

MOODY'S
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Fixed Income Analysts Society, Inc.
ESG in Fixed Income
University Club, 1 West 54th Street

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Expertise

A comprehensive view of the global markets through our ratings and research.



Credibility

Over 100 years of experience delivering forward-looking, independent, stable and transparent opinions.



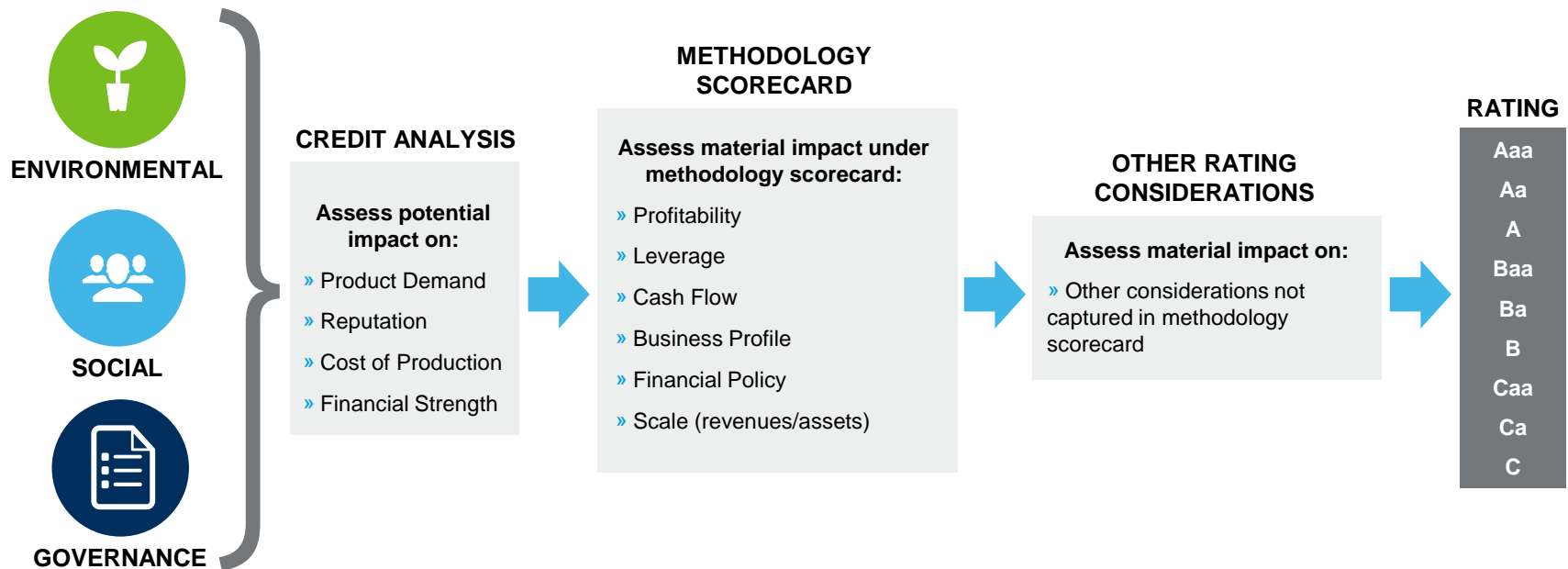
Engagement

Meaningful interactions across multiple channels between our analysts and market participants.



