

S&P Global Ratings

- ESG in Ratings
- ESG Evaluation

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S&P Ratings

EIFR, June, 26th 2019



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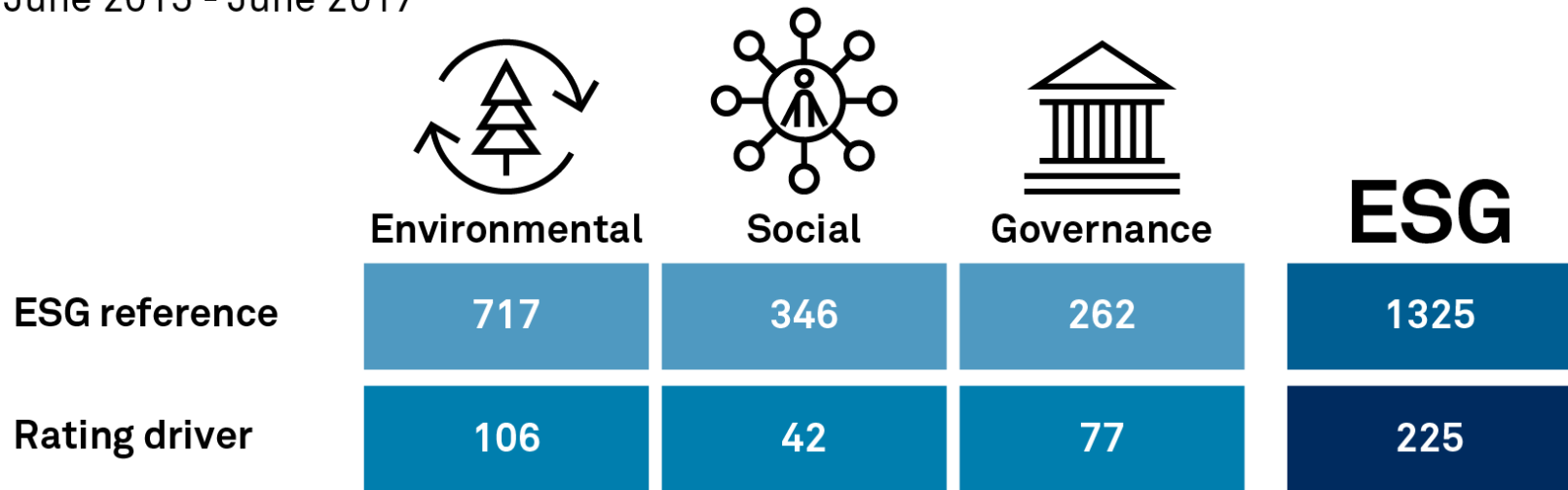
Over **\$30 bil. Green Evaluations** completed

ESG & Credit - Look Back Series

Number of ESG references and rating actions driven by E, S, and G factors -
Corporate practice:

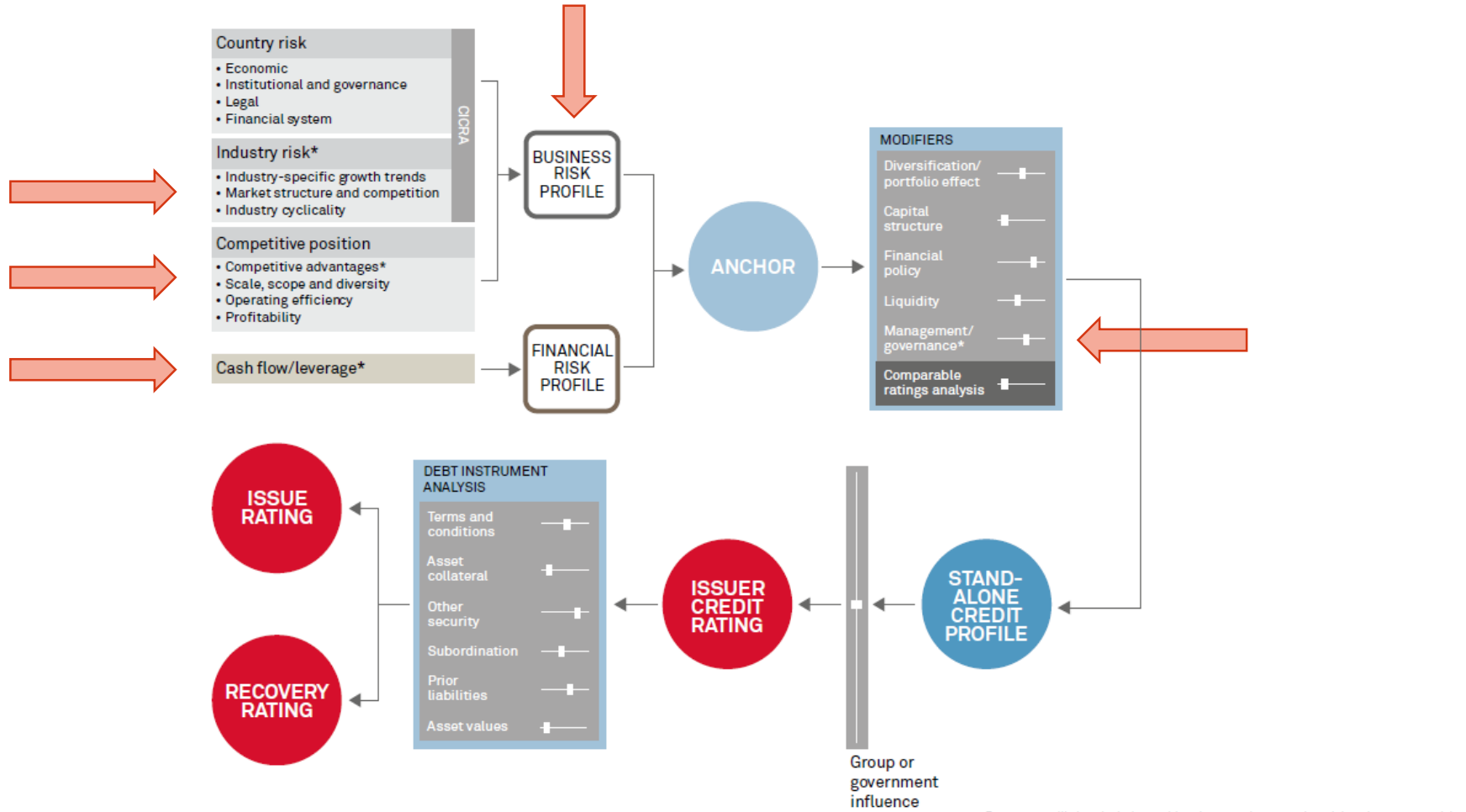
How Many Corporate Credit Ratings Were Driven By ESG Factors?

June 2015 - June 2017



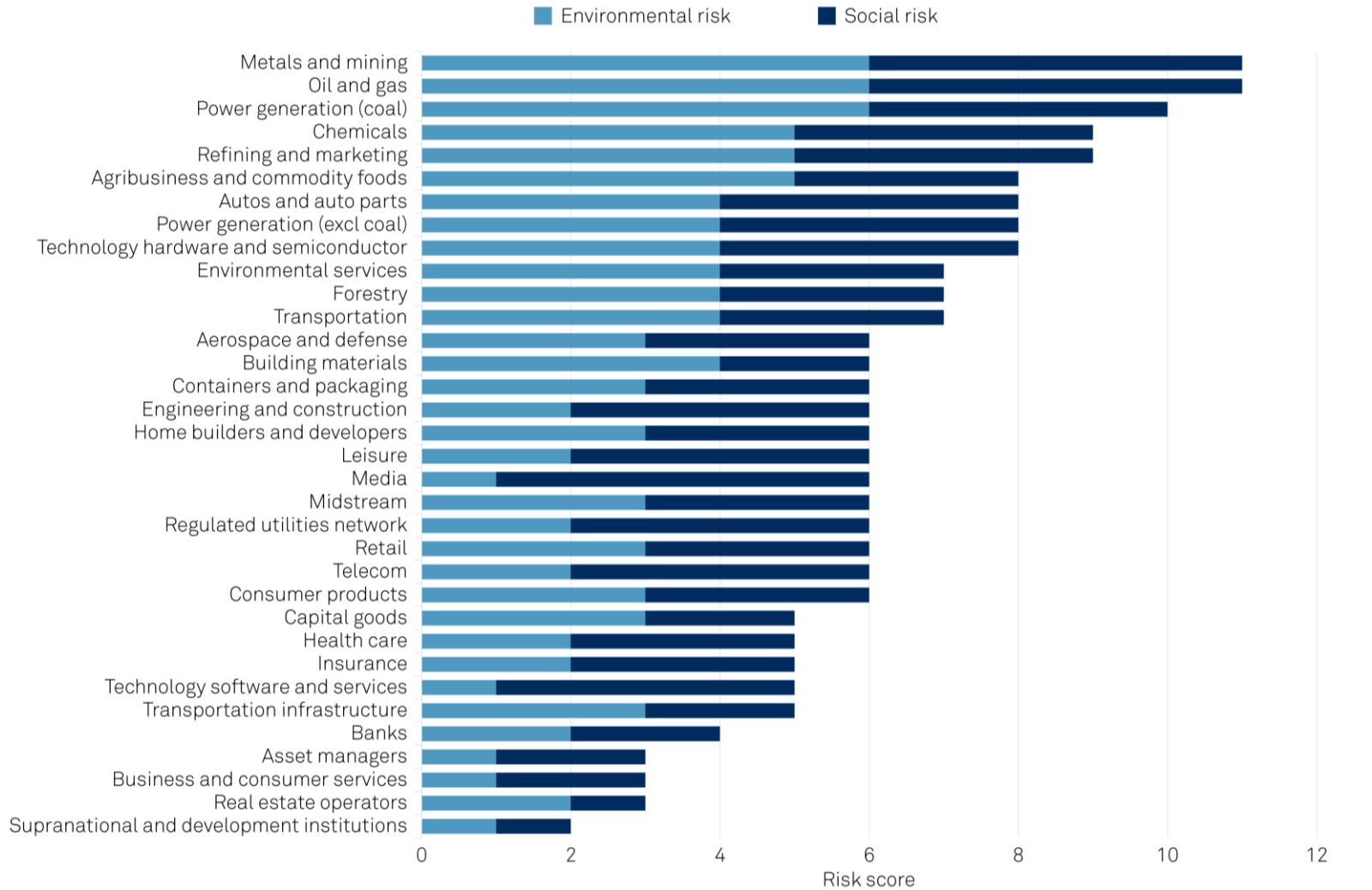
ESG Already Part Of Our Rating Methodology

