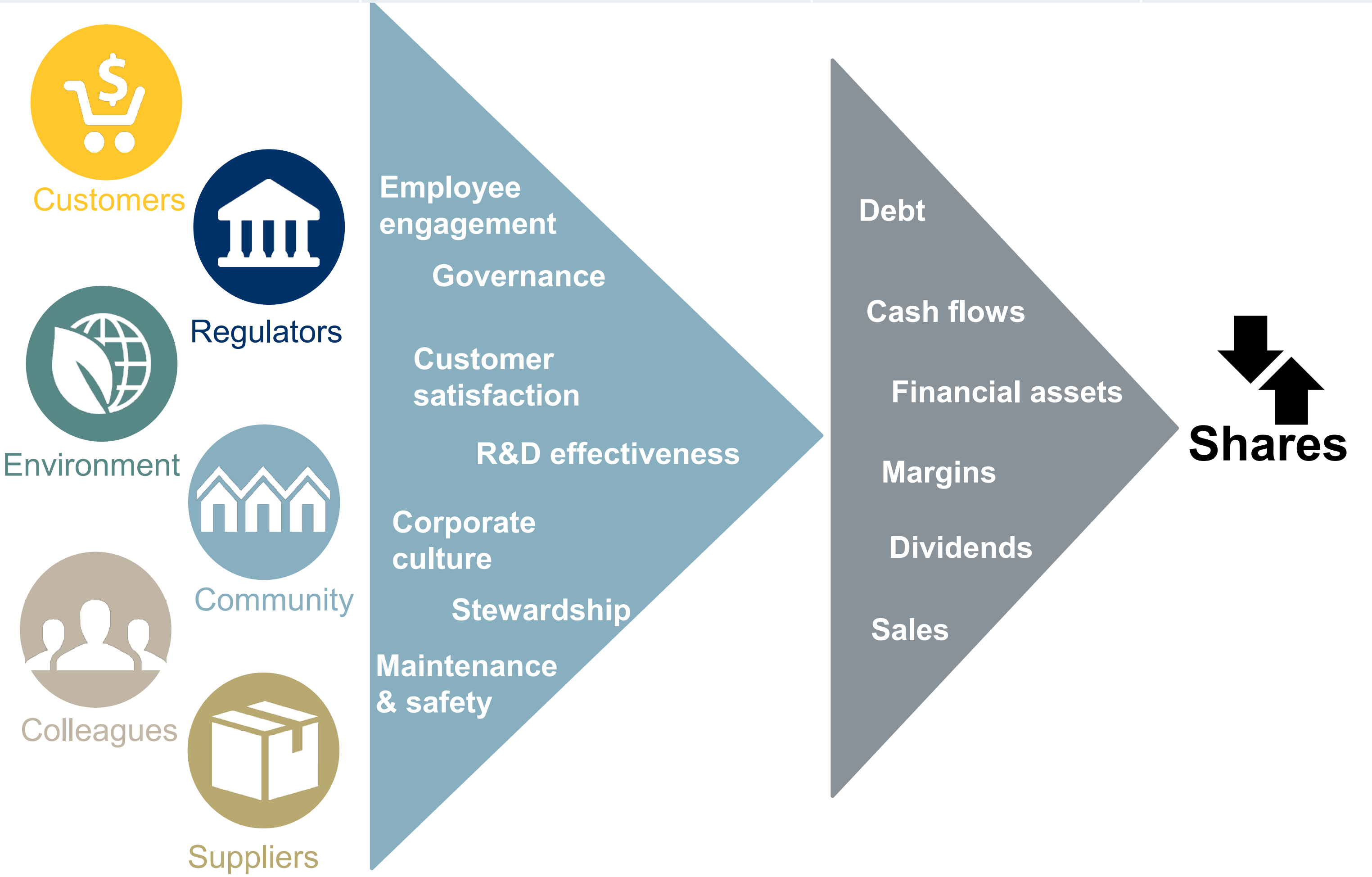
Fundamental: ESG valuation and assessment techniques

- Explicit adjustments
  e.g. P&L sales, balance sheet, cash flow and margin adjustments from ESG assessment
    - Theoretical Justification
    - Complexity; Over-detail; Materiality Judgement error
- Valuation radio adjustments
  e.g. price to earnings ratio, Price / Sales etc.
    - Simpler; Relative Value
    - Pitfalls of all ratio techniques; weak economic justifications of spread
- Precedent Transactions +/- “ESG Premiums”
    - Judgement in “Premiums” plus market transaction data difficulties

