ESG

AMBIT
Acumen at work

June 2022

Adding ESG to Good & Clean 2.0

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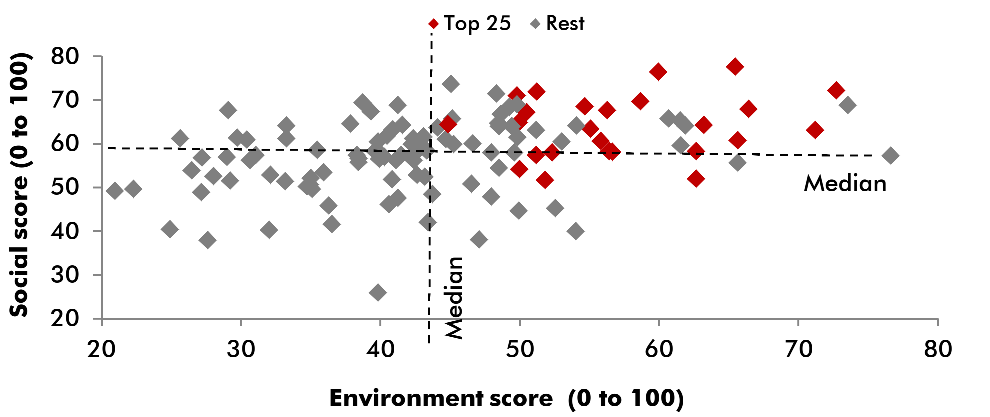
Adding ESG to Good & Clean 2.0

Climate risks are real! 'G' and 'S' matters have always impacted businesses. However, chaos led by opacity in reporting and greenwashing has misguided most. But, ESG parameters are now the new morals and our top 25 companies are paving the way. A dive into sustainability initiatives of Infosys, Tata Motors, Voltas, Marico and Dr. Reddy's suggests how an approach beyond tick-box can help find true ESG bets. Hence, we tweaked our style of assessment! Median 'E'/'S' scores of even top 120 companies are just 43/58 (out of 100). Investors should avoid self-glorifying ones! A reality check may suggest that there is often more than what you see in the decorated sustainability reports. Examples of lead battery manufacturers, a manpower service provider and a steel manufacturer suggest that ESG claims might need more validation. Sustainability is a culture backed by history of clean accounts, consistent pro-minority investor actions and thinking very long term.

Lesson learnt! Take nothing on its looks, take everything on evidence

After last year's first attempt on ESG we learnt that template approach-based scores could be a fair starting point, but ESG analysis actually demands a much curated bottom-up work. Primary research on companies' ESG claims and business conduct is also critical to establish stewardship. We look for concrete steps and consistent improvements across E/S/G and business decisions.

Exhibit 1: Our best-placed 25 candidates lead the pack on 'E' and 'S actions



Source: SES, Ambit Capital research. Universe is top 120 companies basis mcap on 31 Mar 20/22

India Inc. continues to lag, but surprisingly, investors are indifferent

ESG is important, let's put anti-ESG opinions to rest! But, disorder in reporting, flaws in evaluation processes and greenwashing is rampant. Portfolio companies of even the ESG-focused funds of top Indian AMCs and signatories to UN's PRI have median E/S scores at 49/61. Moreover, as investors chase to find strong boards we discussed with an expert to understand what really makes a board 'strong'. A truly diverse (age, gender, skill sets etc.) board is a strong board! Look at our discussion on boards of Tata Motors, Trent, Titan and Abbott.

Stewardship is a long embedded culture; how can we help?

ESG is everything, but a template approach. Careful evaluation of two steel companies over the last two decades highlights finer nuances in their approach to boards, accounting practices and now social and environment commitments. Stewardship seems embedded in a company's culture over the long term. Investors need to avoid the recently awakened, self-promoting good doers. For interested clients, we can conduct extensive bottom-up company-specific bespoke research or can do a presentation for your entire team. Our framework takes inspiration from global standards and uses >300 questions to assess.

Top 25 performers on our framework

Company	Mcap(US$ mn)	Ambit Reco.
TCS	153,677	SELL
Infosys	78,826	SELL
Bharti Airtel	48,855	BUY
Maruti Suzuki	32,463	BUY
Larsen & Toubro	27,596	SELL
UltraTech Cement	20,363	SELL
Tata Motors	18,838	BUY
M&M	17,499	SELL
Tata Steel	13,597	BUY
Tech-M	12,564	BUY
Godrej Consumer	10,279	BUY
Eicher Motors	9,912	BUY
Hindalco Industries	9,772	UR
Cipla	9,653	BUY
Larsen & Toubro Infotech	9,371	SELL
Dr. Reddy's Lab	9,216	BUY
Ambuja Cements	9,211	SELL
Havells	8,773	Not rated
Tata Power	8,439	Not rated
Marico	7,997	BUY
InterGlobe Aviation	7,988	BUY
Hero MotoCorp	6,998	SELL
MphasiS	5,645	BUY
Godrej Properties	4,247	SELL
Voltas	4,089	Not rated

Source: Ambit Capital research, Company, Bloomberg, Mcap is dated 28-Jun-22

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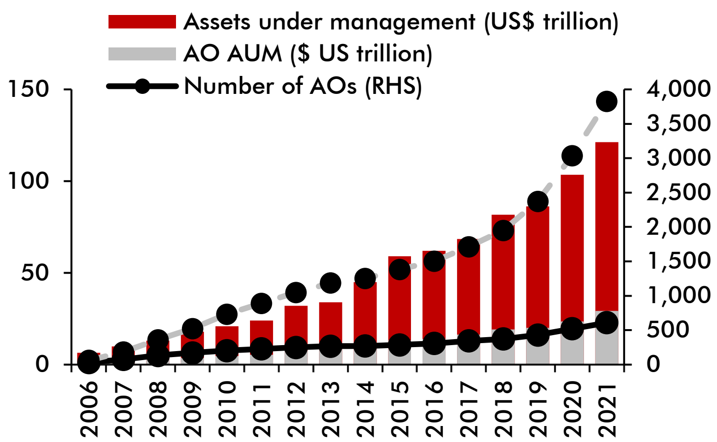
Sustainability, a new rapidly growing moat

Currently >70% of total MF AUM in India is managed by AMCs that are signatory to UN's Principles of Responsible Investing. Reporting on ESG by companies is increasing. SEBI has mandated top 1000 companies to publish Business Responsibility and Sustainability Report (BRSR) starting FY23. Moreover, climate risks are sitting on a tipping point. Hence, prominence of ESG matters for companies and investors will only rise. But currently there is much disorder w.r.t claims, disclosures, evaluation processes etc. Also, the chances of greenwashing look ample. These challenges are responsible for overall median low score on E/S (43/58, out of 100) of even top 120 companies. Infosys, Voltas, TCS Tata motors, a manpower services providing company, a steel company, Marico etc suggest how incorporation of sustainable practices have helped their businesses. Investors should check dark side of companies' ESG claims. We present our best 25!

Sustainability matters!

Environment risks are real and rapidly rising! There is enough agreement between the scientific community, governments, regulators, NGOs, corporates, investors, consumers etc that greenhouse gas emissions (GHGs) caused by human activities are warming the planet and could have serious consequences if not addressed. For instance, even the UN has backed the target to restrict the temperature increase since pre-industrial period at 1.5 degree Celsius by 2050, if not 1.5 degree Celsius, then at least well below two degree Celsius. There is a spike in ESG reporting by companies across the globe. SEBI has mandated the top 1,000 companies to publish BRSR starting FY23. Most companies have intensified their discussions on sustainability. Investors are becoming aware of the stewardship responsibilities expected out of them.

Exhibit 2: Number of PRI signatories have continued to grow rapidly post-pandemic



Source: PRI, Ambit Capital research, AO= Asset owners; Total Assets under management (AUM) include reported AUM and AUM of new signatories provided in sign-up sheet that signed up by end of March of that year. Total AUM since 2015 excludes double counting resulting from subsidiaries of PRI signatories also reporting, and external assets managed by PRI signatories. AUM for previous years includes some element of double counting. Asset Owners' (AO) AUM for 2014-2021 is based on reported information (and include double counting). AO AUM for 2007-2013 are estimates calculated using 2014 AO AUM data, growth rates for 2007-2013 from the OECD pension market focus report from 2015, and signing dates of signatories to the PRI

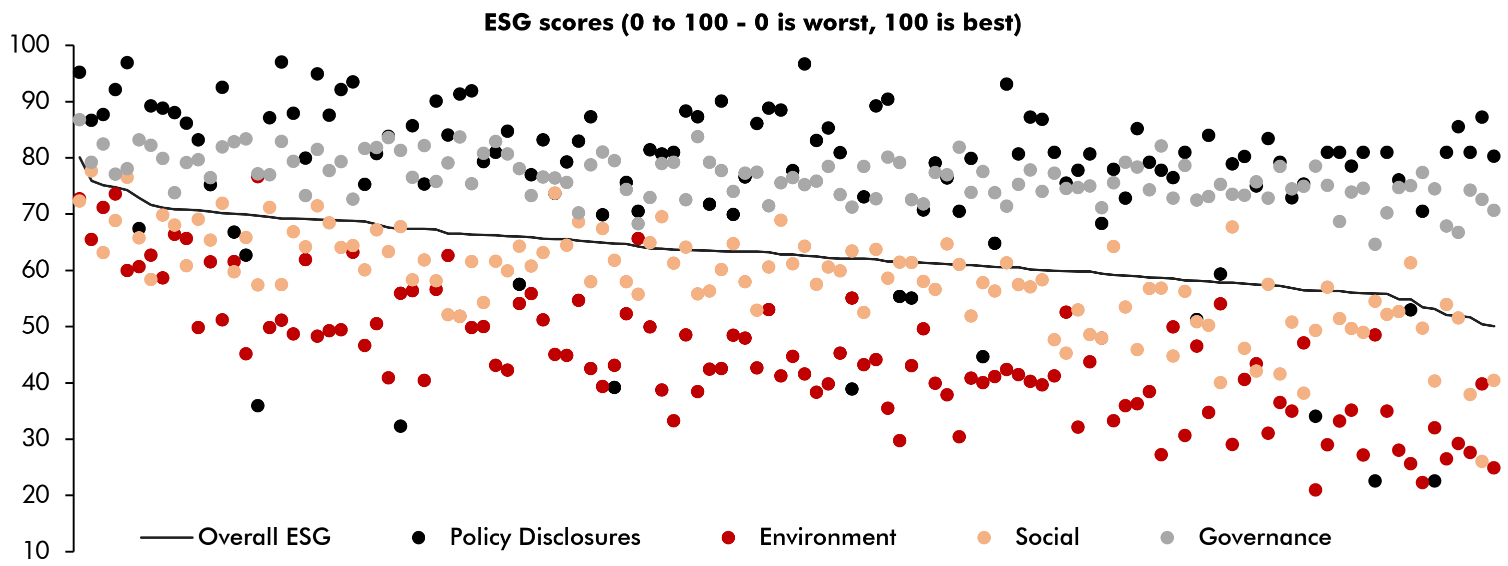
Exhibit 3: >70% of total MF AUM in India is managed by AMCs that are signatory to UN's PRI

Source: Ambit Capital research, Bloomberg, PRI

Have we lost the plot? Certainly, yes!

A disclosure-based ESG analysis of top 120 companies suggests that there is chaos, flaw in processes, opaqueness and probably instances of greenwashing. Chaos arises from the issues around non-uniformity across sustainability targets, measures, outcomes and guidance. Opaqueness simply pops up out of weak disclosures. Lastly, greenwashing could be easily possible as ESG laws remain weak. Lack of third-party assurance of data and claims is a matter of concern.

Exhibit 4: Disorder, flaw in processes, opaqueness and possibly green-washing all have led to weak scores on ESG for even top 120 companies in India



Source: SES, Ambit Capital research, Company; Universe is top 120 companies basis mcap on 31 Mar 20/22

Even the most sophisticated and well-equipped investors in India, i.e. MFs, also probably have difference in opinions on how to evaluate a company on ESG. For instance, median score on environment (E) and social (S) of portfolio companies of Indian MFs is only 49 and 61 respectively on a scale of 0 to 100. There are also companies within ESG-focused funds of MFs which get a score of <30/40 on E/S.

Exhibit 5: ESG score heatmap of Indian MFs' ESG funds probably highlights weakness in investor evaluation practices

SG fund name	On a scale of 0 to 100 (0 is worst, 100 is best)											
	Environment			Social			Governance			Overall		
	Min	Max	Median	Min	Max	Median	Min	Max	Median	Min	Max	Median
SG fund #1	33	74	49	40	69	59	65	81	75	56	75	63
SG fund #2	26	73	47	38	72	61	68	87	79	52	80	66
SG fund #3	28	73	49	38	77	61	65	87	78	52	80	64
SG fund #4	28	63	44	38	67	61	74	83	79	52	73	67
SG fund #5	31	73	50	45	77	59	65	87	76	56	80	65
SG fund #6	30	73	50	51	77	63	70	87	79	57	80	67
SG fund #7	28	73	45	38	78	58	65	87	79	52	80	65
SG fund #8	22	73	50	50	72	60	67	87	79	52	80	66
SG fund #9	28	73	46	38	78	61	67	87	79	52	80	68
ledian score of 120 o.s	**28**	**73**	**49**	**38**	**77**	**61**	**67**	**87**	**79**	**52**	**80**	**66**

Source: SES, Ambit Capital research, Company, Bloomberg, Composition of funds was taken at 01 Jun 22; Min, Max and Median scores are calculated on holdings which are among top 120 companies basis Mcap at 31-Mar-20/22

Beyond all, there are evaluation challenges which cannot be ever gauged due to the subjective nature of ESG rating models of third-party rating agencies. We cite the issues around environment friendly disposal of lead-based car batteries or challenges around moving to renewable sources of energy.

Exhibit 6: The batteries (managem13ent and handling) rules, 2001 mandate ~90% of used batteries be collected back

Year	% of batteries to be collected back
First yr. of implementation of rules	50% of sold
Second yr. of implementation of rules	75% of sold
After second yr. of implementation of rules	90% of sold

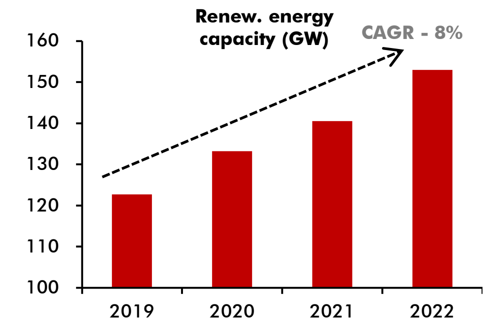
Source: Ambit Capital research, Company

Exhibit 7: Even in 2019, none of the lead acid battery manufacturers in India could adhere to the battery rules, 2001

Company	Comments on non-compliance
Player 1	Accepted the facts that despite efforts, they could not achieve the collection targets and requirements of the Rules.
Player 2	Only 25-30% of dealers got registered with SPCBs. Non-compliance reasons similar to Player 1
Player 3	Dealers not registered with SPCBs
Player 4	Have difficulties w.r.t. achieving collection targets, ensuring compliance by bulk consumers

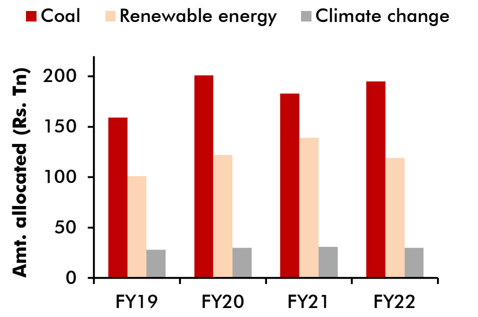
Source: Ambit Capital research, Company

Exhibit 8: India lags on its renewable energy target; needs 16% CAGR



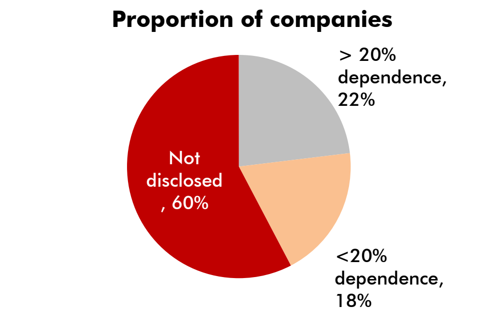
Source: Ambit Capital research, Company, IBEF

Exhibit 9: Budget spends on renewables in fact have gone down



Source: Ambit Capital research, Company, union budget 2021-22

Exhibit 10: Company's dependence on renewables remain low

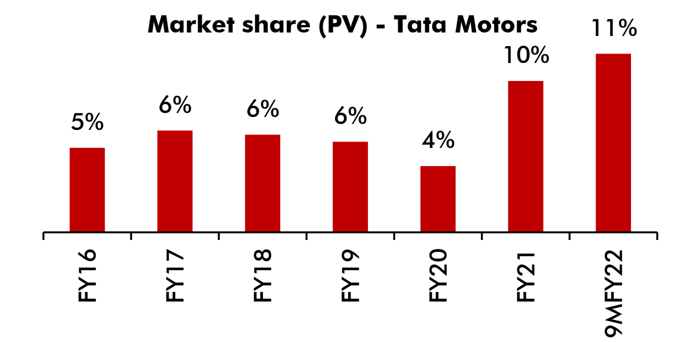


Source: SES, Ambit Capital research, Company. Top 120 companies basis mcap dated 31 Mar 22

Sustainability is a culture; paybacks are long term

Nonetheless, we note sustainable matters are important. For instance, social matters in fact are most integral to businesses. Customer, employees and suppliers were always important; we cite few examples on how some businesses have thrived by resorting to different social initiatives. Secondly, the environmental risks are real! Actions on environment are now closely knitted around grounds of ethics. But, the more we read and understand, we observe that stewardship is a result of persistent actions over years. But, strong ethical business principles should be the bedrock of these initiatives. Moreover, paybacks of these actions also look probable.

