GUIDELINES FOR ESG INTEGRATION IN EQUITY ANALYSIS AND PRESENTATION IN ANALYST RESEARCH REPORTS

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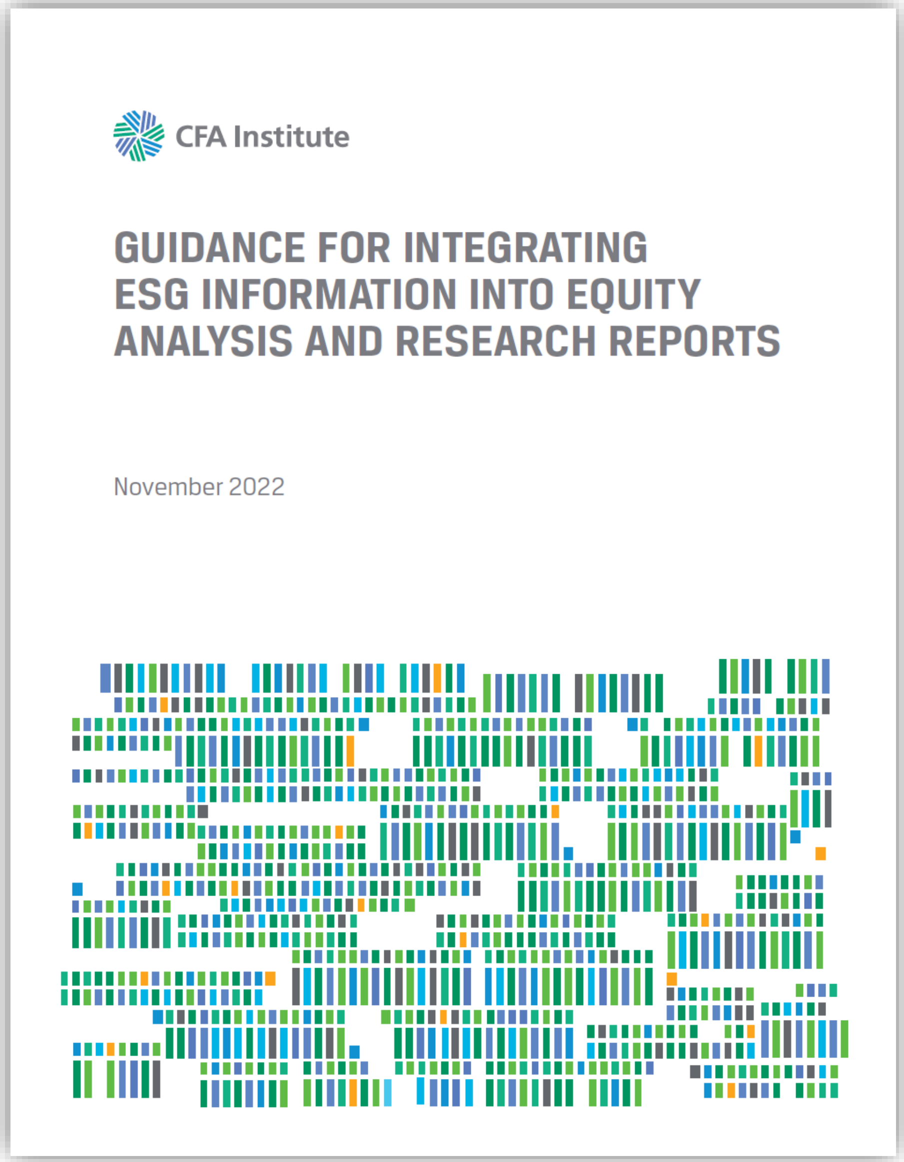
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Global Industry Standards

Guidance for Integrating ESG Information into Equity Analysis and Research Reports

Deborah Kidd, CFA

November 2022

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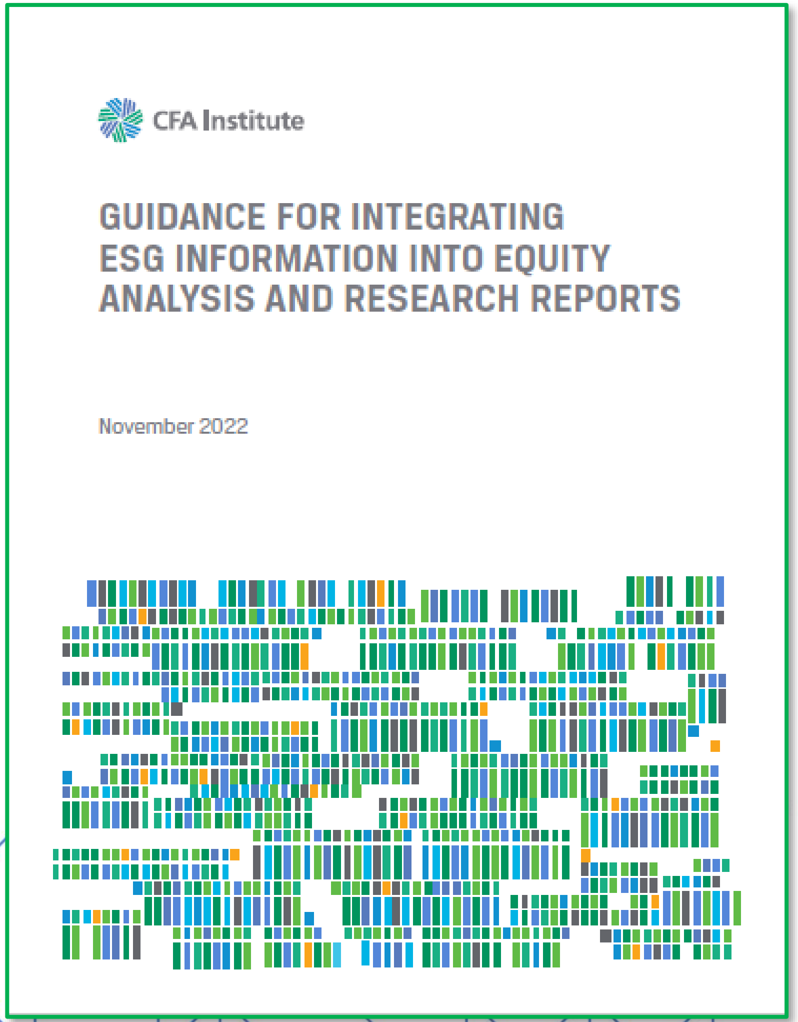
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CFA Institute Resources