Ratings capture ESG considerations with material credit implications

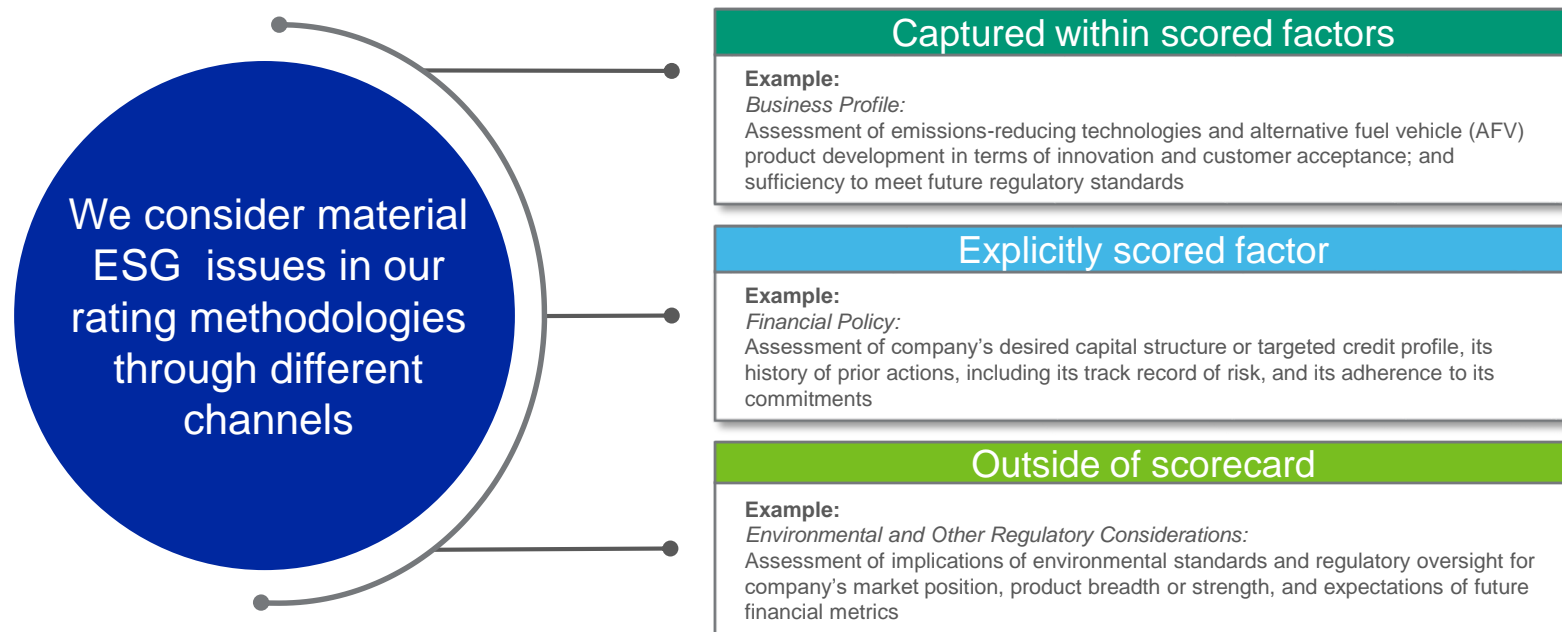
Illustrative example of how ESG considerations are incorporated into our corporate credit ratings



Source: Moody's Investors Service

Rating methodologies capture material ESG issues through different channels

Illustrative example of how ESG considerations are reflected in our methodology for automobile manufacturers



Sources: Moody's Investors Service

...but integrated approach not without challenges



MATERIALITY

Which ESG issues affect credit quality & default risk?



VISIBILITY

What is a “reasonable” time horizon?



APPROACH

Methodologies: “built-in” or “bolt-on” to credit analysis?



DISCLOSURE

Relevant and available data to measure risk & opportunity?

Increasing Transparency on How ESG Affects Credit Risks



Analytics



Research



Outreach



New analytical tools



Dedicated ESG
research hub



Engaging investors &
issuers on ESG issues



Cross-sector ESG
methodology



Language in credit
opinions



Market partnerships
(PRI, IIGCC)

Four Components of Moody's Analytical Approach to ESG



Greater transparency in Credit Opinions on which ESG are material to a specific issuer



Assessments are issuer-specific scores that provide rank ordering of issuers along a single ESG risk. Typically applied to sectors that rank as high risk in heat maps



Framework Reports describe Taxonomy of ESG risks



Heat maps provide relative ranking of various sectors along the ESG taxonomy of risks



Credit relevant ESG “Taxonomy” created



ENVIRONMENTAL

- Air pollution
- Carbon regulations
- Natural & man-made hazards
- Soil/water pollution & land-use restrictions
- Water shortages

*Environmental subcategories from heat map. Carbon regulation exposures provide starting point for carbon transition series; natural & man-made hazards for physical risks series .



SOCIAL

- | | |
|-------------------------------|--------------------------|
| Consumer relations | Access to basic services |
| Demographic & Societal Trends | Demographics |
| | Education |
| Human Capital | Health & safety |
| Health & safety | Housing |
| Responsible Production | Labor & income |

* Categories are for private sector (left) and public finance (right).



GOVERNANCE

- | | |
|---|-----------------------------|
| Board of Director Oversight & Effectiveness | Corruption |
| Compliance, Controls & Reporting | Rule of law |
| Financial Oversight & Capital Allocation | Political representation |
| Management Structure & Compensation | Data transparency |
| Ownership & Control | Credibility & effectiveness |

* Categories for corporates (left) and sovereign (right).

