

Measuring impacts of ESG risks in your credit portfolio

Partnering with Moody's for the Journey **Kulvinder Panesar**, Director, Advisory Services

Deliver comprehensive, consistent and actionable ESG insights to augment risk management frameworks

Our ESG Mission

Enable our clients to make confident business decisions about ESG

Prepare experts for an uncertain future with an agile toolkit of solutions

Defining ESG

The Three Pillars of Sustainability



Climate Change

Biodiversity

Energy Consumption Pollution

Waste

Management

Equality

Inclusiveness

Labour Relations

Workplace Health

Workplace Safety

Human Capital

Communities

Executive Tax Avoidance Leadership

Board Independence

Shareholder Rights

Corruption & Bribery

Executive Pay

Internal Controls

Audits

ESG is more critical than ever



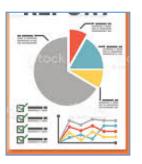
Achieving Business Resilience



Green Recovery Funding



ESG-aligned companies have better returns



Increased ESG Reporting requirements



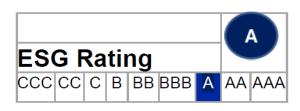
Integrating
Climate Risk in ERM



Addressing ESG impact in global value chains



Sustainable Finance for corporates and SMEs



ESG rating for firms of all sizes

Environmental Heatmap: Covered Debt in 2022

Source: MIS - Sector in depth research: Sectors with heightened credit risk account for twice as much debt as in 2015



Sectors with higher environmental credit risk % increase since 2015

14 sectors with high inherent exposure to physical risk largest total debt covered

6.4T

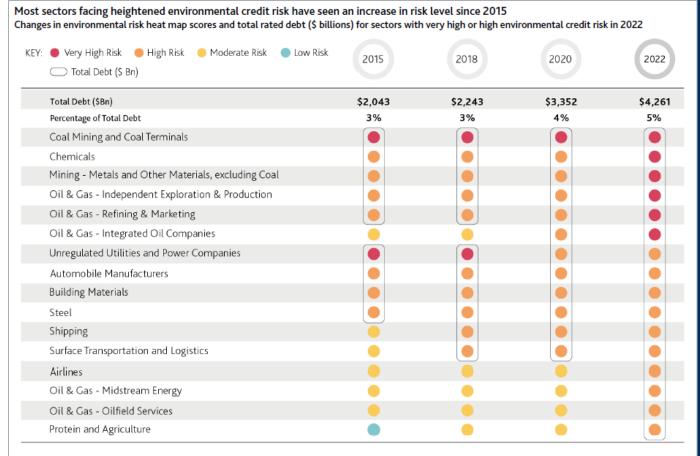


16 sectors with very or high exposure to carbon transition

represent a total debt of

20 sectors with mild environmental credit risk represent a total debt of

7.9T

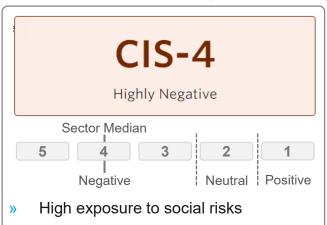


Our 2015 and 2018 heat maps referred to very high and high risk as elevated-immediate and elevated-emerging, respectively. Source: Moody's Investors Service

South Africa ESG Credit Risk

Credit Impact Score

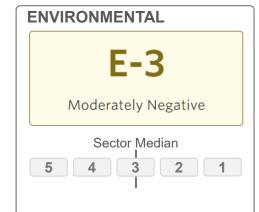
Outputs of the credit rating process that communicates whether and how much ESG considerations impact the credit rating



- Moderately negative exposure to environment risks
- Relatively low resilience as the weak public finances and relatively low income levels constrain capacity to respond to environmental and social shocks

Issuer Profile Scores

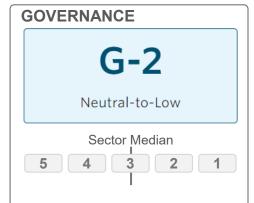
Inputs to the credit rating process which assess exposure to credit material E, S and G considerations



- Exposure driven by water and physical climate risks.
- Unsafe drinking water and severe droughts.
- As climate change intensifies, water scarcity is likely to become increasingly constraining



- Very high exposure to labour and income risks
- High exposure to health and safety risks.
- Highest levels of income inequality
- Very high unemployment especially amongst the young



- South Africa not strong enough to mitigate exposure to social and environmental risks.
- Government's high/rising debt burdens, low income levels constrain financial capacity to respond to environmental and social risks

Sector Medians reflect the calculated sector median for scored entities in the Sovereigns - Emerging Markets ESG credit sector Source: Moody's Investors Service