CFA Institute Positions on Environmental, Social, and Governance Integration

Guidance and Case Studies for ESG Integration: Equities and Fixed Income

CFA Institute Standards of Practice Handbook

Global ESG Disclosure Standards for Investment Products

+ others

INTEGRATING ESG INFORMATION INTO EQUITY ANALYSIS AND RESEARCH REPORTS

Identify ESG information → Assess materiality of ESG information → Integrate into analysis and valuation → Present in research report

ESG INFORMATION

Sources

- Company disclosures and publications
- Meetings and correspondence with company management
- Site visits
- ESG data providers
- Industry trade organizations
- Government records
- Non-profit organizations
- Media sources

Quality

- Assumptions used
- Rigor of the analysis performed
- Date/timeliness of the research
- Evaluation of the objectivity and independence of the recommendations

MATERIALITY

- Sector/Industry
- Company-specific
- Location
- Governance
- Climate Change
- Investment Horizon

CFA INSTITUTE/PRI ESG INTEGRATION FRAMEWORK

INTEGRATING ESG INFORMATION

Valuation Methodologies

- Forecasted Financials
- Forecasted Financial Ratios
- Valuation Multiples
- Valuation Model Variables
- Security sensitivity/Scenario Analysis

CASE STUDIES ON INTEGRATING ESG INFORMATION

Case Studies

- Adjusting Costs and Revenue
- Adjusting the P/E Multiple
- Using ESG Scores in Valuation Models
- ESG Scenario Analysis

ESG IN A RESEARCH REPORT

Elements of a Research Report

- ❑ Analyst Opinion
- ❑ Disclosure of ESG Information in Analysis and Valuation
- ❑ Disclosure of ESG Risks
- ❑ Presentation of ESG Information and Analysis

CFA Institute *Standards of Practice Handbook, Eleventh Edition, "*Standard V: Investment Analysis, Recommendations, and Actions" provides guidance on best practices for equity analysis and research reports

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CFA Institute Certificate in ESG Investing

CFA Institute and ACCA Climate Finance Course

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ESG Integration in Equity Analysis – Evolution and the Way Forward

Phineas Glover
Head, ESG Securities Research, Asia-Pacific, Credit Suisse

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Director, Capital Markets Policy, India, CFA Institute

