

# Overview of "ESG Integration Framework" for Investment Analysis

Presenters:

**Ruenvadee Suwanmongkol**, Secretary-General, The Securities and Exchange Commission, Thailand

**Mary Leung, CFA**, Head, Advocacy, APAC, CFA Institute

**Hardik Shah, CFA**, ESG Practice Lead, GMO

**Sineerat Chakrabandhu Na Ayudhya, CFA**, Investment Product Strategist, KTBST Securities Public Company Limited

**HOST/MODERATOR**

**Sineerat Chakrabandhu Na  
Ayudhya, CFA**

Investment Product Strategist  
KTBST Securities Public Company Limited



# WELCOMING REMARKS

**Ruenvadee Suwanmongkol,**

Secretary-General,  
The Securities and Exchange Commission  
Thailand



# PRESENTATION

**Mary Leung, CFA**

Head, Advocacy, Asia-Pacific,  
CFA Institute



# ESG Integration Framework

In partnership with Thai SEC and CFA Society Thailand

September 2021

Mary Leung, CFA

Head, Advocacy, Asia Pacific

CFA Institute

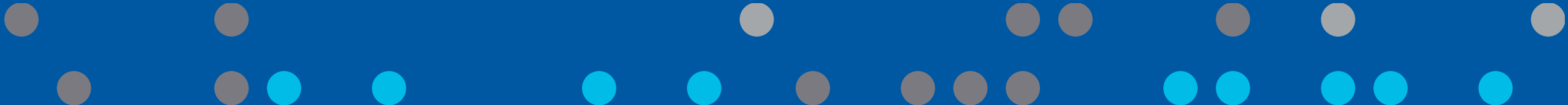


# Table of contents

1 Global and regional  
trends in sustainable  
investing

2 ESG integration

3 CFA Institute  
resources on ESG  
and sustainability





Global and regional trends  
in sustainable investing

# Sustainable investing: on a tear

## Key drivers

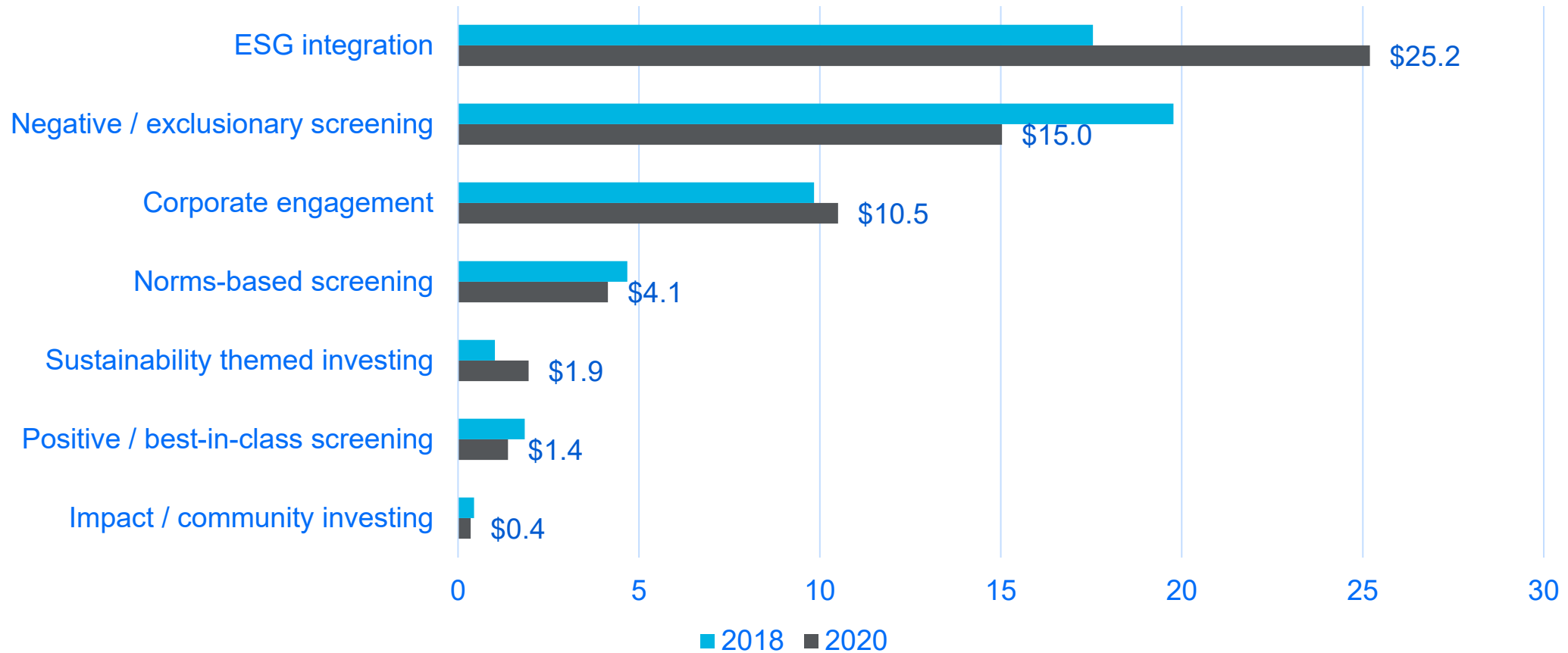
- **Increased awareness** by investors of the potential impact that ESG factors have on value
- **Greater availability of ESG disclosures** by issuers, as well as ESG data and information from third-party providers that aid in investment decision making
- **Intensifying regulatory scrutiny of “greenwashing”**—that is, investment products that make claims around being green, meeting ESG criteria, or being sustainable, more so than they really are





# ESG integration is now the most popular strategy

## Sustainable assets under management by strategy (US\$ trillion)



Source: Global Sustainable Investment Review, 2020

# •• Sustainable assets under management by region

Region	AUM (US\$ billion)	Percentage of total	Number of funds	Percentage of total
Europe	1,625.3	81.9%	3,444	76.1%
United States	265.8	13.4%	409	9.0%
Asia (excluding Japan)	36.7	1.8%	237	5.2%
Australia and New Zealand	21.2	1.1%	129	2.9%
Japan	21.2	1.1%	149	3.3%
Canada	14.2	0.7%	156	3.4%
<b>Total</b>	<b>1,984.5</b>	<b>100.0%</b>	<b>4,524</b>	<b>100.0%</b>

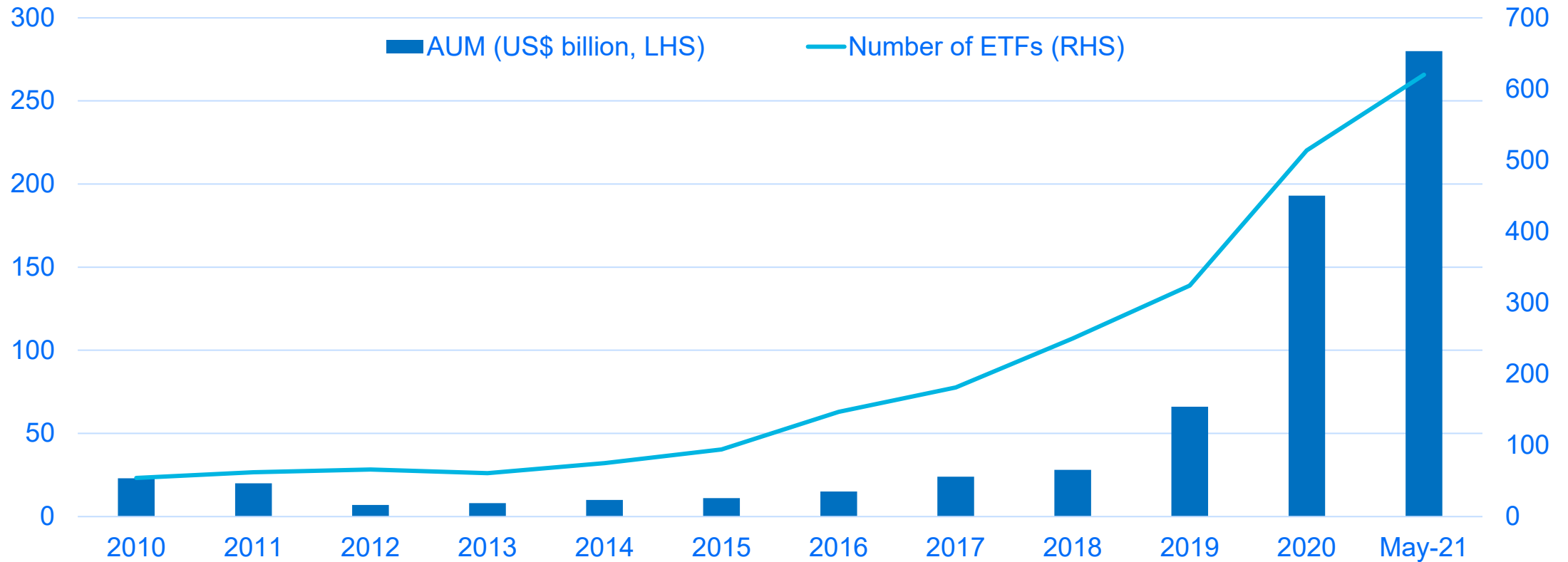
Note: As of March 2021

Source: "Global Sustainable Fund Flows: Q1 2021 in Review," Morningstar



# ESG is no longer confined to active investing

## Sustainable ETF and ETP AUM



Source: "ETFGI Reports Assets Invested in ESG ETFs and ETPs Listed Globally Reached a Record US\$280 Billion at End of May 2021," ETFGI News, 24 June 2021

# ESG in the time of COVID-19

**Bloomberg**

**ESG a Win for Stocks, Less So for Bonds Amid Covid-19**

**THE WALL STREET JOURNAL.**

Coronavirus Pandemic Could Elevate ESG Factors

**FINANCIAL TIMES**

ESG passes the Covid challenge



**South China Morning Post**

Coronavirus strengthens case for sustainable investing as ESG stocks outperform market in crisis

**ET Markets**

Covid-19 is proving to be the litmus test for ESG investing

**Forbes**

Covid-19 Is Accelerating ESG Investing And Corporate Sustainability Practices



**ETF TRENDS**

ESG Investing Could Get a Lift From Retirement Plan Focus

**THE Asset** 財資

Covid-19 crisis could turn into the ESG era

**GlobalCapital**

Covid cuts flow of green bonds and loans, but not their appeal

**funds europe**

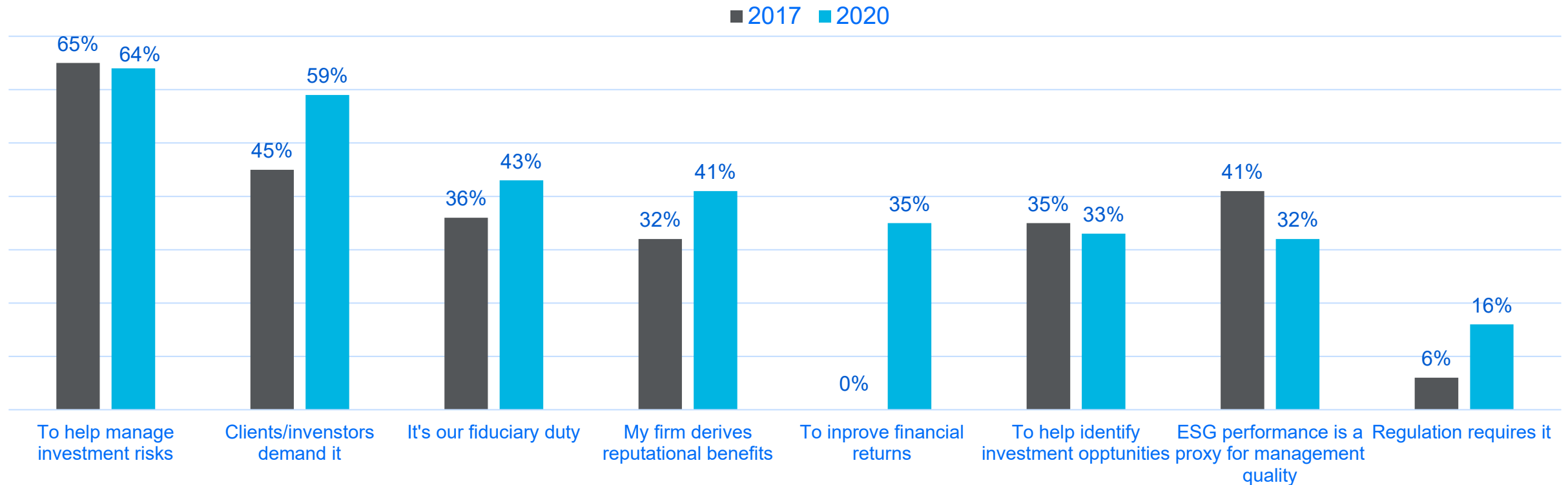
Covid-19 could shape ESG investing “for years to come”

