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ESG meets investing: you can do good and do well

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Timestamp: 09 November 2021 09:09AM EST issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Refer to important disclosures on page 25-30.



Agenda

- Types of sustainable investments
- Why investors care
- ESG Investment trends





Types of sustainable investments



What is ESG?



ESG investing incorporates non-financial factors pertaining to the environmental (E), social (S) and governance (G) attributes of a corporation



Types of sustainable investments



Screening/value investing

Investment in sectors, companies or projects selected from a defined universe for positive ESG performance relative to industry peers.

ESG integration

The systematic and explicit consideration by investment managers of environmental, social and governance factors into financial analysis.

Impact investing

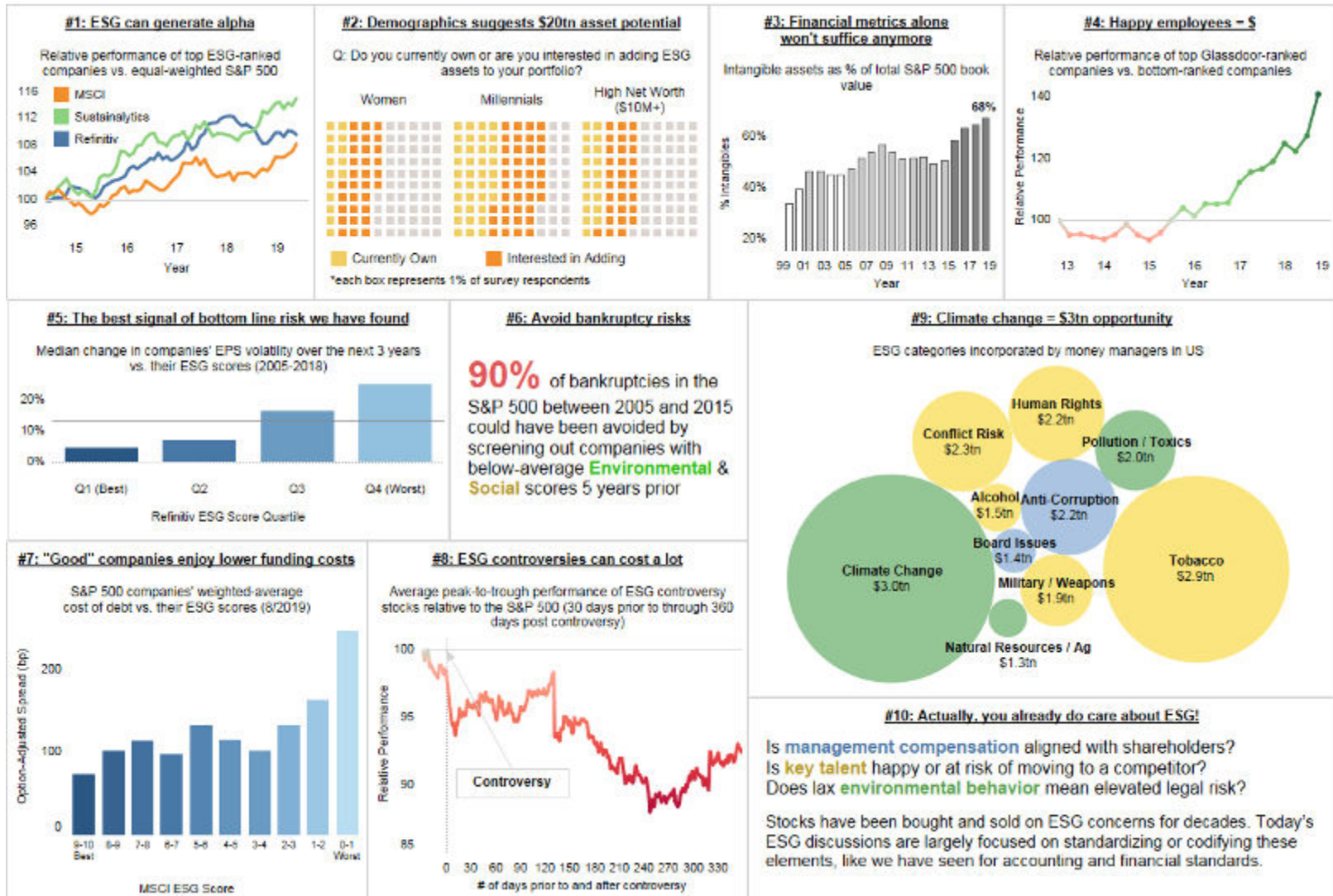
Targeted investments aimed at solving social or environmental problems, including community investing or financing that is provided to business with a clear social or environmental purpose.



Why investors care



10 reasons you should care about ESG



Source: BofAUS Equity & Quant Strategy, MSCI ESG Research LLC, Sustainalytics, Refinitiv, Fact Set, ThinkNum, USSIF, 2018 U.S. Trust Wealth and Worth Survey

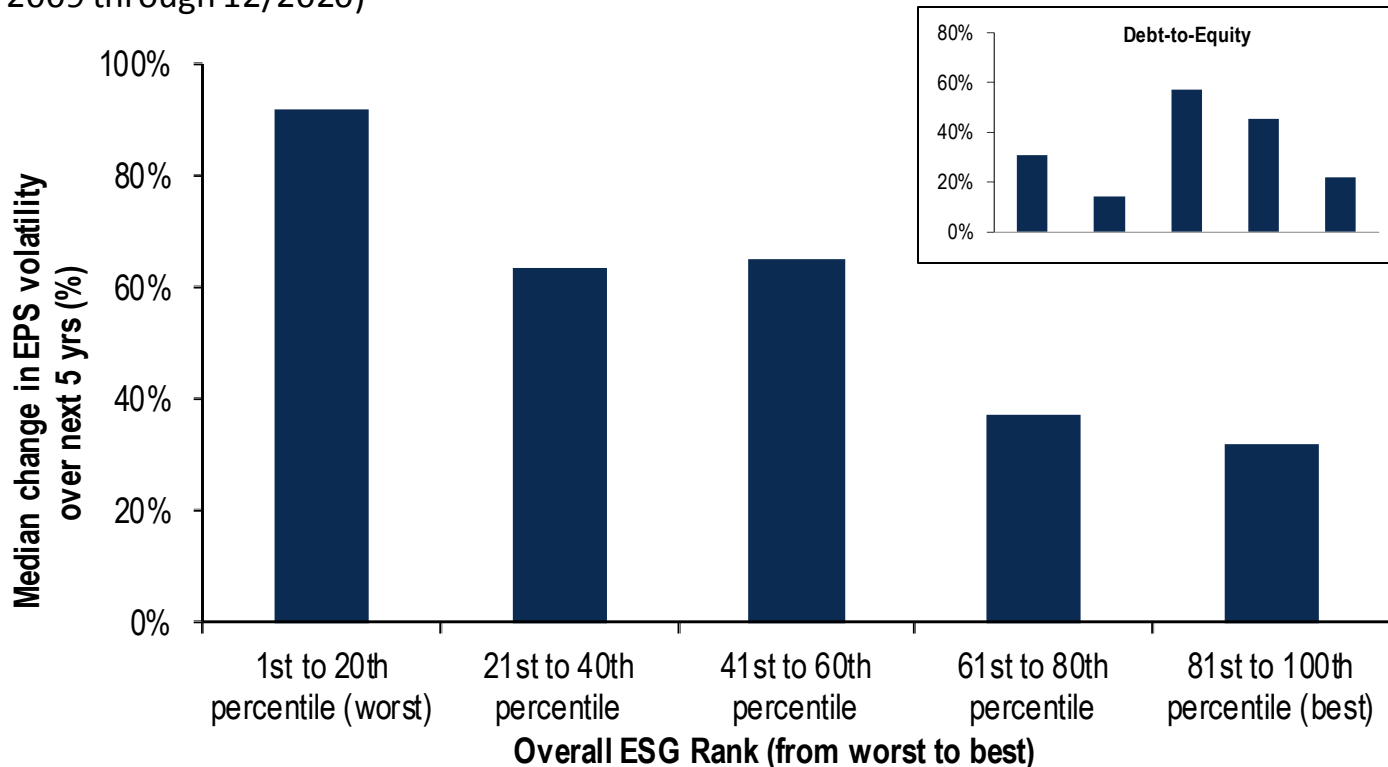
Best signal of earnings risk we have found