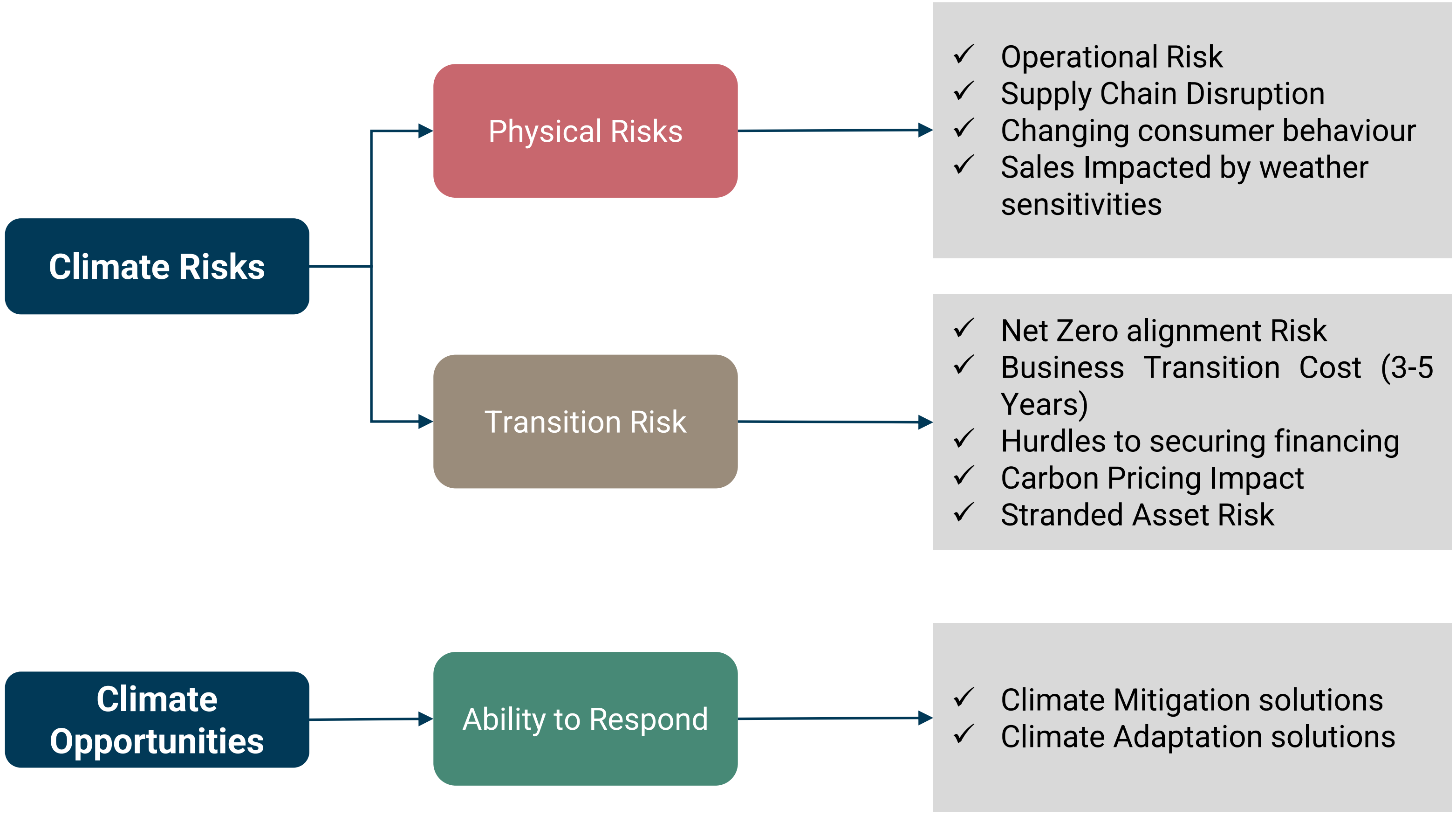
Hardik Shah, CFA
ESG Practice Lead, GMO

ESG INTEGRATION IN EQUITY ANALYSIS

Hardik Shah, CFA

24th November 2022

EVALUATING IMPACT ON INTRINSIC VALUE OF STOCK



INCORPORATING SUSTAINABILITY IN VALUATIONS

Adjusting discount rate and cash flows

VALUATION IMPACT	IMPACT ON DISCOUNT RATE	IMPACT ON BOTH PARAMETERS	IMPACT ON CASH FLOWS
	Uncertain cash flows; difficult to quantify; regulation likely to be announced	Some visibility of cash flows; draft regulations floated	High visibility of cash flows; quantifiable
CLIMATE RISKS & OPPORT-UNITIES	Quality of climate change disclosures	Increase in green capex leads to lower cost of funding	Asset impairments due to energy transition
	Feedback quality of Engagement with management	Carbon pricing cost over medium to long term	Energy efficiency could decrease operating costs

CASE STUDY-INDIAN STEEL COMPANY

SteelCo is India-based steel manufacturing company

Consolidated Balance Sheet (in (₹ crore))

Assets	FY21
Cash and cash equivalents	5,532.08
Property, plant and equipment	1,19,003.50
Inventories	33,276.38
Trade receivables	9,539.84

Equity and liabilities	
Equity	
Equity share capital	1,197.61
Hybrid perpetual securities	775
Other equity	72,266.16
Liabilities	
Trade payables	25,482.83
Tax liabilities	4,424.44
Provisions	4,691.92

Operational Risk- SteelCo's does not operate in locations prone to asset damage or business interruption so very low impact estimated

Supply Chain Risk-

- Australia-the biggest exporter of iron ore, which is one of the major raw materials for steel production, currently is in the list of top 20 countries vulnerable to extreme weather related events
- Since, company is dependent on import of raw materials like iron ore and coal from its captive mines+ other geographies, we assume it will be moderately affected in case of any supply chain disruptions

Note: 1 crore = 10 million

CASE STUDY-INDIAN STEEL COMPANY (CONTD)

After our assessment we found that, SteelCo has Low-Medium impact from physical risk while transition risks gain prominence in its case.

Consolidated Statement of Profit and Loss (in ₹ crore)

Revenue	FY21
Revenue from operations	156294.18
Other income	895.6
Total income	157189.78
Expenses	
Cost of materials consumed	46187.96
Profit/(loss) before tax	13843.69
Tax expense	5653.9
Profit/(loss) for the year	8189.79
Net Income	7490.2
EBITDA	30504.2

Transition Risk- Market Risk

- As the world moves toward low-carbon future, demand is expected to shift towards green steel/less carbon intensive steel
- SteelCo is gradually moving towards green steel production, so impact likely to be less

Physical Risk-Supply Chain Risk- As stated previously, cost of raw materials is likely to increase due to supply-chain disruptions

Transition Risk- Carbon Tax-Impact from Carbon Pricing could be significant. Discussed in the next slide

Note: 1 crore = 10 million

CASE STUDY-INDIAN STEEL COMPANY (CONTD)

For SteelCo, transition risk costs are most significant in our assessment

Consolidated Balance Sheet (in ₹ crore)

Assets	FY21
Cash and cash equivalents	5,532.08
Account Receivable	9539.8
Inventories	33276.38
Property, plant and equipment	119003.5

Equity and liabilities	
Account Payables	25967.4
Accrued Taxes	4424.4
Interests and Dividends Payable	-
Total Equity	77508.4

Consolidated Statement of Cash Flow (in ₹ crore)

Free Cash Flow	30945.5

Stranded Assets-The increased capex will help in reducing carbon emissions which reduces any possibility of significant impairments

Hurdles to securing financing-Being in a GHG intensive sector, the company may face challenges to secure long-term financing as the world transitions away from such business activities

Transition Cost-Cost increase in transitioning business to low-carbon will be high as the company will have to upgrade their equipment and processes

Note: 1 crore = 10 million

IMPACT OF TRANSITION COSTS TO STEELCO

Transition Cost	FY24	
INR Million	Business As Usual Scenario	Including Transition Cost
Revenue	19720444	19720444
EBITDA	345844	328648
Depreciation	106521	107871
Interest	42068	43643
PBT	205587	185466
PAT	149569	129448
Gross Block	2502701	2532701
Gross Debt	562651	583651
ROE	0.12	0.105
ROCE	0.1	0.09

+4%

-13%

-12.5%

Notes:

- ✓ Carbon tax calculated based on IMF's recommended carbon price and assumed to be non-tax deductible
- ✓ The carbon tax assumed to impact EBITDA and it will flow down to the bottom line
- ✓ Company will be required to incur capex to reduce carbon footprint. No guidance given by the company for the amount and timeline of the capex; hence assumed capex of USD2bn over a period of 10 years (taking cue from capex guidance/actuals from peers), which will be funded by 70:30 debt : equity ratio
- ✓ The proportionate impact of capex included in gross block and gross debt; which will lead to higher interest and depreciation cost

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Credit Suisse ESG Securities Research