Source: CFA Certificate in ESG investing Official Training Manual

Credit lens

Extra-financial factors	Business performance	Corporate performance	Share price performance	Portfolio performance	External risk factors



Credit based ‘ESG’

- Similar flow of assessment but focus on what impacts credit ratings / default risks.
- Assessment criteria differ for Governments but similar concepts

Stock specific ESG | Credit specific ESG | Stewardship | Portfolio construction | Factor ESG

Credit investor techniques

Fundamental credit measures e.g. margins, leverage, cash flow
Qualitative or quantitative assessments: Emissions, board, employee retention

e.g. A beverages company:

E

Strength: Collaboration with suppliers to improve water efficiency by 15% in high-risk areas. Aligned greenhouse gas emissions reduction goal with Science Based Target Initiative.

Challenge: Weak disclosure on progress being made to reduce packaging waste.

S

Strength: Comprehensive human rights and supplier code-of-conduct protocols.

Challenge: Certain talent retention and recruitment strategies trail best practices. Products are primarily sugary drinks, despite introduction of healthier brands.

G

Strength: Robust antibribery policies governing interactions with suppliers. Board of directors formally oversees sustainability initiatives. Rigorous, year-round stakeholder engagement includes consumer groups.

Challenge: No significant challenges seen.

Internal rating can be adjusted up/down compared to external ratings
Making an investment accordingly is judged to be mis-priced

Source: CFA Certificate in ESG investing Official Training Manual

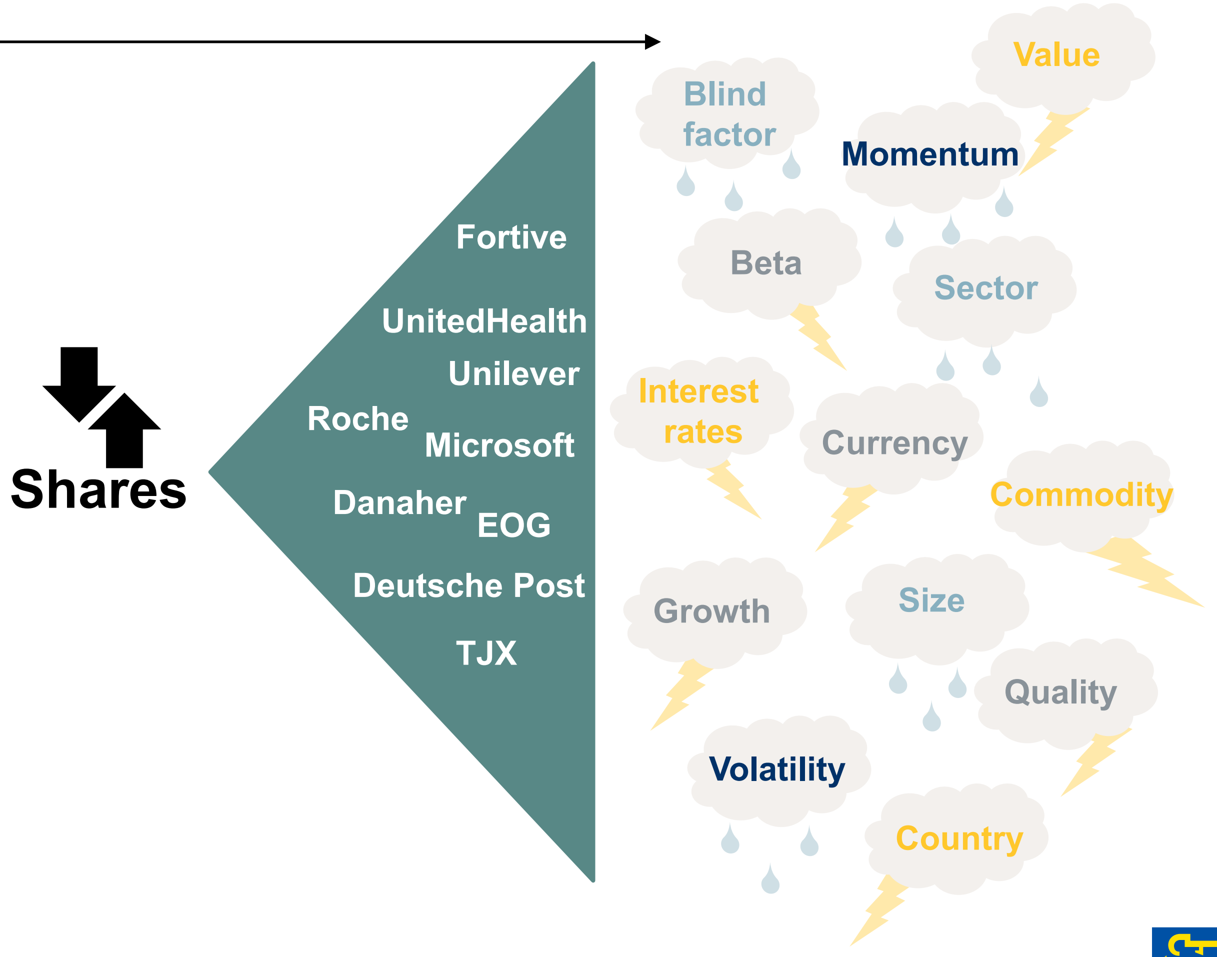
Quantitative and systematic: Factor lens

