Indian Infra Credit Risks with ESG Lens

S&P Global Ratings

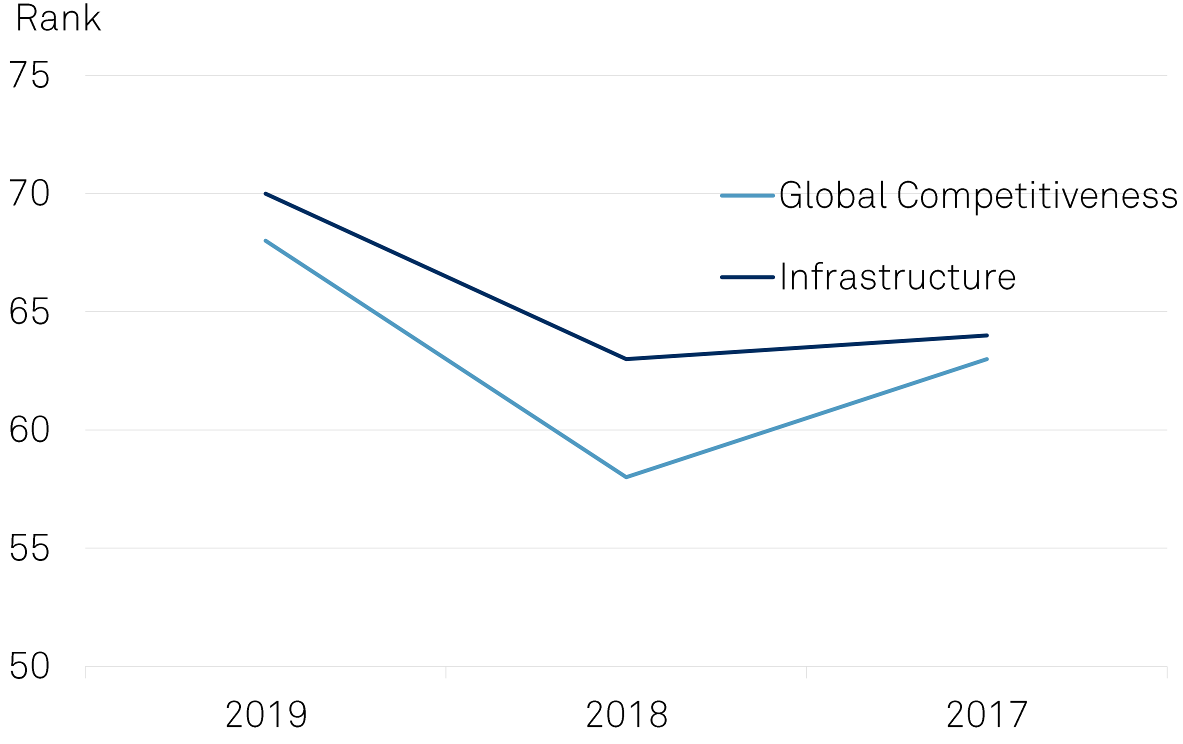
Abhishek DANGRA
Senior Director
Sector Lead: Infrastructure Ratings