ESG Integration in Equity Analysis

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24th November 2022

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Our Approach

A lens to understand industry structural change

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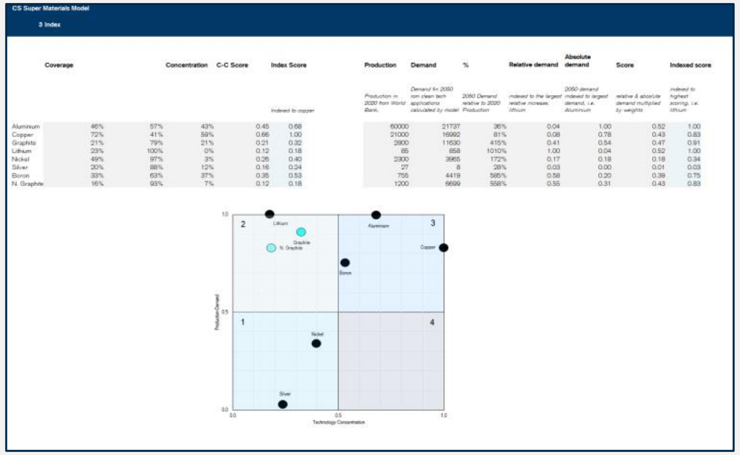
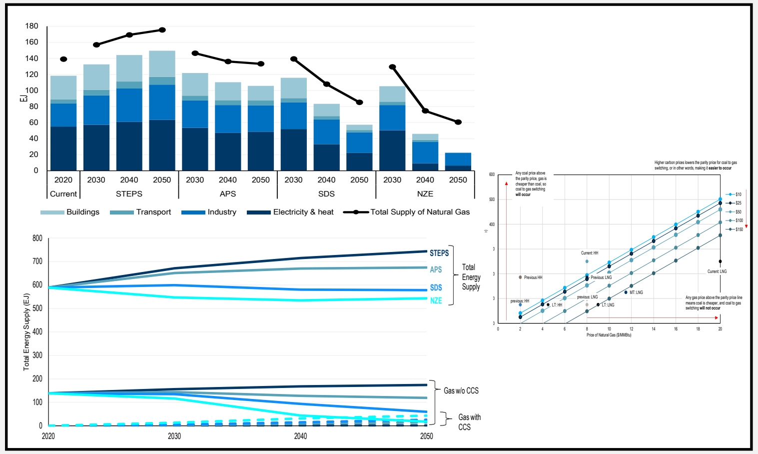
Proprietary Transition Scenario Analyses