ESG and Climate regulations are picking up globally

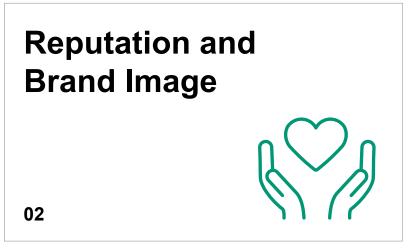


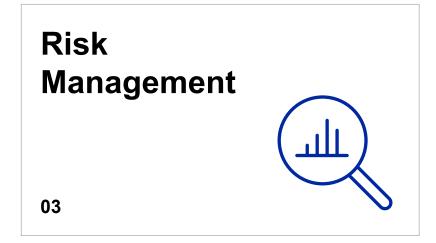
Why ESG is relevant for South Africa

South African Reserve Bank (SARB) has provided guidance on the integration of ESG into banks' risk management frameworks and processes

South African National Treasury unveiled its Green Taxonomy, largely building on the EU framework, aimed to be brought into law in 2023











"available data should be used to identify and develop the weaknesses of players who are already on their team"

Jan Van Haaren, Chief Analytics Officer at SciSports

Phased Approach to Transformation

Integrating ESG into your business for competitive advantage

Governance

- » Board and management understand ESG-related financial risk exposures
- Monitor risk, ways these risks could evolve within the bank's strategy, risk appetite, financial, capital and operational plans
- » Clear accountability for managing and controlling exposure to ESG risk

Policy, Procedures and Limits

- Manage and track, risk appetite, concentration limits, credit exceptions related to ESG risk
- » Automated policy fields ensure consistent application of credit policy
- » ESG specific areas in lending for CRE, Mortgage, C&I should be focused initially

Strategic Planning

- Overall business strategy and risk appetite should consider ESG related financial exposures over various time horizons
- » Gauge impact of ESG-related financial risk exposures on the bank's financial condition, operations (including geographic locations), and business

Risk Management

- » Develop processes to measure and monitor material ESG-related financial risks and to inform management about the materiality of those
- » Key risk metrics, limits and other KPI
- » Exposure analysis, heat maps, ESG risk dashboards, and scenario analysis.

Reporting and Disclosures

- Incorporate ESG related financial risk information into internal reporting monitoring and escalation processes
- Report and disclose aggregated risk data that reflect exposures to ESG and climate risks to enable the management body, board, investors and stakeholders to make informed decisions.

Roadmapping ESG as a Capability

Identification & Portfolio Credit **ERM** Multidisciplinary Data & Workflows **Fundamentals Scenarios** Measurement **Segmentation Framework** C&I Credit Lending **Environmental Risks** C&I Data Segment x Materiality x Other » asset/borrower Physical Climate Risks » default probabilities » credit origination » by source: cash Water Management properties » loss given default » loan monitoring flows, expenses C&I » supply chain Waste & Pollution » expected loss portfolio monitoring and revenues **Natural Capital** » credit ratings » relationship » emissions » assets and equity Sustainable ratings changes » liabilities management Development **CRE** » spreads » opportunity Forward-looking » sensitivities identification **Social Factors CRE & Mortgage ESG** risk factors **Trade Customer Relations** » NOI, rent, vacancy » regulatory Finance **Market & Liquidity** Strategic Planning **Human Capital** and cap rate framework » equity prices » capital planning Demographic & Social » property values » emissions targets Trends » commodity prices » portfolio » energy savings and adaptation Asset class x » Health & Safety exchange rates management retrofit costs strategies Responsible Production » interest rates » internal target » insurance costs planning » bonds **Governance Factors** » funds » Financial Strategy & Group » CMBS, RMBS **Regulatory Exercise** Risk Mat. scenario analysis Management Credibility stress testing & Track Record Compliance & Reporting Reporting » heat maps benchmarking Segmentation by ESG risk spread ESG risk-adjusted » materiality » disclosures data quality check emission levels cost of capital PDs and Ratings portfolio (e.g. TCFD) data verification and ESG Scores profitability concentrations » net zero targets

Impact of ESG on the bottom line

nnovate Revenues **Brand Market Share** Reputation Management **New Market Entry Employee Attraction and Retention** Innovations and New Products **Customer Preferences** New business models Certain/Short-term Less Certain/Long-term **Cost Reduction Risk Management** Value Chain Efficiency Operational Risk Management Operational Efficiency Regulatory Management **Employee Productivity**

Identifying ESG drivers of credit risk



ENVIRONMENT

- » Carbon Transition
- » Physical Climate Risks
- » Water Management
- » Waste & Pollution
- » Natural Capital

SOCIAL

- » Customer Relations
- » Human Capital
- » Demographic & Social Trends
- » Health & Safety
- » Responsible Production