Feb-2021

S&P Global
Ratings

India Infra | Infra Deficit Weighs on Competitiveness

Infrastructure Deficit Weighs on India's Competitiveness



Source: World Economic Forum

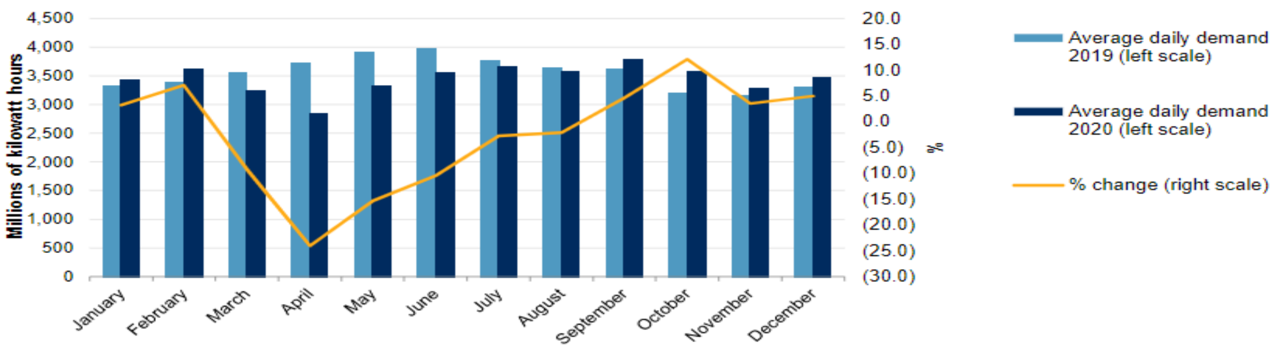
Key Idiosyncratic Risks for Indian Infrastructure and Impact on Foreign Debt Investors

- Execution Risk: Right of Way, Environmental clearance, Land acquisition, stalled projects
  - Many debt investors look at only operational projects
- Regulatory Risk: Varies sharply across sectors, Higher for Airports, lower for Utilities/Renewables.
  - Impacts sectoral exposure
- Weaker Counterparty: Risk of counterparty default, Receivables delay.
  - Build buffer in pricing, affects project economics/returns
- Macro Risks: Currency Risk, Interest Rates
  - Hedging/Pricing

S&P Global Ratings

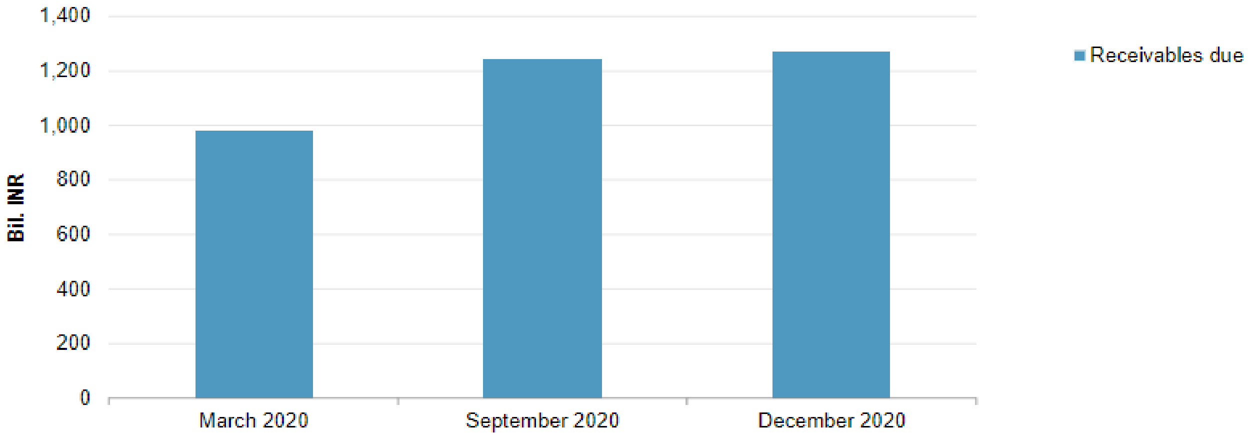
India Power | Stable Regulations Support, Receivables Drag

India's Power Demand Is Returning To Growth



Note: India had a nationwide lockdown during March 25, 2020 to May 31, 2020. Source: Power System Operation Corp. Ltd.

Overdue Receivables Are Rising In The Power Sector



Bil.--Billion. INR--Indian rupee. Source: Ministry of Power.

Source: Cross-Sector Outlook: India's Escape From COVID, Feb 16, 2021

Regulatory Mechanism & Policies Support Cash Flows

- Fixed tariff/ regulated returns, availability-based payments support stable operating cash flows
- Favorable renewables policies and growth prospects & competitive prices attract significant FDI.