Extra-financial factors	Business performance	Corporate performance	Share price performance	Portfolio performance	External risk factors

Tilting or rules based ESG

Thesis:

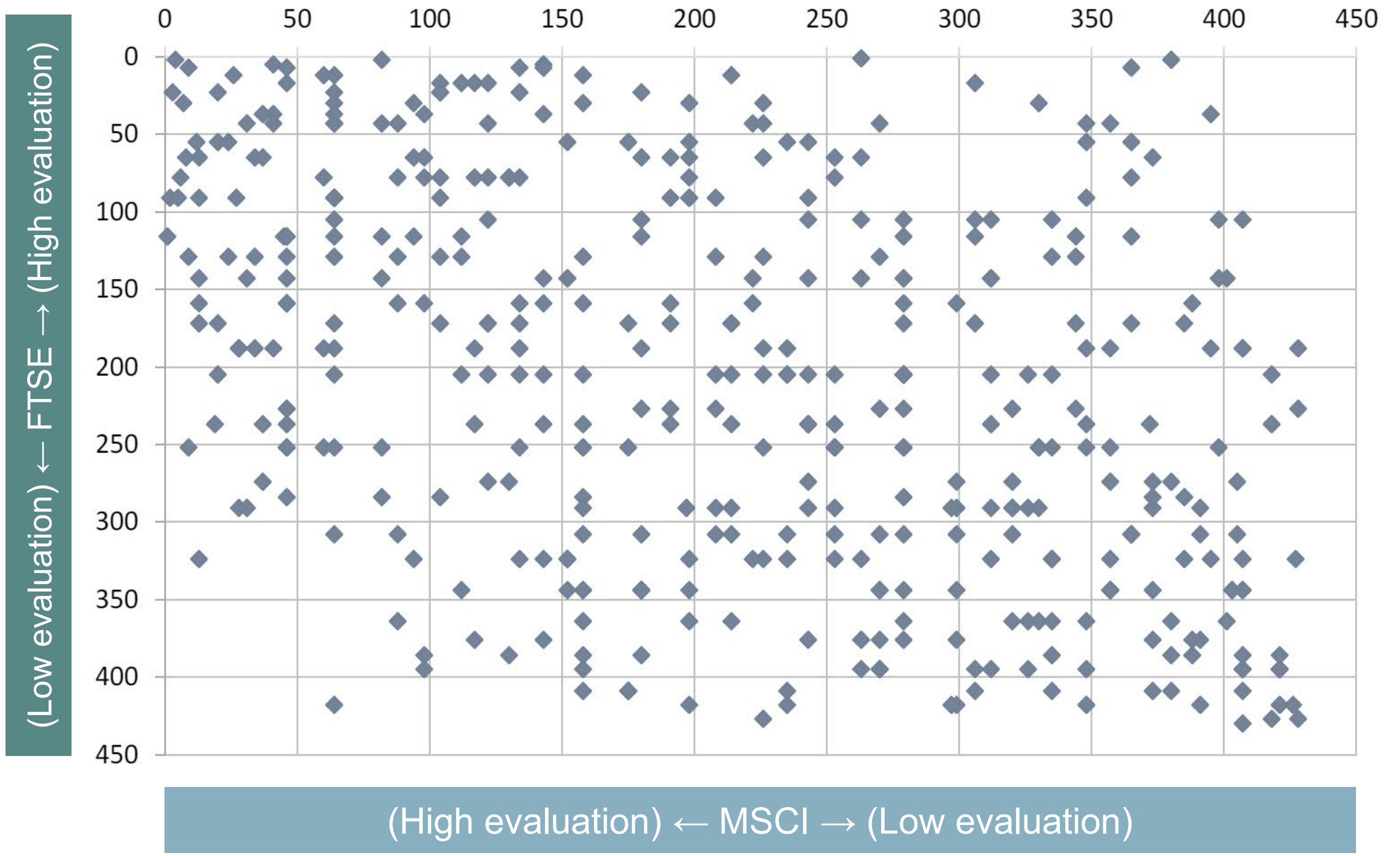
- "Real" World factors translate into "data" factors
- Or "behavioural" drivers translate into factors.