1. Climate Transition Super Materials

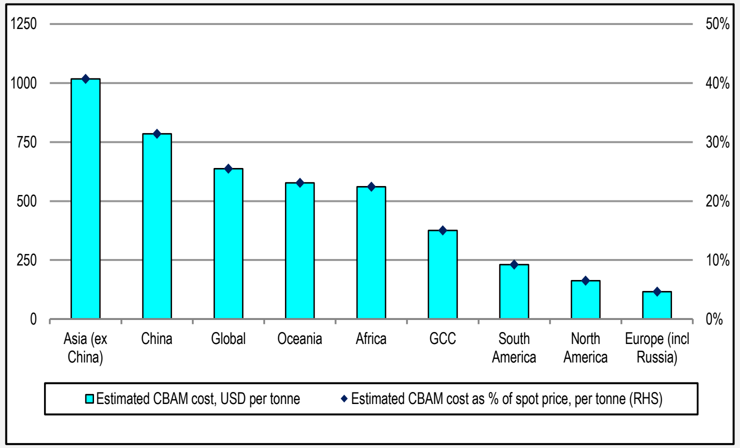


2. Natural Gas Transition



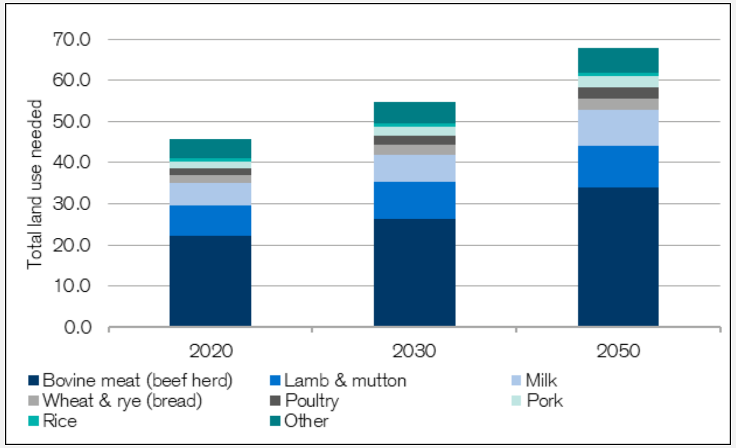
3. Carbon Transition Risk Toolkit

4. Carbon Policy, Markets & Pricing



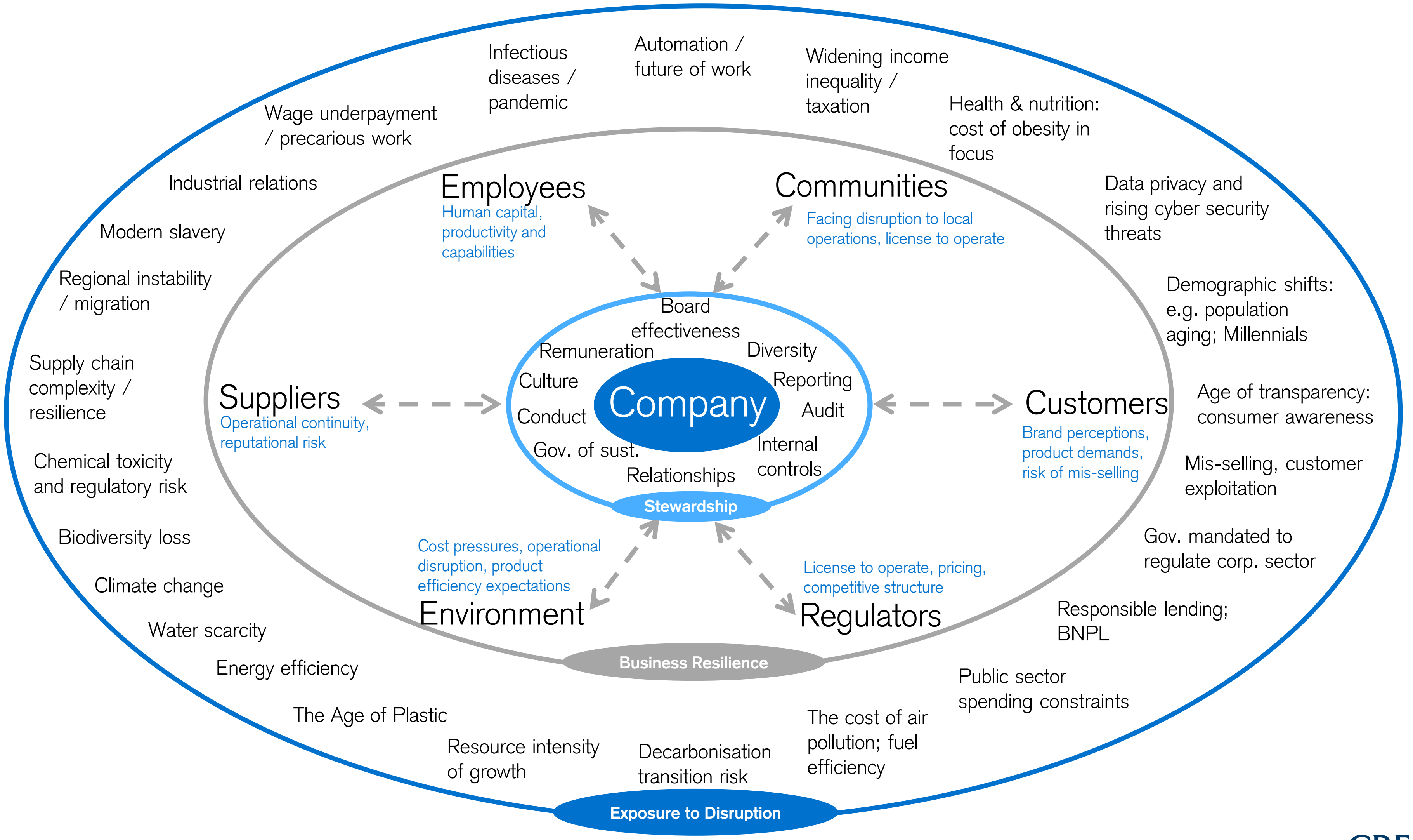
5. Mobility transition

6. Food Transition



Source: Credit Suisse

Sustainable competitive advantage: Place the company at the centre of its changing organisational environment



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How to conceptualise Sustainable Competitive Advantage

1. Thematic Assessment – Exposure to Disruption

Industry Themes	Company Theme	Theme Momentum	CS Product Offering
How + or - exposed to sustainability disruption is the industry? (e.g. Economic, Demographic, Secular, Sustainability Megatrends)	*How + or - exposed to sustainability disruption is the company? (e.g. Economic, Demographic, Secular, Sustainability Megatrends)*	*How quickly is this impacting the industry structure? i.e. an assessment of the progression of the thematic among policy-makers, investors regulators and other key stakeholders*	**Treeprint Series, Sustainable Investment Strategies; Transition Thematics**

2. Business Resilience – Ability to Adapt

Business Systems & Practices	Competitive Position & Industry Structure	Resilience Momentum	CS Product Offering
What is the business preparedness by way of its systems, targets and practices relative to these key disruption themes and sector materiality?	*How + or – positioned is the company within the industry structure to navigate these sustainability themes (e.g. product substitutability, bargaining power of buyers)*	*How quickly are the company and management team adapting to the transition? i.e. an assessment of the momentum in improving resilience and responding to the changing industry structure*	**HOLT, Sector ESG Reports, PEERs**

3. Business Stewardship – Leadership Quality

Corporate Governance	Financial Sustainability	Stewardship Momentum	CS Product Offering
How do we assess the management's and Board's track record of delivering value and navigating disruption? (e.g. Governance, Capital management, Stakeholder management)	*What financial flexibility does the company have to respond to disruption and transition business model to evolving industry structure? (e.g. depreciation / gross cash flow, CFROI)*	*Run a 3 – 5 year track record on the above score, and initially on CG due to data availability*	**HOLT, Sector Research coverage**

Driving fuel demand ‘Down Under’

Australia ESG - modelling the mobility transition

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CS Mobility Transition Scenarios

We combine mobility policy variables in three distinct scenario pathways

To understand what the lower and upper limits of future fuel demand could look like in Australia, we combine the three independent variables to create three distinct scenarios.

The Grey road combines the lowest estimates of each variable or, in other words, the lowest improvement in fuel efficiency, the lowest penetration of EVs and no use of SAF, but includes the highest growth rate assumption for non-road diesel demand at 1% per year. It aligns to a >3° warming scenario globally.

The CS (Base) Road incorporates announced policies to 2030, including the Global Fuel Economy Initiative 2021 target, IATA targets for SAF and holds non-road diesel demand constant. For EV penetration rates we aggregate the State and Territory EV 2030 targets. Subsequently, the IEA SDS is applied post-2030, aligning to a 2° warming outcome and net zero only by 2070 scenario.

The Green Road combines the highest estimates of each variable, amalgamating the assumptions used from the IEA NZE scenario for fuel efficiency, EV penetration and SAF, which aligns to a 1.5°C warming and net zero by 2050. CS NEV sale penetration forecast estimates 50% EV penetration by 2030, which is very close to the NZE scenario, however in this case we test the NZE's upper bound. We assume non-road diesel demand declines at 1% per year.