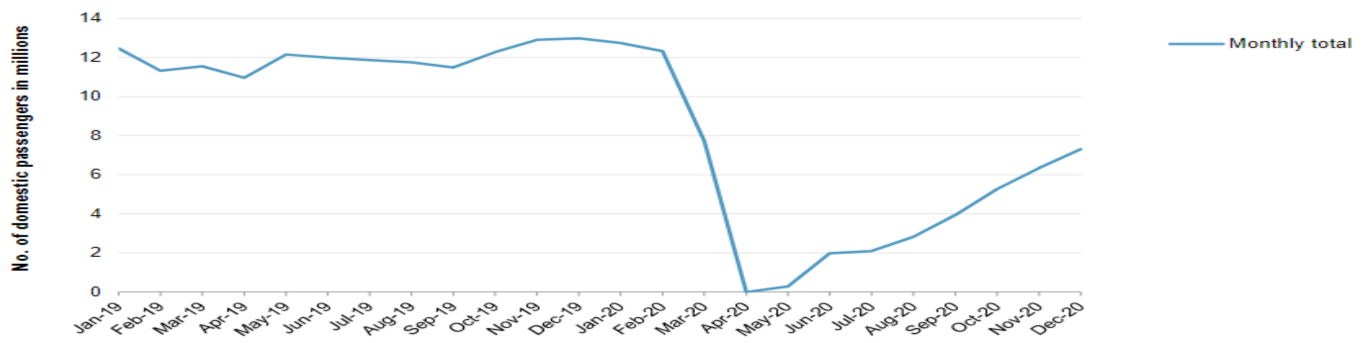
High Receivables & Weaker Counterparties Pose Risks

- Increase in overdue receivables post-March continues for already weak distribution companies (discom)
- Budget plans for supporting discoms. Effect of these moves won't be evident in the next one to two years.
- Structural problems remain.

S&P Global Ratings

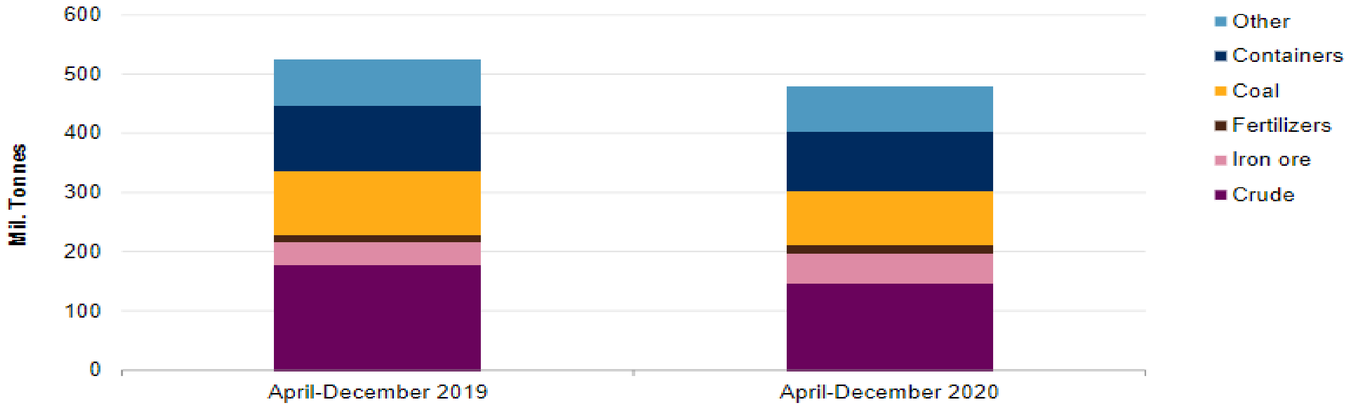
India Airports, Ports and Roads| Varied Setting

India's Air Traffic Is Recovering From Its COVID Lows



Note: Indian air travel was locked down from March 14, 2020 to May 31, 2020. Source: Directorate General of Civil Aviation.

The Recovery Of India's Ports Will Track The Wider Economy
Tonnage of 12 major ports



Mil.--Million. Source: Indian Ports Association.

Source: Cross-Sector Outlook: India's Escape From COVID, Feb 16, 2021

Airports: High Regulatory, Traffic Risks

- Regulatory Delays, Ambiguity lead to uncertainty in cash flows.
- Passenger Traffic recovery unlikely till 2024.