ESG factors are superior indicators of risk relative to other financial risk and quality factors we have tested over the years

ESG vs. financial leverage: ESG better predicts earnings risk

Median change in 3-yr EPS volatility over subsequent five years based on Refinitiv ESG score vs. debt to equity ratio (12/2009 through 12/2020)



Source: Refinitiv, FactSet, BofA US Equity & Quant Strategy

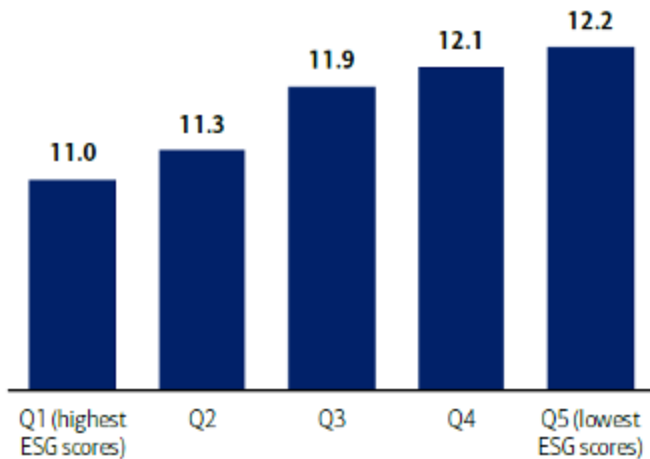
ESG could lower your funding costs



“Good” companies enjoy a lower cost of capital

Companies with the highest ESG scores based on MSCI have a lower average cost of equity

Average cost of equity (%) for S&P 500 companies based on MSCI ESG score quintiles

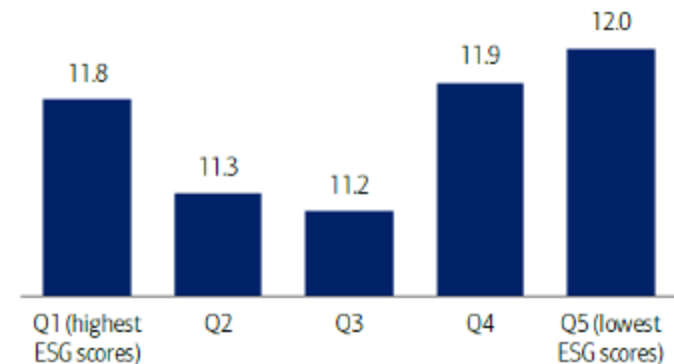


Source: MSCI, Bloomberg, BofA US Equity & Quant Strategy

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Companies that are poorly ranked on ESG based on Sustainalytics tend to have higher cost of equity

Average cost of equity (%) for S&P 500 companies based on Sustainalytics ESG score quintiles, data as of 9/27/21



Source: Sustainalytics, Bloomberg, BofA US Equity & Quant Strategy

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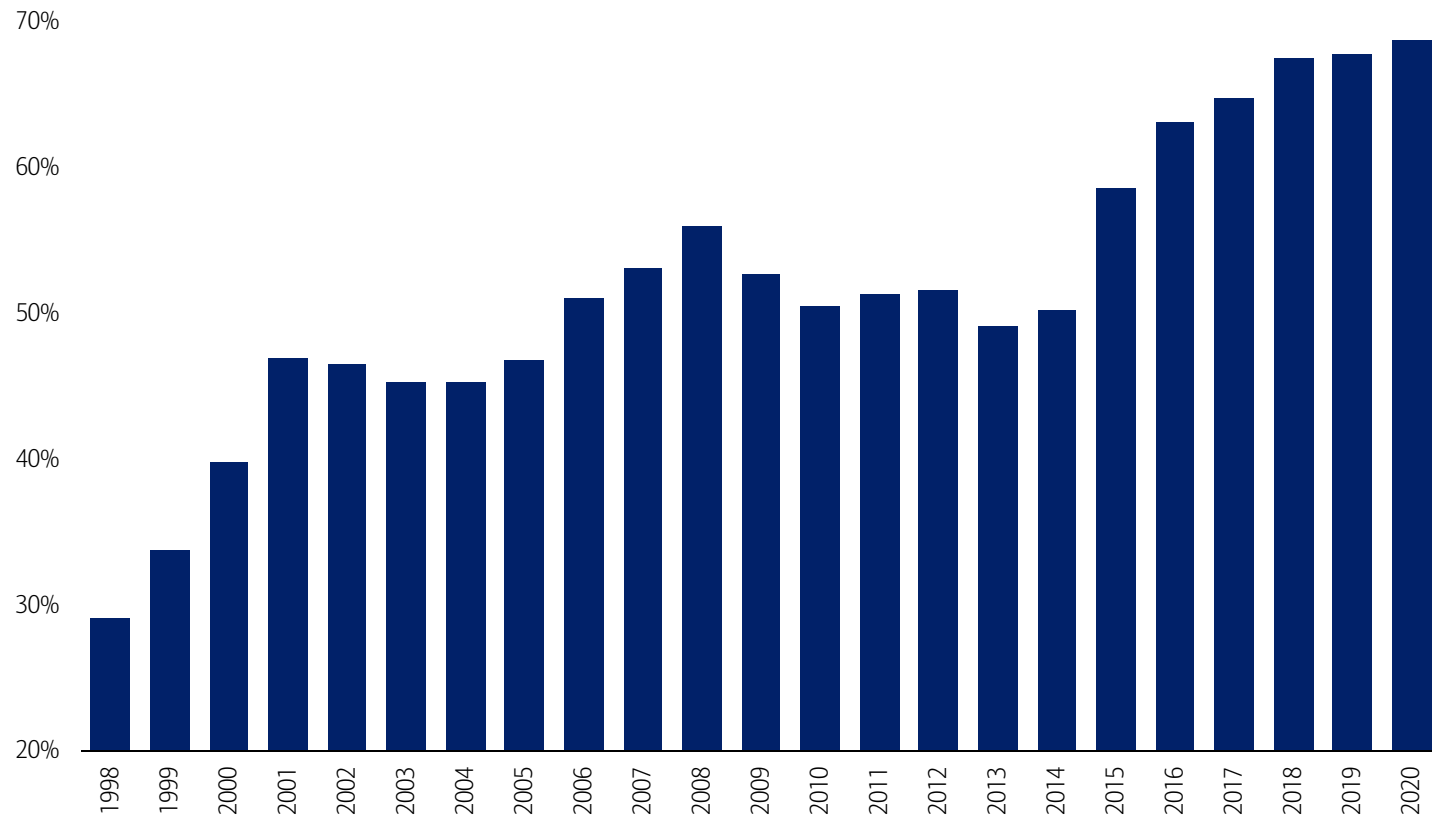
Source: Sustainalytics, MSCI, FactSet, BofA US Equity & Quant Strategy