GOVERNANCE

- » Financial Strategy & Risk Management
- » Management Credibility & Track Record
- » Organization Structure
- » Compliance & Reporting
- » Board Structure, Policies & Procedures

Our approach to incorporate ESG into Credit



Moody's ESG methodologies

Leverage Moody's ESG methodologies for identifying key ESG drivers for assessing credit risk for Corporates, Financial Institutions and SMEs



Data

Automated factor population powered by Moody's ESG Score Predictor and MESG analyst driven assessment scores



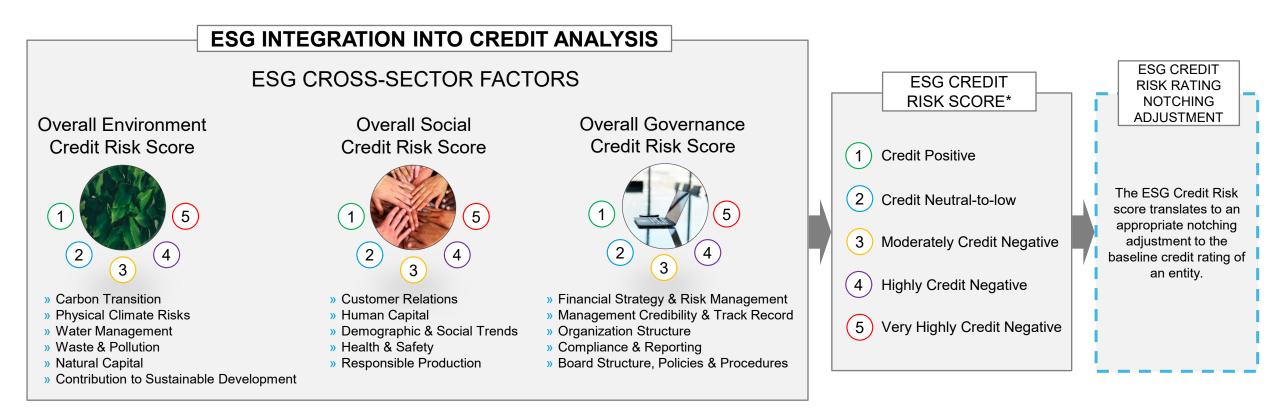
Calibrated and tested against Moody's Investor Service Credit Impact Scores and additional SMEs portfolio





Moody's ESG Credit Risk Scorecard

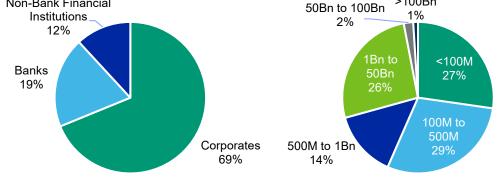
Easy to use and transparent framework



^{*}The ESG Credit Risk Score is an output of the scorecard that transparently communicates the impact of ESG considerations on the credit rating of an entity.

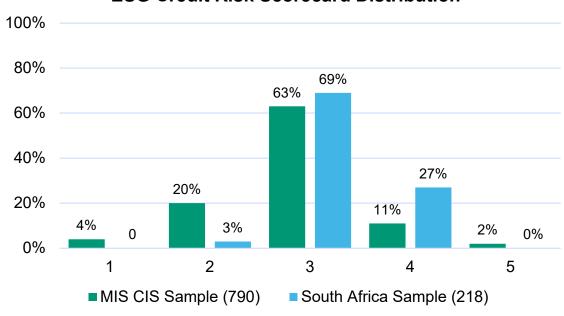
South Africa Sample Portfolio

South Africa Sample Segment Breakdown South Africa Sample by Asset Size Non-Bank Financial >100Bn 50Bn to 100Bn Institutions



- Average ESG Credit Risk for South Africa sample portfolio was 3 indicating moderately credit negative impact to ESG which is higher than MIS CIS sample
- Translates to no overall notch impact to the portfolio overall
- However, some entities identified with high credit negative impact to ESG risks need to be reviewed/managed

ESG Credit Risk Scorecard Distribution



| | Average ESG Credit Risk Score | Average Notching Impact to Baseline Rating |
|---------------------------|----------------------------------|---|
| MIS CIS Sample (790) | 2.86 | 0 |
| South Africa Sample (297) | 3.25 | 0 |

Concluding Thoughts

- » ESG is a real risk and has a credit impact. Bank need to take these risks into account in their risk management frameworks and processes
- There is the opportunity to do something now rather than later when there could be more detrimental financial impact
- » An opportunity to align target segments in their portfolio to more sustainable industries and contribute to sustainable development goals in the country and region.







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