Ports: Light Regulations, Market Driven

- Growth in volume to track economic rebound.
- Fertilizers and container traffic recover faster than crude and coal segments

Roads: Fast Recovery, NHAI support

- Despite tariff suspension, proactive role played by NHAI in making timely payments.
- Hybrid Annuity Model (HAM) mitigates traffic risk.
- Strong recovery in road traffic masks differences among segments.

Sustainability/ESG | Increasing Focus and Impact

1. ESG-related impacts on a company's performance are becoming increasingly obvious as climate change is causing more extreme weather events
   - Changing customer product/brand acceptance, preferences, and behaviors
   - Physical asset risks
2. Environmental and social regulations/public policies are tightening to address shift in societal priorities
   - Changes in public policy may influence the economics of a sector or individual company and can lead to stranded asset risk
   - A company's management of political/regulatory relationships increasingly intertwined with ensuring broader public acceptance
3. The frequency and severity of financial consequences have surged
   - ESG-related breaches or perceived lack of focus on customers/communities are triggering more decisive action and litigation/financial penalties risk
   - Companies having higher ESG risk may see a rise in cost of capital/reduced access to funding

How ESG factors impacted 2020 Rating Actions.

– **We only tag COVID as ESG 'Health & Safety' if COVID had a 'direct' impact on business activities**, not because of the ensuing economic crisis, i.e. applying to activities that are highly sensitive to social distancing and health of customers and employees.

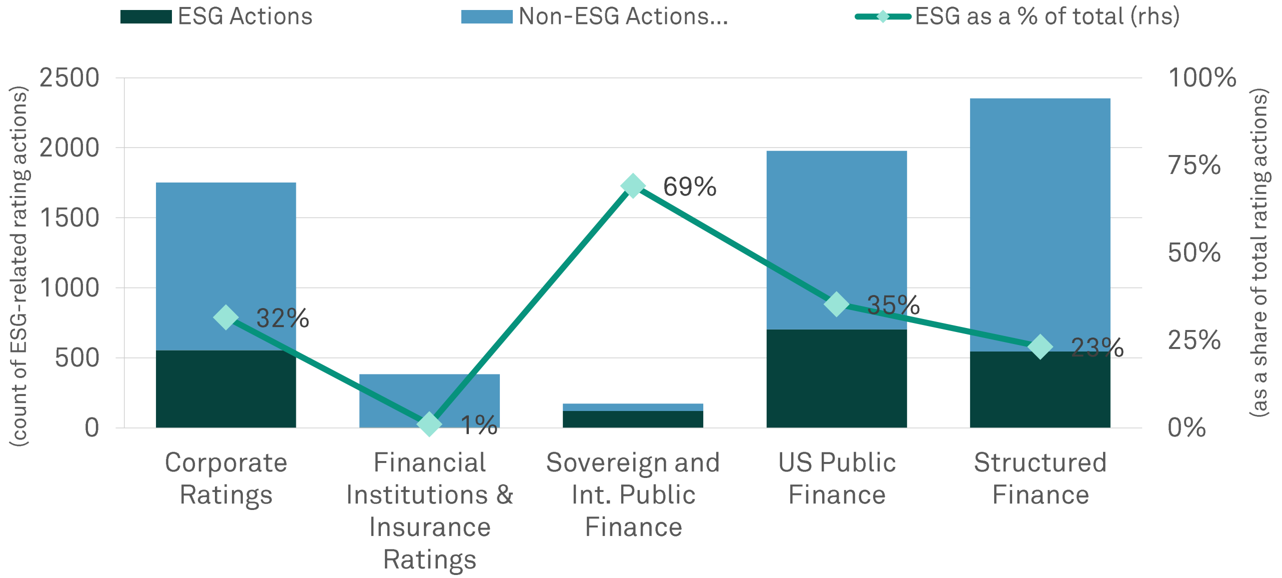
– ESG Pulse: Reimagining Accounting To Measure Climate Change Risks, Dec. 22, 2020

Corporates And Infrastructure ESG-Related Rating Actions

	Apr-Nov	% of total ratings affected
Downgrade	329	
CreditWatch Neg	44	
Negative Outlook revision	202	
Total ESG related Rating actions*	617	16
o/w Transportation	92	40
o/w Hotels and gaming	85	68
o/w Media and Entertainment	65	50
o/w Retailing	55	43

Data as of Sept. 30, 2020. *Including 42 positive actions.
Source: S&P Global Ratings.