Stock specific ESG | Credit specific ESG | Stewardship | Portfolio construction | Factor ESG

Third party ESG ratings are not consistent

Comparison of ESG evaluation by FTSE and MSCI



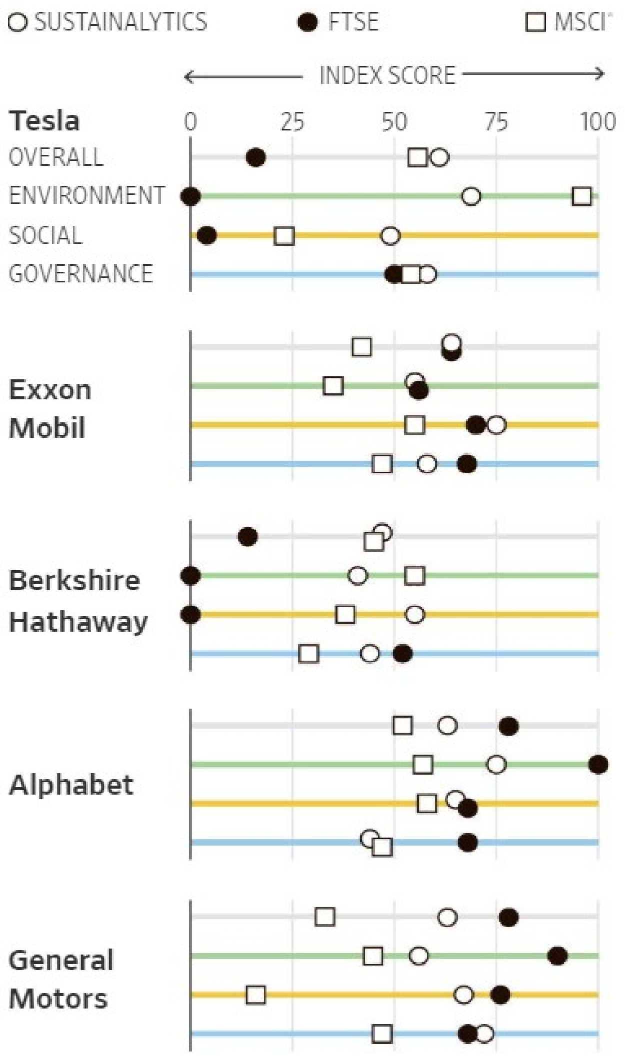
Current situation of ESG evaluation:

- Unlike financial analysis, ESG evaluation does not have a long history, and the standard method of evaluation is yet to be established. Disclosure of information necessary for evaluation is also not sufficient.
- The correlation of ESG evaluations by FTSE and MSCI is very low.

Chatterji et al (2014) show only low 0.3 correlation between ESG data providers.