Using financial metrics alone won't suffice

A record proportion of assets are intangible

S&P 500 intangible assets as a percent of book value, 1998-2020



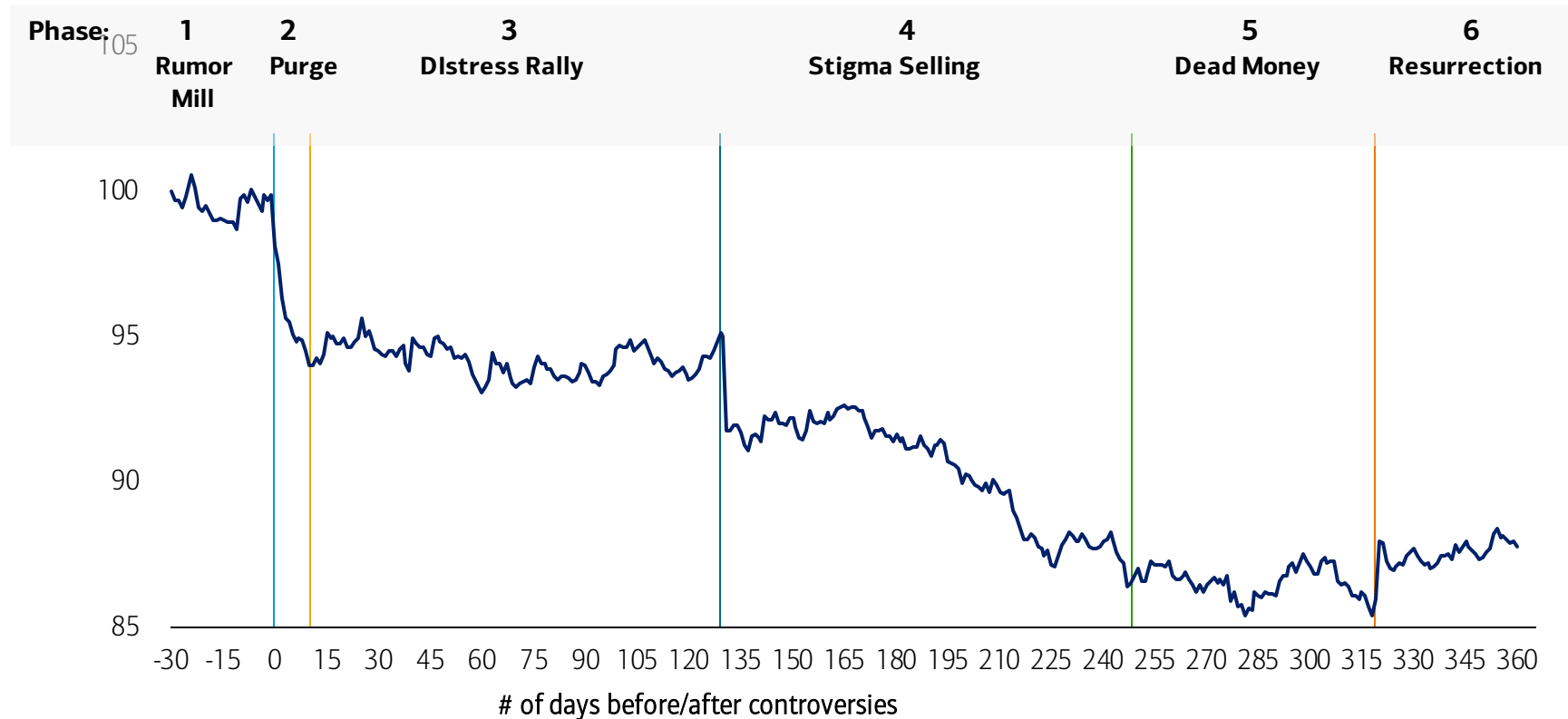
Source: FactSet, BofA US Equity & Quant Strategy

ESG controversies are costly and long-lived



The life cycle of a controversy stock typically has six phases that can last a year

Average peak-to-trough performance of ESG controversy stocks relative to the S&P 500 (market cap weighted)



Source: BofAUS Equity & Quant Strategy

*includes 28 major controversies related to data breaches, accountings scandals, sexual harassment and other ESG topics. See [appendix of this note](#) for the list of stocks included in this analysis.