Credit FAQ: How Does S&P Global Ratings Incorporate Environmental, Social, And Governance Risks Into Its Ratings Analysis, Nov 21, 2017



*Factors most likely to include consideration of environmental, social, and governance risks.
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Our Environmental and Social Sector Risk Atlas



Source: S&P Global Ratings.
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20 ESG Industry Reports Published

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ESG Industry Report Card: Autos And Auto Parts

May 13, 2019

(Editor's Note: Our ESG Industry Report Cards include an analysis of ESG factors for a selection of companies. We intend to expand our ESG Industry Report cards to include more companies throughout the year.)

Key Takeaways

- The automotive industry has relatively high exposure to environmental risk, while social risks could become more relevant over the longer term due to changing consumer habits.
- Environmental regulation is leading the global auto industry toward carbon dioxide (CO2) neutral vehicle production.
- Sizeable investments in technologies and new products are already putting operating margins and free cash flow under pressure.
- Consumer acceptance of electric vehicles will be key to manufacturers achieving CO2 targets and will be dependent on incentives by governments, improvement in vehicle performance (range in particular), and infrastructure availability.
- Sizeable litigation-linked fines related to unlawful cartel agreements or software manipulation (such as "dieselgate") could further burden companies' cash flow and reduce headroom under the ratings for many issuers.

The ESG Risk Atlas

To calibrate the relative ranking of sectors, we use our environmental, social, and governance (ESG) Risk Atlas (see "The ESG Risk Atlas: Sector And Regional Rationales And Scores," published May 13, 2019). The Risk Atlas provides a relative ranking of industries in terms of exposure to environmental and social risks (and opportunities). The sector risk atlas charts (shown below) combine each sector's exposure to environmental and social risks, scoring it on a scale of 1 to 6. A score closer to 1 represents a relatively low exposure, while 6 indicates a high sectorwide exposure to environmental and social risk factors (for details see the Appendix). This report card expands further on the Risk Atlas sector analysis by focusing on the credit-specific impacts, which in turn forms the basis for analyzing the exposures and opportunities of individual companies in the sector.

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ESG Industry Report Card: Power Generation

May 13, 2019

(Editor's Note: Our ESG Industry Report Cards include an analysis of ESG factors for a selection of companies. We intend to expand our ESG Industry Report cards to include more companies throughout the year.)

Key Takeaways

- The transition away from coal generation--a leader of carbon dioxide (CO2) emissions--is ongoing. But despite being a global focus, the pace of carbon reduction is not uniform throughout the sector and we expect that, by the next decade, coal generation will still represent over 25% of total generation.
- Nuclear generation, while a zero-carbon emitter, still has significant environmental risks because of its higher-risk operations and nuclear waste.
- Although natural gas generation emits about half the CO2 as coal, we view gas-fired generation as a bridge to a carbon-neutral environment and as an effective interim means to handle the intermittency of renewable generation.
- The sector has a considerable influence on local communities, including on customers' electric bills, as a local employer, as a significant contributor to local taxes, and by ensuring safe operations at generating facilities.