Exhibit 11: Rising market share of Tata Motor's PV cars is also a reflection of...



Source: Ambit Capital research, Company

Exhibit 12: ...their customer-focused initiatives in the recent years

Key highlights of Tata Motor's theme 'Win sustainably in PV'

- Create highly energized retail focused sales and dealership team
- Drive the twin objective of growth and network profitability by redefining dealer systems and HR practices
- Continue offering a refreshed portfolio to remain relevant and competitive in the market
- Digitally transform the front end to enhance user experience, customer connect and reach
- Lead with exemplary after-sales customer experience
- Strengthen the Tata Motors brand positioning to make it aspirational for our customers

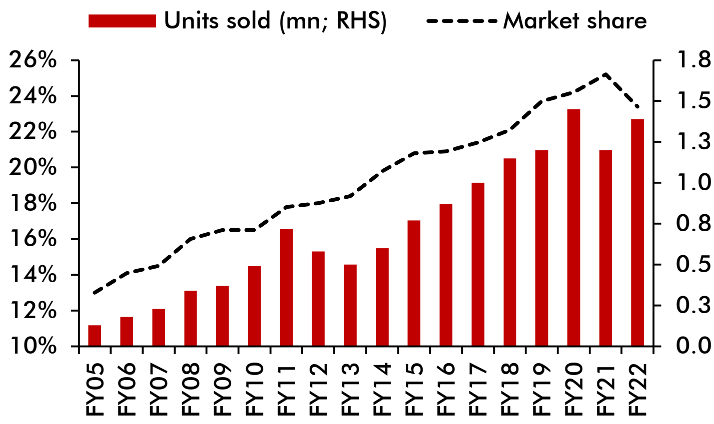
Source: Ambit Capital research, Company

Exhibit 13: High customer confidence through high quality and time efficient services could be a catalyst…

Brand	Rating	Total complaints	Unresolved complaints (%)	Website remarks
Voltas	3.7	4,050	29%	Awesome
Daikin	3.7	537	29%	Awesome
LG	3.1	6,825	43%	Good
Hitachi	3.1	1,442	40%	Good
Samsung	3.1	17,805	40%	Good
Haier	1.0	819	78%	Moderate
Blue Star	1.7	538	69%	Bad
Panasonic	1.0	1,913	86%	Bad
Lloyd	1.0	741	91%	Bad

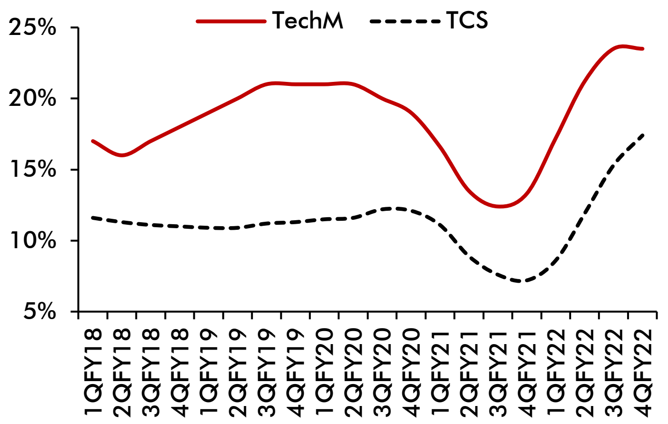
Source: Company, Ambit Capital research, consumercomplaints.in

Exhibit 14: …..for rising market share achieved by Voltas over the years



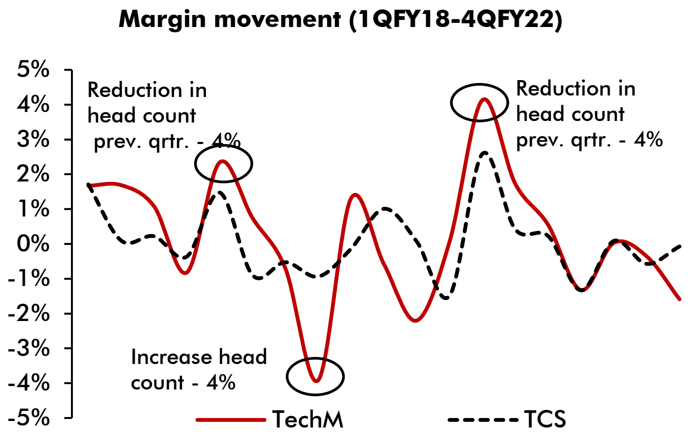
Source: Company, Ambit Capital research

Exhibit 15: Higher attrition rate for TechM versus TCS also meant….



Source: Company, Ambit Capital research

Exhibit 16: …..volatile margins for TechM versus TCS



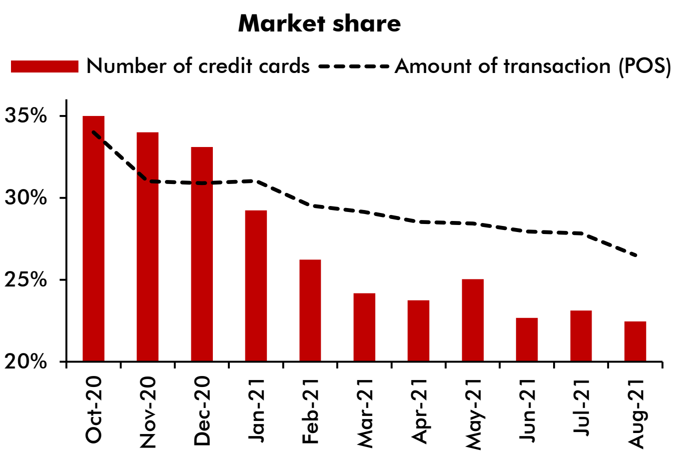
Source: Company, Ambit Capital research

Exhibit 17: Multiple incidents of digital failures of one large bank led to ban by RBI….

Year	Incidents of digital failure
2018	Bank had launched a new version of its mobile banking application. But its customers struggled to log in and the bank was forced to withdraw the new application and restore the old one.
2019	Bank faced a two-day outage that affected its net banking and mobile banking operations.
2020	Bank faced outages in its internet banking and payment system due to a power failure in the primary data centre.

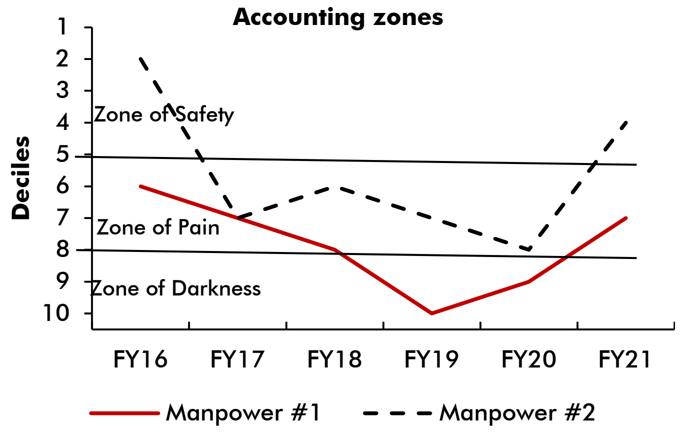
Source: Ambit Capital research, Company

Exhibit 18: …..which in turn led to loss in market share of credit card business in subsequent months



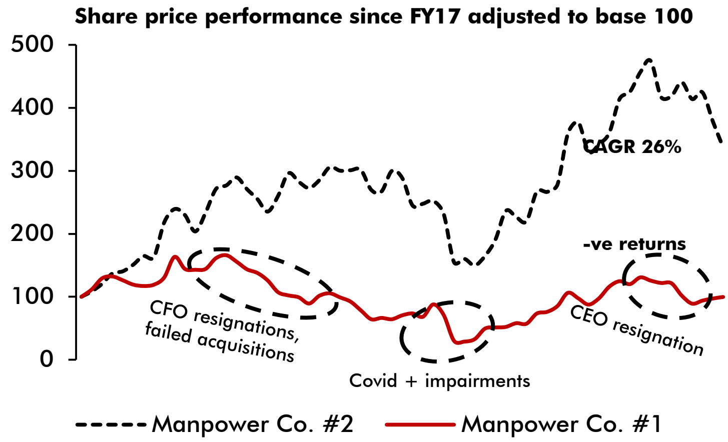
Source: Ambit Capital research, Company. Number of credit cards refers to total no. of credit cards as at date.

Exhibit 19: Accounting quality differences between two manpower services providing companies probably also manifested in...



Source: Ambit Capital research, Company

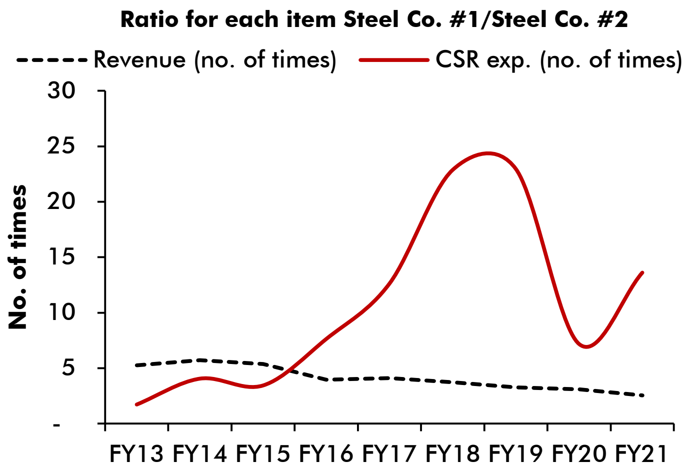
Exhibit 20: ...differences of share price performance of these two entities



Source: SES, Ambit Capital research, Bloomberg; share price adjusted to base 100 since 01-Apr-17 to 22-Jun-22

A detailed case study on two steel companies suggests that how one company always adhered to the principles of stewardship even before some (e.g. CSR) were mandated by the authorities. Consistency with respect to community initiatives, behavior of the board, pro-activeness w.r.t environment related actions, less related party transactions, protection of minority shareholders, good accounting quality are some of the important and very relevant parameters to decide if the company is really serious on playing stewardship.

Exhibit 21: Despite being non-mandatory previously, CSR spends for Steel Co.#1 were always high for Steel Co. #1



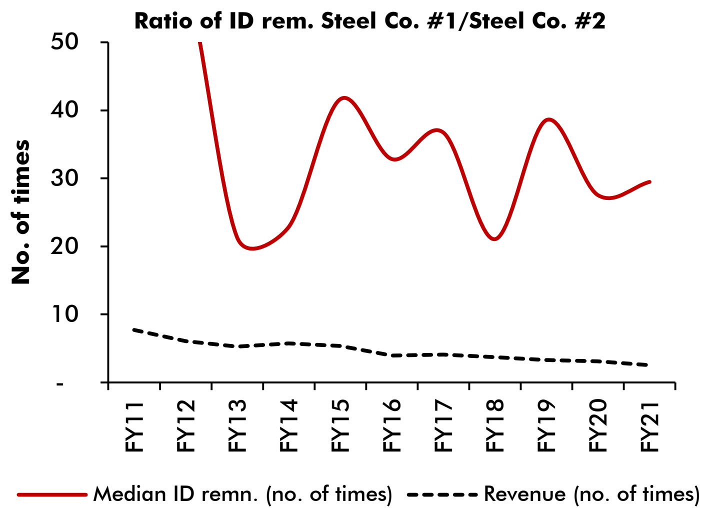
Source: Ambit Capital research, Company

Exhibit 22: Steel Co. #2 has the highest Co2 emissions in FY21amongst peers

Year	Unit	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Steel Co. #1 (Standalone)	tCO2/tcs	2.30	2.29	2.38	2.35	2.31	2.32	2.43
Steel Co. #1 (subsidiary A)	tCO2/tcs	1.74	1.84	1.79	1.77	1.76	1.77	1.78
Steel Co. #1 (subsidiary B)	tCO2/tcs	1.80	2.12	2.18	2.21	2.22	2.14	2.16
Steel Co. #1 (subsidiary C)	tCO2/tcs	1.93	1.93	1.99	1.98	1.98	1.97	1.98
Indian peer	tCO2/tcs	2.56	2.44	2.59	2.75	2.52	2.49	NA
Steel Co. #2	**tCO2/tcs**	**NA**	**NA**	**NA**	**NA**	**2.63**	**2.59**	**NA**
Foreign peer	tCO2/tcs	1.91	1.88	1.90	1.92	1.94	NA	NA
Foreign peer	tCO2/tcs	2.14	2.14	2.11	2.12	2.11	2.08	NA
Foreign peer	tCO2/tcs	1.61	1.64	1.60	1.69	NA	NA	NA
Foreign peer	tCO2/tcs	1.39	1.39	1.38	1.36	1.41	NA	NA
Foreign peer	tCO2/tcs	0.86	0.86	0.89	0.91	0.93	0.93	NA
Foreign peer	tCO2/tcs	2.38	2.28	2.29	2.31	2.39	NA	NA
Foreign peer	tCO2/tcs	2.02	1.99	2.01	2.02	NA	NA	NA
Global Avg.	**tCO2/tcs**	**1.91**	**1.88**	**1.91**	**1.94**	**2.02**	**2.06**	

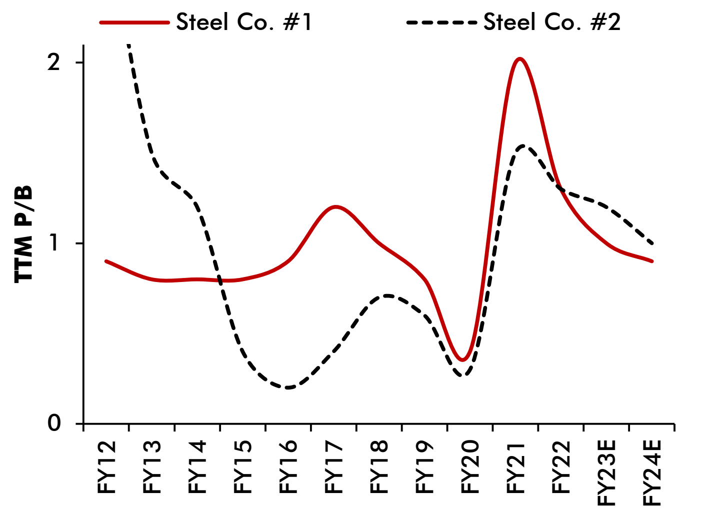
Source: Ambit Capital research, Company

Exhibit 23: Higher remuneration to IDs/NEDs reflect fair reimbursement towards their services; it acts as a window to the quality of board room discussions



Source: Ambit Capital research, Company; Revenue (x times) = Steel co.#1 revenue/Steel co.#2 revenue, ID/NED remn. (x times) = Steel co.#1 remn/ Steel co.#2 remn.