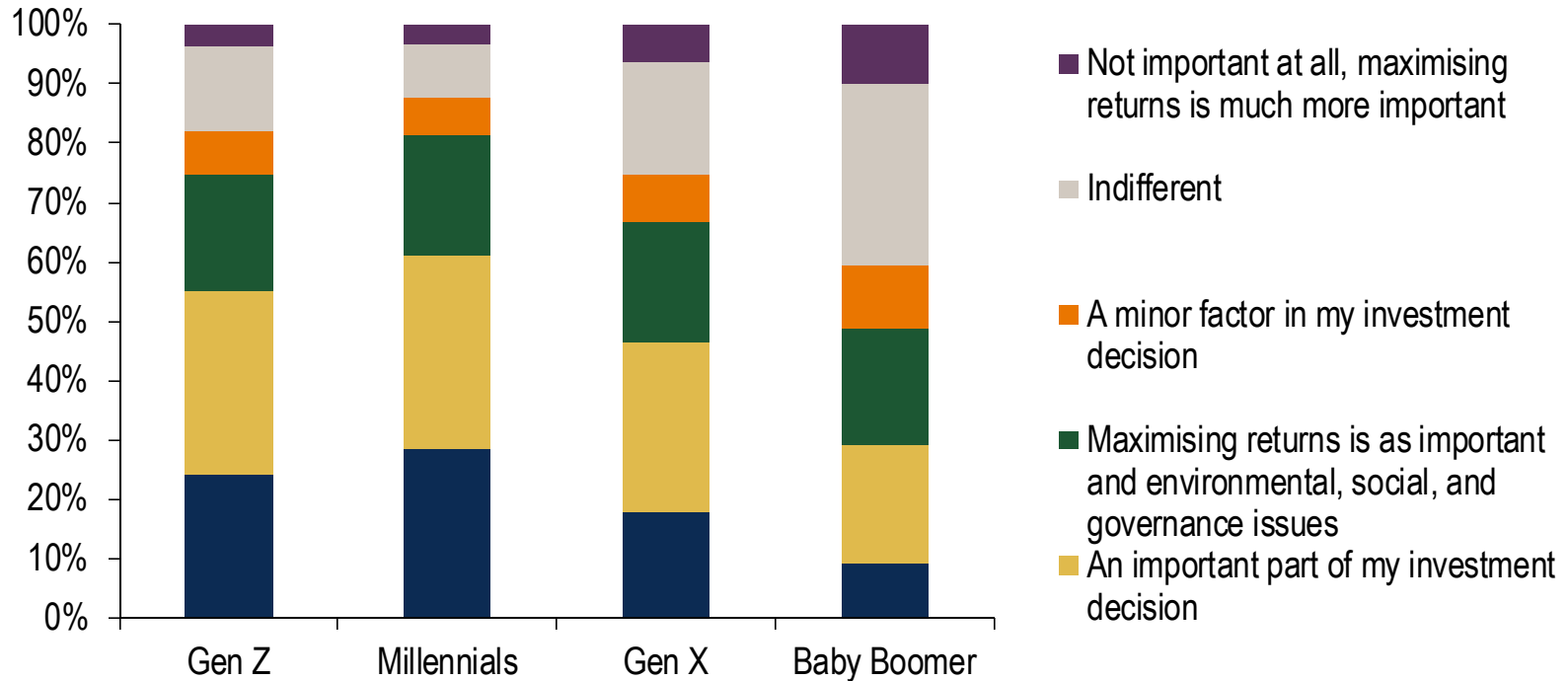


ESG could see \$20tn N.A. asset influx over next few decades

Demographics should drive a wave of asset influx into ESG and Impact Investing

Roughly 75% of Millennials and Gen Z think considering ESG factors is important when investing

When making investment/financial decisions, how important are ESG issues (e.g. sustainability, diversity, employee rights, etc.) within the companies you invest in? (August 2020)



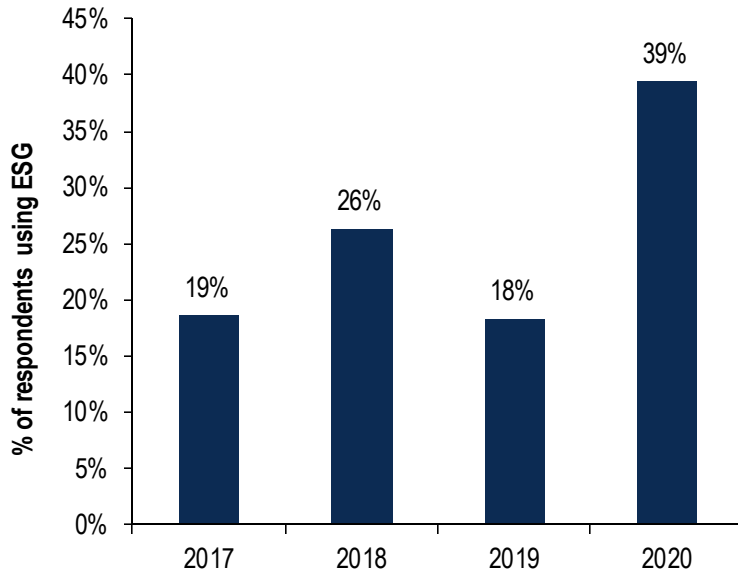
Source: BofA Thematic Proprietary Survey n=14,592, conducted Aug 2020 “When making investment/financial decisions, how important are environmental, social, and governance issues (e.g. sustainability, diversity, employee rights, etc) within the companies you invest in?”

ESG already moving from niche to mainstream

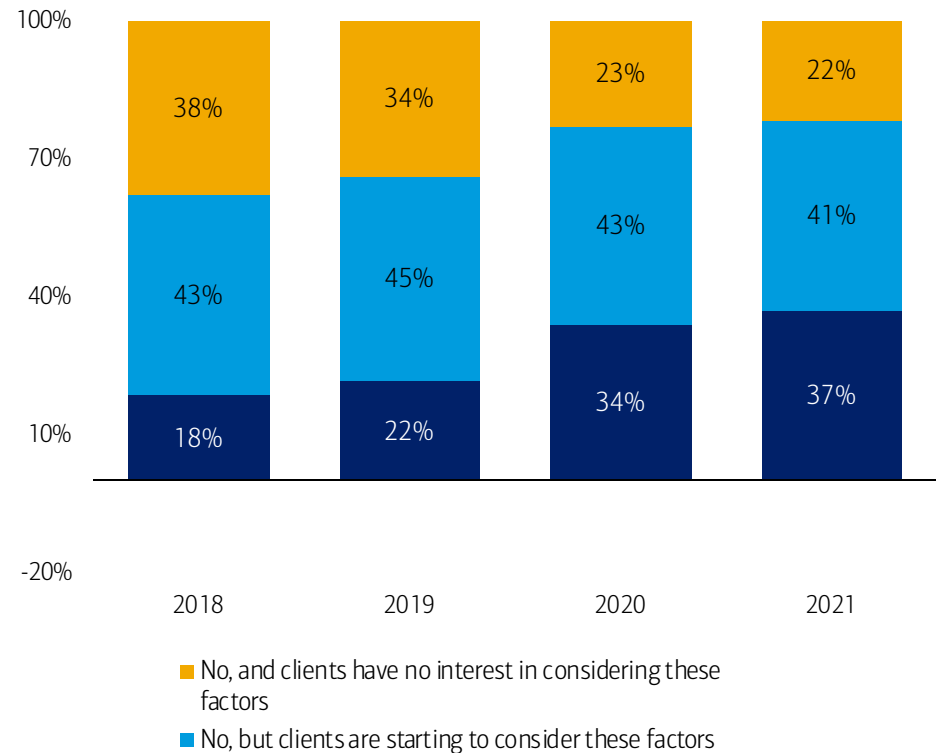


Momentum is building among institutional and individual investors

Institutional investor interest doubled in 3y
2020 Annual Institutional Factor Survey



~4 out of 5 investors consider ESG factors
2021 Global Wealth & Investment Management Survey



