ESG is Becoming the New Normal: Implications for Investors

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Agenda

- ESG Macro Outlook
- Our Commitment to ESG
- How to meet the Climate Challenge
- ESG Data and R-Factor: an innovative ESG scoring approach
- ESG and the re-evaluation of Tracking Error
- Divest vs Engage and Stewardship Considerations
- Conclusion





ESG Macro Outlook 2021

ESG related issues become more relevant in financial decision making

Europe Marches Forward	European Green Deal 2021 – new regulation kicking in European Central Bank fully committed UK: COP 26 puts climate on top of agenda
US Onboard	Biden administration acting aggressively in favour of ESG
Emerging Markets (EM)	China started to make commitments EM will receive greater attention on ESG issues
Asia	Singapore changing tone





Our Commitment to ESG

Extends across all our businesses and regions

- >\$464B¹ in ESG AUM, offering ESG investment strategies since 1985
- ESG metrics are integrated into all our investment decisions and investment process across all asset classes
- Using our voice and vote to drive impact on long-term governance and sustainability issues
- PRI Signatory since 2012

PRI Assessment	2020 (FY2019)		
Strategy & Governance	A+		
Listed Equity Incorporation	А		
Listed Equity Active Ownership	A+		
Fixed Income — SSA (Sovereign)	В		
Fixed Income — Corp. Financial	В		
Fixed Income — Corp. Non-Financial	В		

1 As of 31 December 2020 Source: State Street Global Advisors, State Street Corporation

Environmental

• Set short & long-term goals, including:

Greenhouse gas emissions reduced by 1/3

Reduced water usage by 21%

Diverted 90% of waste from landfills

 Aligned with the UN Global Compact and engaged with industry and community partners to further climate initiatives

Social

- CEO Diversity Pledge signed in 2017, aims to rally the business community to facilitate difficult conversations, expand unconscious bias trainings and share best practices
- Dedicated council to support and advance diversity and inclusion for employees, with business unit specific goals
- Our supply chain has environmental certification and policies covering equal opportunity, child or forced labor and health and safety

Governance

- Board independence for Audit, Compensation and Corp Governance Committees
- 30% of State Street Board composition are women
- Data protection and IT resilience, including identity and access management, data loss prevention and cyber operations



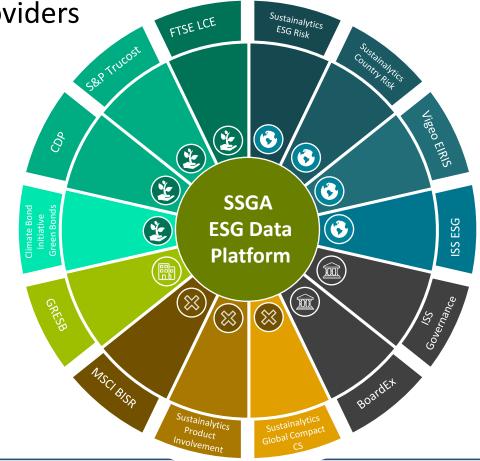


ESG Data Platform

Offering clients access to best-in-class ESG data providers

- **General ESG**
- Climate/Carbon
- **Governance**
- **Real Assets**
- **Business Involvement/ Screening Capabilities**

Source: State Street Global Advisors







Challenges to Building Sustainable Capital Markets



 Debate about whether ESG is aligned with fiduciary responsibility

2. Standardization

 Lack of industry focus and consensus on which ESG data is financial materiality

3. Data

- Concerns around quality & coverage of ESG data
- Reliance on third party
 ESG data providers with
 opaque methodologies
 that don't correlate
 with one another

4. Company Action

- Companies unsure how to manage ESG and which issues matter to investors
- As a result, lack of standardized ESG disclosure

Source: State Street Global Advisors





Climate Targets

The "Net Zero Debate"

Asset owners join companies and governments to reach net zero

Driven by regulation and changing sentiment, companies and investors are aligning to the low-carbon transition

Discussions around climate scenario planning will be a reoccurring topic during conversations on climate change and regulation will be an important catalyst

But question marks exist around methodology selection as well as reliability of data

Many investors will take the first steps and explore possibilities to reduce the carbon footprint associated with asset pools





How to Meet the Climate Challenge?

Approach 1

Screen Out

- Worst Polluters
- Fossil Fuel Reserves
- O Coal

Approach 2

Net Carbon Reduction

- Reduce exposure to carbon intensity & Fossil fuel reserves
- Tracking error target

Low-Carbon Bond Solutions Low-Carbon Equity Solutions

Approach 3

Mitigation & Adaptation

- Reduce exposure to worse than average carbon emission, fossil fuel assets (Carbon Reserves) & Brown Revenues
- Increase exposure to Companies generating revenues from low carbon opportunities (Green Revenues)
- Resiliency (Adaptation)

Sustainable Climate Strategy

Source: State Street Global Advisors.