Exhibit 24: Good governance practices of Steel Co#1 also translated to difference in P/B multiples; recently investors are believing in turnaround of Steel Co#2



Source: Ambit Capital research, Company, Bloomberg

Further, analysts and investors are often puzzled by a simple question of what makes a 'strong' board. We discussed with a leading expert on the subject of boards and CEO successions. Read inside for the all takeaways from our discussions. Some key takeaways include:

- Previously, chartered accountants and lawyers dominated the board. But today companies are increasingly looking for experts with skills around consumer insights, technology, advertisement etc.
- Technology remains the most sought after skill.
- Ensuring full independence in always tricky. It seems every ID is truly independent. But, there is often relationship outside the family. Intentions are not always wrong.
- Role of a board could differ depending on the size of the company. The board could add value differently depending on the company's stage in its life-cycle.
- Ideally 20-30% of board members should be women.
- ESG discussions have begun on the board. It is too early, but rapidly evolving.

Read inside for our discussion on Trent, Titan, Tata Motors, Abbott and Apollo Hospitals.

Primary research a key tool for testing sustainability and governance claims

We believe fairness of business representation also comes within the ambit of governance. Intentional wrong representation of business can have serious negative consequences for investors. Doing primary checks on businesses help gauge governance practices in much effective manner.

Exhibit 25: Primary data checks on companies can provide much effective inputs on quality of business conduct or governance

Company	A powerful way of deciphering governance practices
A Building Material Distributor	We tried to verify the new value proposition offered by company as building materials retailer through primary checks. Company was just a steel pipe/sheet manufacturer-cum-retailer (posting 12-14% RoCE) with aspirations to get into the business that is the flavour of the day (building materials, power, ecommerce and infra historically) and hence had previously done lot of name changes to suit the nature of business. Store visits and primary data checks suggested that the company didn't really have retail outlets, but rather retailing presence out of warehouses. Over the past five years, 'Channel & Enterprise' margins sharply deteriorated from 5% to -2% while 'Retail' margins shot up to 8% from 1%. With no fundamental change in 'Channel & Enterprise' business, we found this movement of margins suspicious.
A Jewelry Company	Primary data checks suggested that company was making cash sales without conducting mandatory PAN details. This raised serious corporate governance concerns. Our discussion with peers of the company suggested that company sold IJ diamonds (inferior grade) as VVS diamonds (superior), thus cheating customers, in smaller cities such as Varanasi and Allahabad. The Company did not have off-site data back-up facility. Therefore, loss of connectivity or any loss of data arising from failure in IT systems could have easily disrupted business (e.g. management of inventory, creditors, and debtors).
Online Travel Company	Company carried significant short-term advances to its vendors. Company claimed that it increased advances to its suppliers as many of them were cash strapped. We believe that the movement of advances need to be keenly watched. Especially, when two major airlines are both cash strapped. Secondly, Company witnessed many instances of cancellation claims. The company booked refunds from ticket cancellation as revenue after two years. Our assumption suggests that 25% (vs company estimate of 10-15%) of tickets sold in particular year got cancelled in subsequent years. A, comparison to industry channel checks suggested that cancellation % should ideally be in the low to high single digit range.
A Bio-Technology (Enzymes) Company	Company's strategy has always been to compete more on cost than value addition and quality. Basis our primary checks, we noted that company competes very well on price points but their quality (purity, consistency) isn't at par with global MNCs. Therefore, most of its customers are small businesses who are continuously changing their products and vendors and don't mind compromising on quality. Enzyme costs are 1-5% of the final product but it can cause havoc if enzyme has certain impurities which harms human health (in food, animal feed and pharma industry specifically). Despite good entry barriers w.r.t client relationships, Company should only survive but not thrive.

Source: Ambit Capital research, Company

Finding India Inc. forerunners on ESG

A comprehensive bottom-up approach is must to rightfully assess any company on ESG. Whilst a template approach can act as first level filter, a detailed bottom-up work is critical to understand real nuances. We look for candidates that have more methodical approach on environment goals. I.e. at minimum, they should have set specific targets, taken concrete steps, disclosed objective outcomes etc. On social and governance parameters, it is also critical to be watchful of accounting quality, real impact on customers, employees etc.

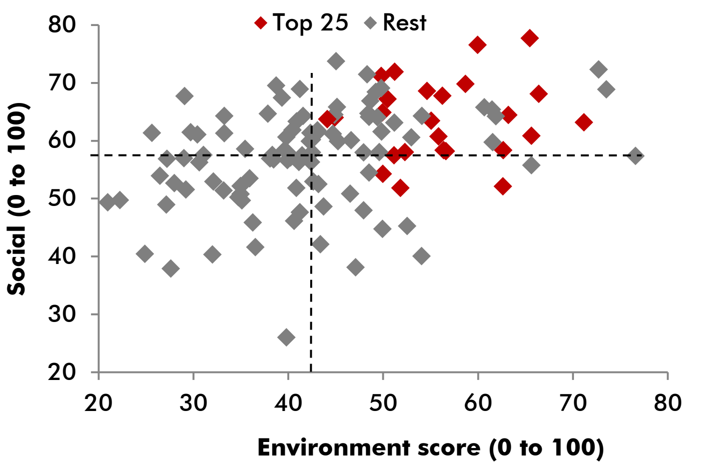
Exhibit 26: Our champion companies on ESG are setting the tone on ESG

Name	Mcap ($mn)	Ambit Reco.	Accounting Decile	Remarks
TCS	153,677	SELL	D6	Has set target to reduce GHG emissions by 70% by FY25 over FY16 base year. Target to reach net-zero by 2030. Total GHG emissions YoY over FY19-21 has decreased by 52%. Renewable energy dependence increased to 16% (5% increase vs FY20) in FY21. >1/3rd of employees are women, attrition decreased to 7.2% in FY21 from 12.1% in FY20, one of the lowest amongst peers. Company has two women directors.
Infosys	78,826	SELL	D4	Became carbon neutral in FY20. Reduction in overall GHG emissions by 39% in last three years. 50% of energy consumed comes from renewables. Plastics at campus reduced by 91% since FY18. 39% of total workforce are women. Has an ESG committee which is 100% independent.
Bharti Airtel	48,855	BUY	D6	5,554 tonnes E-waste recycled. 24% reduction in CO2 emission per rack in our data centres. Committed to SBTi, net zero emissions by 2050. 56% reduction in customer complaint call. 35% of energy consumption is sourced through renewables. Three woman directors on board.
Maruti Suzuki India	32,463	BUY	D8	Company disclosed annual emission reduction of ~ 25,000 tCO2e and cost savings of ~ Rs. 300 million through energy saving measures in FY21. Energy intensity reduced by 21% in FY21. Absolute water withdrawal and water withdrawal intensity decreased by 16% and 8% respectively in FY21. Attrition rate was just 2.7% in FY21.
Larsen & Toubro	27,596	SELL	D9	Energy consumption is down by 6% in FY21. Recycles ~95% of waste by reducing incineration and landfills. Set Target of Carbon Neutrality by 2040 & Water Neutrality by 2035. Reduced overall GHG emissions by 14% in last three years. 40% reduction in fatality in FY21.
UltraTech Cement	20,363	SELL	D2	Committed GHG reduction as per SBTi. ~4 times water positive and ~2 times plastic positive. Target to be five times water positive by 2024. Part of the global EP100 initiative i.e. committed to double energy productivity. 82% reduction in LTIFR since previous year. Two plants running on 100% renewable energy. 13% of total energy consumption comes from renewables.
Tata Motors	18,838	BUY	D10	Energy Intensity has decreased by ~16% since FY18. GHG emission intensity decreased by 14.5% since FY19. Water conservation increased by 7.3% since FY19. Cars rated safest by NCAP crash test. Company took many customer focused initiatives. Company has two women directors on board.
M&M	17,499	SELL	D8	Overall energy consumption reduced by 6% in FY21. Has spent ~Rs.300mn in each of the last three years on energy conservation. Company is water positive and committed to SBTi. Target to become carbon neutral by 2040. Overall emission in last three years reduced by 24%. Renewable energy consumption out of total consumption increased to 5%. Company has three women directors on board.
Tata Steel	13,597	BUY	D4	Global leader on ESG in steel sector. Set LT and ST Co2 reduction targets with SBTi. Increase in share of renewable energy generation. Lowest water consumption and dust emission intensity in India. High CSR spends, low LTIFR. Diverse and experienced board
Tech Mahindra	12,564	BUY	D7	Committed to SBTi. Scope 1 + 2 reduced by 31% since FY16. 60% reduction in water intensity (kl/employee) in FY21 compared to previous year. Reduction in Paper Consumption by 85%. ~32% of employees comprise of women. Three women directors on board. 21.2% of total energy consumed are from renewables.
Godrej Consumer	10,279	BUY	D1	GHG emissions reduced by 37.4% and water consumption reduced by 30.3% over the last decade. Achieved water positivity and reduced specific waste to landfill by 100% by diverting waste from landfill. ~30% energy consumption from renewable sources. Product level monitoring of green parameters for 12 products. Spent more than the prescribed amount towards CSR in FY19/21. Have five women directors (3 IDs).
Eicher Motors	9,912	BUY	D5	8% reduction in energy consumption since FY20. 15% increase in energy savings in FY21. 14% and 7% decrease in scope 1 and scope 2 emissions respectively in FY21 compared to FY20. Decrease in waste generation by 21% since FY20. Water Intensity in FY 2020-21 is 0.29 KL / Motorcycle compared to 0.33 in previous year.
Cipla	9,653	BUY	D6	Target to be carbon neutral and water neutral by 2025. Renewable energy forms 15% of total energy consumed. 32% of water is recycled. Waste generation reduced by 15% in FY21. Women employees form 14% of total workforce. Board is diverse in terms of skill set.
Hindalco Industries	9,772	Under review	D3	2025 target to reduce specific GHG Emissions (aluminium) by 25%. Achieve 'Zero Net Carbon' by 2050. Decreased GHG emissions from FY19 to FY21 by 8%. Increasing spends on energy conservation YoY, spending Rs.4.5bn in last three years. All manufacturing locations are ISO 45001certified on workplace safety. Had 100% attendance on all key board committees. Had two women directors on board.
Larsen & Toubro Info	9,371	SELL	D5	26.4% of total energy consumption is from renewables. Reduced GHG emissions by 54% in the last three years. Carbon and water neutrality target set by 2030. Workforce consists of 30% of women. Decreased attrition rate by 4% in FY21.
Dr. Reddy's Labs	9,216	BUY	D1	25% reduction in carbon intensity since FY18. 21% of energy consumption sourced through renewables. 100% plastic waste neutral in India. Target to become 100% water neutral by 2025. ~17% of total workforce are women. CSR spends were more than the required 2%. Board is 82% independent and has three woman directors.

Name	Mcap ($mn)	Ambit Reco.	Accounting Decile	Remarks
Ambuja Cements	9,211	SELL	D10	Processed ~83,000 tonnes of plastic waste in CY20, making it a ~2.5 times 'Plastic Negative' company. Company is eight times water positive. Total Scope-1 emission decreased from 14.52 million tonnes in 2019 to 13.41 million tonnes in CY20. 12% of energy consumption from renewables, up from 8% in CY19. 30% reduction in injury frequency rate.
Havells India	8,773	Not rated	D5	94% consumption of water is from recycling. Freshwater consumption reduced by 22% in FY21. 47% reduction in GHG emission intensity w.r.t. FY16. Have been water positive since FY16. Zero fatalities in FY21.
Tata Power	8,439	Not rated	D7	Major thermal power plants of Tata Power have Zero-Liquid Discharge (ZLD). Company has five renewable projects registered under CDM and UNFCCC. Commissioning India's largest carport to reduce ~1.6 lakh tonnes of carbon emissions. Target set SBTi of 2050 for Co2 reduction. Attrition rate decreased to 2.10% for FY21 from 4.50%.
Marico	7,997	BUY	D2	72% of total energy consumed from renewables. 80% reduction in GHG emissions intensity (Scope 1 and 2) as compared to base year FY13 and 38% reduction in intensity compared to FY20. 95% Of the packaging material used is recyclable by weight. 100% water consumption offset has been achieved for the past 4 years. Zero fatalities for four years in a row
InterGlobe Aviation	7,988	BUY	D4	Steady drop in Co2 emission/revenue passenger km from last four years. Details on efforts taken to reduce emissions such as fleet modernization, weight reduction measures, optimising flight routes etc. Total ~40% women employees and 14.1% women pilots which is highest for any airlines in the world. Improved by 16 points in customer survey on clean and safe travel
Hero MotoCorp	6,998	SELL	D3	Company is 3.3 times water positive. Has set target to be carbon neutral by 2030. Reduction in overall GHG emissions by 15% over FY19-21. Increase in renewable energy capacity by 24% in last three years. Zero fatalities/injury in FY21. Three women directors on board.
MphasiS	5,645	BUY	D8	100% of water is recycled within campus. 67% reduction in Co2 emission in last three years. Women employees comprise 35% of total workforce. Three women employees on board.
Godrej Properties	4,247	SELL	D7	Already carbon neutral. Became water positive saving 12bn litres of water. 34,218 tCO2e net anthropogenic GHG emissions removed annually. Zero fatality and lost time. Spent Rs.293mn on energy conservation in FY21. Women form 26% of total employees.
Voltas	4,089	Not rated	D7	~20% reduction in Co2 emissions since FY19. 70% reduction in LTIFR since FY20. Highest customer service rating and lowest proportion of unresolved complaints on consumercomplaints.in. Customer oriented approach. Diverse board in terms of skill set.

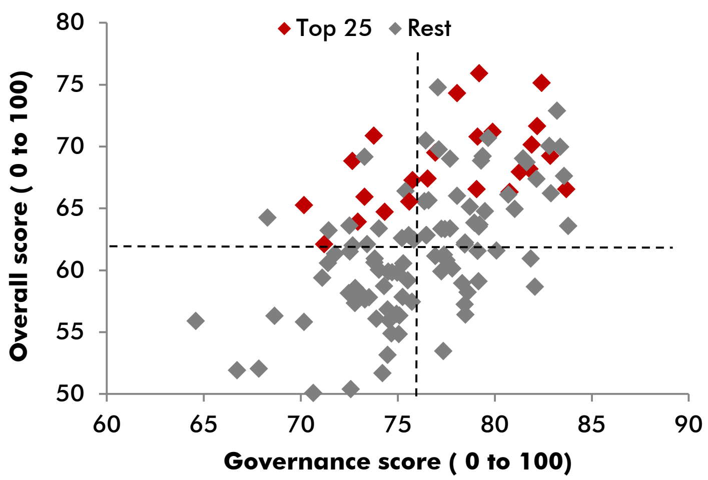
Source: SES, Ambit Capital research, Bloomberg, Mcap data is dated 28-Jun-22. Note: We work on ~1400 companies (ex-BFSI) with a market cap of more than Rs.100 crores and use financial statements for the last six years. We have 11 equally weighted accounting ratios where we do relative ranking for companies on each of them and basis the final score , we divide the companies into deciles such that first five deciles (D1 to D5) we call them as Zone of Safety (best accounting quality companies), next two deciles (D6 and D7) we call them as Zone of Pain (relatively weak accounting quality companies) and last three deciles (D8-D10) we call them as Zone of Darkness (worst accounting quality companies).