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May 13, 2019 1

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+600 Entity Comments → 2000 by yr-end

Example: Peugeot S.A.

The French automaker PSA, whose business is primarily concentrated in Europe, is mainly focused on securing compliance with 2020 average fleet CO2 emission targets (95-100 g/km). This compares with provisional average CO2 emission of 114 g/km in 2018, up from an estimated 112 g/km with a full year of OPEL Vauxhall in 2017, due to the integration of OPEL as well as the shift from diesel to gasoline, and to a mix effect linked to stronger consumer preference for higher emitting vehicles like SUVs. From 2019, we expect the mix to include new electrified models (mainly hybrids) which we expect would help the group to be compliant by the end of 2020. **According to its sustainability report, if the company-specific CO2 target is missed, a penalty will be applied amounting to €95 per g/km of CO2 and per vehicle, e.g. for Groupe PSA approximately €240 million for 1 g/km of CO2 exceeding the target.**

The execution of the electrification strategy implies consistent efforts from OEMs on R&D and capex. According to our estimates, PSA compares well with peers, since its R&D and capex should hover at approximately 8%-9% of sales, versus an industry average we estimated at 10%-12% for OEMs in EMEA. Our base case factors in some margin dilution due to the transition to electrification and the higher production costs of hybrid and pure battery vehicles, which we think will gradually subside toward 2025 with wider adoption of EVs and increased production scale. Longer term changes in consumer habits and the evolution of the traditional vehicle ownership model, could result in substantially lower volume of vehicle sales, resulting in pressure on break-even. However, we believe this development is well beyond our forecast horizon. Governance risks are not a credit concern for our ratings on PSA

ESG Evaluation:

upon request non-ratings product

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ESG Evaluation

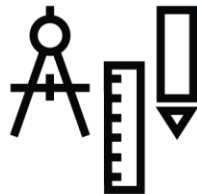
ESG Evaluation is a **cross-sector relative analysis** of an entity's capacity to operate successfully in the future and is grounded in how **ESG factors** could **affect stakeholders**, leading to a material direct or indirect **financial impact on the entity**.

Risk Atlas



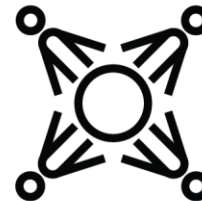
Region and sector
macro analysis

Diagnostic



Entity-specific analysis
by credit analyst and
ESG team

Meeting



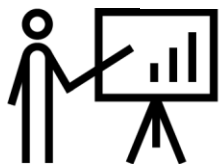
In-person
assessment

Adjustments



Analytical
judgement

ESG Evaluation: Differentiators



Analyst knowledge of companies, sectors, and regions



Grounded in financial materiality



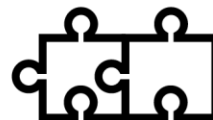
Blend of quantitative and qualitative analysis