Off-the-Shelf or Bespoke Pooled & Segregated Solutions



Mitigation and Adaptation via Science-Led Results



Representative Concentration Pathways RCP2.6*

A climate model representative of a scenario that aims to keep global warming likely below 2°C above preindustrial temperatures



Green Revenues	+300%
Brown Revenues	-90 %
Embedded Fossil Fuel Reserves	-90%
Adaptation Score Improvement	

Carbon Emission Intensity
Minimization

*Representative Concentration Pathways (RCPs) describe four different 21st century pathways of greenhouse gas (GHG) emissions and atmospheric concentrations, air pollutant emissions and land use. Numbers shown are for the World exposure. Source: State Street Global Advisors.





ESG Data Challenge... the "quest" continues...



ESG Rating Correlation

		SA SA VI RS									Average
ESG	0.77	0.65	0.53	0.53	0.62	0.6	0.49	0.42	0.4	0.37	
E	0.7	0.66	0.59	0.33	0.69	0.59	0.35	0.61	0.26	0.19	
S	0.67	0.57	0.52	0.29	0.62	0.58	0.27	0.55	0.27	0.28	
G	0.55	0.48	0.36	0.34	0.7	0.7	0.43	0.68	0.38	0.34	

SA – Sustainalytics, VI – Vigeo Eiris, RS – RobecoSam, A4 – Asset4, MS - MSCI

Aggregate Confusion:

The Divergence of ESG Ratings, Rigbon et al, MIT, 2020





Financial Materiality Matters → R-Factor[™]



Financial Materiality (SASB)

Commonly Accepted, Transparent Frameworks

Multiple Data Sources

Strong Stewardship

Scores based on what matters most for business: the ESG issues that have been shown to contribute to long-term sustainable returns¹

Gives companies a roadmap to improve their ESG performance and score, supported by investors representing \$33T in assets

Powered by multiple data sources to minimize the bias of any one data provider and provide coverage of more companies Helps build sustainable capital markets by incentivizing companies to enhance ESG disclosure for all investors

¹ Serafeim, Khan et al. "Corporate Performance: First Evidence of Materiality." HBR 2017 Source: State Street Global Advisors





Tracking Error = Tracking Error?

- Re-evaluating ESG-related tracking error
- Tracking error tells us how big performance differences are between the fund strategy and its underlying benchmark or holdings, not whether they are positive or negative
- Deviations from standard benchmarks become inevitable when ESG considerations are included in index methodologies
 - For example, investors looking to align their portfolios to the Paris Agreement goals by including portfolio climate targets must accept tracking error deviations as a necessity
- Investors will rethink tracking error budgets against standard benchmarks, in light of ESG integration considerations
- Instead of focusing solely on TE the next gen investors will put more effort into understanding the effect of socially responsible investing on **portfolio performance**





Divest or Engage?

As ESG data improves investors will be able to make more nuanced decisions But company disclosure needs to improve dramatically (SASB, TCFD)

- When a company fails to meet ESG expectations, should investors divest or engage?
- Where do investors draw the line?
- This is particularly important in the context of:
 - the "Universal Owner" principle
 - Certain industries with high carbon exposure, like energy
- → Better and more nuanced data will lead to better decision making

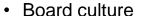




Our Stewardship Vision

As a long-term, significant shareholder with a global focus, we believe that companies that successfully embrace ESG principles are those that have strong, effective, independent boards and incorporate environmental and social sustainability into their long-term strategies.

Strong, effective, independent boards of directors



- Board leadership
- Board refreshment
- Board diversity
- Board response to activism
- Shareholder rights
- Corporate governance principles

Incorporating sustainability into long-term strategy



- · Climate change disclosure
- Pay strategies
- Environmental management
- Incorporation of TCFD¹ principles
- Corporate Culture

Effective ESG risk management

 Focused on generating long-term sustainable value

¹ (TCFD) Task Force on Climate-related Financial Disclosures. Source: State Street Global Advisors Asset Stewardship Team





Conclusion

ESG Outlook

Europe marches forward; US, China and emerging markets onboard.

Engage or Divest: The Debate Intensifies

When a company fails to meet ESG expectations, should investors divest or engage?

Reaching Net Zero

Asset owners join companies and governments to reach net zero.

ESG Data. Ever Improving

With increasing quality and availability of ESG data, comes more specialization. But improvements in company disclosure needed.

Re-evaluating TE

Rethink tracking error (TE) budgets against standard benchmarks, in light of ESG integration considerations.





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The returns on a portfolio of securities which exclude companies that do not meet the portfolio's specified ESG criteria may trail the returns on a portfolio of securities which include such companies. A portfolio's ESG criteria may result in the portfolio investing in industry sectors or securities which underperform the market as a whole.

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