Source: GPIF 2017. Universe for the analysis are 430 Japanese companies commonly surveyed FTSE and MSCI (as at July 2016). The plot of the diagram shows the ranking of ESG evaluation of each company (from 1st to 430th)

ESG ratings



Investors should not treat ESG scores as settled facts…

…but worthwhile analysis that needs to be understood before being acted on

The problem here isn't the ESG ratings…

…but that they can be used as objective truth

Source: WSJ: Is Tesla or Exxon More Sustainable? It Depends Whom You Ask, MSCI, Sustainalytics, FTSE. As at 17.09.2018.

Quant techniques

Factor based:

- Do ESG factors correlate with Quality / Value / Momentum?
- Correlation seems low depending on data set
- Alternative Data sets? Combination of data sets

Is there "Factor ESG" or "Idiosyncratic" ESG" – current debate (cf. Axioma paper)

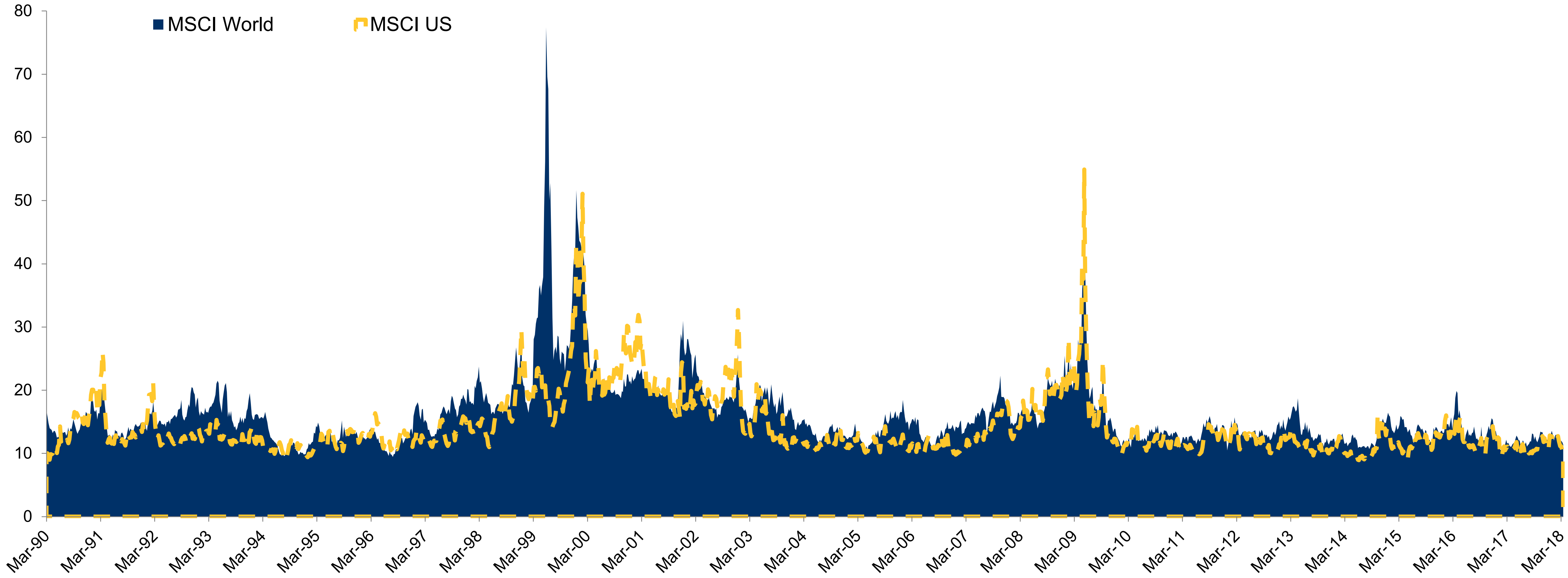
Tilting or rules based:

- Is there second order exposure eg low carbon = Norway Bank ?
- Align "real world" impact eg Diversity Index ?
- Green Revenues / Taxonomy

Source: CFA Certificate in ESG investing Official Training Manual; Axioma | ESG's Evolving Performance (2018)

Consistent share price dispersion indicates persistent alpha opportunity

Rolling weekly standard deviation of 13 week returns for MSCI World & U.S. Indices



As at 16.04.2018.