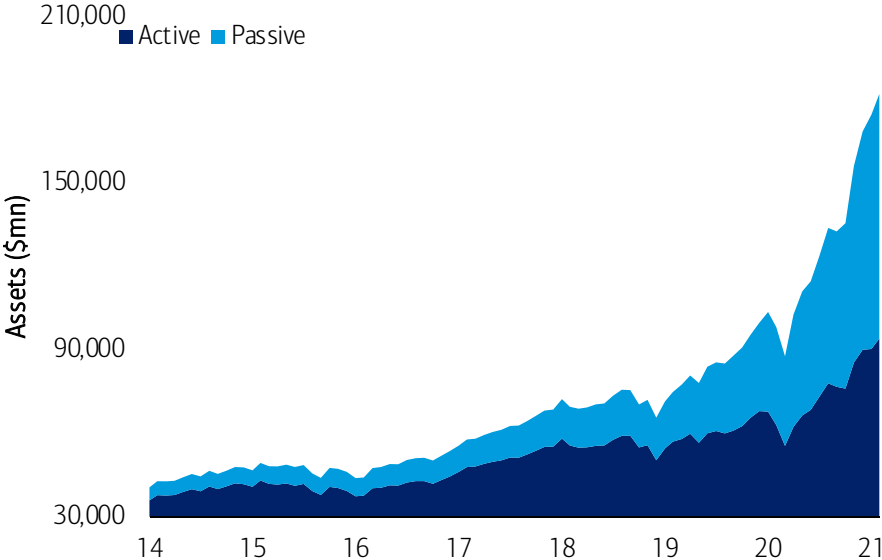
Source: BofAUS Equity & Quant Strategy

ESG asset growth has accelerated



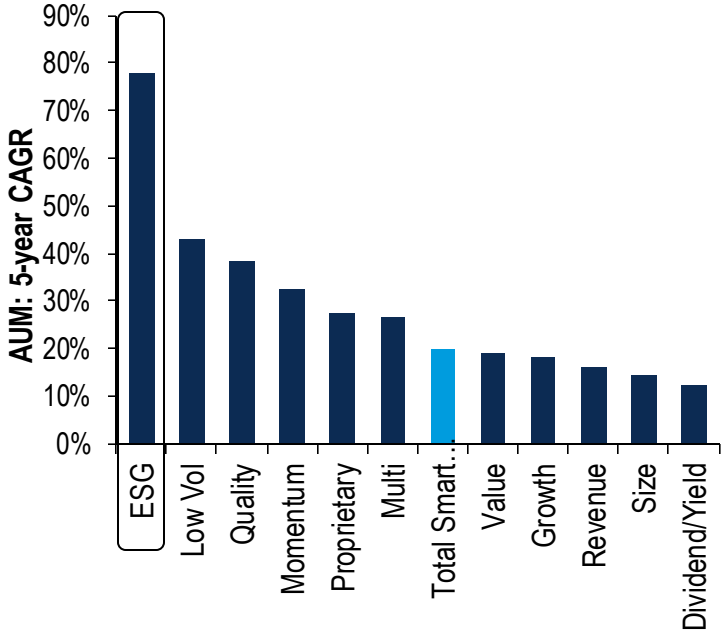
ESG assets have nearly tripled in two years

Assets under management in ESG funds broken out by passive (ETFs and non-ETFs) and active (2014-2021)



Fastest-growing thematic ETF – 80% p.a. AUM

5-year CAGR in AUM growth (2013-2020) of smart beta ETF categories in Bloomberg



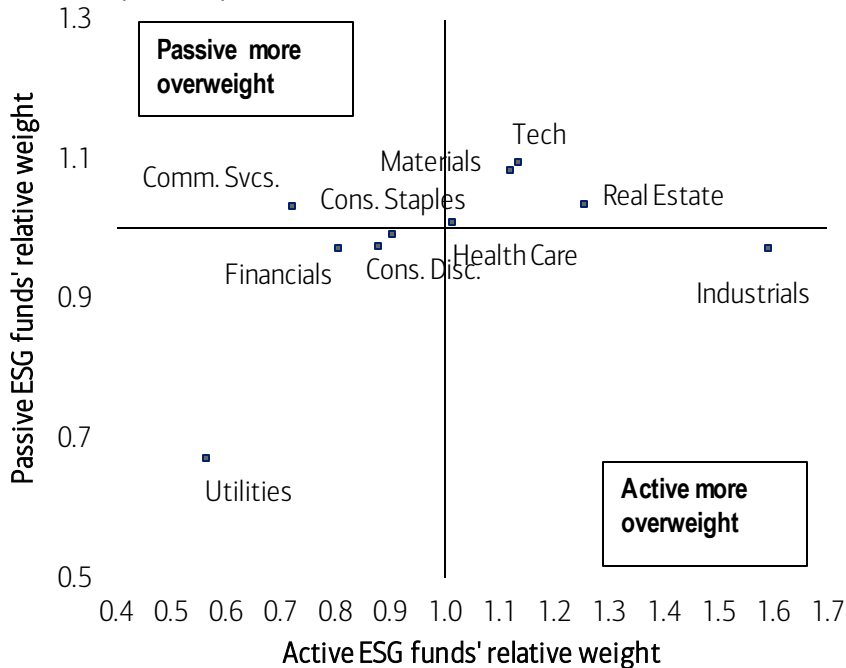
Source: BofA US Equity & Quant Strategy, SimFund, Bloomberg

ESG investor positioning is important



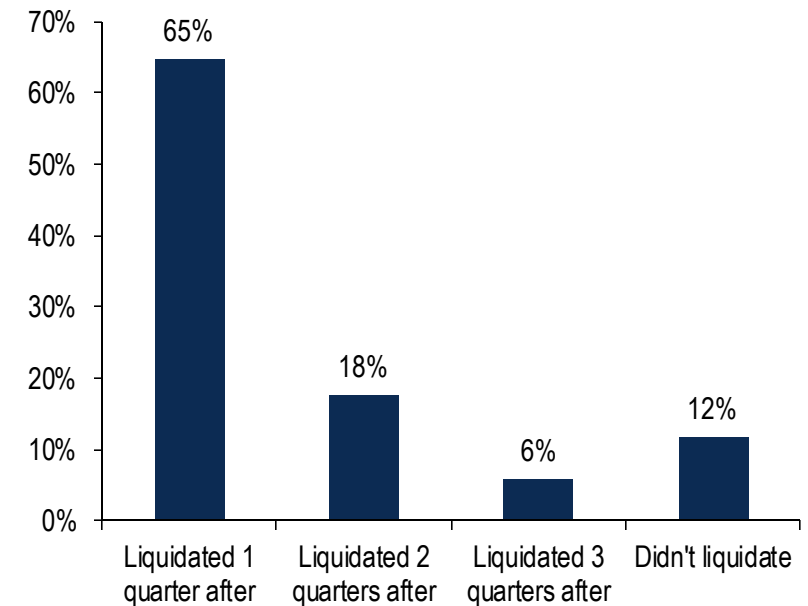
Passive and active funds don't always agree on sectors

Active vs. passive ESG funds' relative weight vs. S&P 500 by sector (3/2021)