Exhibit 27: Our top 25 companies lead amongst the top…



Source: SES, Ambit Capital research, Company

Exhibit 28: …120 companies in India (basis mcap) across E, S and G



Source: SES, Ambit Capital research, Company

A few companies have shown significant improvement in FY21 and have initiated their sustainability journey. Below are a few key examples:

Exhibit 29: Few key companies which witnessed improvement in FY21

Co.	Key reasons for improvement
Kotak Bank	▪ Started reporting as per global standards like GRI and IIRC ▪ Have least exposure to high carbon footprint sectors vs. other top private banks in India as at 31-Dec-21 ▪ Women employee ratio is 25% - second highest among Indian private banks ▪ Started reporting on energy consumptions and emissions
Britannia	▪ Increase in proportion of renewable energy consumption by 2% in FY21 ▪ Reduction in energy intensity from 2.43 GJ to 2.27GJ in FY21 ▪ Reduction in emission intensity from 0.22 tCo2 to 0.20 tCo2 in FY21 ▪ Detailed initiatives on sustainable sourcing and packing
Sun Pharma	▪ Renewable energy consumption from 28% to 38% in FY21 of total requirement ▪ Reduced scope 1/scope 2 emissions by 21%/6% respectively in FY21 ▪ Increase in processing waste (MT) by 52% and recycling of hazardous waste (MT) by 44% in FY21 ▪ Decreased consumption of ground water by 25% and increased consumption of surface water with rain water harvesting ▪ Started reporting on employee training, attrition, workplace safety
Interglobe Aviation	▪ Steady drop in carbon emission/revenue passenger km from last four years ▪ Details on efforts taken to reduce emissions such as fleet modernization, weight reduction measures, optimising flight routes etc. ▪ Total ~40% women employees and 14.1% women pilots which is highest for any airlines in the world ▪ Improved by 16 points in customer survey on clean and safe travel
Motherson Sumi	▪ In FY21, 10% of total electricity supplied through sustainable sources ▪ 82% of waste generated is recycled ▪ Share of women workforce is as high as 42% ▪ Started initiatives on rain water harvesting at number of sites

Source: SES, Ambit Capital research, Company

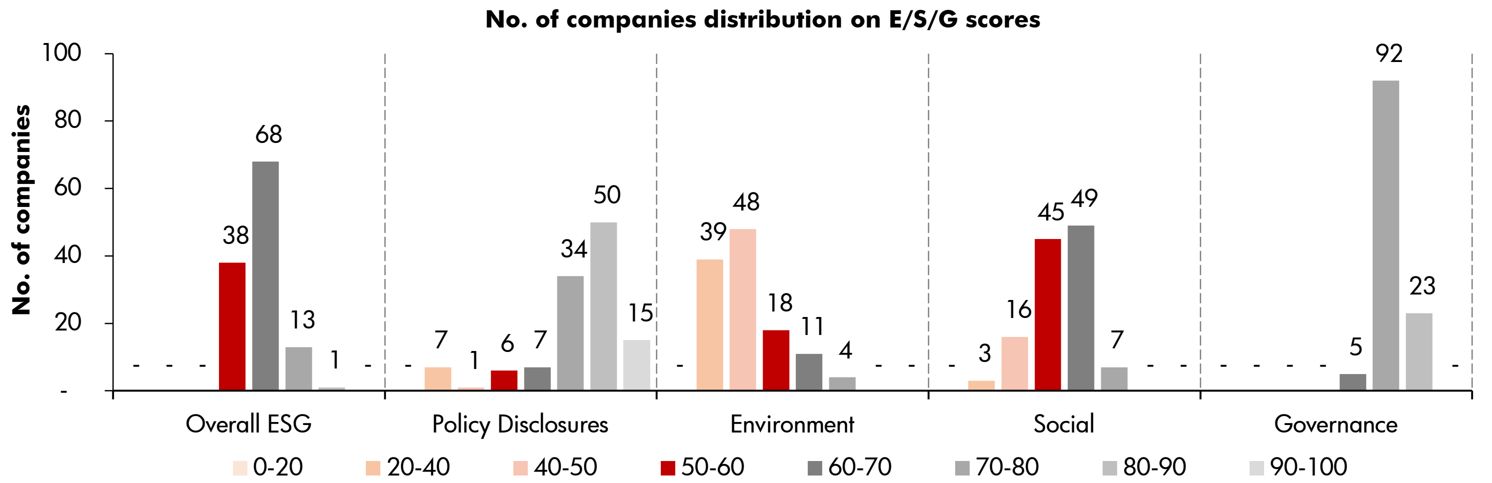
Ridden by chaos, opacity and greenwashing!

The ESG claims of most companies are ridden by non-uniformity around disclosures, setting up of targets and objectives, tracking of progress and measuring of outcomes. 87 out of 120 companies have environment score <50 and 64 companies have social scores <60. With regards to climate actions, companies lack concrete plan and actions. For instance, only 20% of top 120 companies are registered with SBTi (Science Bases Target Initiatives), this could be a proof that companies lack guidance and hence have no methodical steps to reach net-zero stage despite big claims. Similarly, on the social parameter, whilst most talk on gender diversity, the proportion of women employees in most sectors remains low. Governance scores are better thanks to regulatory actions over last decade. Nonetheless, good accounting quality remains pre-requisite! Board composition could be improved on grounds of independence and diversity.

ESG is everything, but tick in the box

Assessing even the top 120 Indian companies on ESG through their sustainability disclosures suggests that the company needs to do a lot more on ESG before they call themselves truly sustainable. Nonetheless, there are several companies across sectors who have paved the way. Social and governance issues were always integral to businesses. Effective and efficient conduct of social and governance matters can always benefit the company in the long run. Moreover, citing the magnitude of the scientifically proven environment-related problems, companies will have to obviously step up on environment initiatives. Low scores on environment and social factors essentially arise from weak and inconsistent disclosures. There is no standard way of disclosing initiatives, measuring performance, disclosing outcomes and giving future guidance. Verifiability of companies' claims is a distant reality. However, the biggest flaw in the process of evaluation of companies could be a tick-in-the box approach adopted by most investors. Critical questioning is the need of the hour.

Exhibit 30: >50% of top 120 companies fail to impress us on their sustainability initiatives; regulatory actions over last decade were probably behind better governance, leading to better 'G' scores. Ask us for your portfolio heatmap



Source: SES, Ambit Capital research, Company. Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Most behind in race to restrict temp to <2 deg. Celsius

There is a need to see a trajectory of improvement rather than absolute claims

Most companies seem to have not fully appreciated environmental risks and accordingly we see lack of initiatives on environment even by the top 120 companies. Conglomerates, heavy and light engineering, consumer discretionary, consumer staples and building materials feature at the bottom. Auto, E&C and infra, metals/mining, consumer durables and cement feature at the top. Surprisingly, cement and metal companies fare well on environment parameters.

Exhibit 31: On the basis of relevance and guidance from global standards, we decide weights for each sector

Parameters	Weights(range)
General disclosures	14-16%
Product or services related disclosure	4-33%
Energy consumption	3-23%
Renewable energy	2-12%
Air emissions	6-33%
Water consumption	7-33%
Effluents management	2-9%
Waste management	4-18%

Source: SES, Ambit Capital research, Company

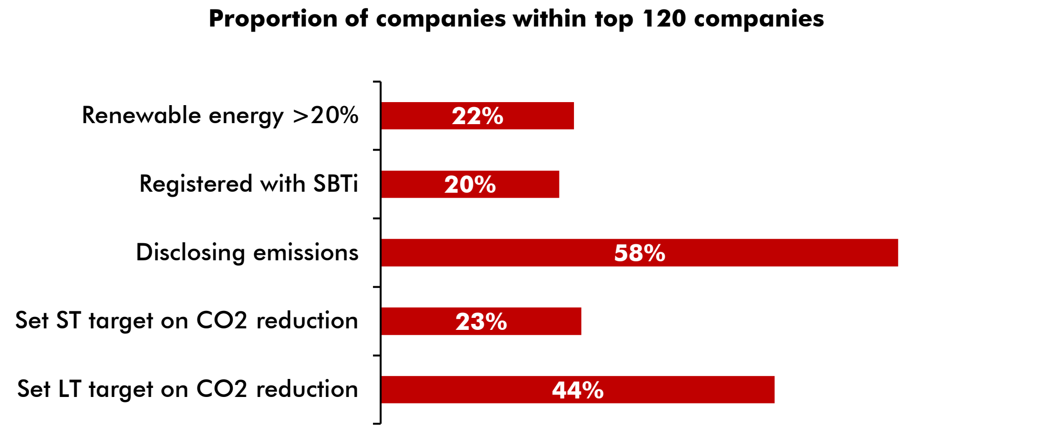
Exhibit 32: We try to cover most of the aspects on environment in the context of Indian companies

Particulars	Nos.
Questions	138
Parameters across questions	434
Data points	>480

Source: SES, Ambit Capital research, Company

Sadly, most of the companies even in the top 120 have not taken basic steps such as setting targets for carbon reduction, shifting to renewable sources of energy, committing to SBTi, running environment friendly projects (e.g. bio-diversity) and keeping a check on emissions.

Exhibit 33: Most companies lag on concrete actions w.r.t environment protection



Source: SES, SBTi, Ambit Capital research, Company, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Some key reasons for low scores on E could be

- On energy management, sectors like telecom, consumer staples, and light and heavy engineering have particularly low scores despite energy management being a key "E" aspect for their operations. Incidentally, these sectors also lack on renewable energy. 11 out of the 19 companies in these sectors use renewable energy in their operations.
- On emissions, sectors like healthcare, auto ancillaries, light and heavy engineering, consumer staples and consumer discretionary have significant scope for improvement. Out of the cumulative 45 companies in these sectors, only 15 companies provide details on emissions, only 11 provide long-term targets for carbon reduction and only two are registered with SBTi.
- Water management is important for sectors like consumer staples and consumer durables. But both these sectors score low as they lack efforts on rainwater harvesting, recycling of water and no targets on reduction of water intensity.

Exhibit 34: Companies have poor scores on important parameters like carbon-neutral or net-zero commitments; even initiatives around most grasped parameters like energy, water and waste lack spirit

				Median scores (0 to 100), 0 is worst , 100 is best								
Sector	**Cos**	**Max**	**Min**	**Med. "E" score**	**Details**	**Products**	**Energy**	**Renew. energy**	**Emissions**	**Water**	**Effluent**	**Waste**
E&C/Infra	2	74	63	68	89	53	46	82	54	74	80	53
Auto	7	71	40	56	77	47	46	35	49	48	75	30
Metals & Min	6	56	38	54	88	50	64	30	58	50	76	48
Aviation	1	52	52	52	64	48	49	10	58	0	-	18
Cons. Dur.	3	50	38	50	55	44	39	10	48	40	20	29
Cement	4	55	44	50	78	51	50	53	66	49	40	46
Realty	2	59	40	49	90	52	41	19	50	46	14	39
IT	11	73	33	49	71	56	41	50	38	37	-	41
Power	5	51	41	48	84	46	50	27	46	46	28	46
Banks	7	66	21	47	67	-	45	48	78	25	-	31
NBFC	6	61	32	46	34	44	10	25	27	23	17	29
Telecom	2	50	40	45	57	39	24	33	39	10	-	19
Agri Inputs	2	49	39	44	75	51	44	30	51	54	27	38
Chemicals	1	43	43	43	89	42	12	13	18	12	32	13
Healthcare	16	63	27	43	58	37	22	22	23	20	18	24
Media	1	43	43	43	43	-	11	-	-	-	-	-
Oil & Gas	3	42	41	41	59	43	12	10	18	7	10	17
AMC	1	40	40	40	20	-	8	-	-	-	-	-
Insurance	3	62	30	40	-	-	20	-	10	14	-	58
Cons. Staples	12	77	25	39	69	53	20	32	29	27	17	25
Bld. Materials	5	51	29	38	55	42	48	52	34	32	36	35
Auto Anc.	5	47	26	36	61	36	38	25	20	13	20	23
Conglomerates	3	42	32	35	68	35	18	43	30	34	19	37
Light Engg.	3	45	26	33	71	29	22	27	18	13	17	23
Heavy engg.	2	29	29	29	53	31	11	20	21	5	10	28
Cons discr.	7	50	22	28	50	36	15	28	19	16	19	20
Universe	**120**			**43**	**66**	**43**	**29**	**28**	**35**	**27**	**21**	**30**

Source: SES, Ambit Capital research, Company, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

'S' is more critical in era of tech, globalization, rising consumer awareness etc…

CSR was probably largely understood only as a social parameter until now. Even the regulators have fixed CSR norms and made it mandatory for companies to do CSR spends. Naturally, scores of companies look better on parameters related to CSR. On social parameters, sectors like power, consumer durables, realty and IT gets maximum score, whereas sectors like telecom, healthcare, consumer discretionary and NBFC feature at the bottom. Our checks on social include parameters like proportion of women in workforce, number of trainings given on skill development and safety, number of customer complaints, CSR expenditure spends, initiatives to strengthen cyber security and maintain customer privacy.

Exhibit 35: We decide weights for each sector taking guidance from different global reporting standards

Parameters	**Weights(range)**
Workforce composition	6%-27%
Employee health and safety	7%-33%
Community initiatives	8%-33%
Product/service quality and Customer orientation	7%-33%
Data security and privacy	7%-33%

Source: SES, Ambit Capital research, Company

Exhibit 36: We try to cover most of the aspects on social matters in the context of Indian companies

Particulars	**Nos.**
Questions	92
Parameters across questions	317
Data points	>510

Source: SES, Ambit Capital research, Company

Some key characteristics of 'S' scores include

- Sectors like IT, Banks, Insurance and NBFC where data security is paramount have high scores. However, healthcare lags behind as not many hospitals talk around patient data privacy.
- On customer feedback relevant sectors like consumer discretionary, consumer staples, BFSI and realty score better. We base our checks around customer complaints, unfair trade practices, irresponsible advertising and customer service.
- Surprisingly, auto sector gets low score owing incidents of product recall, high customer complaints and lack of service quality.
- Employees are drivers of service oriented business like IT, healthcare, banks and other financial service sectors. Surprisingly, IT, healthcare and financial service sectors have low scores on employee well-being.
- High cases of sexual harassment are one reason for low scores. We believe more disclosures on mental health will lead to better score on this parameter.

Exhibit 37: Community, employees and customer initiatives are key focus areas; albeit ground-level checks is key to ensure effective execution of these initiatives

				Median scores (0 to 100), 0 is worst , 100 is best					
Sector	**Cos**	**Max**	**Min**	**Median "S" score**	**workforce diversity**	**Employee wellbeing**	**CSR**	**Customer feedback**	**Data security**
Power	5	72	58	69	60	72	75	82	72
Consumer Durable	3	71	57	67	54	66	72	74	67
Agri Inputs	2	69	64	67	71	65	68	80	84
E&C and Infra	2	69	64	67	62	57	76	77	72
Realty	2	70	61	65	67	79	74	63	48
IT	11	78	51	64	61	41	80	72	87
Cement	4	69	58	64	64	56	78	71	59
Oil & Gas	3	64	56	63	56	52	75	67	57
Metals & Mining	6	68	57	62	67	56	75	76	64
AMC	1	62	62	62	57	37	82	65	72
Banks	7	66	49	62	64	60	59	68	68
Chemicals	1	61	61	61	55	61	72	66	57
Light Eng.	3	64	61	61	52	53	70	71	57
Insurance	3	61	58	60	52	43	71	67	55
Heavy Eng	2	68	52	60	48	38	71	69	33
Cons. Staples	12	68	40	59	51	47	73	62	57
Conglo.	3	61	40	59	41	47	67	74	50
Auto	7	63	54	58	57	64	75	46	52
Aviation	1	58	58	58	59	53	64	57	47
Media	1	58	58	58	66	38	82	70	52
Bld Mat.	5	65	50	57	51	55	67	70	47
Cons. Discr.	7	62	38	57	57	36	68	59	47
Telecom	2	57	54	55	51	51	63	55	59
Auto Anc	5	74	51	54	46	35	61	65	30
NBFC	6	69	48	52	49	39	68	59	62
Healthcare	16	56	26	46	54	43	61	55	47
Universe	**120**			**58**	**56**	**52**	**71**	**66**	**57**

Source: SES, Ambit Capital research, Company, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

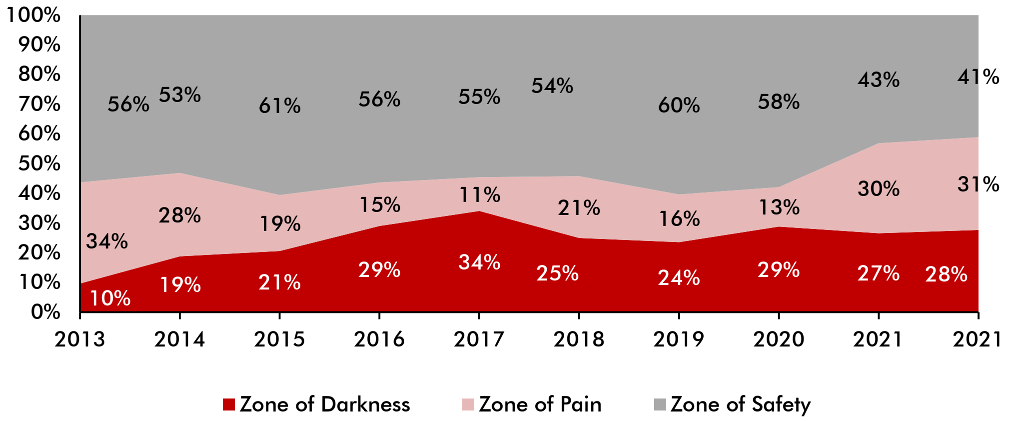
Accounting checks should precede checks on 'G'

A string of regulatory measures and actions over the last decade has significantly bought some positive changes in governance practices. Hence, this is reflected in the governance scores of the companies. IT, BFSI, telecom and consumer discretionary companies perform well on our governance parameters.