Informed forward-looking

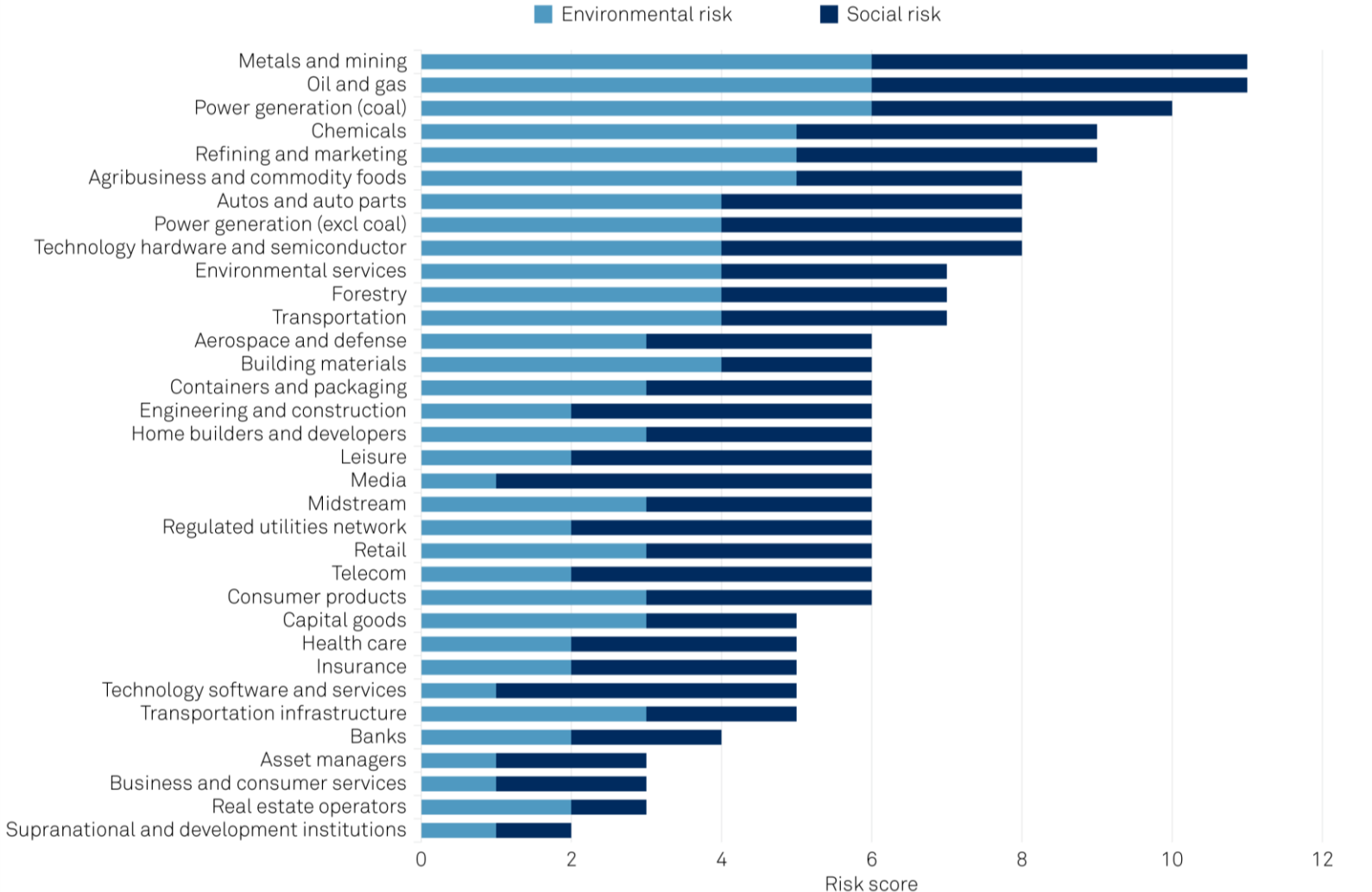


Meeting with management and board member



Preparedness assessment

ESG Profile: Sector E & S 'Neighbourhood'



Source: S&P Global Ratings.
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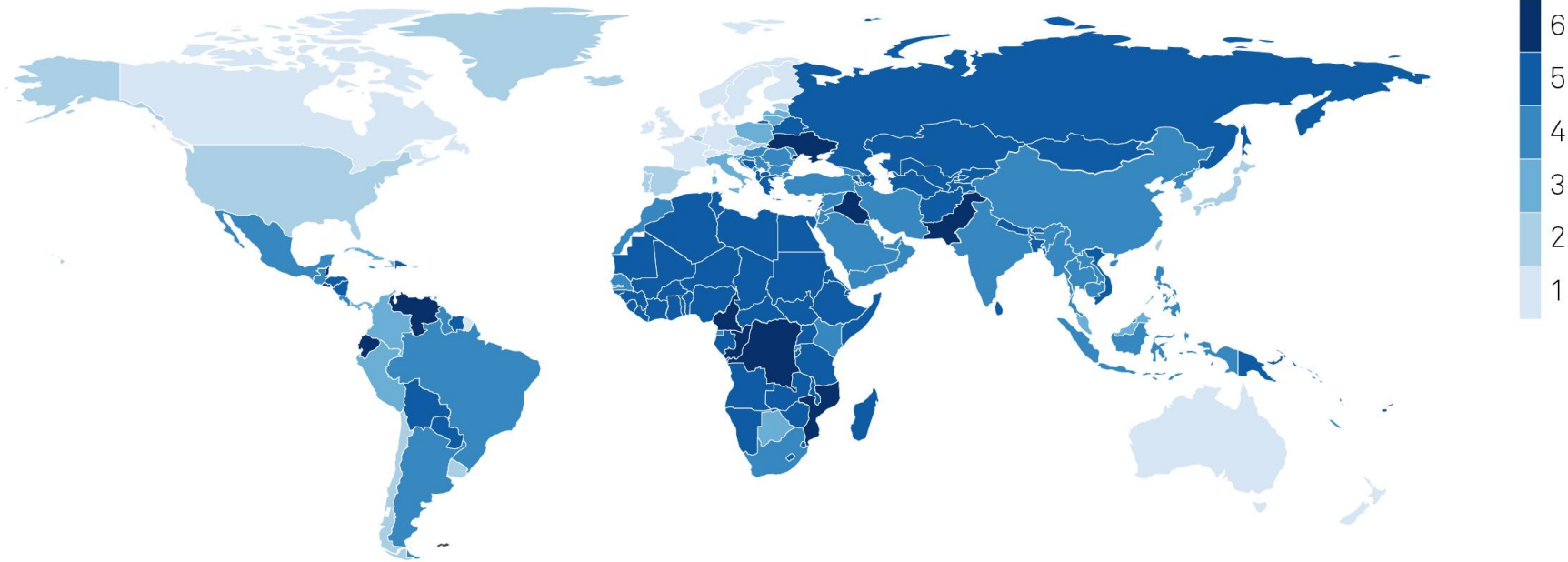
ESG Profile: Geography G ‘Neighbourhood’