ESG funds are quick to cut exposure to controversy stocks

% of ESG controversies where ESG funds reduced exposure in subsequent quarters





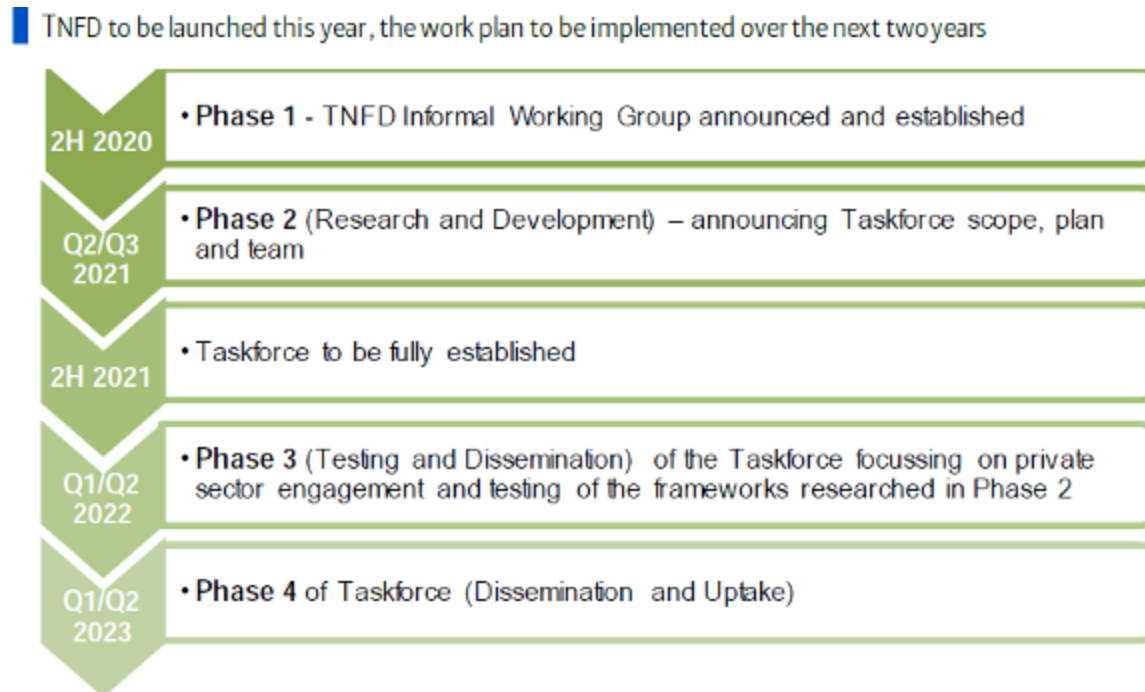
ESG Investment trends



1) TNFD has investors asking “what is the biodiversity impact of my portfolio?”



An informal working group, including financial institutions and private firms, is planning over the next two years to identify the nature-related reporting metrics and data needs of financial institutions. The draft reporting framework is expected to be developed in 2021 and tested in early 2022 before being made publicly available.



2) Impact Investing – UN SDGs companies alignment



Impact Investing: a \$2tn market by 2025

The Global Impact Investing network (GIIN) estimates the impact investment market to be worth around \$2tn by 2025 across asset classes, both in private and public markets.

Percentage of MSCI World companies supporting the UN Sustainable Development Goals

Based on MSCI World constituents as of 02/21, and latest available data on SDG support from Refinitiv

Sustainable Development Goals	Asia	EMEA	North America	Total
SDG 1 No Poverty	10.9%	16.7%	8.8%	11.7%
SDG 2 Zero Hunger	10.2%	13.9%	8.6%	10.6%
SDG 3 Good Health and Well-Being	33.0%	40.0%	18.3%	28.6%
SDG 4 Quality Education	23.7%	35.7%	15.9%	23.8%
SDG 5 Gender Equality	26.3%	39.8%	20.4%	27.7%
SDG 6 Clean Water and Sanitation	18.6%	25.8%	15.2%	19.2%
SDG 7 Affordable and Clean Energy	31.6%	34.2%	18.8%	26.8%
SDG 8 Decent Work and Economic Growth	35.6%	49.8%	23.9%	34.6%
SDG 9 Industry Innovation and Infrastructure	31.9%	37.9%	14.9%	26.2%
SDG 10 Reduced Inequality	22.3%	26.4%	12.8%	19.3%
SDG 11 Sustainable Cities and Communities	29.3%	29.2%	14.1%	22.6%
SDG 12 Responsible Consumption and Production	33.3%	46.8%	20.6%	31.7%
SDG 13 Climate Action	37.0%	50.4%	25.2%	35.8%
SDG 14 Life Below Water	14.7%	15.6%	6.4%	11.3%
SDG 15 Life on Land	19.5%	22.9%	12.0%	17.3%
SDG 16 Peace and Justice Strong Institutions	20.5%	26.6%	9.3%	17.4%
SDG 17 Partnerships to achieve the Goal	24.4%	28.6%	11.7%	20.1%
Total	42.1%	57.8%	31.3%	41.5%

Source: BofA EMEA ESG Research, Refinitiv

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3) EU ESG regulations to watch



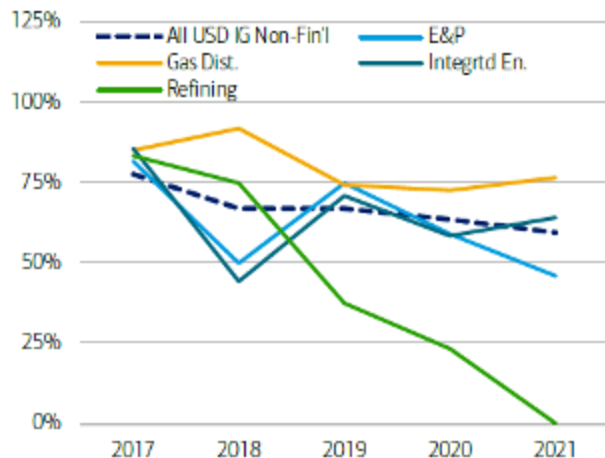
- 1. Sustainable Finance Disclosure Regulation (SFDR, disclosure for financial market participants):** Will be implemented in phases starting March 2021. In summary, it requires FMPs to disclose their integration of sustainability risks – taking into consideration adverse sustainability impacts, sustainable investment objectives, or the promotion of environmental or social characteristics – in investment decision-making and advisory processes.
- 2. Corporate Sustainability Reporting Directive (CSRD, disclosure for corporates):** Based on latest update from the EC, CSRD comes into force on 1 January 2024 and covers financial year 2024.
- 3. The Taxonomy Regulation (EU-wide sustainability classification system):** In November 2020, the EC published the first two sets of technical screening criteria for climate adaptation and mitigation objectives through draft Delegated Acts. The final criteria were expected earlier in Jan'21 but have reportedly been delayed. The EC plans to adopt the delegated Acts by June 2021.
- 4. EU Green Bond Standard:** The EC expects to make a legal proposal for the EU Green Bond standard by June 2021.

3) ESG in conventional debt costs? Yes!