Rating Actions (April - November 2020)



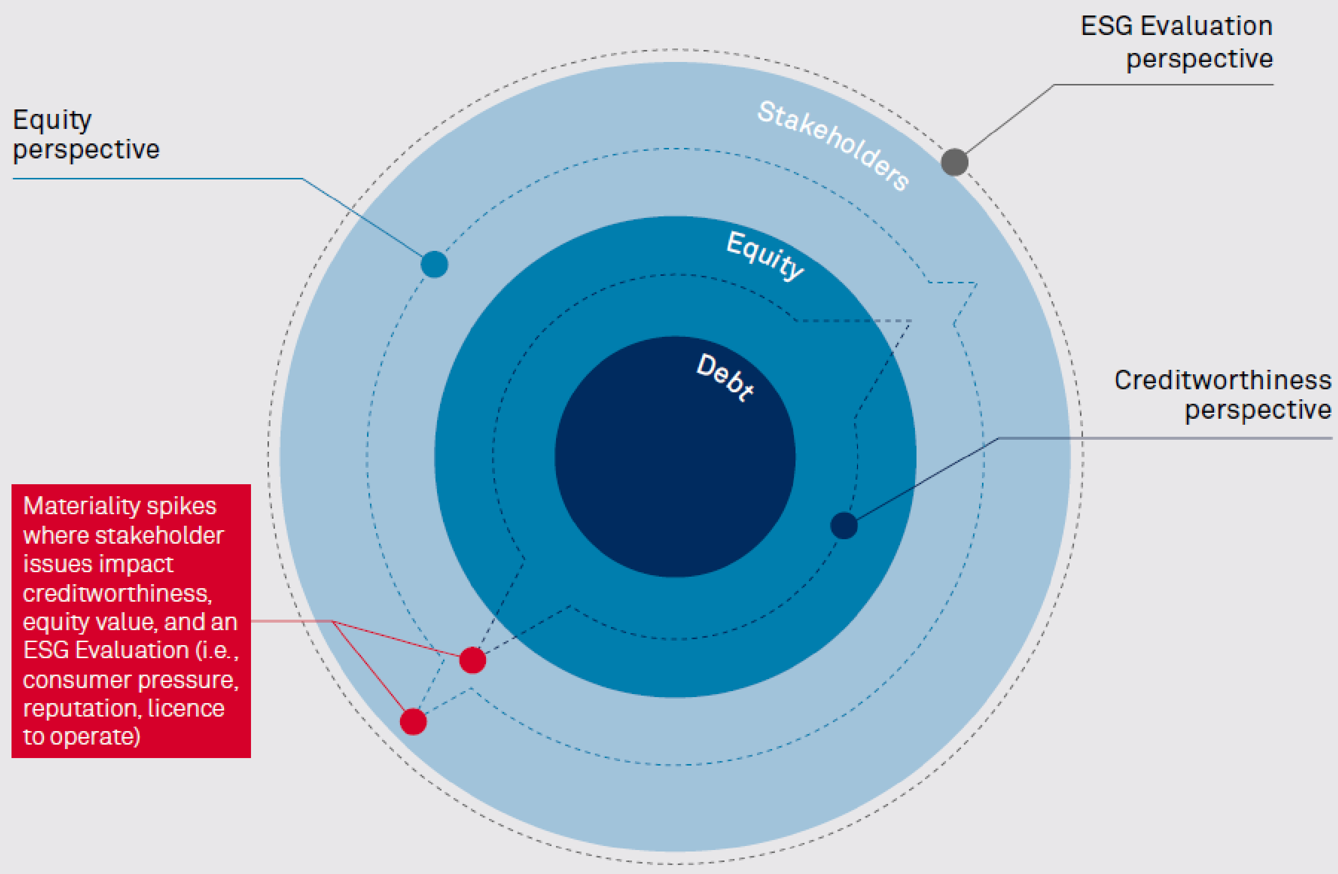
Note: Global scale issuer-related actions, except for issue-level actions for structured finance. Entities/ tranches with multiple rating actions are only counted once.