**ASIAN PRIVATE BANKER**

PB CEOs optimistic about growth of ESG investment in Asia after COVID-19

# Drivers of ESG integration

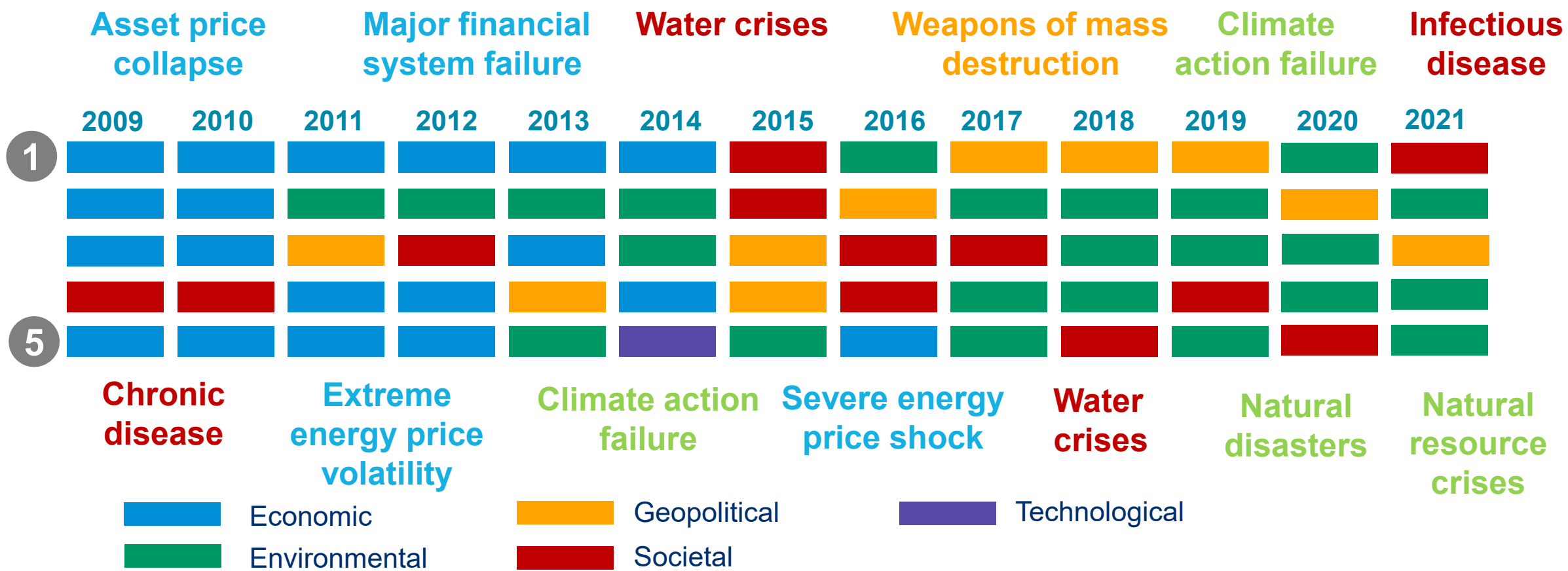
Why do you and your organization take any ESG issues into consideration?



Source: "Future of Sustainability in Investment Management," CFA Institute



# The evolving risk landscape



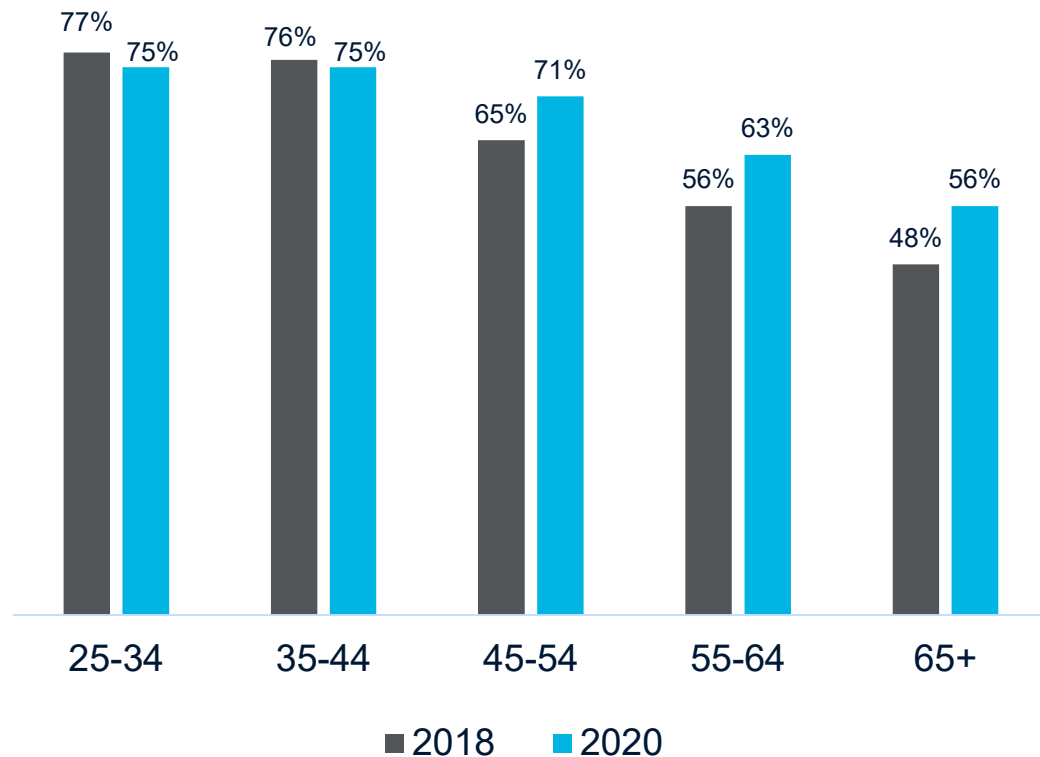
Source: World Economic Forum Global Risks Report 2021



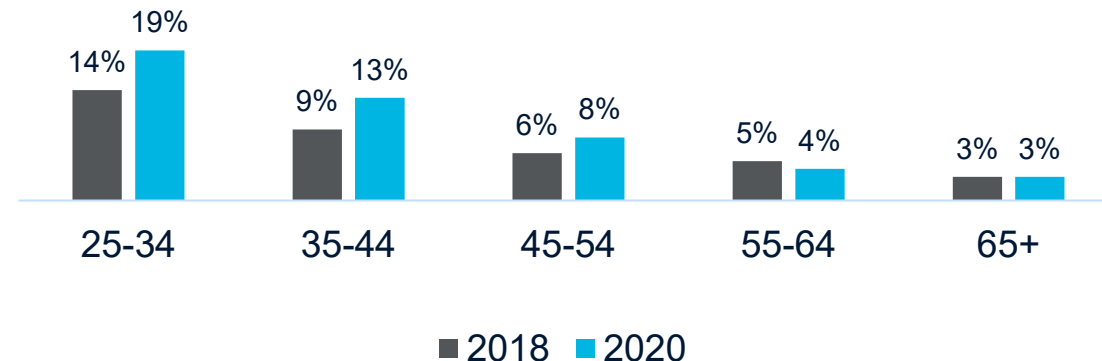


# The business opportunity

Retail investors interested in ESG strategies, by age



Retail investors currently employing ESG strategies, by age



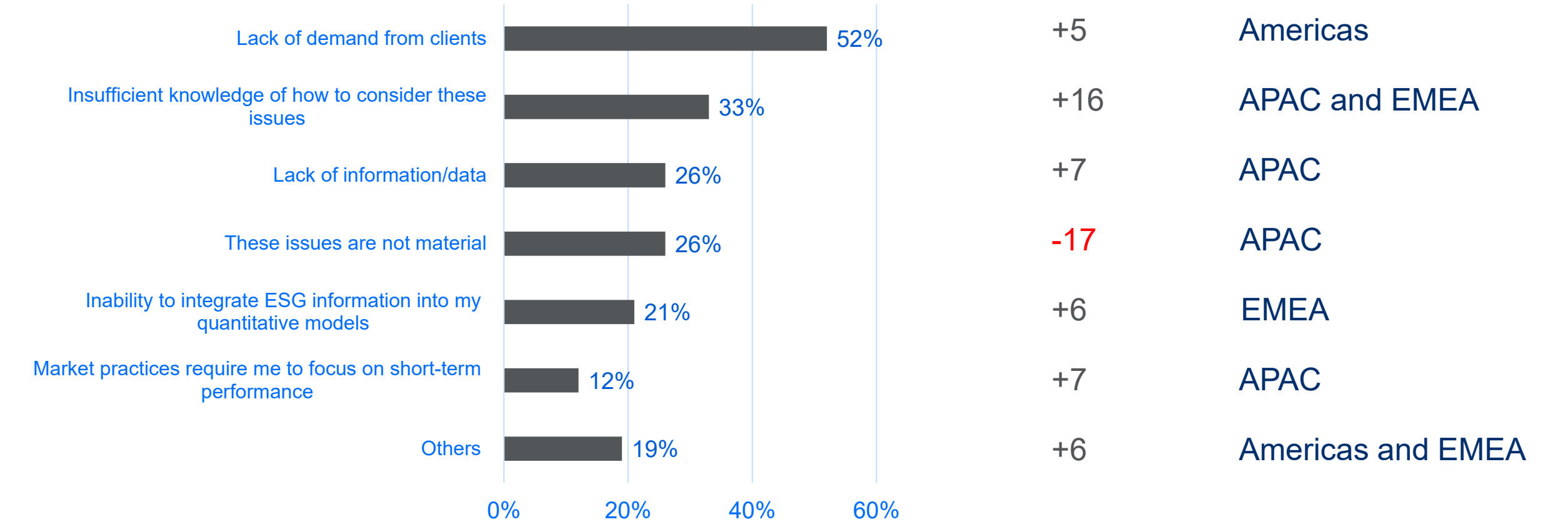
Note: N = 2,430 in 2018 and N = 2,840 in 2020

Source: "Future of Sustainability in Investment Management," CFA Institute



# Barriers to ESG integration

Why do you and your organization not take any ESG issues into consideration?