Even as maturities have edged downward for energy names, the average energy coupon is *higher* than for overall USD investment grade issuance. In fact, the difference in 2021 is wider than in the past. This is despite the similar average maturities for new energy issuance compared to the USD IG average. **The average rating for both groups is A3, yet the difference in average coupon in 2021 is about 70bps**

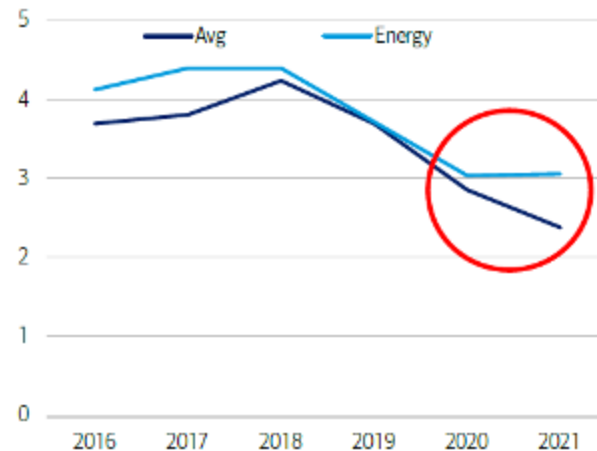
% of new USD IG issuance with a maturity of 10+ years
E&P and Refining see the biggest reductions in new issue maturity



Source: BofA Global Research estimates, ICE Data Services LLC

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Higher new issue coupons for energy than for USD IG
Coupons for new issues shown in %, both groups are rated A3



Source: BofA Global Research estimates, ICE Data Services LLC

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4) Social factors have taken center stage post COVID-19 and Social Taxonomy is coming



COVID-19 saw S factors re-rate

Relative forward P/E of S&P 500 companies in top vs. bottom quintile of MSCI ESG score (1/2007-4.2020)



Social factors added alpha during the 1Q20 bear market

Performance spread between companies in top vs. bottom group* based on select Social (in blue) and Governance (in yellow) attributes, 2/19/20-3/20/20



Source: MSCI, Refinitiv, Sustainalytics, FactSet, IBES, BofA US Equity & Quant Strategy

5) Devil is in the details across sectors, regions, asset classes



ESG signals that have been the most effective signals of future earnings volatility

Sector	US	Europe	Asia
Communication Services	<p>E: Resource Use, Opportunities in Clean Tech</p> <p>S: Human Capital Development, Supply Chain Standards</p>	<p>E: Carbon Emissions, Toxic Emissions & Waste</p> <p>S: Access to Communications</p> <p>G: Anti-Competitive Practices</p>	<p>G: Board structure, Compensation, Audit, Accounting, Voting, Diversity, Fraud</p> <p>E: Raw materials</p> <p>S: Product safety</p>
Consumer Discretionary	<p>S: Product Safety / Quality / Responsibility, Supply Chain Standards, Workforce / Society & Community Incidents</p> <p>E: Raw Material Sourcing, Resource Use, Emissions</p>	<p>E: Raw Material Sourcing, Toxic Emissions & Waste, Water Stress</p> <p>S: Product Safety & Quality, Chemical Safety, Privacy & Data Security, Health & Safety, Human Capital Development, Supply Chain Labour Standards</p> <p>G: Corporate Governance</p>	<p>G: Board structure, Compensation, Audit, Accounting, Voting, Risk, Fraud</p> <p>E: Green building, Water stress, E-waste, Clean tech</p> <p>S: Privacy and data security</p>
Consumer Staples	<p>E: Packaging Material & Waste, Green Supplier / Outsourcing Logistics</p> <p>S: Supply Chain Labor Standards, Health / Chemical Safety</p>	<p>E: Product Carbon Footprint, Packaging Materials & Waste, Carbon Emissions, Toxic Emissions & Waste</p> <p>S: Opportunities in Nutrition and Health, Health & Safety, Labour Management, Supply Chain Labour Standards, Chemical Safety</p> <p>G: Corporate Governance Issue</p>	<p>G: Board structure, Audit, Accounting, Voting, Risk, Controlling shareholders, Fraud</p> <p>E: Clean tech, Water stress</p> <p>S: Health and safety</p>
Energy	<p>E: Biodiversity & Land Use, Oil Spill Disclosure & Performance, Emissions, Environmental Innovation, Opportunity in Clean Tech</p>	<p>E: Water Stress, Carbon Emissions</p> <p>S: Health & Safety</p> <p>G: Corruption & Instability</p>	<p>G: Compensation, Audit, Accounting, Diversity</p>
Financials	<p>G: Compensation Policy, Anticompetitive Practices, Business Ethics and Fraud, Shareholder Rights</p> <p>S: Product Safety / Quality, Community, Responsible Marketing</p>	<p>E: Financing Environment Impact, Toxic Emissions & Waste, Opportunities in Green Building, Carbon Emissions, Climate Change Vulnerability, Water Stress</p> <p>S: Insuring Health & Demographic, Labour Management, Product Safety & Quality</p> <p>G: Financial System Instability, Corporate Governance</p>	<p>G: Board structure, Compensation, Accounting, Voting, Diversity, Related Party Transactions, Cross Shareholdings</p> <p>E: Clean tech</p>
Health Care	<p>G: Business Ethics and Fraud, Clinical Trial Standards</p> <p>S: Human Capital Development, Product Safety, Human Rights, Privacy & Data Security</p>	<p>E: Carbon Emissions, Water Stress, Toxic Emissions & Waste</p> <p>S: Access to Healthcare, Health & Safety, Human Capital Development, Labour Management</p> <p>G: Corruption & Instability</p>	<p>G: Board structure, Compensation, Audit, Accounting, Voting, Risk, Cross shareholdings, Fraud</p> <p>E: Clean tech</p>
Industrials	<p>E: Raw Material Sourcing, Carbon Emissions, Waste Intensity, Environmental Fines & Penalties</p> <p>S: Chemical Safety, Health and Safety Management</p>	<p>E: Toxic Emissions & Waste, Water Stress, Carbon Emissions</p> <p>S: Health & Safety, Labour Management</p> <p>G: Corporate Governance</p>	<p>G: Compensation, Audit, Accounting, Voting, Diversity, Fraud, Bankruptcy</p> <p>E: E-waste</p> <p>S: Supply chain labour, Human capital development, Privacy and data security</p>
Information Technology	<p>G: Corruption & Instability, Disclosure, Shareholder Rights</p> <p>S: Supply Chain Standards, Data Privacy Policy, Human Rights</p>	<p>E: Toxic Emissions & Waste</p> <p>S: Human Capital Development, Labour Management, Privacy & Data Security</p>	<p>G: Board structure, Compensation, Audit, Accounting, Voting, Fraud</p> <p>S: Human capital development, Supply chain labour</p>
Materials	<p>E: Water Stress, Toxic / Carbon Emissions, Waste, Environmental Innovation</p>	<p>E: Biodiversity & Land Use, Water Stress, Toxic Emissions & Waste, Carbon Emissions, Opportunities in Clean Tech</p> <p>S: Health & Safety, Labour Management</p> <p>G: Corruption & Instability</p>	<p>G: Board structure, Accounting, Voting, Risk</p> <p>E: Raw material sourcing</p>
Real Estate	<p>E: Biodiversity & Land Use, Opportunities in Green Building, Waste</p> <p>G: Anticompetitive Practices, Business Ethics Incidents</p>	<p>Included in Financials sector</p>	<p>G: Board structure, Compensation, Controlling shareholders</p> <p>E: Financing for environment impact, Green buildings</p> <p>S: Supply chain labour, Product safety</p>
Utilities	<p>E: Opportunities in Renewable Energy, Water Intensity, Emissions / Waste</p> <p>S: Labor Management, Health & Safety, Corporate Foundation</p>	<p>E: Toxic Emissions & Waste, Water Stress, Carbon Emissions, Opportunities in Renewable Energy</p> <p>S: Human Capital Development, Labour Management, Health & Safety</p> <p>G: Corporate Governance</p>	<p>G: Board structure, Compensation, Audit, Accounting, Voting, Diversity</p>