S&P Global Ratings Initiatives in Sustainable Finance & Research

1. **ESG in credit ratings**
   - Long incorporated ESG into our credit analysis

2. **ESG Evaluation**
   - Relative ranking of how effectively an entity manages its ESG exposure and opportunities
   - Relative exposure to observable ESG-related risks and opportunities (the ESG "Profile"), with our qualitative opinion of long-term preparedness for ESG related opportunities and disruptions (ESG "Preparedness")

3. **Green Evaluation**
   - A relative green impact score on instruments (typically bonds and loans) targeted at financing environmentally beneficial projects



Source: "S&P Global Ratings' Proposal For Environmental, Social, And Governance (ESG) Evaluations", published on RatingsDirect on Sept. 24, 2018.

ESG Factors

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

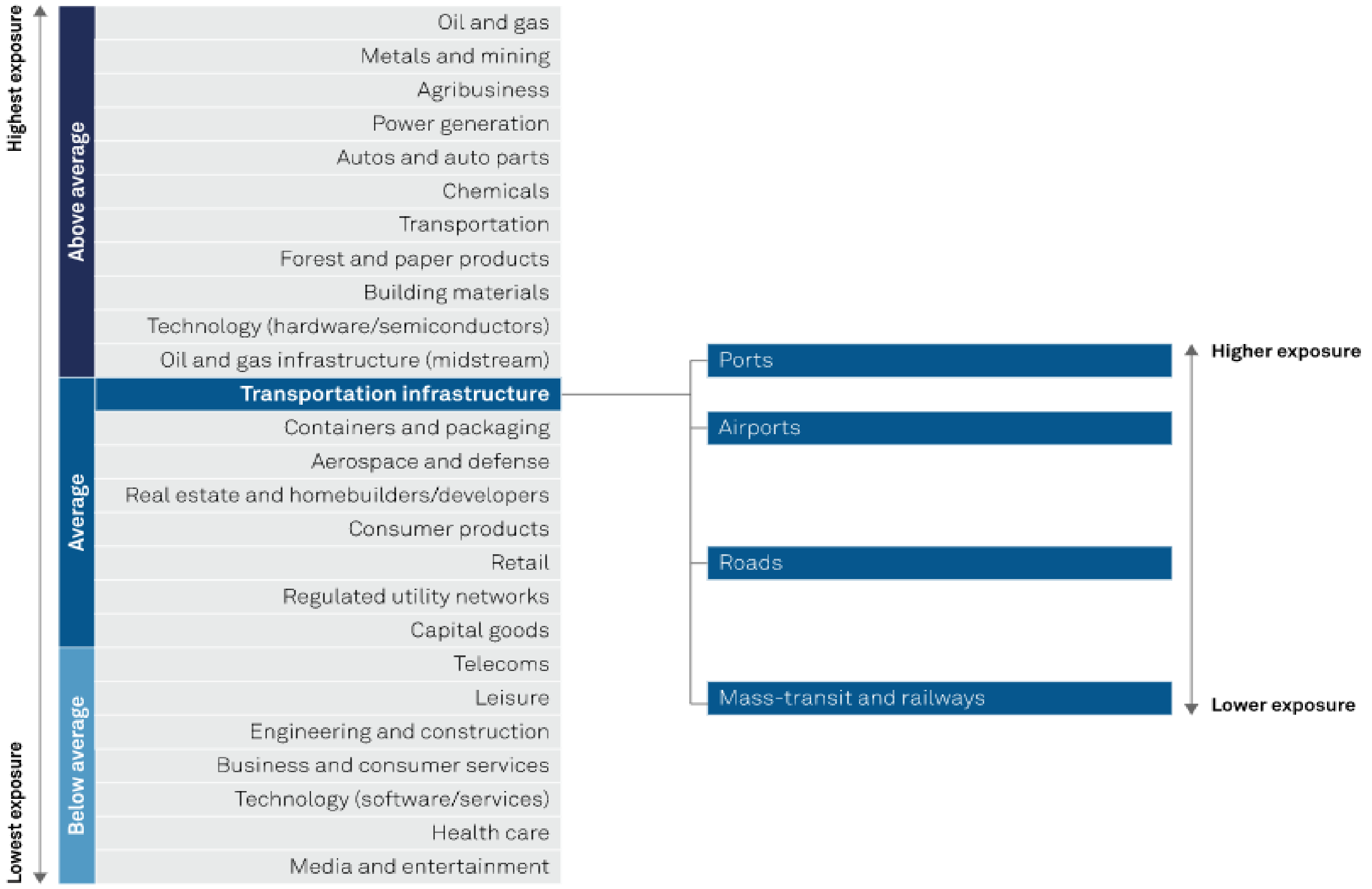
Environmental	Social	Governance
Greenhouse Gas Emissions	Workforce & Diversity	Structure & Oversight
Waste & Pollution	Safety Management	Code & Values
Water Use	Customer Engagement	Transparency & Reporting
Land Use	Communities	Cyber-Risk & Systems