# Gold star in sustainability reporting

## Ranking of the world's top 10 exchanges based on ESG disclosures

Stock exchange	Disclosure Rate	Disclosure Growth	Disclosure Timeliness
Helsinki Stock Exchange	80.6%	3.6%	126
BME Spanish Stock Exchanges	77.7%	2.3%	181
Euronext Lisbon	73.8%	3.7%	205
Euronext Paris	68.6%	2.2%	190
Johannesburg Stock Exchange	68.1%	0	N/A
Borsa Italiana	66.3%	10.7%	149
Euronext Amsterdam	64.9%	6.6%	134
Bolsa De Valores De Colombia	64.6%	11.8%	124
Stock Exchange of Thailand	60.3%	8.5%	105
Nasdaq Stockholm / Nasdaq Copenhagen	60.0%	5.1% / 2.1%	98 / 73

 Source: 2019 Measuring Sustainability Disclosure: Ranking the World's Stock Exchange, *Corporate Knights*



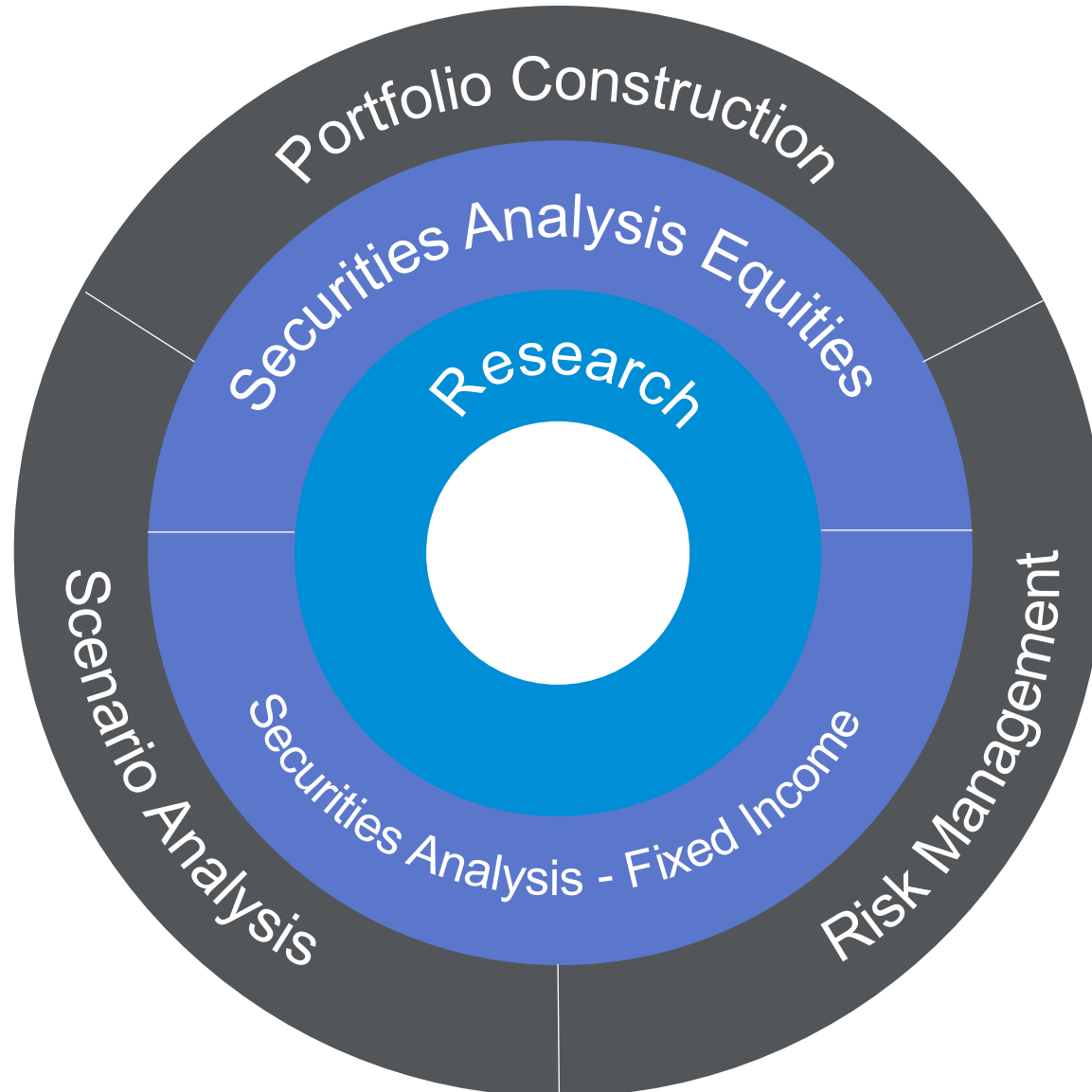
ESG integration

# The ESG integration framework



Source: See, for example, “ESG Integration in Asia-Pacific,” CFA Institute and Principles of Responsible Investment

# ••• A simplified view



- Inner circle
  - Research
- Middle circle
  - Securities analysis for equities
  - Securities analysis for fixed income
- Outer circle
  - Portfolio construction
  - Scenario analysis
  - Risk management



# ••• The ESG integration framework: a closer look

## Inner circle: Research

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- **Qualitative analysis**
  - Materiality framework
  - Red-flag indicators
  - Company questionnaires
  - ESG-integrated research note
- **Active ownership**
  - Voting
  - Engagement

## Middle circle: Security level

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- **Equities valuation**
  - Forecasted financials
  - Valuation multiples
  - Sensitivity / scenario analysis
- **Fixed income valuation**
  - Credit assessments
  - Duration analysis
  - Relative value / spread analysis

## Outer circle: Portfolio level

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- **Risk management**
  - VAR analysis
  - ESG and financial risk exposures and limits
- **Portfolio construction**
  - Portfolio weights
  - Portfolio scenario analysis
- **Asset allocation**
  - Strategic / tactical asset allocation





# Examples of applying ESG analyses

- The ESG analysis is studied alongside the investment analysis of to inform a “buy / sell / hold / don’t invest” decision
- The ESG analysis can be the deciding factor between otherwise identical opportunities, all other factors being equal
- Engagement with a company that has subpar ESG performance can give rise to improvements, resulting in a buy/hold decision
- Temporary or permanent adjustments to forecasted financials, modeling assumptions, valuation multiples, forecasted financial ratios, and/or portfolio weightings are made for ESG analysis
- The ESG analysis can influence the maturity of the bond that an investor invests in





# ESG myth busters

ESG integration does not mean that:

- investment in certain sectors, countries, and companies is prohibited
- portfolio returns are sacrificed to perform ESG integration techniques
- immaterial ESG factors affect investment decisions and traditional financial factors are ignored
- major changes to the investment process are necessary





# Closing thoughts

- There is a structural shift into allocating assets into sustainability or ESG investments
- Passive ESG investments have increased significantly in the last few years
- There is no “one best way” to do ESG integration and no “silver bullet” to ESG integration
- Portfolio managers and analysts are more frequently integrating ESG into the investment process
- ESG integration is further along in the equity world than in fixed income
- Capacity building across the eco-system is key to harnessing the structural shift

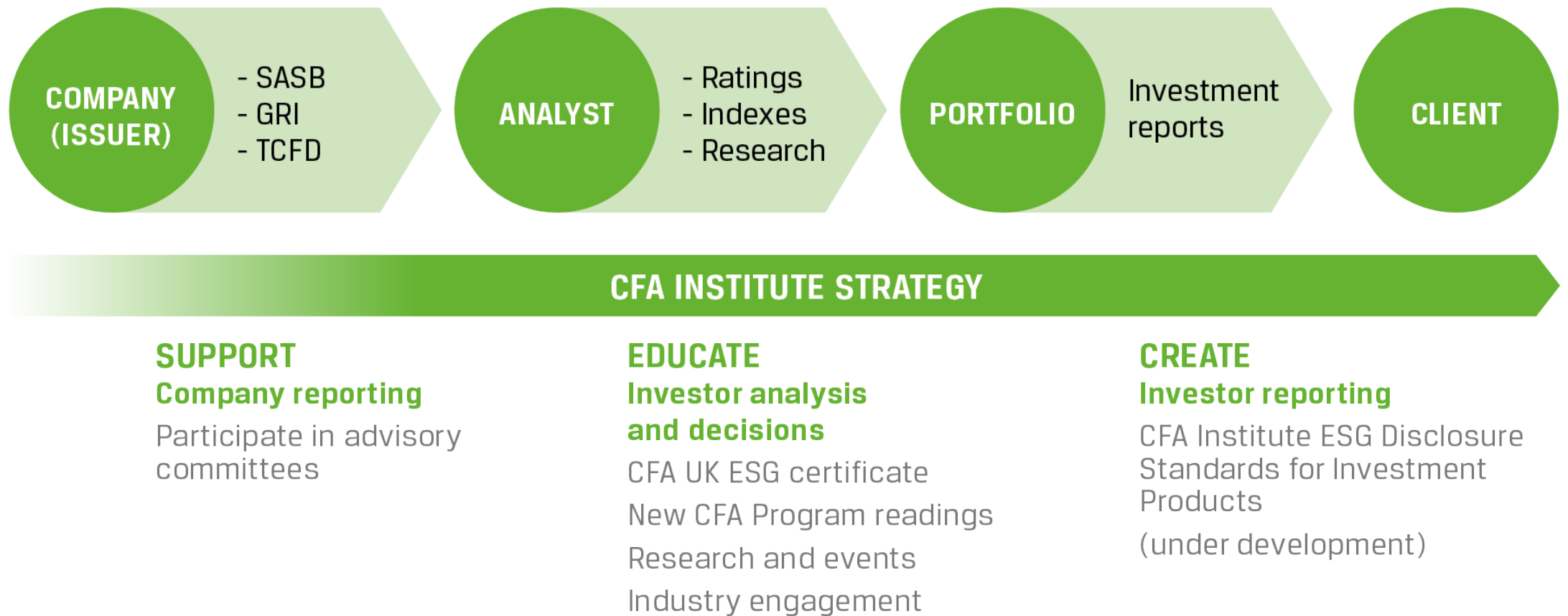






CFA Institute resources  
on ESG and sustainability

# Information needs across the value chain



# Our library of ESG-related publications

## Capital markets / Corporate and investor governance



## Future of Finance / Research Foundation



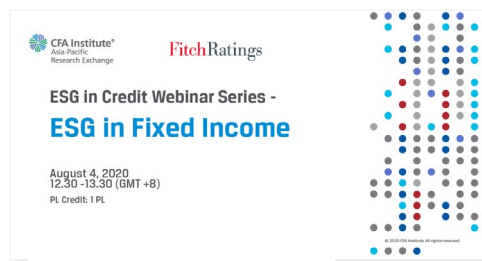
## CFAI / PRI series



# Webinar series on integration of ESG in fixed income

## Partnership with Fitch Ratings

### Part 1: Fundamentals and Basics



Watch Now

<https://cfainst.is/2PHu6sq>



### Part 2: Case Studies and Practicalities

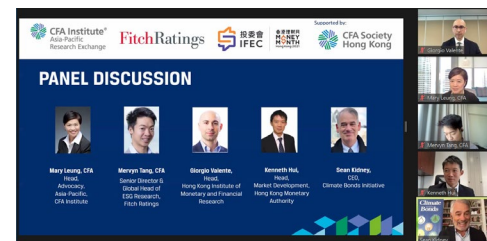


Watch Now

<https://cfainst.is/3pRW2KS>



### Part 3: Green, Social and Sustainability Bonds



Watch Now

<https://cfainst.is/3lx2ISw>



### Part 4: ESG Integration in Sovereign Bonds



Watch Now

<https://cfainst.is/2RQUAfU>



# Sustainable and responsible investment series 2021

In partnership with CFA Society Malaysia and World Bank Group Malaysia



4 February 2021

Watch Recorded Webinar Now



<https://cfainst.is/3qBbm3>

28 June 2021

Watch Recorded Webinar Now



<https://cfainst.is/3i95V/kx>

SUSTAINABLE & RESPONSIBLE INVESTMENT SERIES 2021 PART 2:

## SRI INTEGRATION INTO INVESTMENT DECISION MAKING

28 JUNE 2021, MONDAY  
12:00 PM-1:30 PM (MYT)

HOSTED BY



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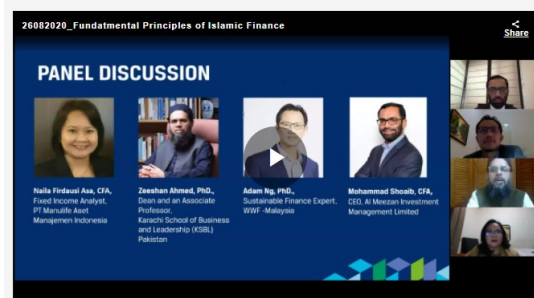


# Islamic Finance series

In partnership with APAC and MENA Societies

## Part 1: Islamic Finance Fundamental Principles

Watch the Webinar



Duration: 1 hr 13 min.  
Recorded: 26 August 2020.

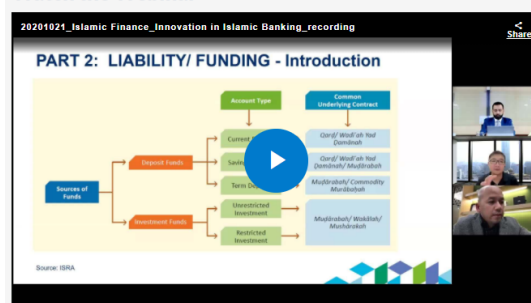
Watch Now



<https://cfainst.is/3i4xdKh>

## Part 2: Innovation in Islamic Banking

Watch the Webinar



Duration: 1 hr 38 min.  
Recorded: 21 October 2020.