Of all the parameters related to governance, companies can make some improvement related to board composition. For instance, of the 120 companies, 66% have promoter chairman, 12 have >50% promoters on board, 47% of companies have long associated IDs, and ~50% have promoters on AC/NRC. These exceptions get effectively captured in our framework and hence have some scope for improvement. Governance analysis can be subjective and hence it is critical to know whether a particular practice by the company just ticks the box or actually holds the intent of law. We believe accounting quality checks act as a first-level filter to gauge governance culture within a firm and hence should be coupled with our governance parameters.

There is a high remuneration disparity between promoter ED and outside ED having similar qualification and experience. Moreover, majority companies yet to link KMP remuneration with sustainability goals

Exhibit 38: 60% of the FF mcap of BSE-500 (ex-BFSI) companies is featuring in the lower half of the accounting quality spectrum



Source: Ambit Capital research, Company, Bloomberg. Universe is BSE-500 (ex-BFSI), Free-Float mcap is considered as on 31 Dec of each year except for 2022, where it is 20-Jun-22

Exhibit 39: We set the weights basis our own assessment of criticality of different governance aspects

Parameters	Weights(range)
Board structure	20
Board committees	10
Director remuneration	12
Statutory auditors	8
Audit and financial reporting	25
Stakeholder engagement	15
Others	10

Source: SES, Ambit Capital research, Company

Exhibit 40: We try to cover most governance aspects in the context of Indian companies

Particulars	Nos.
Questions	133
Parameters across questions	505
Data points	>1050

Source: SES, Ambit Capital research, Company

Exhibit 41: Promoters' upper hand on the board and important committees lead to lower score in a few cases

				Median scores (0 to 100), 0 is worst , 100 is best							
Sector	**Cos**	**Max**	**Min**	**Median "G" score**	**Board Comp.**	**Board Committees**	**Director Remn.**	**Statutory Auditors**	**Audit & Fin. Rep.**	**Stakeholders Eng.**	**Others***
AMC	1	82	82	82	73	76	80	89	96	84	64
IT	11	87	69	79	65	70	66	100	93	88	67
Realty	2	80	78	79	60	63	69	96	96	90	74
Insurance	3	83	78	79	75	56	88	94	100	96	76
Telecom	2	81	77	79	65	74	66	98	93	84	71
Media	1	79	79	79	63	66	72	91	95	82	76
Banks	7	83	68	78	76	83	-	92	88	71	70
Cons. Discr.	7	83	74	77	69	68	72	96	92	78	64
Power	5	82	74	77	70	76	69	100	90	82	79
Cons. Durable	3	82	76	77	70	67	63	96	89	76	70
Auto Anc.	5	79	68	76	62	68	54	96	94	84	63
Metals & Mining	6	81	71	76	68	72	55	96	93	84	66
Cons. Staples	12	84	70	76	63	68	62	96	91	82	65
Auto	7	83	65	76	68	68	56	96	92	78	64
Agri Inputs	2	79	73	76	68	64	43	95	90	82	84
Light Eng.	3	76	75	76	69	68	70	100	89	76	65
Healthcare	16	84	73	76	66	67	61	96	92	84	66
Bld Materials	5	77	74	75	57	61	57	99	97	83	63
Oil & Gas	3	84	74	75	60	74	60	100	98	75	70
E&C and Infra	2	77	73	75	50	71	51	95	96	88	70
NBFC	6	83	71	75	58	70	62	98	89	87	62
Conglo.	3	80	71	74	61	66	57	100	96	75	77
Aviation	1	74	74	74	65	62	68	95	88	68	73
Chemicals	1	73	73	73	52	59	46	100	93	86	65
Cement	4	73	70	72	49	62	55	98	89	73	72
Heavy Eng.	2	74	67	70	49	64	56	98	81	83	66
Universe	**120**			**77**	**65**	**67**	**63**	**96**	**92**	**83**	**67**

*Source: SES, Ambit Capital research, Company; *includes factors like ethics, bribery, insider trading, code of conduct for BODs and KMPs, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22*

Through the lens of our framework

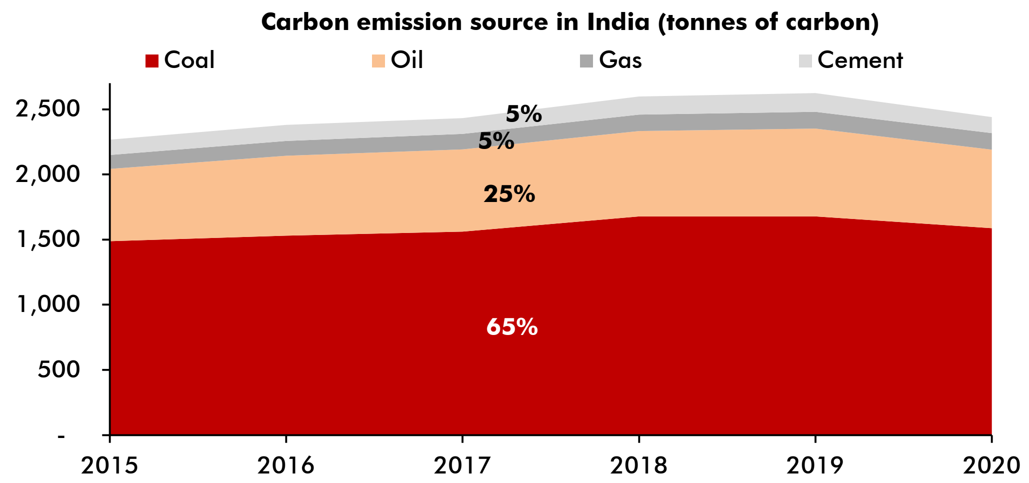
Climate actions begin with massive cut down in GHG emissions. We seek candidates who embraced a methodical approach to reduce GHG emissions. M&M, Tata Steel, Dr. Reddy and Marico pass the test. W.r.t ecological initiatives around the blatant problem of land and ocean dumping, Britannia, Cipla, Dr. Reddy's, Marico and Asian Paints show the way. Dealer checks around disposal of lead batteries highlight the dark side of claims on recycling. Sustainable sourcing commentary remains weak! Voltas and Tata Motors proved that customer-led initiatives can augment market share. TCS proves better employee initiatives lead to low attrition and stable margins. Loss of market share w.r.t credit card business of a large bank puts discussion on digitalisation failures at forefront. Tata Motors' surprise on rise in market share despite supply chain constraints is worth understanding. Our discussion with an expert on boards suggests diverse boards are the strongest! See our discussion on Trent, Titan, Abbott and a few more.

Infinite growth in a finite world is impossible

India has made the following three pledges in relation to emissions –

- Reduction in the total projected emission by one billion tonnes by 2030,
- Reduction in carbon intensity by 45% till 2030, and
- Achieve net zero by 2070.

Exhibit 42: Majority of carbon emission in India comes from coal, emissions by vehicles and cement manufacturing



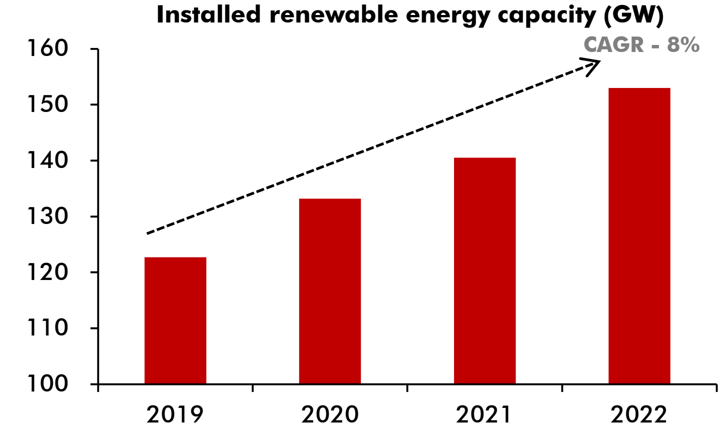
Source: Ambit Capital research, ourworldindata.org

Therefore, to curb carbon emissions, it is important to restrict the use of coal and generate electricity through alternate sources. This is where India has taken two pledges in relation to renewable energy:

- India will increase its non-fossil energy capacity to 500GW by 2030
- India will meet 50% of its energy requirements from renewables by 2030

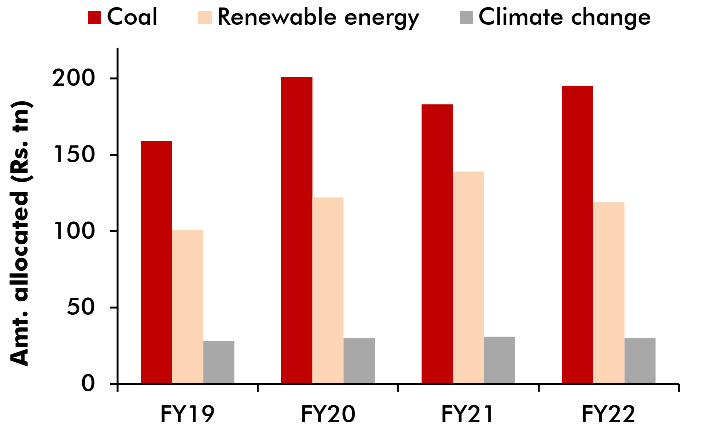
However, at the current pace, renewable energy targets by 2030 look an uphill task.

Exhibit 43: India is growing its renewable energy capacity only by 8%; to achieve its target by 2030 India will have to grow at a CAGR of 16% for the next eight years



Source: Ambit Capital research, IBEF

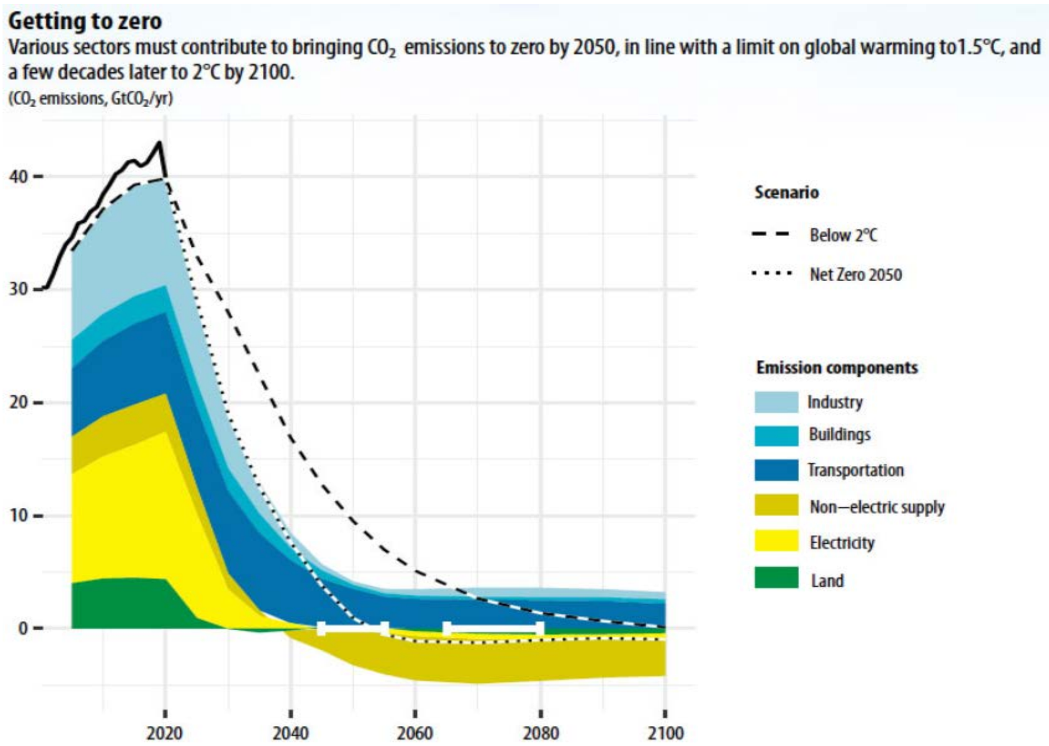
Exhibit 44: Budget allocation for the ministry of coal has increased in FY22; meanwhile the budget for renewables has decreased



Source: Ambit Capital research, union budget 2021-22

There is enough consensus between the scientists around the world that increase in land, water or air temperatures is caused largely by human activities. GHGs emitted through human activities are most important cause of global warming. Hence, focus on reduction in GHG emissions has been important topic of discussion for regulators, scientific communities, NGOs, corporates etc

Exhibit 45: The expected steep reduction of CO2 emissions between today to 2050 to achieve net-zero position by 2050 or limit temperature increase to 2% by 2100 suggests magnitude of the task at hand!



Source: Ambit Capital research, Company, IMF

Who are India's top carbon slayers? Avoid recently awakened ones!

Discussion on carbon elimination could lack will and spirit. In this scenario, it is critical to take a logical approach to find companies which are best placed w.r.t carbon-neutral or net-zero emission strategies. For instance, Infosys's net-zero plan suggests that three decades of consistent efforts would be required at least for a company to reach net-zero. We saw the above climate-related challenges are real and need immediate and concentrated actions. Three critical factors to neutralize CO2 emissions are: 1) dependence on renewables, 2) qualified off-setting projects and 3) investments in carbon capture technologies. A company doing well on these three parameters and backed up with approved, measurable and verifiable scientific plan [in our opinion, a signatory to SBTi (Science Based Targets Initiatives)] is a safer bet! SBTi signatories are essentially committing to restricting the temperature increase to 1.5/2.0 degree Celsius by 2050.

Exhibit 46: Amidst the chaos to become carbon neutral, finding few with improvements around GHG intensity, renewables dependency and backed by methodical approach; Ask us to run a heatmap on your portfolio companies

Company	Mcap (US$mn)	GHG intensity				Renewable energy dependency (%)			SBTi (yes/no)	Targets	
		Unit	FY19	FY20	FY21	FY19	FY20	FY21		Short-term	Long-term
M & M	17,499	Business wise*	Business wise*	Business wise*	Business wise*	3	4	5	Yes	Reduction of emission intensity by 4.1% year-on-year for next 15 years	Group is committed to becoming Carbon Neutral by 2040.
Tata Steel	13,597	tCo2/tcs	Plant wise*	Plant wise*	Plant wise*	ND	ND	ND	No	Achieve CO2 emission intensity of <2tCo2 /tcs for Tata Steel India	Achieve CO2 emission intensity of <1.8 tCo2 /tcs for Tata Steel India
Tech Mahindra	12,564	MTCo2e / Employee	1.4	1.3	0.8	15	18	21	Yes	Reduction in Scope 1/2 GHG emissions in MTCo2	Achieve Carbon Neutrality
Godrej Consumers	10,279	kg Co2e/ MT	182	193	195	31	30	29	Yes	NA	Achieve scope 1 and 2 carbon neutrality by 2026
Dr. Reddy	9,216	tCo2e/ mn of Revenue	3.5	2.9	2.8	8	9	21	Yes	NA	2030: 55% reduction in carbon emissions
Marico	7,997	tCo2e/ crore of Revenue	3.0	2.4	1.5	73	79	72	No	Reduction of GHG emission intensity (Scope 1 and 2) by 75% from FY13	Transition to carbon neutral operations at all facilities

*Source: Company, Ambit Capital research, SES *Refer table below for M&M and Tata Steel, Bloomberg, Mcap data is dated 28-Jun-22*

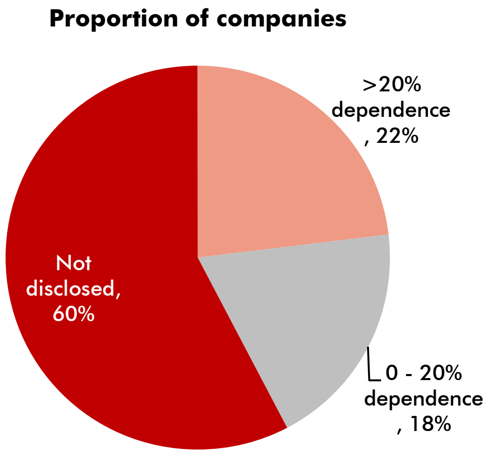
Exhibit 47: M&M and Tata Steel are tracking the reduction in emission level at division and plant levels respectively

Company	tCO2 / unit of measure				Unit of Measure
M & M (Scope 1 and 2 emission)	**FY18**	**FY19**	**FY20**	**FY21**	
Automotive division	0.18	0.19	0.20	0.19	Eq. no. of vehicles manufactured
Farm division + Swaraj division	0.19	0.17	0.18	0.16	Eq. no. of tractors manufactured
Spares business unit	0.30	0.28	0.34	0.39	Tonnes of packaging material
Swaraj foundry division	DNA	6.34	6.06	5.40	Tonnes of production
Nashik plant dies	4.34	3.89	2.11	2.31	Equivalent Dies
Mahindra research valley	9.64	10.04	10.85	9.50	Full Time equivalent employees
Corporate centre	0.16	0.16	0.15	0.06	Area of facility in sq. m.
Mahindra two-wheeler division	DNA	0.05	0.02	0.01	Eq. no. of vehicles manufactured
Tata Steel (GHG emission intensity)	**tCo2/ tcs (tonnes of crude steel)**				
Tata Steel Jamshedpur	2.3	2.3	2.3	2.3	
Tata Steel Kalinganagar	2.7	2.5	2.5	2.4	

Source: Company, SES, Ambit Capital research

Today, the dependence of companies on renewable source of energy is very low. Further, companies are barely discussing on capital outlay plans around carbon emission technologies. We believe companies with significantly lower carbon emissions could rather strive to become carbon neutral through running bio-diversity of other environmental projects like Infosys.