Heat maps provide relative ranking of sectors along ESG taxonomy categories

Environmental Risks Heat Map



84

Global industry sectors assessed



\$75

Trillion of US dollars in rated debt



5

Subcategories of environmental risks

Air Pollution



Soil/Water Pollution & Land Use Restrictions



Carbon Regulations



Water Shortages

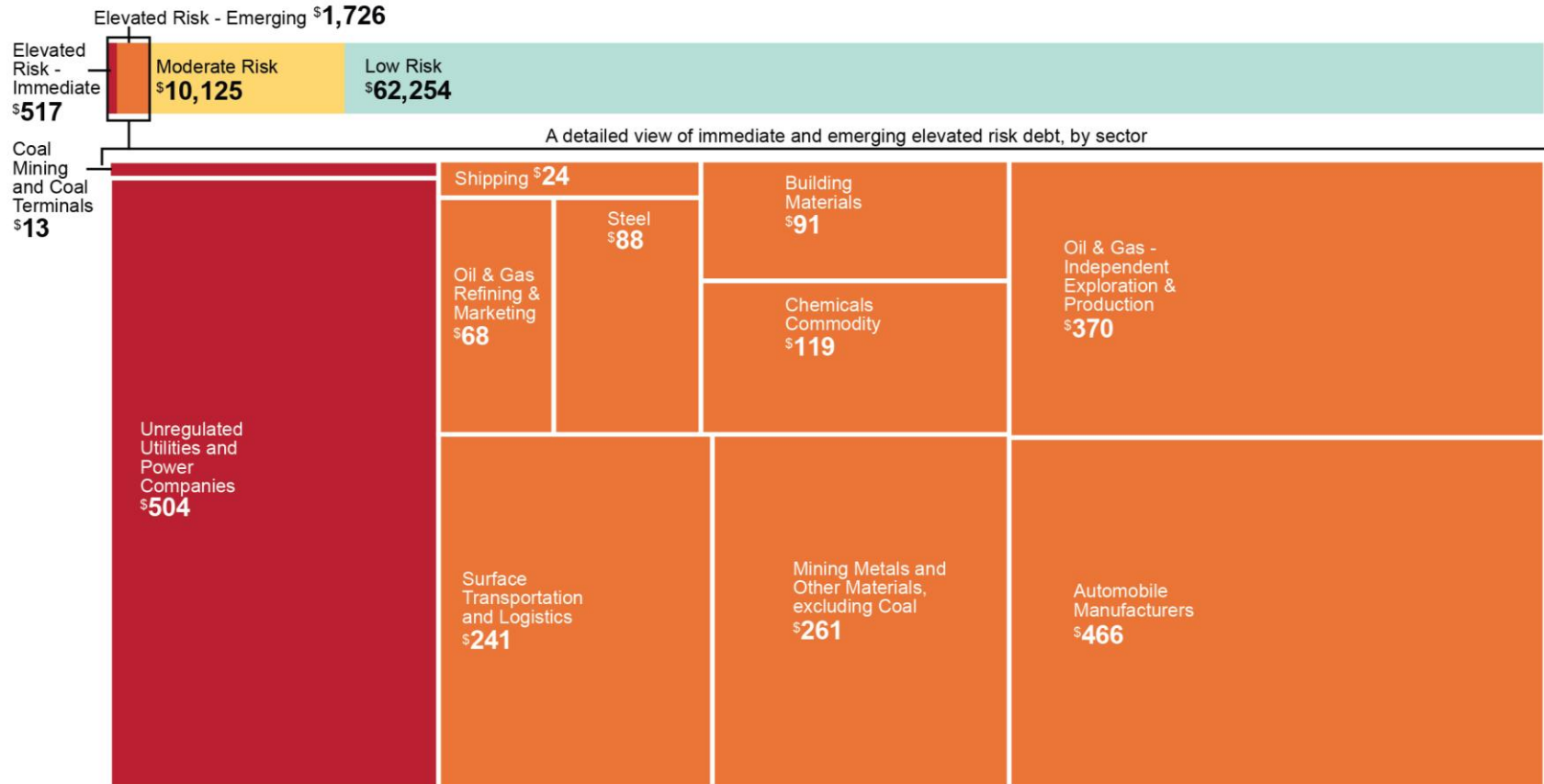


Natural & Man-made Disasters



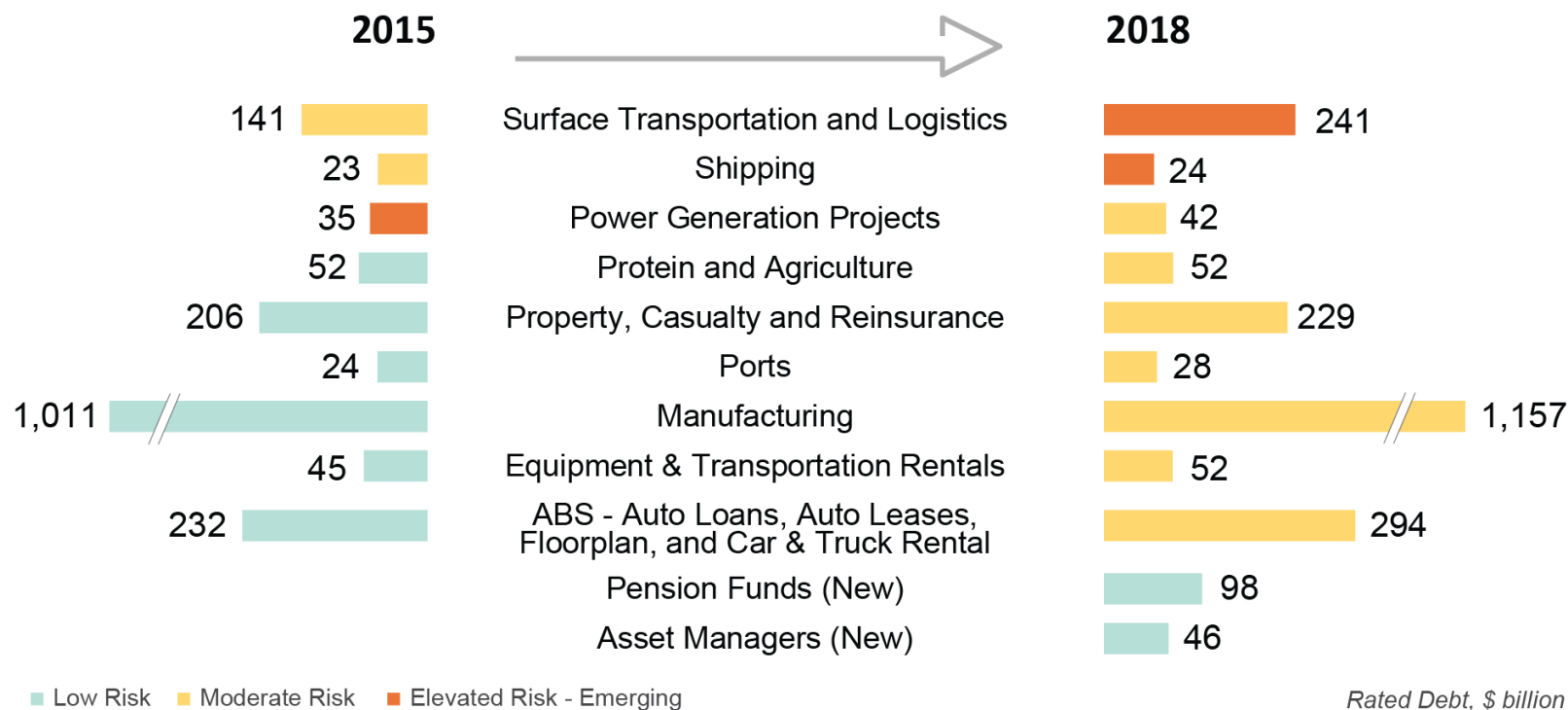
11 sectors, \$2.2 trillion have elevated credit exposure to environmental risks

KEY: ■ Elevated Risk - Immediate ■ Elevated Risk - Emerging ■ Moderate Risk ■ Low Risk



Environmental exposures are not static

Change of scores for ≈10% of sectors, two new additions



Note: See [Environmental Risks: Heat Map Shows Wide Variations in Credit Impact Across Sectors](#), November 2015.

Source: Moody's Investors Service

Governance Assessment Tool Launched

- » Governance assessments (GAs) are not credit ratings and do not directly impact credit ratings.
- » GA provides a stand-alone assessment of governance risks, relative to Moody's benchmarks, from the perspective of potential impact on creditors.

Broad corporate governance components	Factor weighting	Sub-components	Sub-factor weighting
Ownership & control	20%	Voting rights and ownership structure	10%
		Related party transactions and conflicts of interest	10%
Management compensation design & disclosure	20%	Compensation disclosure	10%
		Compensation design	10%
Board of director oversight & effectiveness	20%	Board of directors leadership & independence	10%
		Director qualifications, experience & refreshment	10%
Financial oversight & capital allocation	20%	Share buybacks and distributions	6.7%
		Asset sales, divestitures or other transactions	6.7%
		Mergers and acquisitions	6.7%
Compliance, controls & reporting	20%	Transparency, timeliness and accuracy of financial reporting	6.7%
		Audit quality	6.7%
		Compliance controls & operational history	6.7%

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Managing Director
Public Project and
Infrastructure Finance

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