Watch Now



<https://cfainst.is/2R7nAPX>

## Part 3: Practices and Opportunities in Islamic Capital Markets

Watch the Webinar



Duration: 1 hr 32 min.  
Recorded: 15 December 2020.

Watch Now



<https://cfainst.is/3wLwdyM>

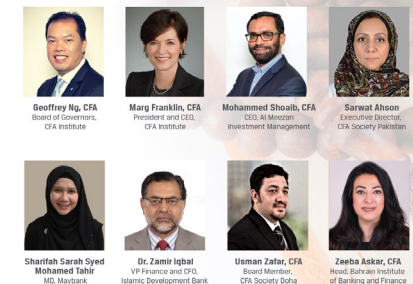
## Part 4: Social Impact Sukuk

CFA Institute®  
Asia-Pacific  
Research Exchange

Islamic Finance Webinar Series 2021:  
Social Impact Sukuk

An Instrument to Combat Covid-19 Pandemic

Thursday, 3 June 2021, 20:00 - 21:30 (GMT+8)



Watch Now



<https://cfainst.is/3xErqzU>



# Impact investing series

## In partnership with Global Impact Investing Network (GIIN)

### Part 1: The Future Trends of Impact Investing in Asia

**CFA Institute®**  
Asia-Pacific  
Research Exchange

**PANEL DISCUSSION**  
**THE FUTURE TRENDS OF IMPACT INVESTING IN ASIA**

Piotr Zembrowski, CFA	Maud Savary-Mornet,	Ronie Mak,	Pierrick Balmain, CFA,	Dina Pons,
Manager, Advocacy Research & Content, APAC CFA Institute	Senior Advisor, South East Asia, Global Impact Investing Network	Managing Director, RS Group	Head, APAC Business Development, BlueOrchard Investments (Singapore) Pte. Ltd.	Partner, Incofin Investment Management

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Piotr Zembrowski...  
GIIN  
Maud Savary-Mor...  
Ronie Mak (RS Gr...  
Dina Pons  
Pierrick Balmain (Blu...

Watch Now

<https://cfainst.is/3fo1kuF>



### Part 2: Financial Performance of Impact Investing

**CFA Institute®**  
Asia-Pacific  
Research Exchange

**FINANCIAL PERFORMANCE OF IMPACT INVESTMENTS**  
**PANEL DISCUSSION**

Piotr Zembrowski, CFA	Antonia Sariyska	Dimple Sahni	Ramkumar Narayanan	Sophia Sunderji
Manager, Advocacy Research & Content, Asia-Pacific, CFA Institute	Impact Investing Strategist, UBS Global Wealth Management	Managing Director, Impact Fund Portfolios, Anthos Fund and Asset Management B.V.	Head of Research and Investments, Tameo Impact Fund Solutions SA.	Manager, Research, The Global Impact Investing Network

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Antonia Sariy...  
Ramkumar Nara...

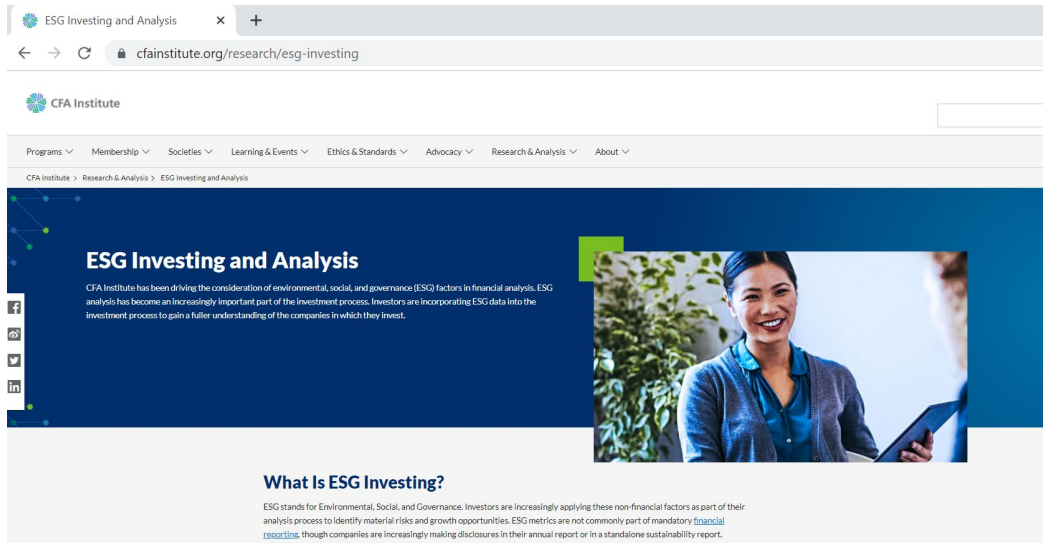
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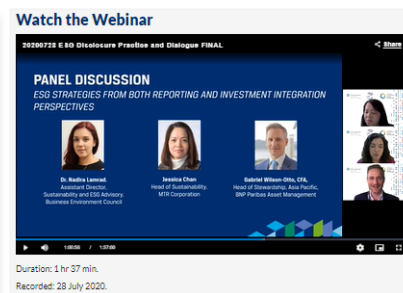


# Resources available

## ESG Page on CFA Institute:



## Recorded webinars on ARX:



## ESG thematic page on ARX:



### Overview

Analysis of environmental, social and governance (ESG) issues is an important part of the investment process. CFA Institute encourages all investment professionals to consider material ESG factors when making investment decisions. The Institute is also strongly focused on developing educational tools on





# Thank you!

# PRESENTATION

**Hardik Shah, CFA**

ESG Practice Lead,  
GMO





# ESG INTEGRATION IN EM EQUITY AND EM SOVEREIGN DEBT INVESTING

Hardik Shah, CFA

September 2021

# PRESENTER

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## ***Hardik Shah***

Mr. Shah leads the ESG practice at GMO and is responsible for building GMO's ESG capability across investment product areas. Prior to joining GMO in 2017, he led a global team of analysts focused on ESG ratings and thematic research at Sustainalytics. Previously, he was an ESG Ratings associate at MSCI and, as a senior climate change consultant with Ernst & Young, has helped register a wide variety of projects with the UNFCCC under the Clean Development Mechanism (CDM) defined in the Kyoto Protocol. In 2015 and 2016, Mr. Shah was voted #1 research firm analyst who understands the challenges & opportunities facing companies in the Independent Research in Responsible Investment (IRRI) Survey. He earned his Bachelor of Engineering in Electronics from University of Mumbai and holds a post-graduate diploma in management (Finance) from We School. Mr. Shah holds the Fundamentals of Sustainability Accounting (FSA) credential issued by SASB, Sustainability and Climate Risk (SCR) credential by GARP, and the CFA charter.

# FIRM OVERVIEW

## Experienced, Focused, Independent

- Privately owned and founded in 1977, managing client assets is our only business

## Long-term, Valuation-based Investing

- Investment teams use quantitative techniques and fundamental judgment

## Differentiated Research that Drives Conversations

- Well known for our candid, academically-rigorous market insights and advice

## Global in Presence and Perspective

- Boston (HQ)
- Amsterdam
- London
- San Francisco
- Singapore
- Sydney
- Tokyo\*

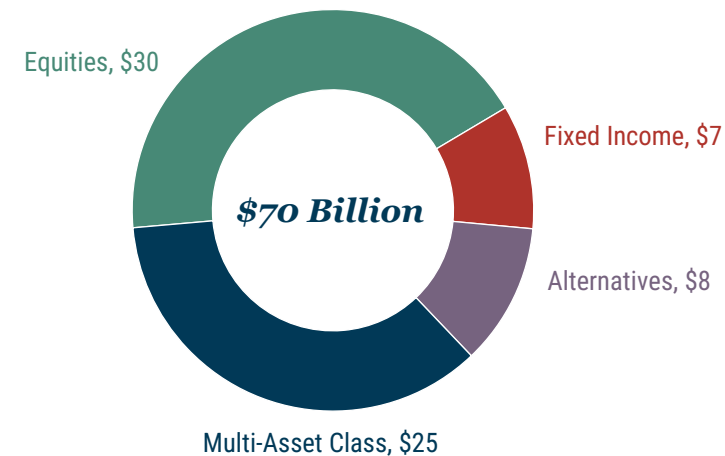
As of 6/30/21 | Source: GMO | Assets: USD

AUM may not sum to Firm Total due to rounding. The AUM figures shown here represent all data available as of the reporting date. Please know that early AUM figures may change throughout the reporting period due to custodian reporting schedules. Final AUM figures are posted on GMO's website.

\*Representative office.

## Firm Assets Under Management: \$70 Billion

### How our clients are invested:



- 464 | Employees
- 133 | Investment professionals
- 11 | Investment teams with deep asset class experience

# INVESTMENT CAPABILITIES: SELECT OFFERINGS

Multi-Asset	Equities				Fixed Income		Alternatives	
Asset Allocation	Focused Equity	Emerging Markets Equity	Global Equity	Usonian Japan Equity	Emerging Country Debt	Multi-Sector	Systematic Global Macro	Other Alternatives
Benchmark-Free Allocation (2001)	Quality (2004) Quality Spectrum (2019)	Emerging Markets Equity (1993)	International Equity (1987)	Usonian Japan Value (2011)*	Emerging Country Debt (1994)	Multi-Sector Fixed Income (1997)	Systematic Global Macro (2002)	Alternative Allocation (2019)
Global Asset Allocation (1988)	Resources (2011) Resources L/S (2018)	Emerging Domestic Opportunities (2011)	U.S. Equity (1985)	Usonian Japan Value Creation (2020)*	Emerging Country Local Debt (2008)	Credit Opportunities (2010)	Systematic Global Macro Major Markets (2011)	Risk Premium (2012)
Global Equity Allocation (1993)	Climate Change (2017)	Emerging Liquidity Premium (2017)	U.S. Small Cap Value (2019)			Opportunistic Income (2011)		Event-Driven (2016)
Custom Solutions (1988)	Quality Cyclical (2020)	Emerging Markets ex-China (2021)				High Yield (2017)		Fixed Income Absolute Return (2016)
								Equity Dislocation (2020)

\*GMO acquired Usonian Investments in 2020

The above capabilities may not be offered at all times due to capacity or vehicle restrictions.  
Numbers in parentheses indicate inception date.\*

# ESG AT GMO

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# GMO'S COMMITMENT TO ESG

*Firm-level ESG integration is a strategic focus*

## ➤ **Public Commitments**

Signatory of:



Publicly support the  
**Japan, UK and Singapore**  
Stewardship codes

## ➤ **Active Ownership**

**Company Engagement:**  
Encourage better ESG disclosure and sustainable practices

**Proxy Voting:** Use of Institutional Shareholder Services Sustainability Policy across the firm



## ➤ **Leadership Support**

**Jeremy Grantham** on Barron's  
"The **20 Most Influential People**  
in ESG Investing" list

**ESG Oversight Committee**  
comprising of senior business and investment professionals



# ESG RESOURCING AND OVERSIGHT



# UN PRI ASSESSMENT

*Continuously strengthening our ESG efforts*

<i><b>Module Name</b></i>	2018 ASSESSMENT		2020 ASSESSMENT	
	<i><b>GMO Score</b></i>	<i><b>Median Score</b></i>	<i><b>GMO Score</b></i>	<i><b>Median Score</b></i>
1. Strategy & Governance	B	A	A+	A
10. Listed Equity – Incorporation	C	B	A	A
11. Listed Equity – Active Ownership	C	B	B	B
12. Fixed Income – SSA	C	B	A	B

- Currently at par or better than median global peers (signatories)
- Need to further strengthen our active ownership and firmwide integration efforts to become a global leader



UN PRI assessment scores are on a scale of A+ (top band) to E (lowest band).