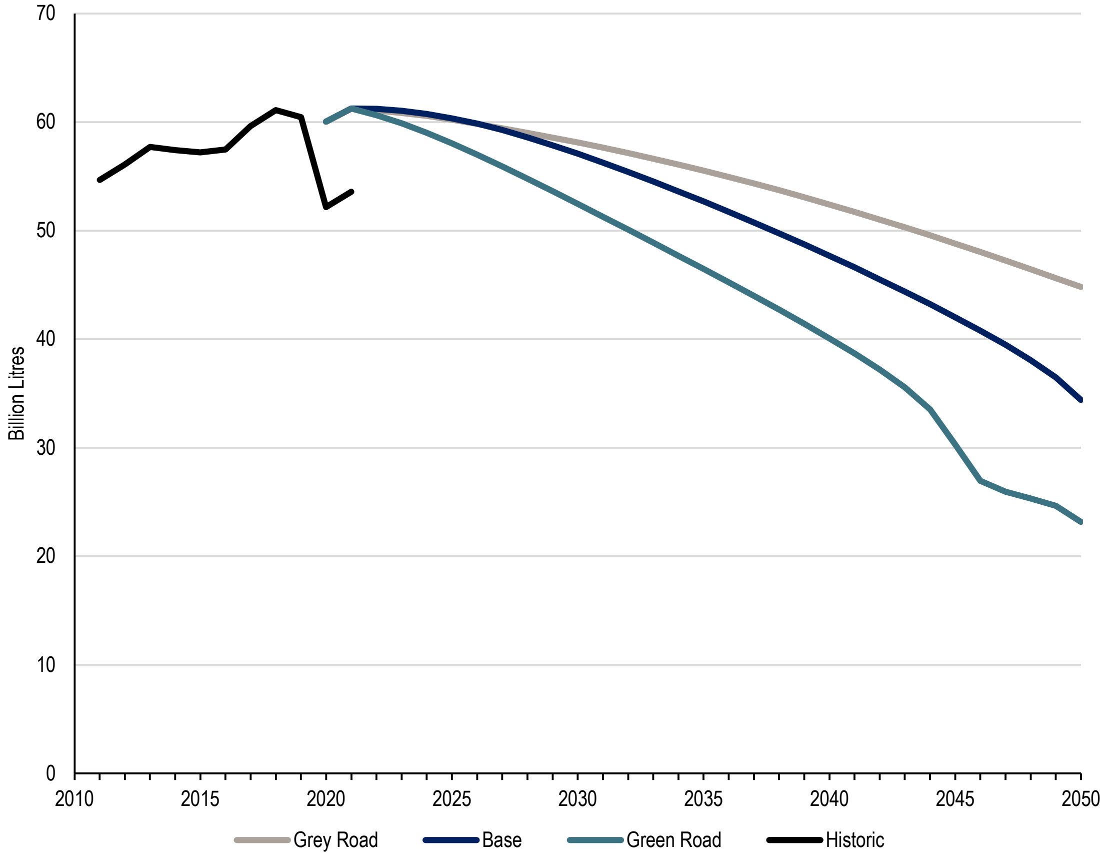
	Scenarios		
Variables	**Grey Road**	**Base**	**Green Road**
Fuel efficiency	1% improvement per year	Industry target of 50% improvement by 2030 and 3% p.a. to 2050	IEA NZE
EV penetration	EV uptake increases, but does not reach majority by 2050	Aus State and Territory target equivalent by 2030 and IEA SDS post 2030	IEA NZE, faster adoption to 2030, reaches 90% of sales in 2050
Sustainable aviation fuel	Jet fuel demand grows at 1.5% p.a. but no SAF	Using IATA target of 50% SAF by 2050 and IEA SDS fuel intensity decrease 3% p.a.	IEA NZE, SAF dominates fuel by 2050 and travel declines by 40% by 2050
Non-road diesel	1% increase in demand per year	0% increase in demand per year	1% decrease in demand per year