Governance Risks

Corporate Governance

Institutional Effectiveness













ESG Regulations



Sources: World Bank’s Human Capital, Rule of Law, and Control of Corruption Indices, Transparency International’s Perception of Corruption, UNSIDR Global Assessment Report, World Health Organization’s Global Health Estimates.

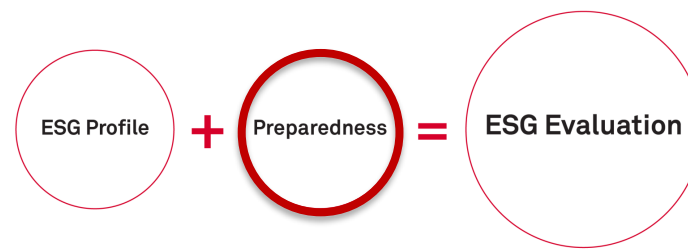
ESG Profile: Entity level

Entity-specific scores assessed on a **relative** basis, against **sector peers**

Environmental	Social	Governance
 Greenhouse Gas Emissions	 Workforce & Diversity	 Structure & Oversight
 Waste & Pollution	 Safety Management	 Code & Values
 Water Use	 Customer Engagement	 Transparency & Reporting
 Land Use	 Communities	 Cyber-Risk & Systems

Ability to **adjust**: factor weights, factor scores, and profile scores

Preparedness:

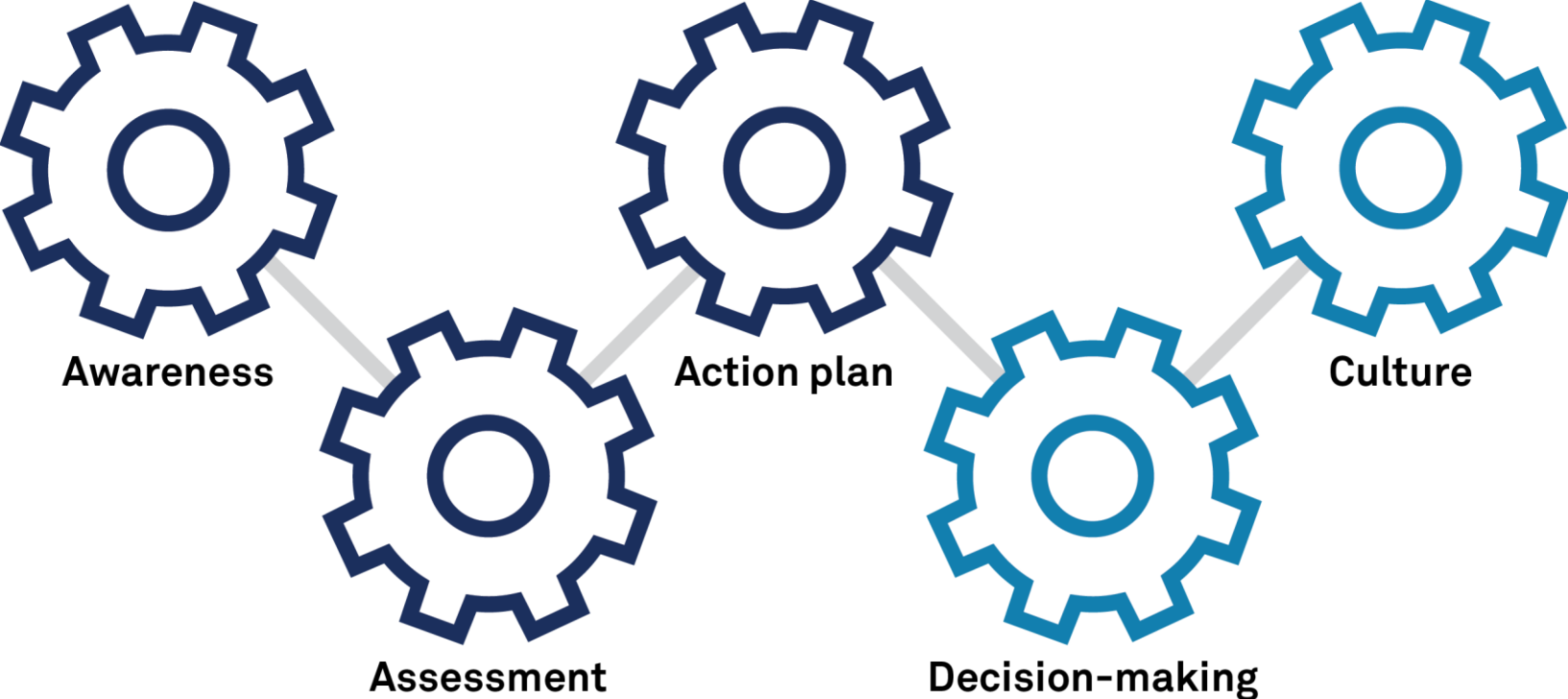



Megatrends



Among others...

Preparedness: Anticipating & Adapting to Disruption



 Capabilities

 Embeddedness

Alignment with Existing Reporting Standards

Leverage Existing Reporting Frameworks
Sustainability Accounting Standards
Board (SASB)

Global Reporting Initiative (GRI)

Greenhouse Gas Protocol

Carbon Disclosure Project (CDP)

Task Force for Climate Related Financial
Disclosures (TCFD)

U.S. Occupational Safety & Health
Administration (OHS)

World Resources Institute (WRI) Water
Accounting

S&P Opinion on Alignment with TCFD
Reporting (if requested)



Adopted



Partially Adopted



Not Adopted

ESG Evaluation Report: High Level Overview

Environmental, Social, And Governance (ESG) Evaluation

NextEra Energy, Inc.

Executive Summary

NextEra Energy, Inc. (NextEra) is a large diversified energy holding company that primarily consists of regulated transmission, distribution, and generation utilities (about 70% of EBITDA), competitive generation (about 20% of EBITDA), proprietary trading (about 5% of EBITDA), and natural gas exploration and production (about 5% of EBITDA). Through its regulated utility subsidiaries the company provides electric services throughout most of Florida.

NextEra's best-in-class preparedness assessment speaks to its ability to identify disruptive forces its industry faces, such as climate change regulation and an aging workforce, and develop and implement plans to mitigate them and create opportunities. The company also has fostered an effective culture to contend with ESG-related risks. NextEra has significant exposure to environmental issues, most notably greenhouse gas (GHG) emissions. NextEra has been more proactive than peers in decarbonizing its fleet, but continues to face long-term challenges over nuclear waste.

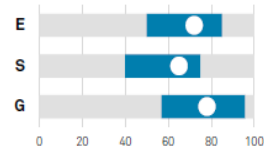
Maintaining effective relationships with customers and communities has generally had a positive impact on NextEra. The industry also faces other social risks, such as safety and an aging workforce, though NextEra has been more effective than sector peers in mitigating these issues.

The governance score benefits from the company's U.S. presence and stronger code and values than many American companies. We believe the combined CEO-chairman role is not in line with international best practices, but it's somewhat offset by a supportive structure and high board engagement on ESG issues.

Entity	NextEra Energy Inc.
Location (HQ)	U.S.
Primary Operation Location(s)	U.S.
Publication Date	June 17, 2019
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Profile Score

72/100



Company-specific attainable and actual scores

S&P Global Ratings | Environmental, Social, And Governance (ESG) Evaluation

Preparedness Opinion

Best In Class

Awareness:	Excellent
Assessment:	Good
Action:	Excellent
Culture:	Excellent
Decision-making:	Excellent

ESG Evaluation

86/100

ESG 100 represents lower risk exposure

This product is not a credit rating | June 17, 2019 | 1

Component Scores

Environmental Performance			Social Performance			Governance Standards		
Sector/Region Risk Level	35/50		Sector/Region Risk Level	25/50		Sector/Region Risk Level	31/35	
Greenhouse Gases	Strong		Workforce and Diversity	Good		Structure and Oversight	Good	
Waste	Good		Safety Management	Strong		Code and Values	Strong	
Water	Strong		Customer Engagement	Leading		Transparency and Reporting	Strong	
Land Use	Strong		Communities	Strong		Cyber risks and Systems	Strong	
General Factors (optional)	0		General Factors (optional)	None		General Factors (optional)	None	
E Profile (30%)	72		S Profile (30%)	65		G Profile (40%)	78	

Note: Numbers may not add up due to rounding

ESG Profile (incl. any adjustments)

72/100

Preparedness Summary

We view NextEra's preparedness as best in class, reflecting its ability to identify and assess long-term risks and take concrete actions to actively reduce them and develop new opportunities. Furthermore, the company's culture incentivizes high performance and innovation. The utility industry will continue to experience disruption as the result of climate change, energy transition, cyber risks, and changing demographics and customer demands. We expect NextEra to continue effective strategic decision-making, which we believe will positively distinguish the company from peers amid industry disruption, and to continue aligning its strategy with ESG-related goals.