Exhibit 48: Dependence on renewable source of energy is very low for top 120 companies



Source: SES, Ambit Capital research, Company

Exhibit 49: Infosys turned carbon positive on higher dependence on renewables & gold standard VER projects

Infosys	FY22 (tCo2e)
Scope 1 GHG emissions	8,965
Scope 2 GHG emissions	51,717
Total emissions	**60,682**
Carbon reduction initiatives	
Energy efficiency retrofits(emissions avoided)	243
Renewable energy generation and procurement(emissions avoided)	58,177
Carbon - off set projects	
SKG Household Biogas, Karnataka	51,748
Envirofit Improved Cookstove, Odisha	71,729
Savayava Krishi Parivara, Karnataka	79,377
Udaipur Urja Improved Cookstove, Rajasthan ICS 3.0	35,379
Total reductions/off-sets	**296,653**

Source: SES, Company, Ambit Capital research

Another critical aspect to GHG emissions is the Scope 3 emissions. Scope 3 emissions are essentially all other indirect emissions that occur in a company's value chain. This includes purchase of goods and services, business travel, employee commuting, transportation and distribution, investments, lending etc. Several companies have started disclosing their scope 3 emissions.

Exhibit 50: Several companies have started disclosing the impact of GHG emissions (Scope 3) from their total value chain and few have shown some progress too

Company	Unit	FY19	FY20	FY21
Infosys	tCo2e	342,847	347,844	213,514
HCL Tech	tCo2e	ND	76,135	10,254
Wipro	tCo2 eq.	380,946	421,527	350,336
UltraTech	tCO2	ND	5,376,000	5,257,232
Tata Motors	tCo2e	4,456,542	3,140,861	4,406,580
Tech M	MTCo2e	39,188	39,285	16,997
Ambuja	tCo2e	1,932,218	1,973,623	1,755,911
Dr. Reddy's	tCo2e	331,501	324,723	471,580
Marico	tCo2e	507,667	499,568	516,146
MindTree	tons Co2e	22,379	24,760	5,612
Mphasis	tCo2	5,208	5,168	1,986
Astral	tCo2e	8,551	13,016	12,331
Voltas	tCo2e	3,798	3,824	2,716
Kansai Nerolac	MT Co2 eq.	6,733	9,558	8,187

Source: Company, SES, Ambit Capital research, Bloomberg, Mcap data is dated 28-Jun-22

The blatant problems of land and ocean dumping; beware of the dark side!

Rising urbanization and industrialization have led to massive waste management challenges. The key to efficient waste management is to ensure that waste goes through different streams of recycling and resource recovery. As per United Nations report, India generates 15 million tonnes of plastic waste every year but only one fourth of this is recycled due to lack of a functioning solid waste management system. Plastic has a significant impact on the environment and can adversely affect the humans, wildlife and their habitat. The issue of plastic management is more important to companies from consumer goods and healthcare space. A fine reading of their policies and practices on plastic management help us to find best ones.

Exhibit 51: A few consumer goods and healthcare companies are setting the tone for dealing with plastic wastes

Company	Area of focus	Key outcomes over recent years
Britannia	▪ Sustainable packaging ▪ Reducing plastic usage ▪ Recycling ▪ Extended Producer's Responsibility	▪ Reduction in laminate consumption 17%/kg of product ▪ Avoiding ~450,000kgs of plastic w.r.t tray ▪ Certificate from CIPET on laminate film fully recyclable ▪ Reduction of paper consumption by 16,000,000kgs over last four years ▪ Despite Covid, company collected 5,000,000kgs of plastic in FY21
Cipla	▪ Recycling ▪ Waste collection and disposal ▪ Extended Producer's Responsibility	▪ 10% of the recycled material is used in carton and shippers ▪ In FY21, company collected plastic waste equivalent to 100% of the post-consumer plastic ▪ Waste collected (12,282 MT) was recycled and applied to various purposes
Dr. Reddy	▪ Sustainable sourcing ▪ Sustainable packaging ▪ Partnership with third party to facilitate recycling	▪ 3.6MT of Co2e reduction through sourcing (71.53MT) of Forest Stewardship Council (FSC) certified pulp and paper packaging ▪ Aims to achieve 100% waste neutrality(including plastic waste) in India by 2023 ▪ 40% of post-consumer waste recycled through third party waste management agencies
Marico	▪ Recycling ▪ Extended Producers Responsibility ▪ Circular economy ▪ 100% recyclable, reusable or compostable packaging portfolio	▪ 95% of company's product packaging (by weight) is recyclable ▪ Completed collection, energy recovery and environmentally safe disposal of 1,630 MT of post-consumer multi-layer packaging ▪ 38% of critical value chain partners (covers 88% of RM and PM suppliers) are certified under responsible sourcing framework SAMYUT
Asian Paints	▪ Plastic waste management ▪ Extended Producers Responsibility	▪ Collection and recycling of >2,798 tonnes of post-consumer flexible plastic. This represents 100% of flexible plastic footprint in packaging in FY20 ▪ 549,000kgs of plastic recycled in FY21

Source: SES, Ambit Capital research, Company

Nonetheless, the finer evaluation of waste management practices of the companies can highlight major gaps between disclosures and effectiveness of actions. We take the example of lead acid-based battery manufacturers. Lead is the major raw material for producing lead acid batteries. It is paramount that the old lead batteries be recycled and new batteries be made from the same lead used to reduce lead circulation in the environment. To make this possible, battery rules (Rules) were introduced in 2001 by the government of India wherein responsibility was given to manufacturers to ensure channelization of used lead acid batteries from generators to authorized recyclers for ensuring environmentally safe recycling.

Exhibit 52: The batteries (management and handling) rules mandate that ~90% of the used batteries be collected back

S. No.	Year	Number of used batteries to be collected back
(i)	During first year of implementation of rules	50% of new batteries sold
(ii)	During second year of implementation of rules	75% of new batteries sold
(iii)	After second year of implementation of rules	90% of new batteries sold

Source: The batteries (management and handling) rules, Ambit Capital research

However, almost all lead acid battery manufacturers have failed to take complete measures despite 21 years since implementation of the battery rules. While processes followed by two key battery players (Player 1 and Player 2) seem to be in line with global players, we note that only ~40% of the lead and lead alloy requirements of one player come from recycled lead. Meanwhile, the second player does not even disclose the said number. In comparison, more than 80% of raw materials come from recycled batteries for leading lead acid battery makers like Clarios. As per the last hearing given to manufacturers of lead acid batteries for non-compliance on battery rules, none of the manufacturers had made any significant progress.

Exhibit 53: Even in 2019, none of the lead acid battery manufacturers in India could adhere to the battery rules, 2001

Company	Comments on non-compliance
Player 1	Accepted the facts that despite efforts, they could not achieve the collection targets and requirements of the Rules.
Player 2	Only 25-30% of dealers got registered with SPCBs. Non-compliance reasons similar to Player 1
Player 3	Dealers not registered with SPCBs
Player 4	Have difficulties w.r.t. achieving collection targets, ensuring compliance by bulk consumers

Source: Ambit Capital Research, hearing given to manufacturers of lead acid batteries for non-compliance

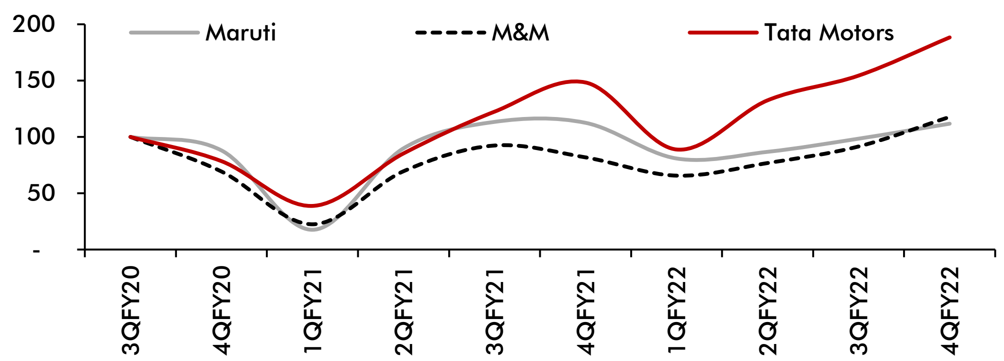
As per our checks on Player 1, this is largely due to the following reasons:

- In some regions, such players offer more price for procuring used batteries than Player 1.
- Selling the used batteries to Player 1 would result in incidence of 18% GST for battery dealers
- Some dealers also highlighted that Player 1 would procure only in bulk quantities, which is not viable for a majority of small dealers and also adversely impacts liquidity.
- Some dealers also highlighted that Player 1 usually pushes for barter of used batteries for new (unused) batteries instead of cash settlement.

Commentary on sustainable sourcing or supply chains remain weak

The recent Covid-19 pandemic probably exposed the gaps in supply chain management practices of the companies. Explanations around the practices of companies which could relatively better manage their supply chains in recent event of pandemic led adversity could be many. Few still did relatively better versus others. Remember Covid-19 pandemic could be considered as an ESG issue. Tata Motors could be a classic example where the company could effectively manage its supply chain amidst the chip shortage issue induced by pandemic

Exhibit 54: Tata Motors' volume growth* vs peers suggest that the company remained less affected from pandemic-led chip shortages issue



*Source: Ambit Capital research, Companies, *volume is adjusted to the base of 100*

Tata Motors in its investor presentation post the first wave of the pandemic indicated an agile supply chain as one of the responses to the crisis and also indicated that turnaround will be based on supply chain efficiencies. Connected supply chain, strategic sourcing and early supplier involvement were stated as the key components of supply chain management. In a recent interview, Mr. Rajesh Khatri, VP – Operations, Tata Motors stressed on making supply chain strategy future ready. He said the company is diversifying its supplier base and is choosing catalog chips in designing its electronic components which makes the parts easily available. He also hinted that the company is arranging for designing alternative architecture with new-gen chips. Volatile climate conditions or social tensions can continue putting stress on supply chains. Another very closely knitted area to supply chains is the issue of sustainable sourcing. Sustainable sourcing refers to the inclusion of social, environmental and economic criteria in the sourcing process. The large listed entities can be expected to have enough control over their large suppliers and can help mend the unsustainable practices of their sourcing partners.

Exhibit 55: Most companies are resorting to keeping sustainability checks on upstream value chain participants through establishing a code of conduct, continuous evaluation and audits; but more colour is required w.r.t to its success!

Company	Initiative
Marico	▪ Company initiated SAMYUT – The responsible sourcing programme ▪ Three levels designed under the programme. ▪ In FY21, completed certification (level 1) of 38% of our critical value chain vendors (raw material, packaging material suppliers, convertors, logistics, depot and warehouse partners). ▪ The rollout of Level 2, 'Evaluate' (audit of value chain associates) programme is scheduled in FY22
Dr. Reddy's	▪ Company has a "Supplier Code of Conduct" for their business partners ▪ The Code of Conduct addresses the elements of sustainable sourcing (supply continuity, quality and compliance, overall sustainable performance management etc.). ▪ Appointment of dedicated team to help business partners align with company's vision on sustainability
Tech M	▪ Company claims that 90% of inputs are sourced sustainably. ▪ On capex items, the vendor's sustainability aspects are considered before finalisation ▪ Company encourages recyclable content while procuring. ▪ Focus on proximity of the supplier to the location (to enable procurement from local suppliers) ▪ Conducts supplier audits/ assessments to understand the risks within the supply chain w.r.t ESG. ▪ We encourage our Suppliers to track and reduce GHG (Green House Gas) emissions
Ambuja	▪ Company has engaged Avetta, leading global consultant in supplier qualification ▪ The consultant screens the suppliers on health & safety, labour, environment and Bribery & Corruption. ▪ The company maps their suppliers with high, medium, or low risk ▪ Through their 'Sustainable Development Ambitions 2030", the company aims to have 100% of high-risk suppliers assessed with a consequence management plan by 2030.
InterGlobe Aviation	▪ Sustainable Aviation Fuel (SAF) - The utilisation of SAF commercially is still a few years, but company has already signed their first MOU with an international SAF provider
Tata Motors	▪ The company claims that it continuously strives to improve the sustainability performance of its product on life cycle basis. ▪ At the sourcing stage, the Company works with its suppliers to have returnable and recyclable packing solutions ▪ The Company also encourages its suppliers to implement rainwater harvesting and install renewable energy at their facilities.

Source: SES, Ambit Capital research, Company

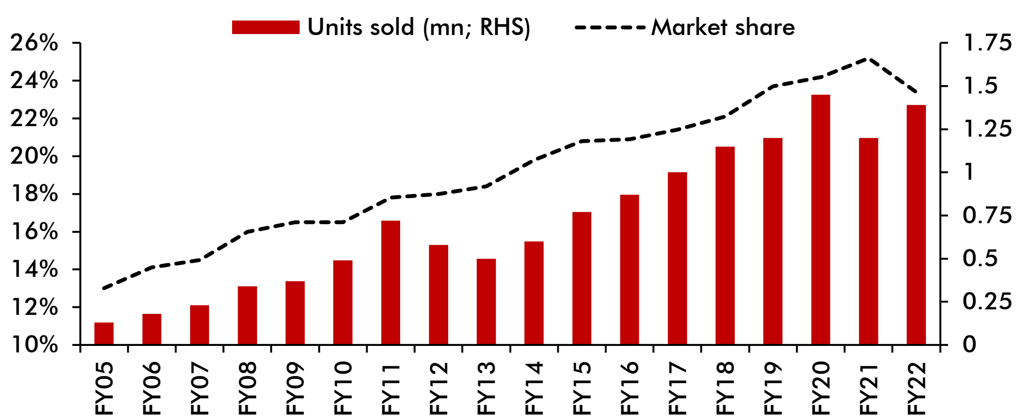
'S' is central to E 'S' G; tick-box way is overly deceptive

Success of the business also depends on how the company treats its employees, customers, suppliers etc. Concerns like shortage of skilled labour, risks around data security, rising aspirations to increase TAM, resilient supply chains etc. cannot be addressed unless the companies take concrete steps to address effectively the concerns and aspirations of their employees, customers, suppliers etc.

Customers are the king and the king makers too!

The customer-oriented approach of Voltas probably fueled the increase its market share from ~13% in FY05 to ~23% in FY22 despite prominent global players like Samsung, Panasonic and LG as its peers.

Exhibit 56: Voltas has continuously increased its market share since FY05



Source: Ambit Capital research, Company

A few top companies on customer orientation
Ashok Leyland
Mphasis
Dabur
Maruti Suzuki
L&T Infotech
Tata Consumers

Source: SES, Ambit Capital research

Our channel checks suggest that Voltas provides the best after sales service and has the best average reply time. Moreover, its parts are easily available which makes it customer friendly. The company adopts some proactive measures like offering one of the best AMC assistances at a reasonable price. A low-cost maintenance helps reducing cost of ownership of the product, which could be a huge competitive advantage.