# CONSENSUS VS. OUR VIEW

*Macro ESG risks matter, go beyond third party ESG scores*

## CONSENSUS

Disregard top-down and focus on selecting ESG best-in-class or screening out ESG worst-in-class businesses



Solely rely on third party company ESG Ratings



Third party ESG Ratings can directly be applied to both equities and fixed income

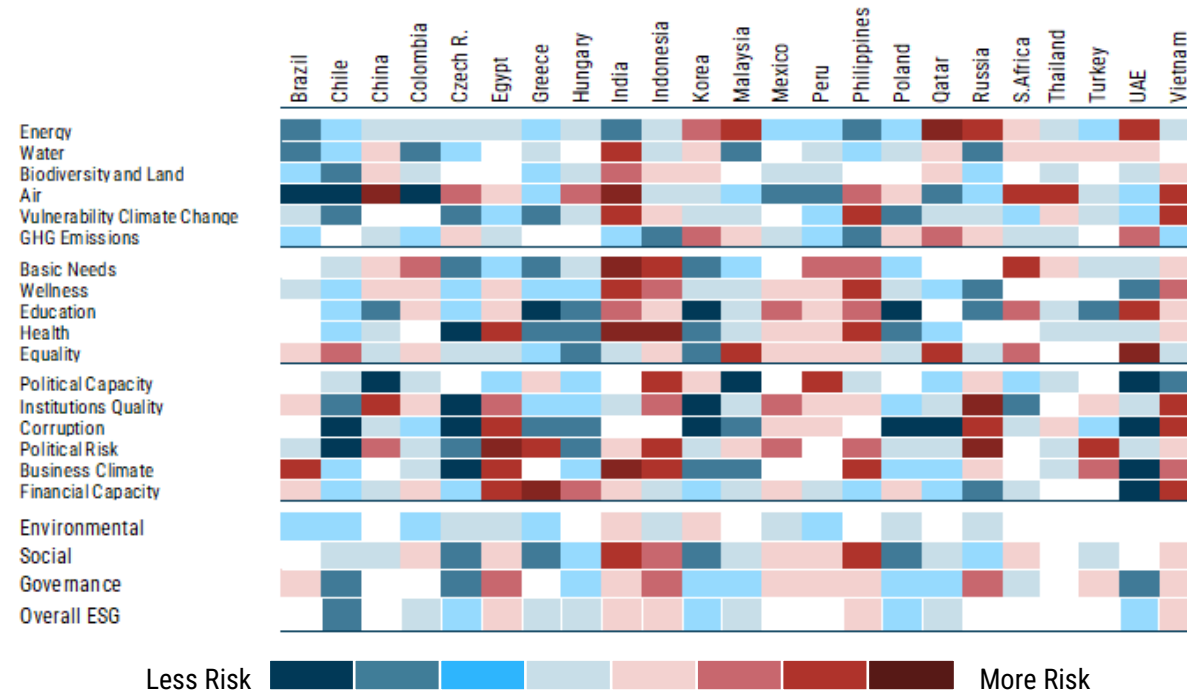


## OUR VIEW

- Fair value levers are significantly impacted by country and global drivers.
- Even the most sustainably managed companies are hostage to changing macro conditions
- Third party ratings try to be 'all things to all people'
- Therefore, they need to be substantiated with proprietary analysis
- Third party ratings are typically organized around equity issuers
- Proprietary materiality maps and scores are necessary for fixed income application

# PROPRIETARY COUNTRY ESG ASSESSMENT FRAMEWORK

## *Illustrative results for select EM countries*



- Identified more than 50 material ESG indicators across 17 themes
- Framework integrated in EM Equities and EM Sovereign Debt strategies

Source: Worldbank, WEF, Germanwatch Climate, Factset, GMO

# PROPRIETARY COUNTRY ESG ASSESSMENT FRAMEWORK

## *Select material ESG indicators*

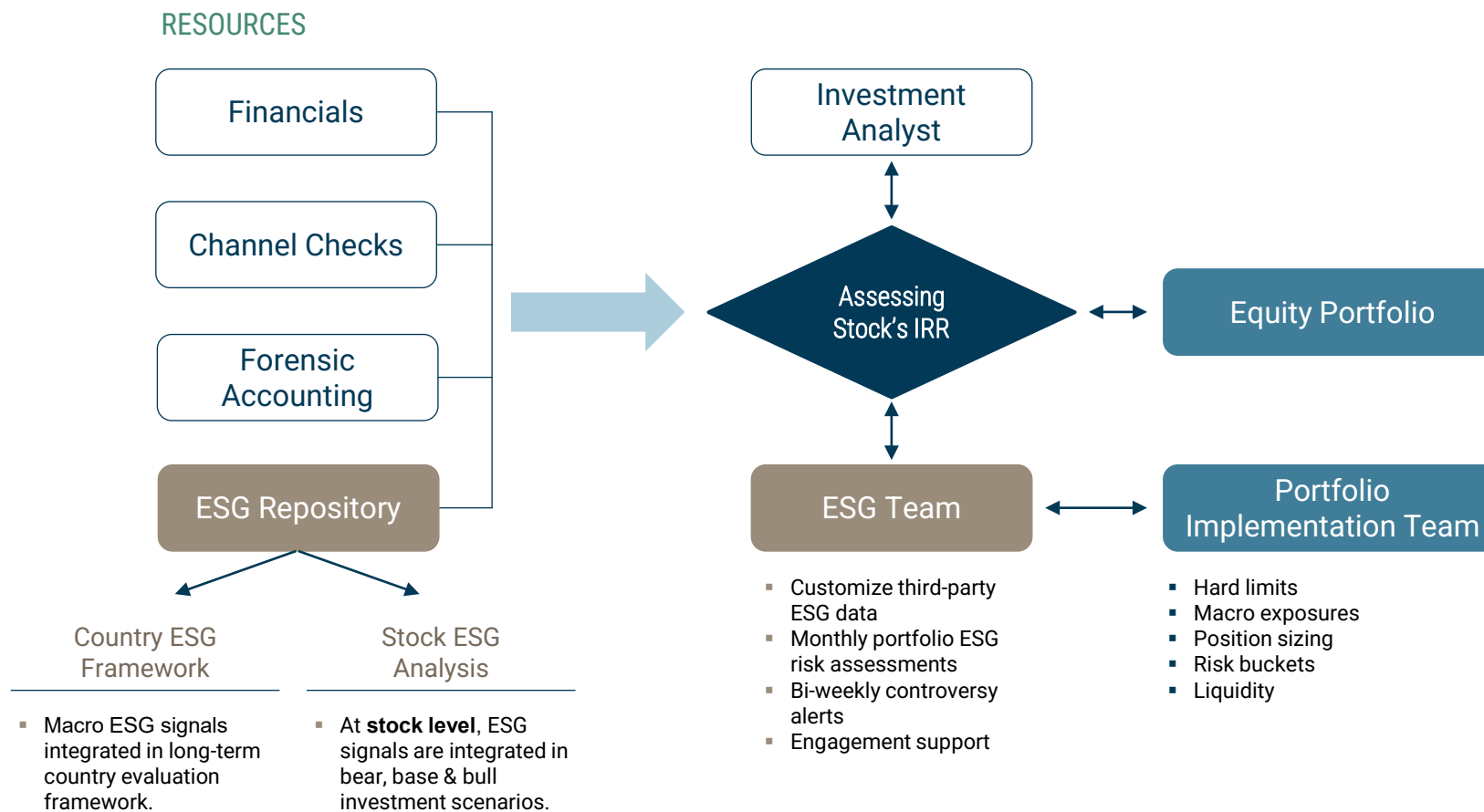
E	S	G
<ul style="list-style-type: none"><li>▪ # of deaths linked to air pollution</li><li>▪ Economic impact to increasing temperatures</li><li>▪ Forest cover change 5-yr trend</li><li>▪ Co2 emissions (kg per US\$ of GDP)</li><li>▪ National climate policy and targets</li></ul>	<ul style="list-style-type: none"><li>▪ Access to electricity</li><li>▪ Poverty headcount ratio</li><li>▪ Higher education enrolment rates</li><li>▪ GINI income inequality</li><li>▪ Hospital beds, physicians</li></ul>	<ul style="list-style-type: none"><li>▪ Judicial independence</li><li>▪ Control of corruption</li><li>▪ Ease of doing business</li><li>▪ Democracy / Voice and accountability</li></ul>

Source: Worldbank, WEF, Germanwatch Climate, Factset, GMO

# ESG INTEGRATION IN EM EQUITY

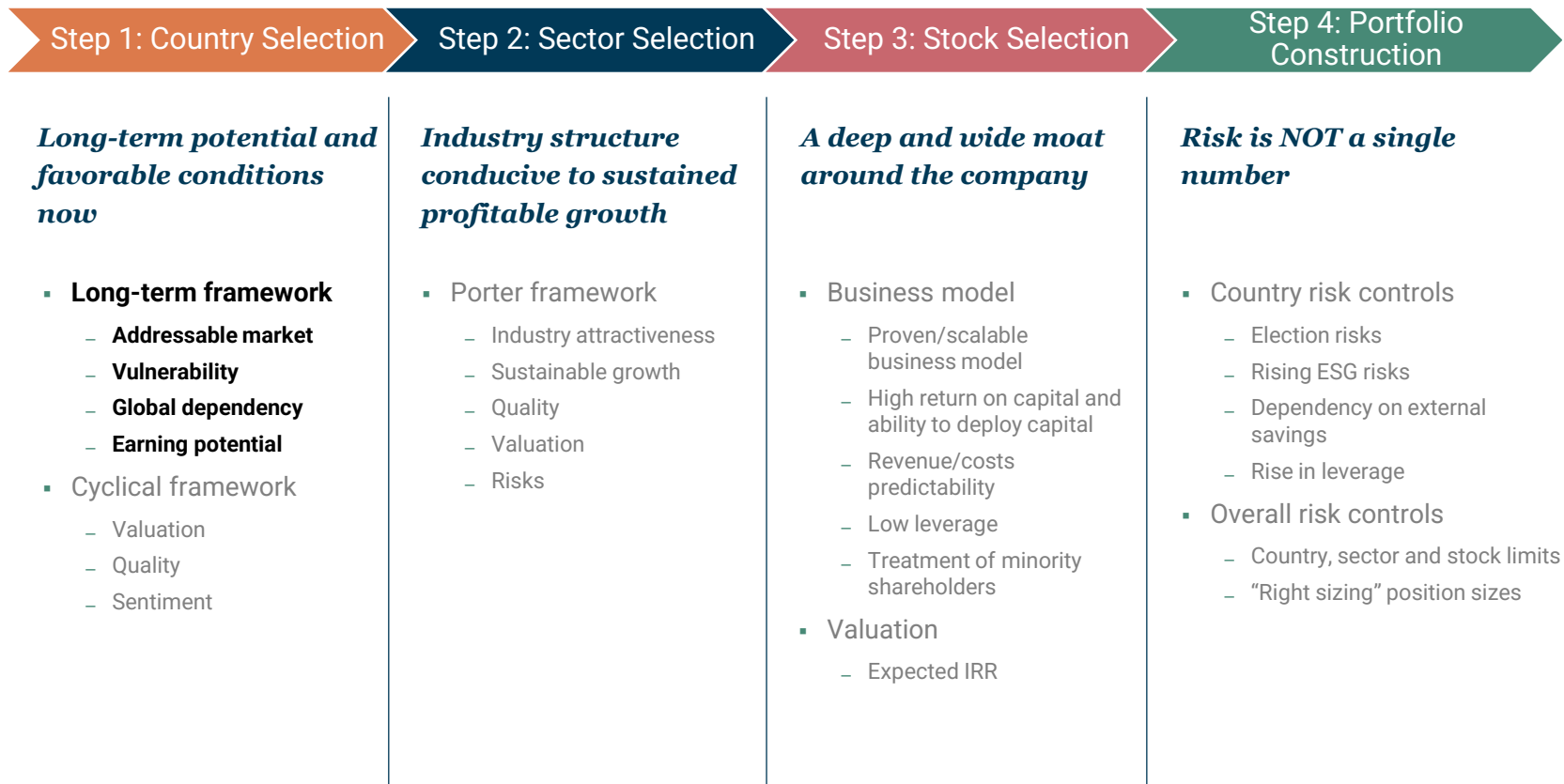
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# ESG INTEGRATION FRAMEWORK: GMO EMERGING DOMESTIC OPPORTUNITIES STRATEGY