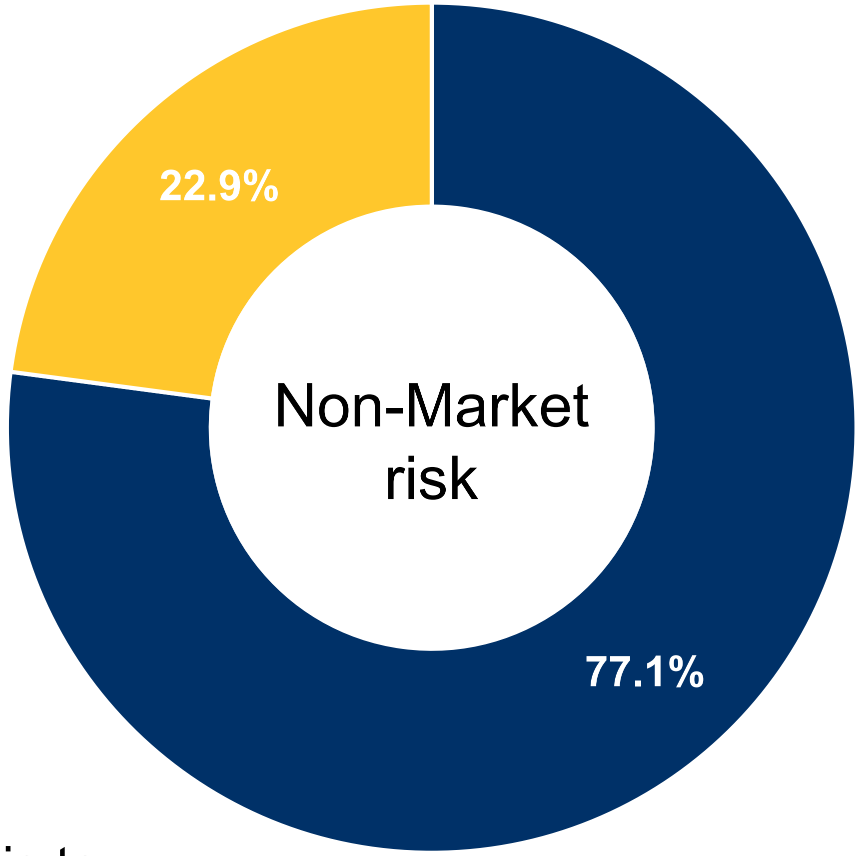
Source: Sanford Bernstein.

Greater opportunity in stock-specific risk than factors

Factor risks
σ = 13.2%

Characteristics shared across multiple firms e.g.:

- size
- industry
- country
- leverage



Stock-specific risks
σ = 24.2%

Characteristics unique to an individual firm e.g.:

- culture
- human capital
- innovation
- decision making

The challenge for active managers is to:

- demonstrate an ability to exploit this market opportunity
- construct portfolios that capture intended sources of returns

Source: MSCI World Index, Axioma. Attribution of non-market returns for the year ending 31.12.2016.