Exhibit 57: Our dealer checks suggests that Voltas offers the most reasonable maintenance cost, which helps reducing total cost of ownership

1.5tonInvertor Split AC	Voltas	Haier	Daikin	Samsung	Panasonic	Carrier	Bluestar	Midea	Lloyd	LG
Series name	JZJ	Clean CoolXL	FTKM	Windfree	CS/CU	Durafresh	DL	Santis Pro RYL	WBEL	BN
Offer price	38,500	40,990	43,790	44,500	44,736	44,000	44,490	42,999	41,700	44,499
Discount offered	44%	43%	19%	39%	29%	40%	33%	23%	32%	41%
Installation cost	1,179	1,770	1,770	1,415	1,770	1,770	1,770	1,770	1,770	1,770
5 year AMC cost	7,080	12,500*	12,500*	12,500*	12,500*	12,500*	12,500*	12,500*	12,500*	12,500*
Warranty	1 and 10	1 and 12	1 and 10	5 and 10	1 and 10	1 and 10	1 and 9	1 and 10	1 and 10	1 and 10
Cost of ownership	**46,759**	**55,260**	**58,060**	**58,415**	**59,006**	**58,270**	**58,760**	**57,269**	**55,970**	**58,769**

*Source: Ambit Capital Research, Flipkart, Reliance Digital. Note: AMC for Midea represents average AMC. Read warranty as comprehensive + compressor; *includes 10 services costing Rs.700 each, Rs.3,000 on gas changing and Rs.2,500 on other components*

Voltas has excelled in after sales services, which is one of the key requirements in the consumer durables sector. The company has the highest rating with lowest percentage of unresolved complaints on consumercomplaints.in.

Exhibit 58: To conclude, effective customer-focused initiatives...

Brand	Rating	Total complaints	Unresolved Complaints (%)	Website remarks
Voltas	3.7	4,050	29%	**Awesome**
Daikin	3.7	537	29%	**Awesome**
LG	3.1	6,825	43%	**Good**
Hitachi	3.1	1,442	40%	**Good**
Samsung	3.1	17,805	40%	**Good**
Haier	1.0	819	78%	**Moderate**
Blue Star	1.7	538	69%	**Bad**
Panasonic	1.0	1,913	86%	**Bad**
Lloyd	1.0	741	91%	**Bad**

Source: Ambit Capital research, Company, consumercomplaints.in

Exhibit 59: ...have garnered several accolades for Voltas

Year	Award	Awarded by
2021	Most preferred brand	Marksmen daily
2021	Making customers smile award	TATA
2020	Most iconic brand	Economic times
2020	Most desired brand	TRA
2020	Gold standard of marketing	2020 Effie awards
2019	Trusted Brand	Readers digest
2019	Indiaa Award in the Consumer Durable Category	International Advertising Association

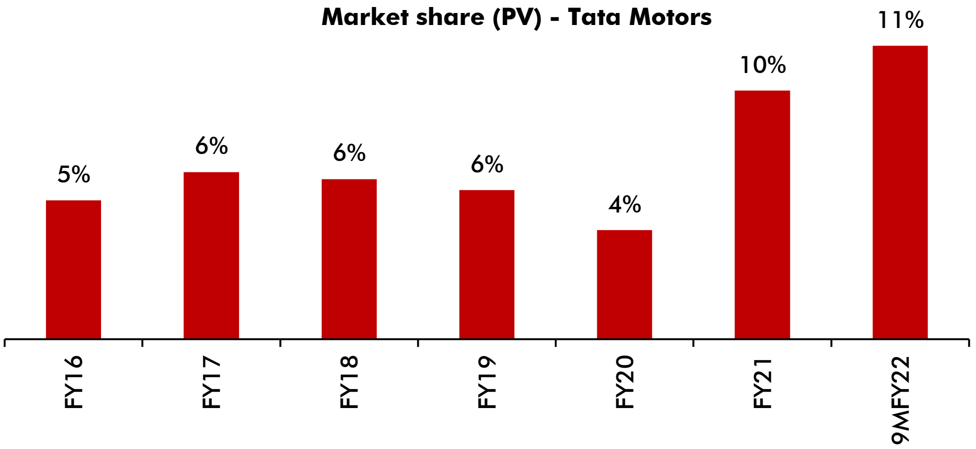
Source: Ambit Capital research, Company

Another classic case study on winning customers confidence is Tata Motors. Tata Motors' encouraging journey in its PV segment could be largely attributed to various customer-focused actions taken by the company over the last decade.

For instance, 'Win Sustainably in PV' (Reimagining PV) narrative initiated by company focused on:

- Create highly energized retail-focused sales and dealership team
- Drive the twin objective of growth and network profitability by redefining dealer systems and HR practices
- Continue offering a refreshed portfolio to remain relevant and competitive in the market
- Digitally transform the front-end to enhance user experience, customer connect and reach
- Exemplary after-sales customer experience
- Strengthen Tata Motors brand positioning to make it aspirational for our customers.

Exhibit 60: Rise in market share in the PV segment by Tata Motors could be attributed to its customer-focused initiatives



Source: Ambit Capital research, Company

Tata Motors also focused on offering more features compared to peers. We look at a compact SUV Tata Punch and compare it with its closest peer models.

Exhibit 61: Tata Motors offers more features under a given price range versus peers

	Tata Punch Kaziranga Edition	Kia Sonet HTK Plus Turbo	Maruti Baleno Alpha
On road price (Rs.mn.)	1,057,021	1,110,620	1,081,415
User rating	4.5	4	4.4
Displacement (cc)	1199	998	1197
Comfort & convenience			
Power windows front	Yes	Yes	Yes
Power windows rear	Yes	Yes	Yes
Automatic climate control	Yes	Yes	Yes
Rear seat centre arm rest	Yes	No	No
Cruise control	Yes	No	Yes
Rear window wiper	Yes	No	Yes
Alloy wheel	Yes	No	Yes
Rear window washer	Yes	No	Yes
LED tail lights	Yes	No	Yes
Driving experience control	Yes	No	No

Source: Ambit Capital research, Cardekho.com

Lastly, to further win the customer confidence, the company continues to manufacture the safest cars. Tata Punch is rated as the safest car in India while Tata Altroz and Tata Nexon are the third and fourth best.

Exhibit 62: Five of the top 10 safest cars in India are manufactured by Tata Motors

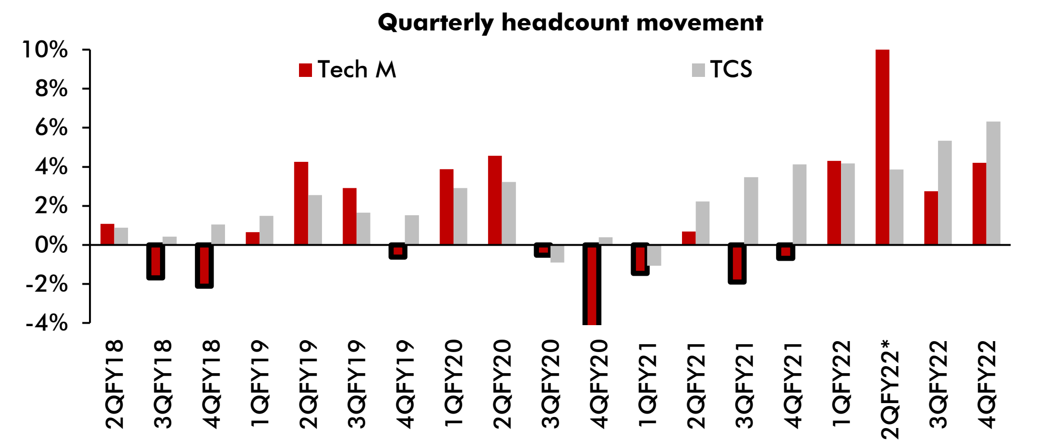
Make and model Tested by G-NCAP	Adult Safety Rating	Points scored out of 17	Child Safety Rating	Points scored out of 49	Body Shell
Tata Punch	5 Star	16.45	4 Star	41	Stable
Mahindra XUV300	5 Star	16.42	4 Star	37	Stable
Tata Altroz	5 Star	16.13	3 Star	29	Stable
Tata Nexon	5 Star	16.06	3 Star	25	Stable
Mahindra Marazzo	4 Star	12.85	2 Star	22	Stable
Volkswagen Polo	4 Star	12.54	3 Star	30	Stable
Mahindra Thar	4 Star	12.52	4 Star	41	Stable
Tata Tiago/Tigor	4 Star	12.52	3 Star	34	Unstable
Maruti Suzuki Vitara Brezza	4 Star	12.51	2 Star	18	Stable
Tata Tigor EV	4 Star	12	4 Star	37	Unstable

Source: Ambit Capital research, globalncap.org

To win the marketplace, first win the workplace!

It is no secret that retaining top talent is the key to promote organisational growth. Recruiting and retaining employees is both expensive and time consuming. Thus, an organisation having good employee retention record and less attrition could have a competitive advantage

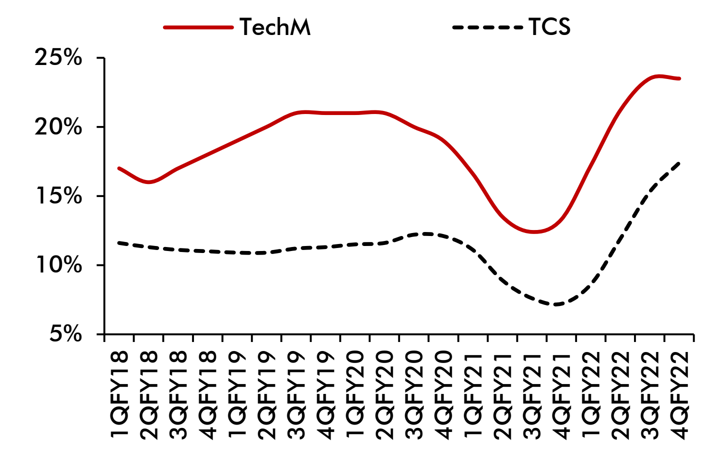
Exhibit 63: In the last five years, TechM witnessed headcount reduction in 8/20 quarters as compared to 2/20 for TCS



*Source: Company, Ambit Capital research, *increase in headcount for 2QFY22 is 12%*

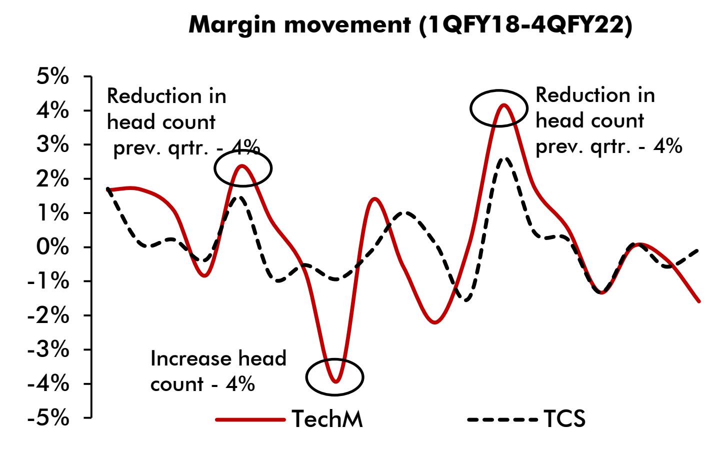
TechM has been aggressive in managing staff costs; this aggression hurts them during higher growth periods. For margin recovery, TechM gave almost no wage hikes in FY17 and FY18. There has been negative news flow on social media (when an employee firing video got leaked) and multiple complaints with labour union (NDLF) on TechM's ad-hoc firing.

Exhibit 64: Higher attrition rates of TechM as compared to TCS have led to...



Source: Ambit Capital research, Company

Exhibit 65: ...more volatile EBIT margin movements over the last five years



Source: Ambit Capital research, Company

Surprisingly, 'Glassdoor' and 'Indeed' ratings on these two employers also support the attrition rate analysis.

Exhibit 66: TCS does marginally better versus TechM on employer ratings

Company	Glassdoor rating	Indeed rating
TCS	3.9	3.9
Tech M	3.6	3.7

Source: Ambit Capital research, Company, Glassdoor.co.in; Indeed.com

Another discussed area w.r.t employee initiatives remain diversity and inclusion. India Inc. still fares poorly on women participation in the workforce. Whilst, it remains one of the most discussed topics in the sustainability reports, data suggests companies need to do lot more on this aspect.

Exhibit 67: Gender diversity can be improved by several sectors!

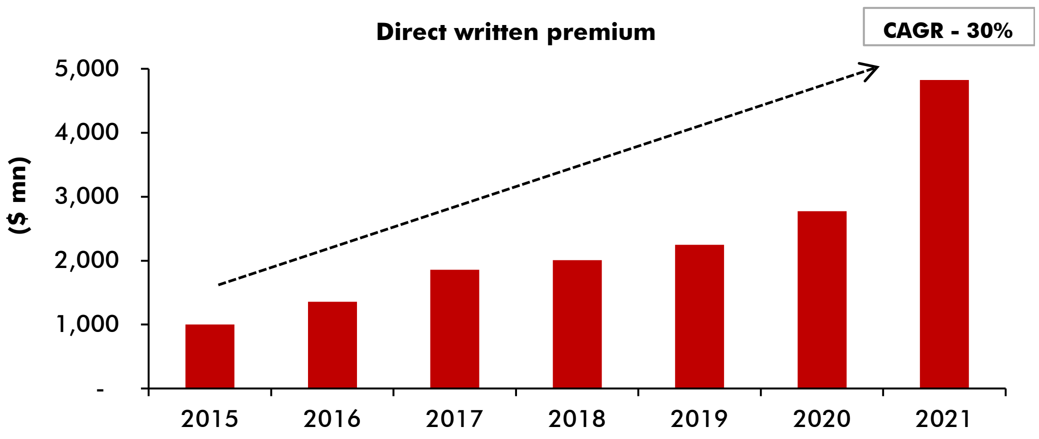
Sector	Women employee strength in total employees					
	FY20			FY21		
	Median	Highest	Lowest	Median	Highest	Lowest
Media	40%	40%	40%	40%	40%	40%
Aviation	41%	41%	41%	40%	40%	40%
IT	32%	38%	19%	32%	39%	21%
AMC	29%	29%	29%	30%	30%	30%
Insurance	24%	26%	18%	24%	26%	18%
Banks	21%	31%	18%	23%	32%	11%
Consumer Discretionary	22%	82%	5%	22%	79%	5%
Realty	20%	29%	11%	19%	26%	12%
NBFC	16%	29%	3%	13%	26%	3%
Light Engineering	11%	17%	3%	12%	18%	3%
Telecom	11%	13%	9%	10%	13%	6%
Consumer Staples	9%	31%	3%	9%	29%	3%
Heavy Engineering	8%	10%	7%	9%	10%	8%
Metals & Mining	7%	12%	3%	7%	22%	3%
Healthcare	7%	34%	2%	7%	53%	2%
Consumer Durable	6%	8%	5%	6%	9%	4%
Oil & Gas	5%	6%	3%	6%	6%	2%
E&C and Infra	4%	6%	1%	4%	8%	1%
Power	4%	30%	3%	4%	11%	0%
Chemicals	4%	4%	4%	4%	4%	4%
Auto	4%	8%	3%	4%	9%	3%
Building Materials	4%	6%	2%	4%	9%	2%
Agri Inputs	3%	4%	2%	3%	3%	3%
Conglomerate	2%	35%	2%	3%	39%	2%
Cement	2%	4%	0%	2%	4%	1%
Auto Anc	1%	22%	0%	1%	22%	0%

Source: Ambit Capital research, SES, Company, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Companies need to prepare for rising cyber security risks

With sustainable investments surging, discussions around the risk of privacy and data breaches are increasing. At a time when cyber-attacks and data breaches are happening more frequently than ever, ensuring effective data management safeguards are in place is crucial to a company's performance. Globally, fund managers are reviewing how companies safeguard against an attack or fraud. With the threat of cyber-attacks increasing, companies apart from making their internal systems robust are seeking protection in the form of insurance against cyber-attacks. From 2015 to 2021, cyber insurance premium paid in the US has increased at a CAGR of 30% with substantial increase seen in 2021 by 74% over 2021.

Exhibit 68: Frequent incidents of digital outages have urged companies in the US to seek shelter in the form of cyber-insurance



Source: Ambit Capital research, Fitch ratings, S&P Global market intelligence

Recently, a large bank faced outrage over multiple incidents of digital failure, indicating weaknesses in the bank's digital infrastructure and operational resilience. This resulted in RBI asking the bank to stop all its digital launches and issuance of new credit cards.