# ESG INTEGRATION EXAMPLE: GMO'S EDO STRATEGY

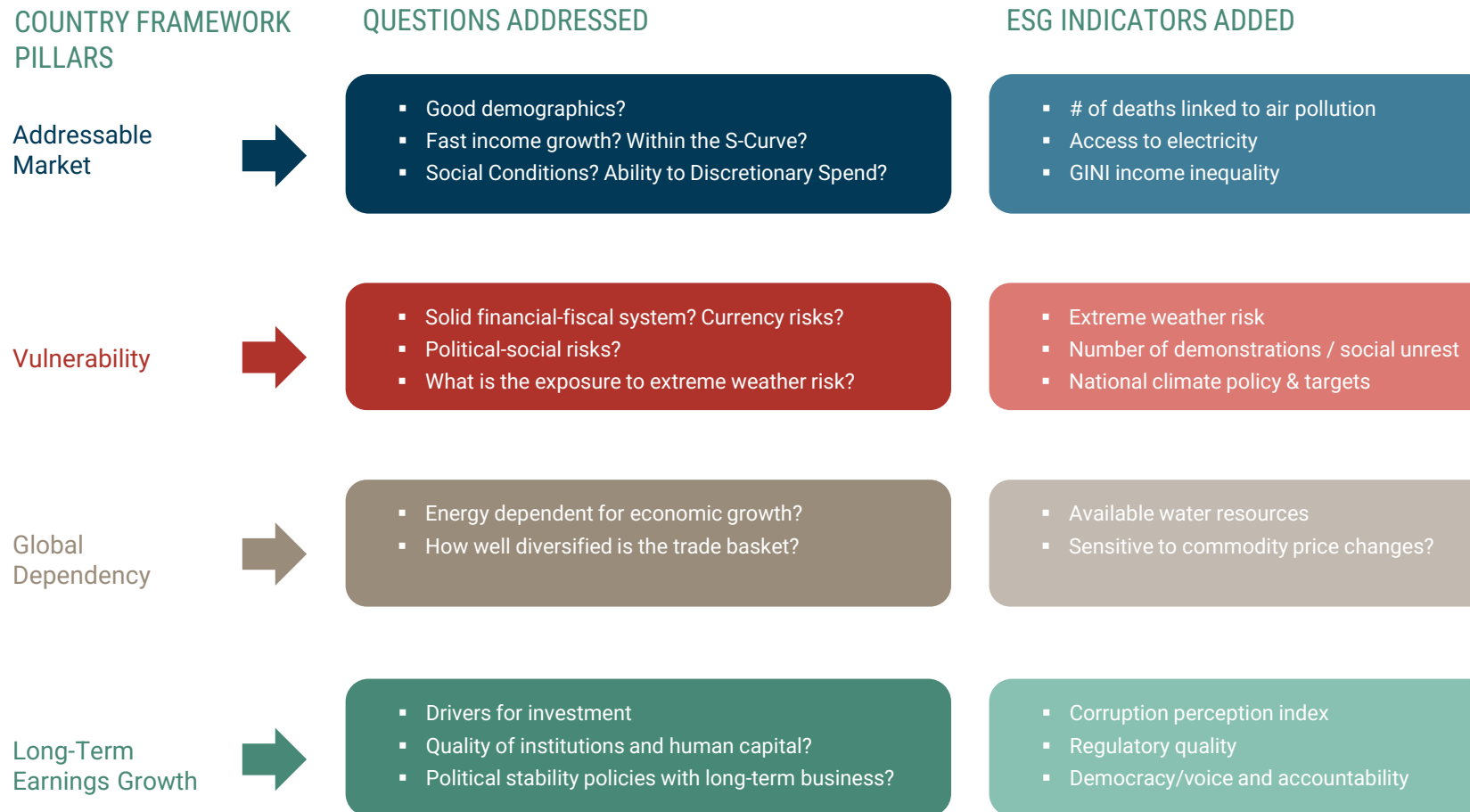
*A top-down, fundamentally driven process*





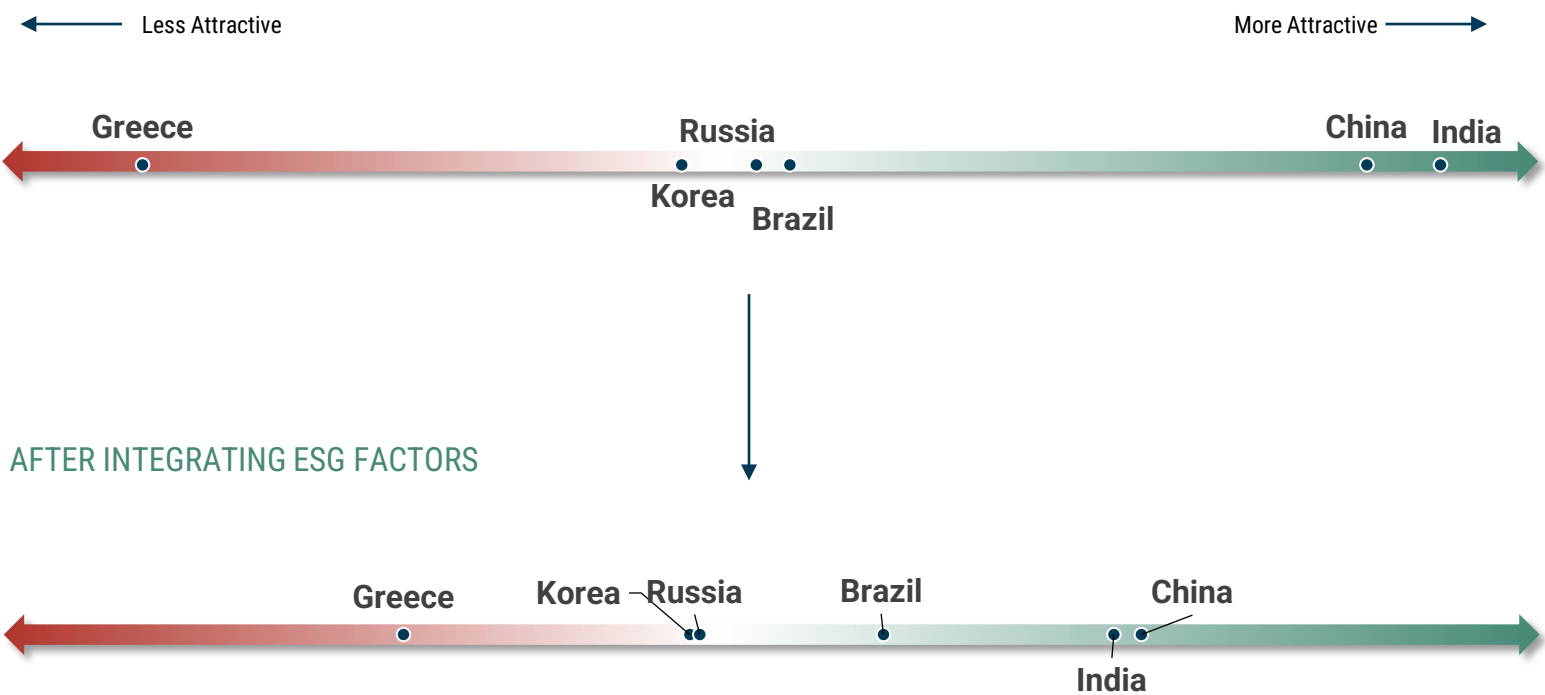
# ESG INTEGRATION: TOP-DOWN

## *Integrating ESG into EDO long-term country framework*



# ESG INTEGRATION: TOP-DOWN

*Impact of ESG integration on long-term country attractiveness*



Source: Worldbank, WEF, Germanwatch Climate, Factset, GMO

# ESG INTEGRATION EXAMPLE: BOTTOM-UP

## *ESG integration at a company level: Case study (January 2020)*

### Company Background

- Global building materials company
- 80% of the company's assets are in locations with existing or impending carbon regulations

### Regulatory Scenario

- In Oct 2019, Mexico announces ETS plans and introduces a carbon tax
- EU carbon prices hit an 11-year high of €28 per ton in July 2019 as reforms to reduce the carbon trading system's number of excess permits in the system kick in

### Key ESG Risks

- Despite some aggressive initiatives, company has not been able to reduce its carbon intensity and is exposed to the risk of increased costs linked to carbon regulations

# ESG INTEGRATION EXAMPLE: BOTTOM-UP

*Pre-ESG integration: lackluster but positive IRR in base case*

	<i>Bear Case</i>	<i>Base Case</i>	<i>Bull Case</i>
Revenue Growth	-10%	5%	8%
Margin Improvement	-10%	0%	2%
Cash Dividend	0%	2%	2%
Multiple Expansion	-5%	0%	3%
IRR	-25%	7%	15%

## Investment thesis for base case:

- Slight recovery in volumes in Mexico due to gradual implementation of infrastructure plan.
- Some reduction in leverage due to asset sale program, but it remains vulnerable.
- Selling profitable plants in US and not selling stressed assets in EU could lead to negative carry.
- The cash dividend may be at risk if leverage crosses 4x (bank covenant). Next year leverage is expected to be ~3.8x.

# ESG INTEGRATION EXAMPLE: BOTTOM-UP

*Post-ESG integration: base case IRR worsens into negative territory*

	<i>Bear Case</i>	<i>Base Case</i>	<i>Bull Case</i>
Revenue Growth	-10%	5%	8%
Margin Improvement	-19%	-6%	-3%
Cash Dividend	0%	0%	0%
Multiple Expansion	-10%	-5%	0%
IRR	-39%	-6%	5%

Changes in base case due to ESG factors:

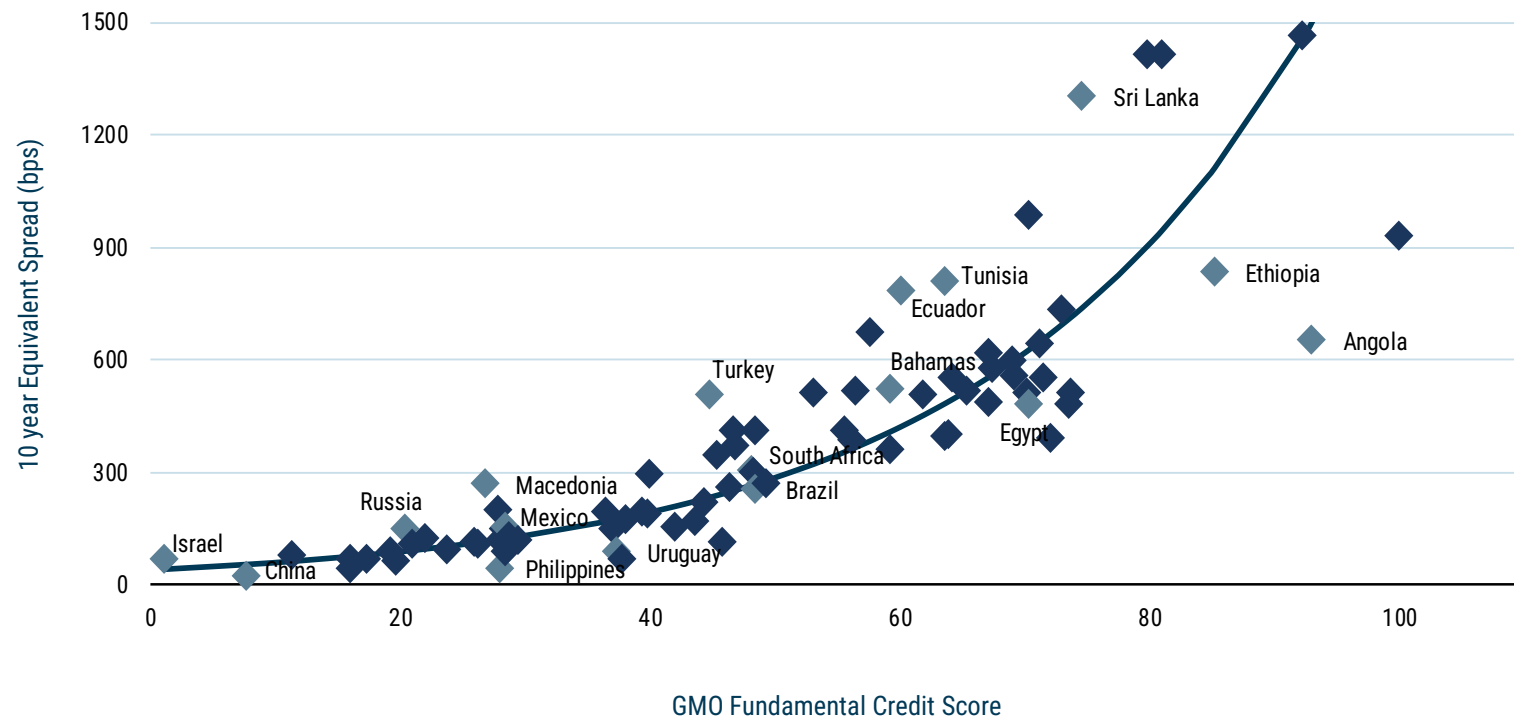
- Possibility of imposition of carbon tax to significantly dent margins. Assumed carbon tax of USD10/t (base case).
- The company might be required to incur additional capex to bring down its carbon intensity.
- Higher capex may lead to higher leverage (possibly above 4x), this may lead to no cash dividends.
- With the increasing leverage and contracting margins, the stock may face multiple derating.