6) Sovereign ESG considerations



Table 1: Sovereign ESG rankings on ESG attributes (100 = top ranked , 0= bottom ranked)

	Country	ESG Ranking	Environment			Social			Governance
			Climate Change	Biodiversity and Land	Innovation	Health	People	Governance	
Top 5	Switzerland	100	100	48	97	88	82	97	
	Denmark	97	97	67	85	82	94	85	
	Sweden	94	91	85	94	76	79	88	
	Finland	91	67	82	79	64	85	100	
	Norway	88	94	52	67	55	100	94	
	Germany	85	70	76	88	97	91	76	
	Japan	82	52	91	91	100	73	73	
	Netherlands	79	58	79	70	61	88	91	
	UK	76	85	70	61	42	67	70	
	France	73	64	94	76	85	55	64	
Others	Australia	70	24	18	64	70	64	79	
	Canada	67	18	36	58	36	76	82	
	South Korea	64	15	61	100	94	58	58	
	US	61	36	9	82	48	61	67	
	Spain	58	76	55	45	73	42	61	
	Poland	55	33	97	42	58	97	52	
	Italy	52	79	45	52	79	36	48	
	Malaysia	48	21	33	55	33	45	55	
	Thailand	45	39	42	39	21	52	33	
	Indonesia	42	73	39	9	9	30	39	
	Brazil	39	88	88	48	18	21	21	
	Vietnam	36	27	64	18	27	48	24	
	Argentina	33	42	21	21	67	12	27	
	Russia	30	12	6	36	91	70	9	
	China	27	6	12	73	52	33	36	
	Philippines	24	82	73	6	3	39	15	
	Mexico	21	55	24	15	30	24	12	
	Bangladesh	18	48	100	0	24	27	6	
	Turkey	15	45	3	33	39	15	18	
	Bottom 5	India	12	9	15	24	15	9	30
South Africa		9	3	30	30	12	3	42	
Saudi Arabia		6	0	0	27	45	0	45	
Pakistan		3	30	27	12	6	18	3	
Nigeria		0	61	58	0	0	6	0	

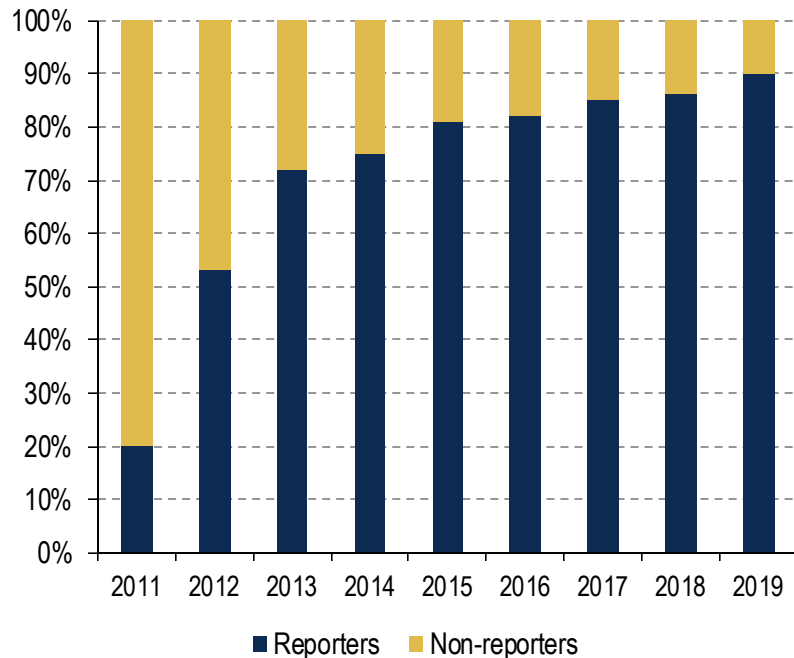
Note: The color reference for overall ranks is using 3-color scale: Green for higher and Orange for lower ranked countries. The color coding for core indicators can be read as darker the better, Green- Environment, Orange- Social and Blue - Governance. These ESG rankings were intended to be an indicative metric only and may not be used for reference purposes or as a measure of performance for any financial instrument or contract, or otherwise relied upon by third parties for any other purpose, without the prior written consent of BofA Global Research. These ESG rankings were not created to act as a benchmark. Source: BofA EMEA ESG Research, World Bank, World Economic Forum, OECD, WHO, Yale, World Resource Institute. See Limitations of methodology on Page 22.



7) From disclosure to quality of disclosure

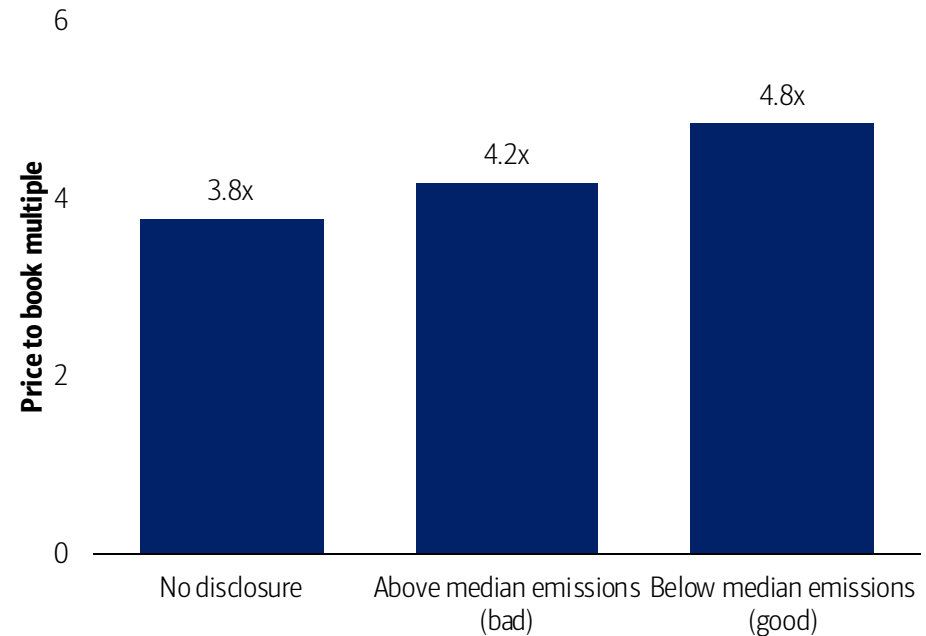
ESG transparency is on the rise

% of S&P 500 companies publishing corporate responsibility or sustainability reports



Saying nothing is worse than saying something bad

Price-to-book by carbon emissions intensity relative to sector median (Data as of 3/4/2020)



Source: Governance & Accountability Institute, Inc. 2020 Research, ICE Data Services, BofA US Equity & Quant Strategy, Bloomberg, FactSet

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