Preparedness Opinion

Best in Class

ESG Evaluation

ESG Profile

72/100

Preparedness Opinion

Best in Class (+14)

Further Adjustment (if any)

None (0)

86/100

S&P Global Ratings | Environmental, Social, And Governance (ESG) Evaluation

This product is not a credit rating | June 17, 2019 | 2

NextEra Energy Report: Detailed Analysis

Environmental Factor Analysis



Greenhouse Gas Emissions

Strong

- The company's scope 1 carbon dioxide (CO₂) emissions rate is below the global sector average given about 50% of generation is sourced from renewables and nuclear. In addition, the bulk of NextEra's fossil-based generation uses natural gas, not coal.
- In 2018, NextEra set a goal to reduce carbon emissions 65% by 2021 compared to 2001 levels. As of 2018, it had reduced carbon emission rate by about 50% from 2001 levels.
- The company's growth strategy targets installing more than 30 million solar panels by 2030 in Florida alone, which will further increase the proportion of renewables generation at the company's regulated utilities.
- The company plans to transition a significant percentage of its coal-fired capacity (part of its recent Gulf Power acquisition) to less carbon-intensive sources in the near-term.



Waste

Good

- The company's waste score reflects pollution metrics that are substantially better than sector peers, but is somewhat offset by significant exposure to nuclear waste liabilities.
- From an air pollution perspective, in 2017, the company achieved its lowest-ever emissions rates of sulfur dioxide and nitrogen oxides as a result of its strategic transition away from coal to renewables and natural gas.
- We expect the company to continue to reduce its waste footprint. Measures already taken include banning the use of chlorinated solvents and hydrazine at Florida fossil facilities, minimizing the amount of oil-ash produced, and establishing a facility to recondition hardware.
- Because of its nuclear generation, the company has material exposure to unique risks associated with nuclear waste management, reflecting its long half-life and evolving long term storage options. However, this risk is somewhat mitigated because the company's waste management program is consistent with U.S. standards and there hasn't been a significant recorded nuclear waste incident.



Water

Strong

- The company's strong water score reflects a comparatively high level of water recycling and low exposure to water stress. Its increasing reliance on renewables instead of coal will continue to reduce the company's exposure to water-related risk, while its asset concentration in Florida is an advantage compared to peers in areas of higher water stress.
- About 80% of the water withdrawals are from seawater sources, which are non-potable and drought-proof, thereby limiting water stress exposure.
- In 2018, just over 99% of water withdrawn was ultimately returned to the original source, therefore limiting the company's water intensity rate, which it has been doing consistently.
- While most of NextEra's renewables portfolio is located outside Florida and in areas with generally higher water stress, these assets use negligible amounts of water compared with other forms of generation.



Land Use

Strong

- Land use is important for NextEra as it looks to expand its renewables portfolio. Typically, renewable projects can have a larger land footprint than other fuel types and often can require greenfield development, but are generally less intrusive to their surroundings.
- The company has very effective species and wildlife protection programs and partnerships that cover species like the American crocodile, whooping cranes, sea turtles, and manatees. These programs are important and effectively mitigate the company's significant exposure in Florida, a biodiversity hotspot.
- For solar development in Florida, the company first targets disturbed land near existing transmission, like citrus groves, that are no longer productive, for example due to disease.

Questions & Answer

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ESG in Ratings

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Essential Intelligence : General Purpose

Our Approach to Assessing ESG in Ratings



"When risks are unknown or ill-defined, the market cannot allocate resources in an efficient and profitable manner."

Mark Carney
Governor of The Bank of England

"Environmental, Social and Governance risks and opportunities have the potential to affect creditworthiness. At S&P Global Ratings our analysts work to ensure that we provide essential insights into ESG factors as they relate to the financial markets."

John Berisford
President, S&P Global Ratings

+ A MESSAGE FROM OUR PRESIDENT

+ HOW S&P GLOBAL RATINGS FACTORS ESG INTO ITS RATINGS

- CLIMATE AND ESG RELATED RESEARCH

We include below a number of our climate and ESG related thought-leadership pieces.

[ESG Industry Report Card: Midstream](#)

[ESG Industry Report Card: Chemicals](#)

[ESG Industry Report Card: Transportation Infrastructure](#)



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