# ESG INTEGRATION INTO EM SOVEREIGN DEBT INVESTING

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# SOVEREIGN RISK ANALYSIS AT GMO

*Our goal is to establish a score for each country, helping us to identify which are “rich” or “cheap”*



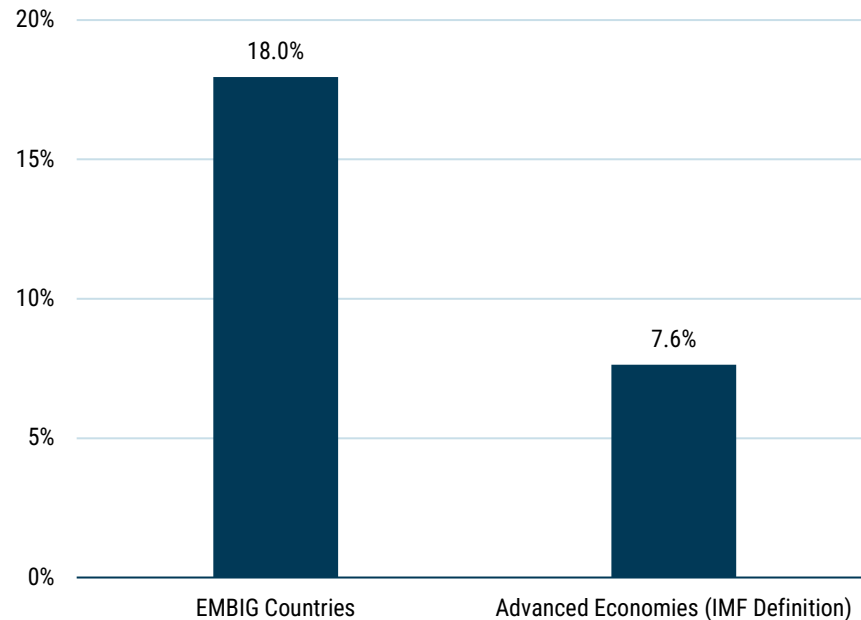
As of April 2021

Note: GMO's Proprietary Credit Score incorporates measures of fundamental credit quality.

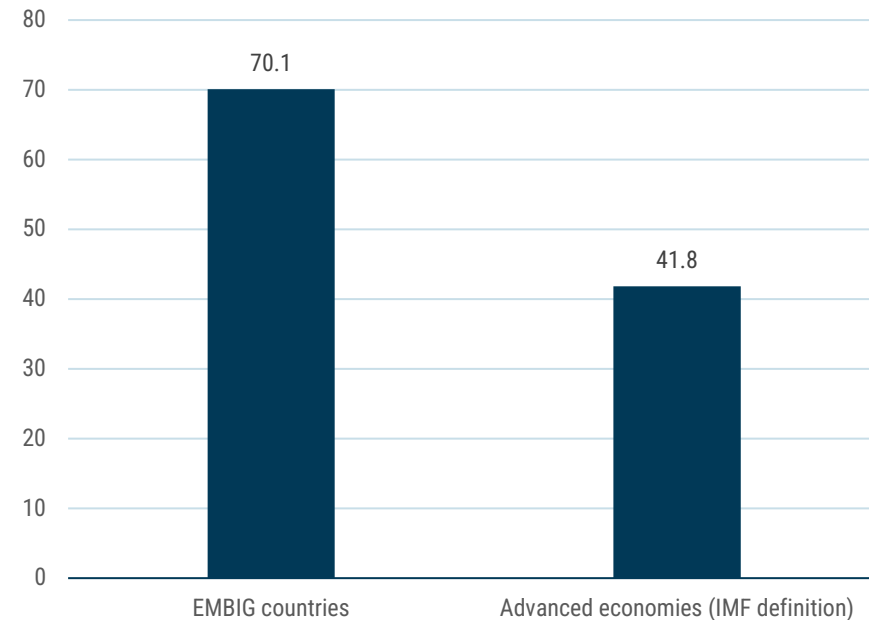
# ESG AND THE NATURE OF EMERGING ECONOMIES

*Challenge #1: Emerging countries tend to be worse on ESG than their developed counterparts*

SHARE OF TOTAL EXPORTS: MINERAL FUELS,  
LUBRICANTS, AND RELATED MATERIALS (2019 DATA)



CORRUPTION PERCEPTIONS INDEX, WEIGHTED  
AVERAGE SCORE (2020 DATA)

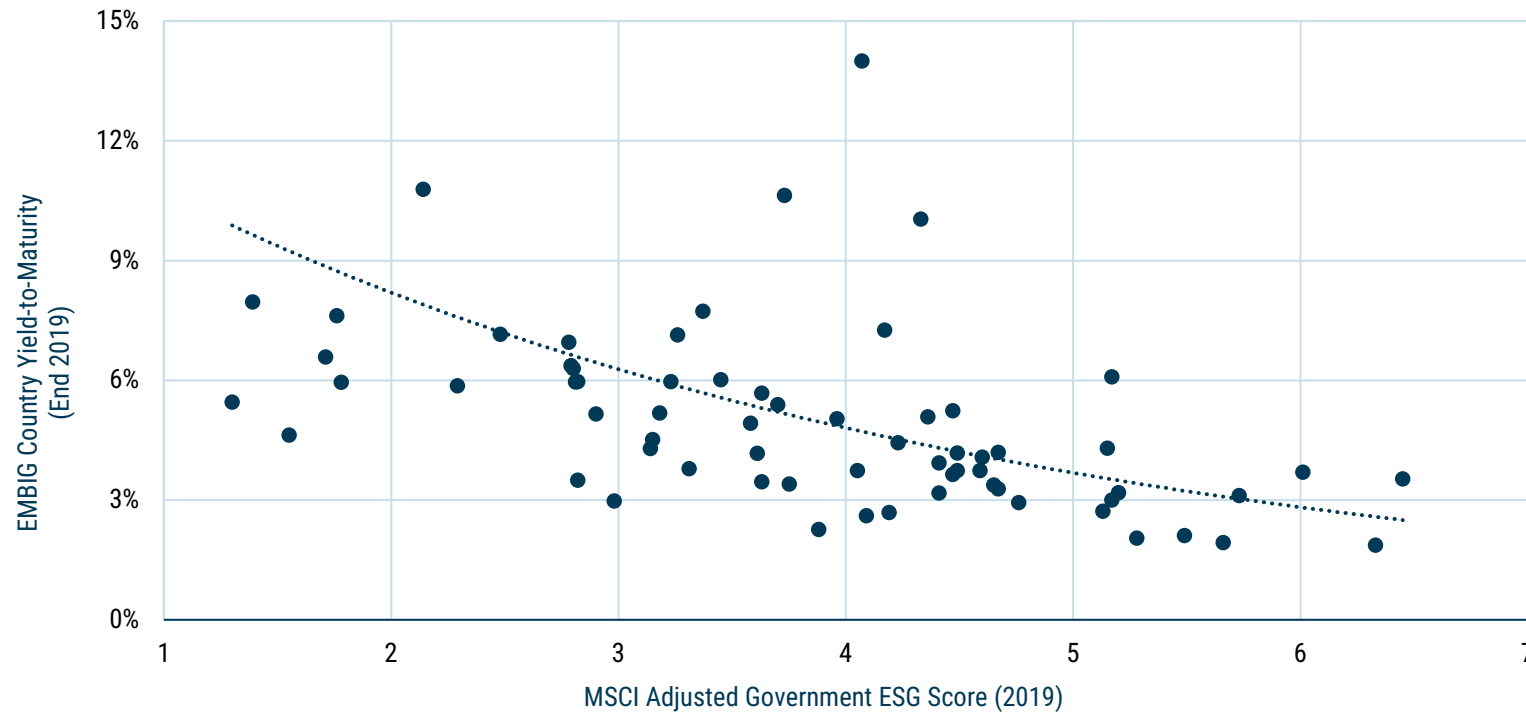


Source: (Left) UNCTAD, J.P. Morgan, IMF; (Right) Transparency International, JP. Morgan, IMF



# ESG AND THE NATURE OF EMERGING ECONOMIES

*Challenge #2: Within EM, better ESG performers tend to offer lower bond yields*



Source: World Bank, Bloomberg, MSCI, J.P. Morgan

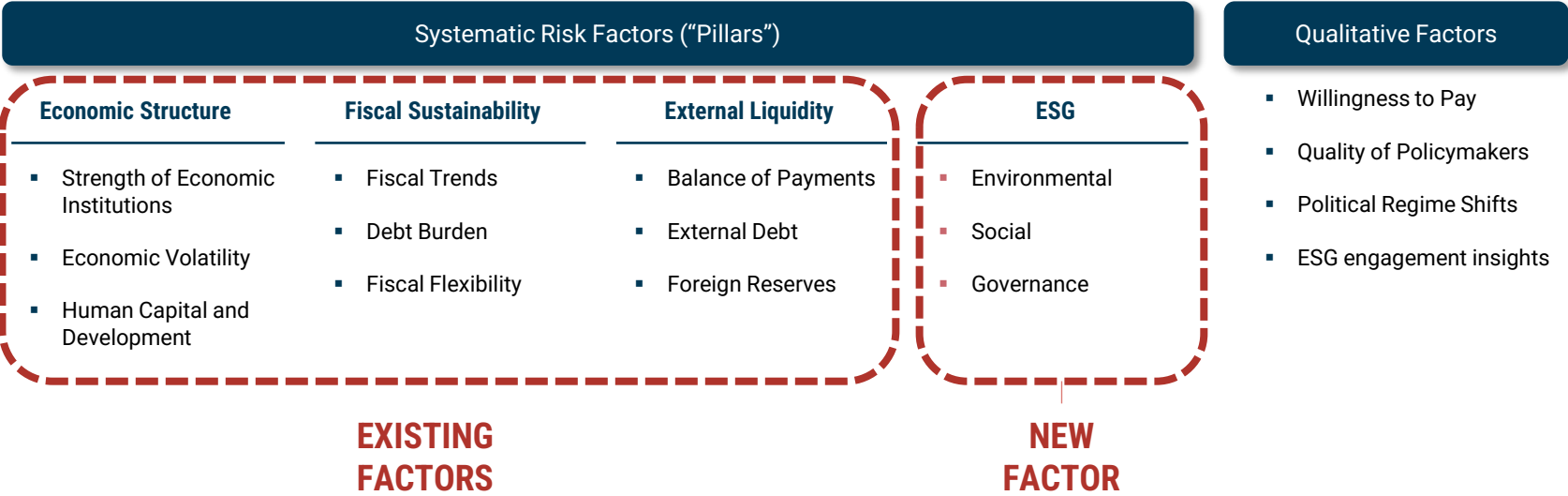
# HOW WE APPROACHED THE PROBLEM

*How do we involve ESG in our analysis while maintaining our focus on alpha?*

<b><i>Principle</i></b>	<b><i>Description</i></b>	<b><i>Strategic Approach</i></b>
<b>Continuity</b>	Maintain the basic structure of our existing quantitative process. That is, establish “pillar” scores based on various inputs, and distill these into a final metric for creditworthiness.	Move from a 3-pillar to a 4-pillar approach, with the fourth representing a country’s overall ESG quality.
<b>Relevance</b>	Avoid the use of pre-packaged, third-party measures of ESG quality, as well as subjective judgment calls on how to weight each ESG-related factor, in favor of an approach more closely connected to our asset class and investment philosophy.	Create our own E, S, and G scores using publicly available, granular data. Assign weights based on each variable’s statistical relationship to sovereign spreads.
<b>Performance</b>	Integration of ESG metrics should contribute to assessing sovereign risk, rather than simply serving as a signal of our values and priorities.	Use a regression approach to “roll up” our proprietary E, S, and G scores into a new ESG pillar, which can then be used as a fourth input in the final step of our process.