Private Markets, Property, Infrastructure, Venture Capital

ESG ideas and techniques applicable across asset classes

Specific techniques may vary

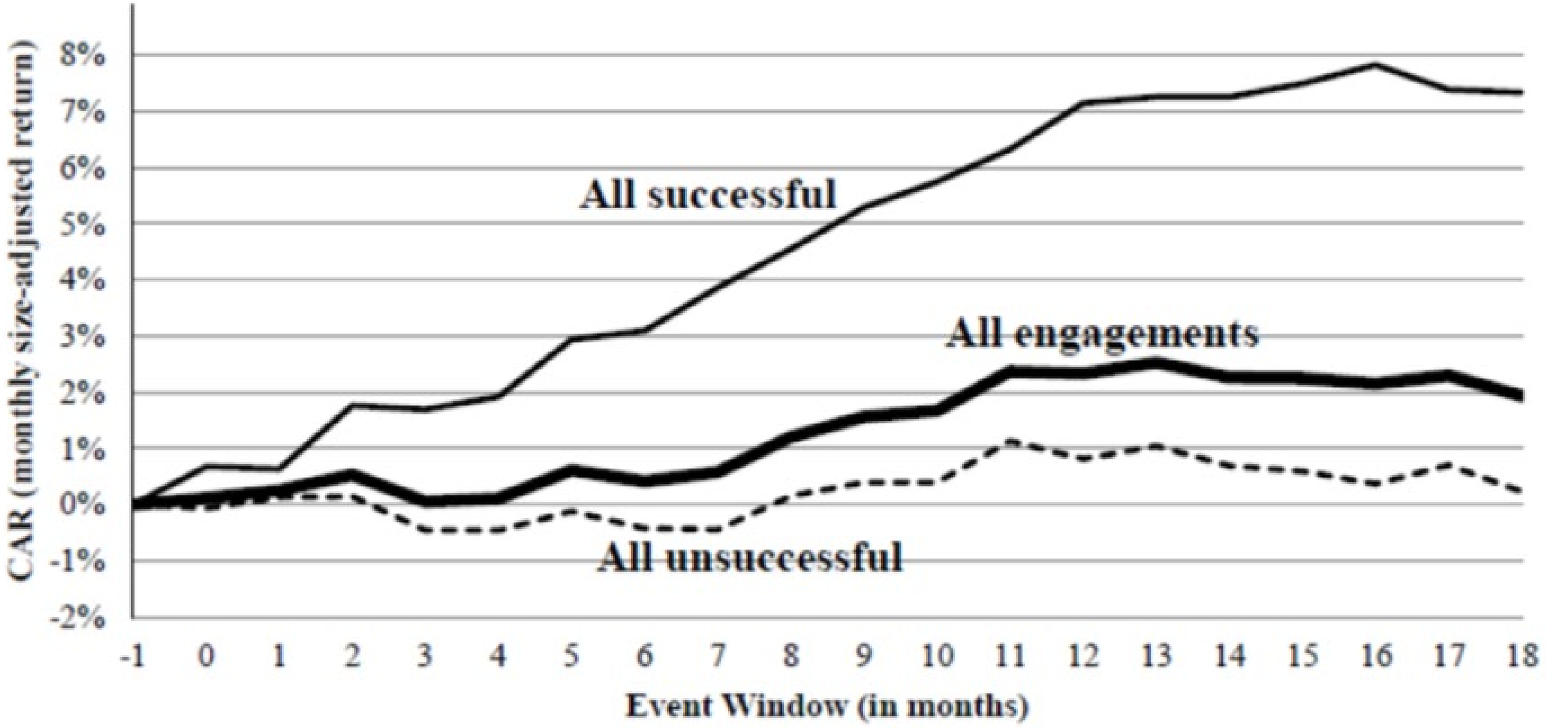
- Building assessments
- Engagement
- Active ownership
- Performance standards
- Carbon assessments
- Board structure
- Private markets
- Water assessments
- Proxy voting
- Buy-outs
- Event driven (ESG activism)
- Governance

WeWork, Uber highlights potential value in private market assessments

Company ESG engagement enhances outcomes

Engagement as an ESG technique

- Enhances stock returns
- Enhances company fundamentals
- Enriches extra-financials



Source: “Active Ownership” by Elroy Dimson , Oğuzhan Karakaş and Professor Xi Li (last revised 2016).

ESG integration challenges and debates

Challenges

Data

Comparability

Judgements

Materiality

Culture

Innovation

"Purpose"

Incentives

Diversity

Critiques

"Bad actors"

Dubious criteria

Data

Differing judgements

Ethics

Differing Geographies

Balancing Stakeholders

Debates

Regulation

Stakeholder Capitalism

Where SDGs fit? "Real World" impact

Active vs Passive vs Factor approaches

Stewardship / Climate / Systemic Risks

Greenwashing

Where is the idiosyncratic alpha? What fees?

Long-term value creation

"Someone is sitting in the shade today because someone planted a tree a long time ago."

– Warren Buffett

About me

Ben Yeoh

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Ben is a Senior Portfolio Manager and the Global Equity team's Healthcare sector specialist. In addition he is the team's ESG expert and sits in a non-executive advisory capacity for Responsible Investment and ESG for a leading UK investment trust.

Ben holds an MA (Natural Science) from Cambridge University gaining the top first in his year. He won a scholarship to Harvard University and studied there at post graduate level specialising in behavioural neuroscience. Ben is a CFA charterholder, a member of the UK's Financial Reporting Council's Investor Advisory Group, part of the Consultative Group for the International Accounting Standards Board (IASB) and chairman of the External Advisory Committee for the Royal London's Sustainable Investment Trusts.

Ben is also co-author on CFA the text book on ESG Investing (2019) and a playwright.

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Disclosures