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

Transportation Infrastructure: Environmental Exposure

Qualitative Sector Listing Of Relative Environmental Exposure: Transportation Infrastructure

Greenhouse gas emissions, waste, pollution, and land use



Source: S&P Global Ratings.

E&S Risk: Land Transport - General

Average Environmental Risks But Socially Sensitive

Rail & Mass Transport:

- Environmental: Below average: Lower emissions, High volume of passengers moved per trip. Exposed to extreme weather risks.

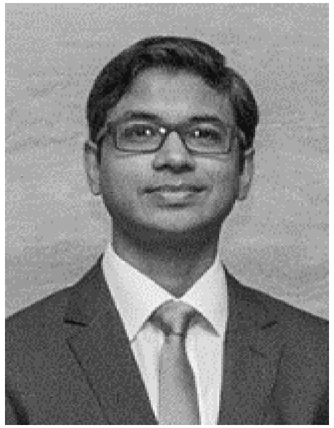
- Social: Above-average: Balancing economic versus environmental and lifestyle factors. Costly and often involves government-provided tariff subsidies. Sensitive to affordability. Service quality attracts high public scrutiny.

Roads:

- Environmental: Average: Emissions is mainly indirect - coming from cars, buses, and trucks. Disruption in technology, e.g. replacement of the fleet by EV, is not expected to significantly affect demand. Climate change can represent a key environmental risk.

- Social: Above-average: Sensitivity on affordability of tolls. Safety risk for assets involving bridges and tunnels. Low-probability catastrophes can have severe negative credit impact.

Analytical Team



Abhishek Dangra
Senior Director
Sector Lead, Infra, SSEA

Abhishek.Dangra@spglobal.com
+65-6216-1121

Abhishek Dangra is a Senior Director in S&P Global Ratings team; based out of Singapore. He is the Sector Lead for all Infrastructure and Utilities companies in South & South-East Asia region (mainly India + ASEAN) covering Regulated Utilities, Renewables, IPPs and Transportation Infra companies like Airports, Ports, Toll Roads etc.

Abhishek represents S&P's views on Infrastructure sector trends, Green Finance/Green Evaluation and Project Finance transactions in the region.

Abhishek has over 15 years of credit experience; joining S&P in 2010 with over seven years of work experience in credit related profiles. Before joining S&P, he was heading the Industry Research Group - Credit at Kotak Mahindra Bank. Abhishek has also worked with Lehman Brothers in the Global Risk Management function.

Abhishek is a Management Graduate from the Indian Institute of Management (IIM) – Indore and a Chartered Accountant (CA) from The Institute of Chartered Accountants of India. He also has a Bachelor of Commerce (B.Com) degree from Gujarat University and is a Certified FRM by the Global Association of Risk Professionals (GARP).

S&P Global
Ratings