Source: Credit Suisse

Scenarios

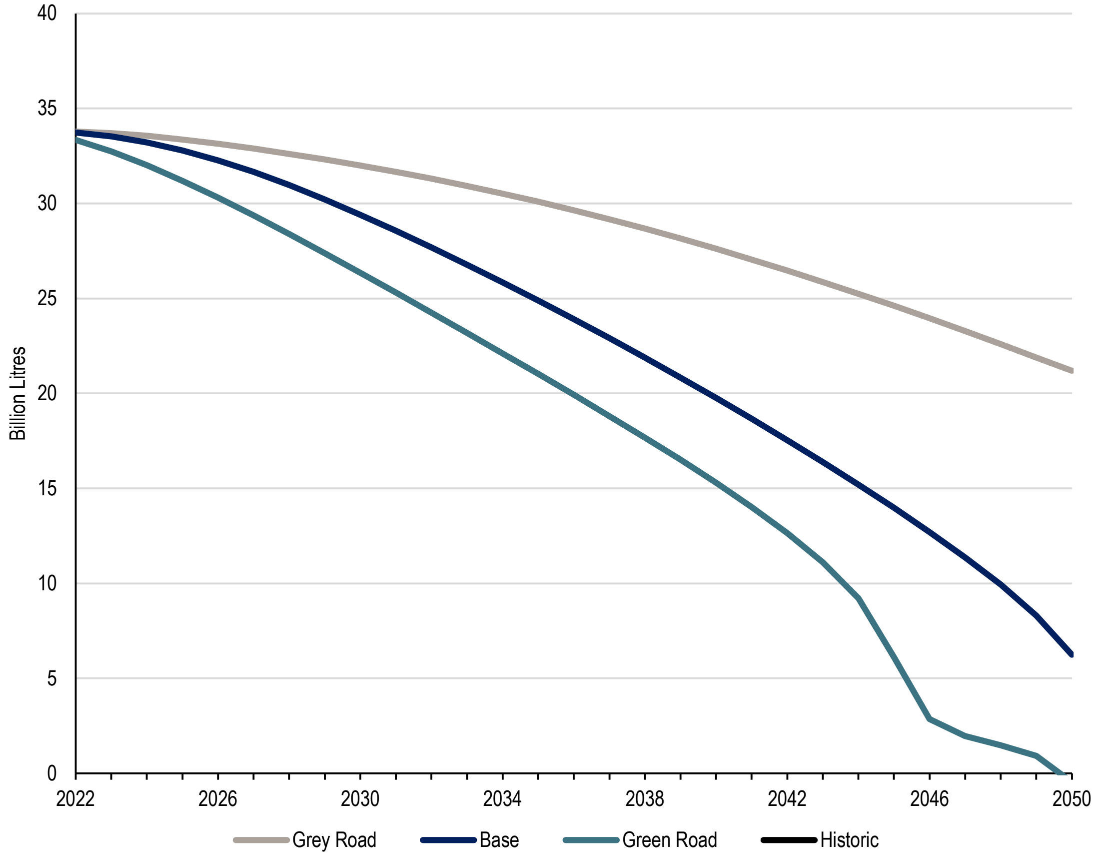
Outputs – Fuel Demand Trajectories

Figure: Total Fuel Demand under CS scenarios



Source: Credit Suisse

Figure: Motor Fuel Demand under CS scenarios



Source: Credit Suisse

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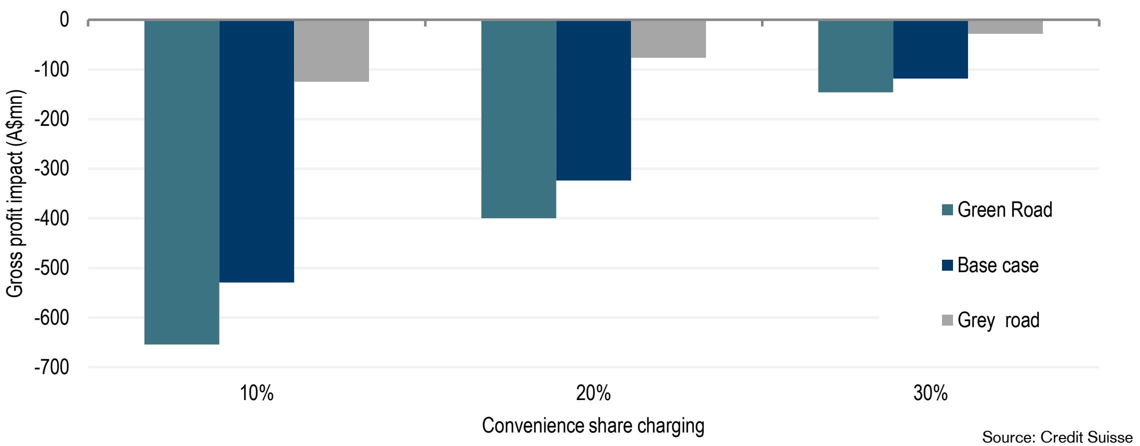
Fuel Retailers

The emergence of EVs has significant implications for fuel retailing

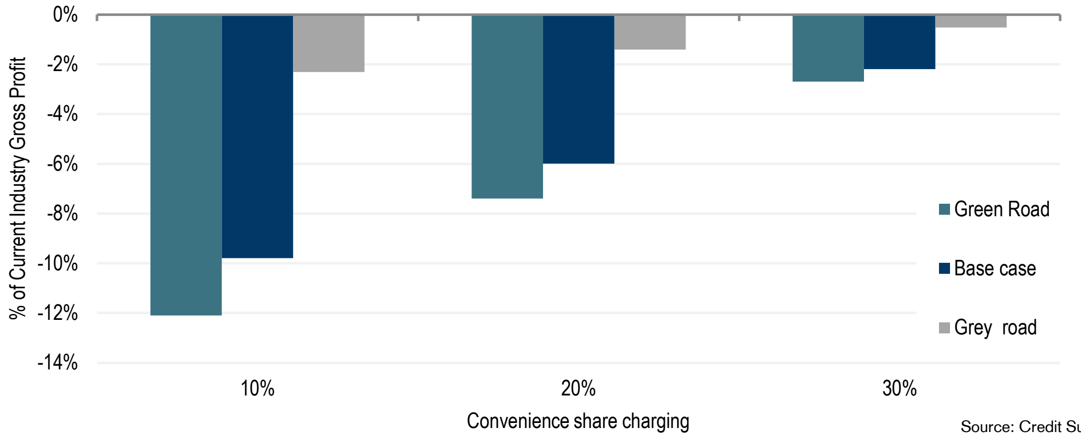
- **The emergence of EVs has significant implications for fuel retailing,** with a likely hollowing out of metropolitan fuel stations and dispersal of the industry profit pool to other commercial and home service locations.
- **We estimate that the current profit pool for fuel retailing in Australia is A$5.5bn**, which includes the sale of non-fuel convenience products. On average, the retail refuelling industry currently receives ~A$2.30 of gross profit per every 100km of road transport, which is predominantly generated from fuel revenue.
- **The commercial proposition:** ALD proposes a premium pricing model of A$0.60/kWh for fast charging at convenience locations. That price compares with retail prices for at-home-charging of circa A$0.25/kWh currently.
- **On a unit basis, gross profit is greater for electric charging than fuel…:** Assuming the cost of electricity for fuel retailer at A$0.225/kWh and A$0.60/kWh for fast convenience based recharging, gross profit is relatively attractive at A$6 per 100km travelled compared to A$1.87 per 100km for fuel.
- **… However the share of fast recharging under such a pricing model is likely to be low.** Evidence in more developed markets suggests that a relatively small share of the charging task would go to premium priced intra-day charging.
- The charts show the change in the retail fuel gross profit pool under our core scenarios at three different levels of Convenience share of the recharging task. For example, applying CS's Base Road scenario and assuming a 10% Convenience share, the fuel retail industry would lose ~10% of the current gross profit pool. The gross profit in other areas of the economy (e.g. home charging) would increase.

Figure: Gross profit impact under each scenario (A$mn)



Source: Credit Suisse

Figure: Gross profit impact under each scenario (%)



Source: Credit Suisse

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Transport Emissions

No scenarios meet the Government's new 43% by 2030 target…

Transport emissions in Australia have increased 10% since 2013 and equalled 119 MtCO2 in 2021.

Grey road: mobility policies have limited impact on emissions to 2030, decreasing only slightly from 99 MtCO2 to 96 MtCO2 by 2030, and to 72 MtCO2 by 2050, only a 26% reduction.