# PRINCIPLE #1: CONTINUITY

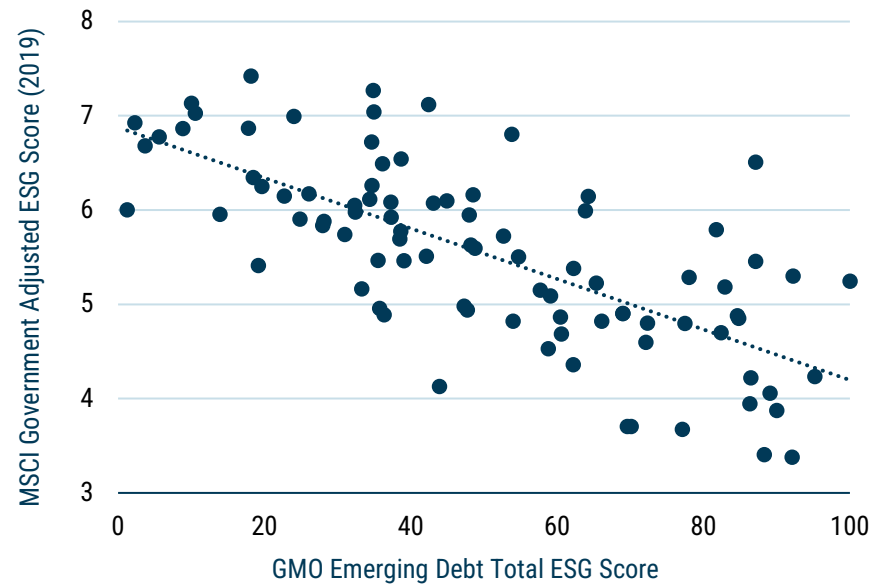
*We added a fourth “pillar” representing ESG, keeping the structure of our process intact*



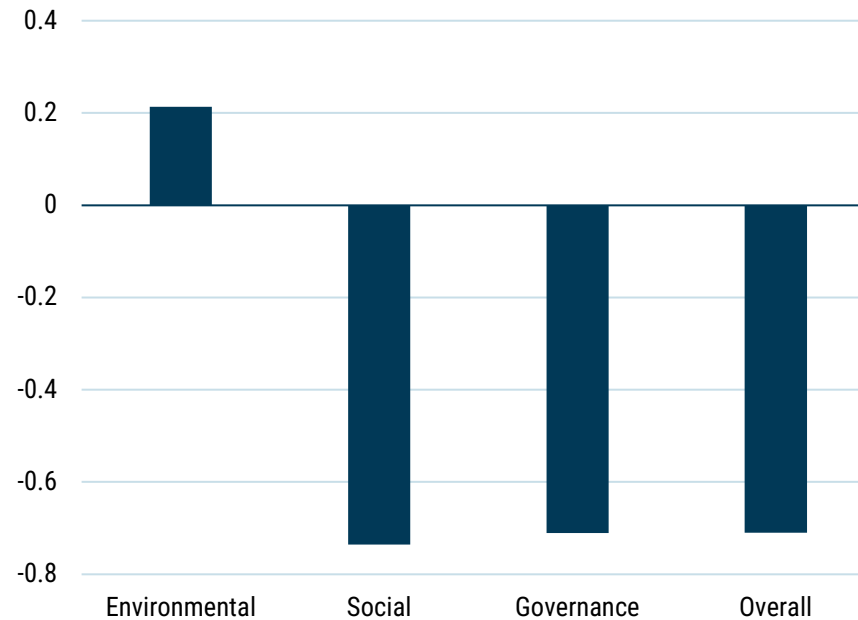
# PRINCIPLE #2: RELEVANCE

*We elected to establish our own ESG scores based on granular, publicly available data*

OUR COUNTRY-LEVEL ESG SCORES ARE CORRELATED WITH THIRD-PARTY DATA



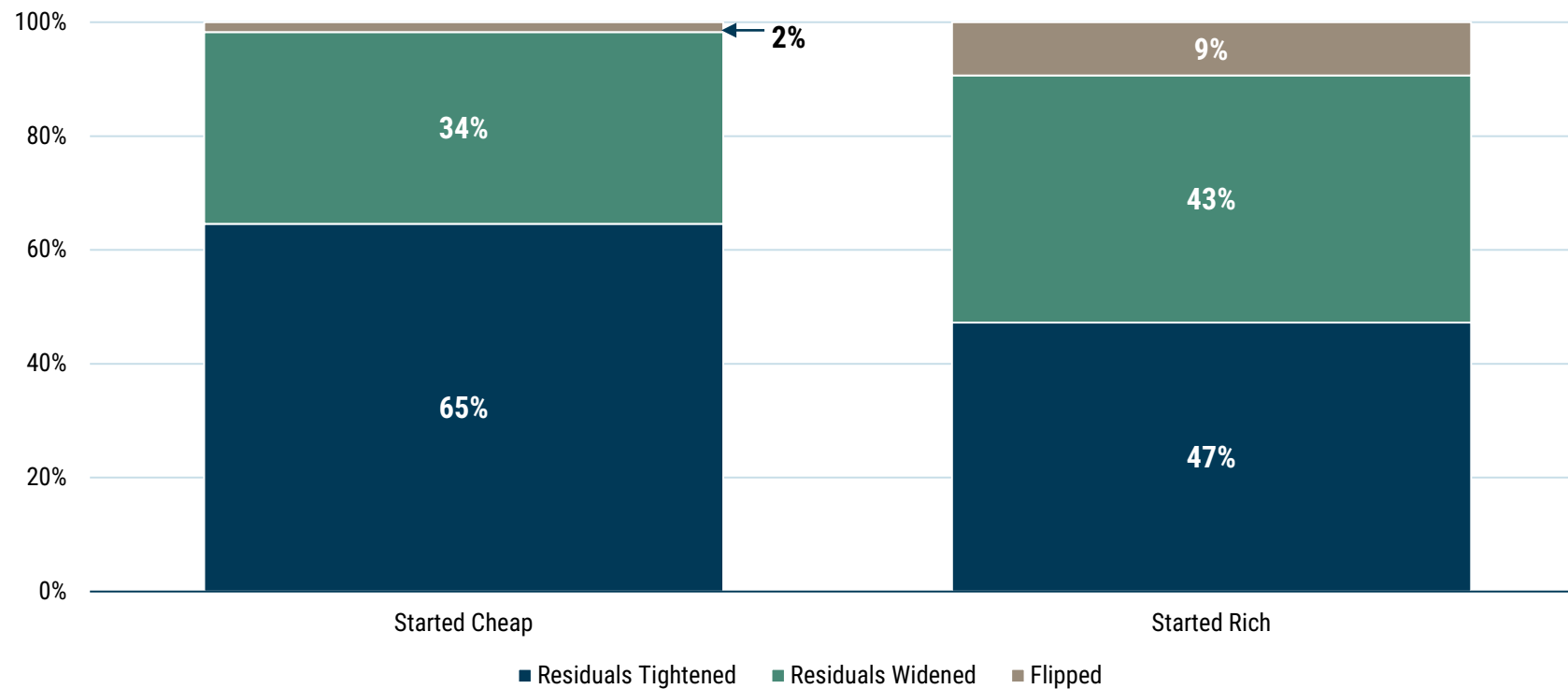
CORRELATION BETWEEN MSCI AND GMO EMERGING DEBT ESG SCORES (2019 DATA)



Source: GMO, MSCI

# PRINCIPLE #3: PERFORMANCE

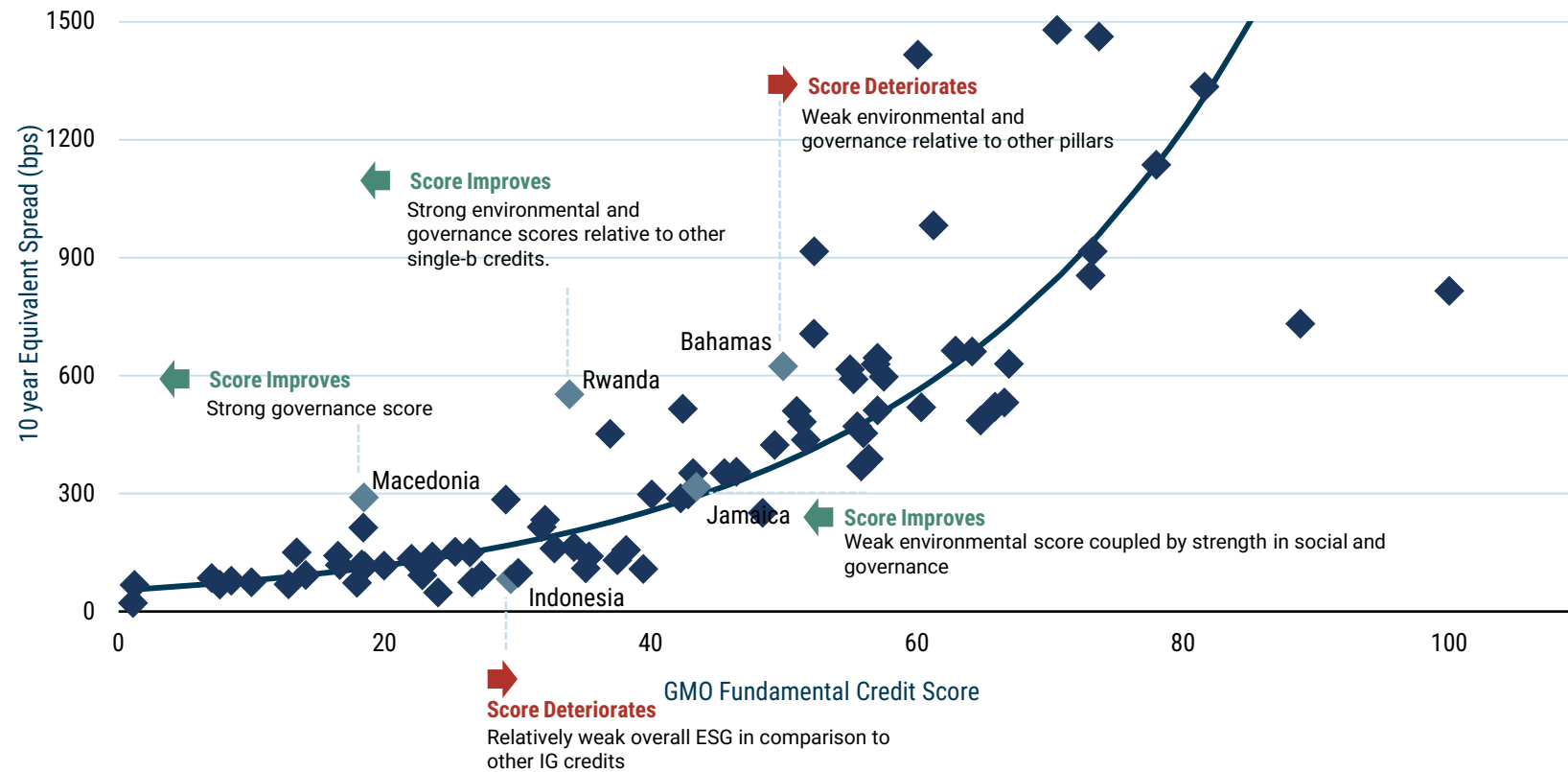
*Some countries saw meaningful shifts in their country scores with the addition of ESG*



Source: GMO

# PRINCIPLE #3: PERFORMANCE

*Some countries saw meaningful shifts in their country scores with the addition of ESG*



As of January 2021

Note: GMO's Proprietary Credit Score incorporates measures of fundamental credit quality.

# THANK YOU

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# Overview of "ESG Integration Framework" for Investment Analysis

## Panel Discussion



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**Na Ayudhya, CFA,**

Investment Product Strategist,  
KTBST Securities Public Company  
Limited



**Mary Leung, CFA,**

Head, Advocacy, Asia-Pacific,  
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**Hardik Shah, CFA,**

ESG Practice Lead,  
GMO



**Thank You**