CS base road: emissions decrease to 87 MtCO2 by 2030, a 12% decrease, and then fall steeply by 76% to 24 MtCO2 by 2050.

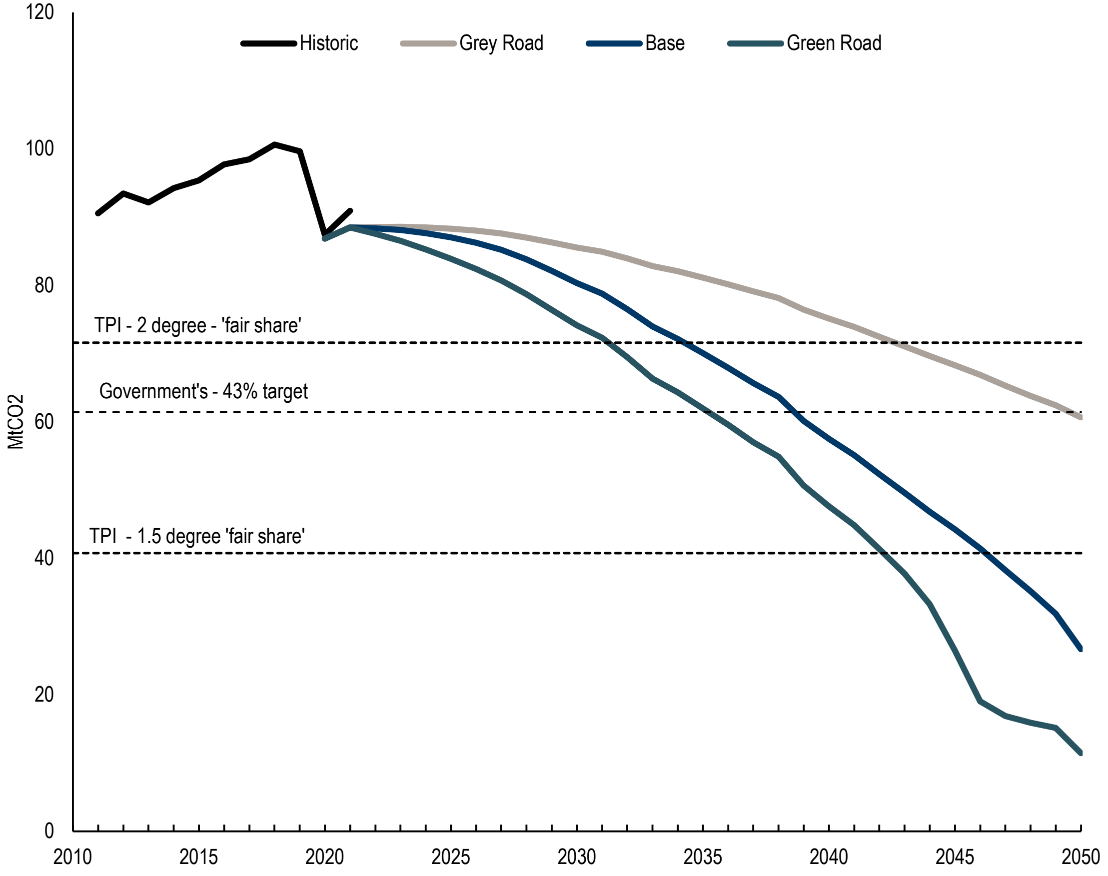
Green road: emissions decline by 33% by 2030 and fall to 3 MtCO2, nearly reaching net zero by 2050.

How do the emissions pathways of these scenarios compare to targets?

- **Aus 43% target**: If we assume each sector contributes their fair share, transport emissions would need to decline to 61MtCO2. None of the three scenarios reach the 43% emissions target. The Green Road scenario gets the closest, with emissions declining 21% by 2030.

- **Transition Pathway Initiative (TPI) pathways** have emissions pathways for both the autos and airline sectors. We calculate a weighted average of the two sectoral estimates based on the proportion of fuel consumption between Aviation and Autos in Australia to illustrate the transport sector's "fair share" of emissions reduction in Australia according to TPI.

Figure: Transport emissions under fuel demand scenarios



Source: NGGI, TPI, Credit Suisse

Companies Mentioned *(Price as of 23-Nov-2022)*

Ampol Limited (ALD.AX, A$28.48)

Disclosure Appendix

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Outperform (O) : The stock's total return is expected to outperform the relevant benchmark* over the next 12 months.

Neutral (N) : The stock's total return is expected to be in line with the relevant benchmark* over the next 12 months.

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**Relevant benchmark by region: As of 10th December 2012, Japanese ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. As of 2nd October 2012, U.S. and Canadian as well as European (excluding Turkey) ratings are based on a stock's total return relative to the analyst's coverage universe which consists of all companies covered by the analyst within the relevant sector, with Outperforms representing the most attractive, Neutrals the less attractive, and Underperforms the least attractive investment opportunities. For Latin America, Turkey and Asia (excluding Japan and Australia), stock ratings are based on a stock's total return relative to the average total return of the relevant country or regional benchmark (India - S&P BSE Sensex Index); for China A share the relevant index is the Shanghai Shenzhen CSI 300 (CSI300); prior to 2nd October 2012 U.S. and Canadian ratings were based on (1) a stock's absolute total return potential to its current share price and (2) the relative attractiveness of a stock's total return potential within an analyst's coverage universe. For Australian and New Zealand stocks, the expected total return (ETR) calculation includes 12-month rolling dividend yield. An Outperform rating is assigned where an ETR is greater than or equal to 7.5%; Underperform where an ETR less than or equal to 5%. A Neutral may be assigned where the ETR is between -5% and 15%. The overlapping rating range allows analysts to assign a rating that puts ETR in the context of associated risks. Prior to 18 May 2015, ETR ranges for Outperform and Underperform ratings did not overlap with Neutral thresholds between 15% and 7.5%, which was in operation from 7 July 2011.*

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Neutral/Hold*	35%	(22% banking clients)
Underperform/Sell*	10%	(21% banking clients)
Restricted	1%	

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