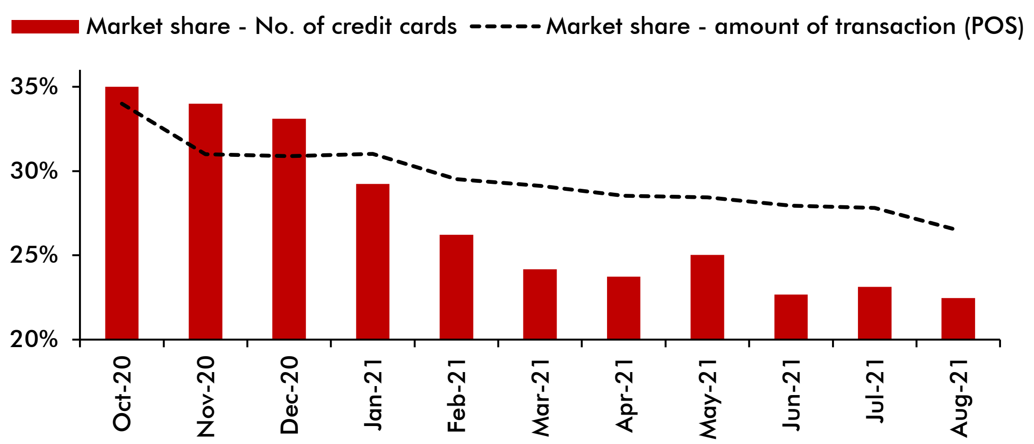
Exhibit 69: Multiple incidents of digital failure in the bank led to RBI imposing a ban on issuance of new credit cards and new digital launches

Year	Incidents of digital failure
2018	Bank had launched a new version of its mobile banking application. But its customers struggled to log in and the bank was forced to withdraw the new application and restore the old one.
2019	Bank faced a two-day outage that affected its net banking and mobile banking operations.
2020	Bank faced outages in its internet banking and payment system due to a power failure in the primary data centre.

Source: Ambit Capital research, Company

The ban in December 2020 resulted in the bank losing its market share over the next nine months till the ban was partially lifted by RBI. The market share in terms of number of credit cards fell from 35% in Oct-20 to 22% in Aug-21 and in terms of amount of transaction fell from 34% to 26% over Oct-20 to Aug-21.

Exhibit 70: The bank lost substantial market share in the credit card space due to the RBI ban



Source: Ambit Capital research, Company

Diversity, accounting and past board decisions, a true measure of 'G'

Our discussions with an expert on board conduct suggest that the role of the board is evolving. There is increasing acceptance by companies that a strong board could add value to the business. Moreover, technology and marketing are the most sought after skills by the management. A diverse board (age, gender, skill-sets etc.) coupled with superior accounting quality and history of pro-minority investors' decisions actually reflects strong governance mechanism within the company

What is a strong board? A truly diverse board is a strong board

Out of curiosity to answer this simple question as to 'What constitutes a strong board', we approached an expert on the subject of board and CEO successions. The expert leads the diversity and inclusion practice of a reputed global firm in India. She is actively involved in advising her clients on issues related to governance, leadership succession and leadership development. We tried to get as much insights on different topics which always bother or are often tackled by the investors. The key takeaways of the discussion include the following points:

- Over the last 21 years, companies are increasingly approaching advisory firms to appoint right board member candidates.
- Companies are increasingly seeking more value from their board members. But it is a trajectory and it has only started.
- Previously, chartered Accountants, lawyers dominated the board; however, today companies are increasingly looking for experts with skills around consumer insights, technology, advertisement etc.
- Technology remains the most sought after skill.
- Professionally managed companies are keener to extract value from board. Nonetheless, the number of promoter families seeking right board candidates is also increasing.
- Ensuring full independence in always tricky. It seems everyone is independent. But, there if often relationship outside the family. Intentions are not always wrong.
- Role of the board could differ depending on the size of the company. The board could add value differently depending upon the company's stage in its life-cycle.
- A company more serious on getting value, often would go for more diverse board
- Ideally 20-30% of board members should be women.
- Size of the board depends on complexity of the business. Nonetheless 8-10 members are preferred. If the chairperson is independent, size of the board could be 6-7.
- Driven on back of value seeking, diverse (gender, age, experience etc.) boards are always better in terms of adding value.
- Requirement of specific skill-set can create scarcity.
- ESG discussions have begun in the board. It is too early, but rapidly evolving.

Essentially, we understand that the board is strong if it is diverse w.r.t. skill sets, gender, age, etc. Looking back at actions taken by the company would help gauge board oversight mechanism of firms. We highlight examples of some businesses where the board appears more diverse versus several other companies.

Exhibit 71: Only in hindsight, we know successful businesses could also be driven by more diverse board

Company	Composition of skill-sets of directors (based on past experience)						
	Finance	Industry experience	Technology	Legal	Mgmt.	Marketing	Others
Tata Motors	22%	33%	22%	-	22%	-	-
Abbott India	11%	33%	11%	11%	22%	11%	-
Apollo Hospitals	18%	54%	9%	-	18%	-	-
Titan	8%	-	-	-	33%	42%	17%
Trent	38%	-	-	-	25%	38%	-
Median of above five	18%	33%	11%	11%	22%	38%	17%
Median of top 120 companies	**25%**	**17%**	**-**	**-**	**30%**	**-**	**-**

Source: SES, Ambit Capital research, Company, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

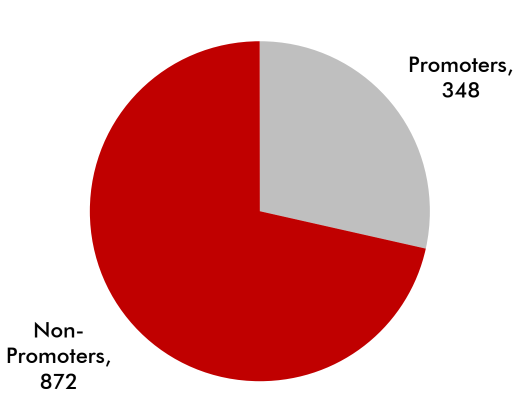
Some noteworthy characteristics of boards of the above five companies include:

- Two common directors sit on board of Trent and Titan. Both directors have extensive experience w.r.t consumer insights.
- Whilst Mr. R Harish Bhat acts as director at Trent, he is credited for successful turnaround of jewellery business. He is a member of the Consumer Insights Panel of the Economic Development Board, Government of Singapore. He is a member of the Board of Governors of the Advertising Council of India (ASCI). His book 'The Curious Marketer' was published in 2017.
- Ms. Given at Trent has over 26 years of experience in technology, retail etc.
- Mr. B Santhanam at Titan is the founder MD of Saint Gobain Glass India and handled critical functions of IT, operations, product development, sales and marketing at Grindwell Norton.
- Tata Motors demonstrated resilience in its supply chain during the chip crisis; Interesting to note Tata Motors has Ms. Hanne Sorensen a non-executive, independent director specializing in energy and transportation. She has extensive supply chain management experience in retail, lifestyle, FMCG, technology and chemicals.
- Tata Motors is ahead on sustainable matters. Ms. Vedika Bhandarkar at Tata Motors also operates as chief operating officer of water org.
- Ms. Ewing at Abbott has transformational global technology experience for the last 20 years.
- Mr. Som Mittal at Apollo Hospitals held senior corporate leadership roles for over three decades in the IT industry at companies such as Wipro, Digital, Compaq and HP.

No relief on certain contemporary characteristics of Indian boards

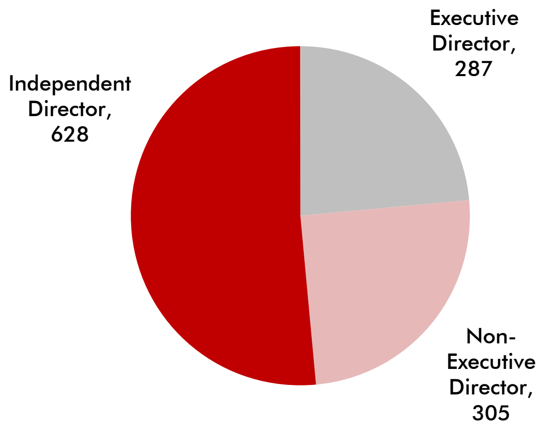
Board composition should ideally see some improvement. Independence of the board just meets the minimum statutory requirement. 20% of independent director positions are held by individuals who are associated with the company for a period of more than10 years. Most chairman positions of the board are occupied by promoters. The proportion of women on the board has much scope for improvement. There is significant skew in remuneration paid to non-promoter executive director versus promoter executive director

Exhibit 72: Promoters occupy ~29% of total board positions (1,220) across 120 companies



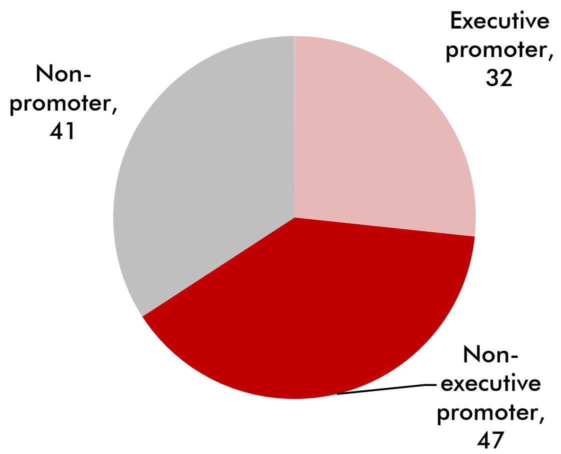
Source: SES, Company, Ambit Capital research, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Exhibit 73: ~51% of board positions are occupied by independent directors, largely in line with the SEBI requirement



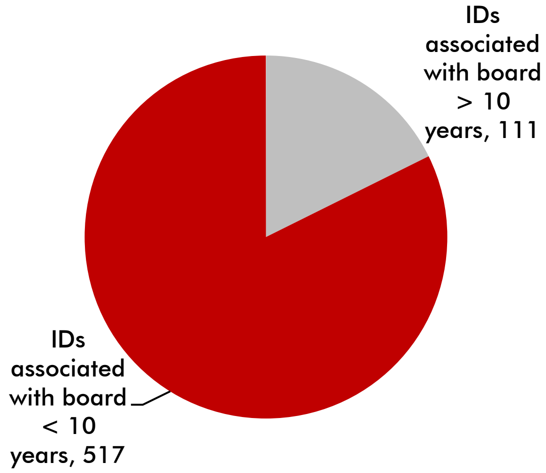
Source: SES, Company, Ambit Capital research, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Exhibit 74: In 79 out of 120 companies, promoters act as chairperson of the board, which reflects the upper hand of promoters in coordinating and managing meetings



Source: SES,Company, Ambit Capital research, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Exhibit 75: Interestingly, ~20% of IDs are associated with the companies for a period of more than 10 years



Source: SES Company, Ambit Capital research, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Exhibit 76: 48 companies have only one woman director; probably these companies only meet the statutory requirement to have one independent woman ID

	Count			
Number of women directors	Nil	1	2	>2
Number of companies	0	48	46	26

Source: SES, Company, Ambit Capital research, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Exhibit 77: 42 companies have more than one women ID

	Count			
Number of independent women directors	Nil	1	2	>2
Number of companies	2	76	34	8

Source: SES, Company, Ambit Capital research, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Board behavior, accounting quality, past actions provide window to governance

We compare boards of two manpower companies (named Manpower Co. #1 and Manpower #2) in similar business and observe differences in board practices. Manpower Co. #2 is better on governance in our view owing to the fact that its board and important committees like AC and NRC appear more independent.

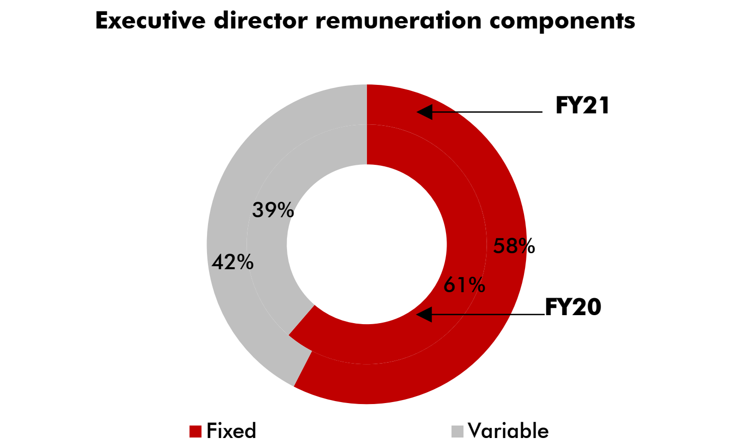
Exhibit 78: Reflecting skew in favour of promoter EDs, 24% of ED(P) directors have remuneration >Rs150mn while only 14% EDs (NP) receive the same amount

Remuneration difference between promoter EDs vs non-promoter EDs

Remuneration (Rs.mn)	Director count					
	Non-promoter EDs			promoter EDs		
	No.	%	Cum.*	No.	%	Cum.*
0-20	55	23%	100%	34	29%	100%
20-50	64	27%	77%	33	28%	71%
50-100	59	25%	50%	15	13%	44%
100-150	25	11%	25%	9	8%	31%
150-250	25	11%	14%	17	14%	24%
250+	8	3%	3%	11	9%	9%
Overall	**236**	**100%**		**119**	**100%**	

*Source: Company, Ambit Capital research, SES *Cum.: Cumulative Percentage. | Note: Includes directors during FY 2020-21, which resigned or ceased to be directors after FY 2020-21, ED (P)-Promoter executive director, ED (NP)-non promoter executive director, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22*

Exhibit 79: On an aggregate basis, ~58% of ED remuneration is fixed while 42% is variable



Source: SES, Company, Ambit Capital research, Universe is top 120 companies (ex of PSUs) basis mcap at 31 Mar 20/31 Mar 22

Exhibit 80: Board of Manpower Co. #1 is 50% independent; it also has two NEDs (non-independent) sitting in AC & one in NRC; there is a separate committee on administration and investment chaired by the promoter

Director	Age	Gender	Designation	Tenure (Year)	Attendance for last year		Directorship			Key Committees					
					Board	AGM	TD	PD	LD	AC	NRC	SRC	CSRC	RMC	I&A
Promoter chairman	55	M	NED(P)(C)	13(21)	7/7	Yes	5	2	2			M	M	C	C
NED	60	M	NED(R)	2	7/7	Yes	5	5	3	M					
NED no. 2	73	M	NED(R)	6 (10)	7/7	Yes	10	8	4	M	M				
ID number 1	63	F	ID	7	7/7	Yes	12	10	6	M	C	M	C	M	
ID number 2	58	M	ID	6	7/7	Yes	5	3	2	M	M	C		M	
ID number 3	64	M	ID	2	3/3	Yes	2	1	1	C					
ID number 4	48	M	ID	2	3/3	Yes	3	1	1	M			M		
CEO	46	M	ED(R)	<1 (14)	NA	NA	6	4	2					M	

Source: SES, Ambit Capital research, Company; AC - Audit, SRC - Stakeholders Relationship, RM - Risk Management, CSRC - Corporate Social Responsibility, NRC - Nomination and Remuneration I&A – Investment and Administration. Directors: C - Chairman, M - Member, P - Promoter, F - Female, ED - Executive, NED – Non-Executive, R - Liable to retire by rotation, LD - Listed Directorships, TD - Total Directorships, PD - Public directorship

Exhibit 81: Manpower Co. #2 has a 70% independent board and a 100% independent AC & NRC

Director	Age	Gender	Designation	Tenure (Year)	Attendance for last year: Board	AGM	Directorship: TD	PD	LD	Key Committees: AC	NRC	SRC	CSRC	RMC
ID Chairman	60	M	ID(C)	6	8/8	Yes	6	1	1		M			C
ID number 1	68	F	ID	6	8/8	Yes	4	4	2	C		C		M
ID number 2	68	M	ID	6	8/8	Yes	2	1	1	M		M	C	M
ID number 3	73	M	ID	2	8/8	Yes	1	1	1		C	M		M
ID number 4	42	M	ID	<1	NA	NA	4	1	1		M			M
ID number 5	51	F	ID	<1	NA	NA	3	1	1		M			M
ID number 6	62	M	ID	<1	NA	NA	5	3	1	M				M
ED	47	M	ED	<1 (23)	NA	NA	6	1	1					
ED promoter	53	M	EDP(R)	21	8/8	No	4	2	2				M	M
MD promoter	52	M	MDP(R)	6 (21)	8/8	Yes	1	1	1				M	M

Source; SES, Ambit Capital research, Company; AC - Audit, SRC - Stakeholders Relationship, RM - Risk Management, CSRC - Corporate Social Responsibility, NRC - Nomination and Remuneration. Directors: C - Chairman, M - Member, P - Promoter, F - Female, ED - Executive, NED – Non-Executive, R - Liable to retire by rotation, LD - Listed Directorships, TD - Total Directorships, PD - Public directorship

Frequent exits and appointments at senior management level can be potential red flags. Manpower Co. #1 has faced 11 KMP and director exits in the last five years. On the other hand, Manpower Co. #2 has had just one CEO and MD from the past six years and only two CFOs. Interestingly, probably to improve the situation, Manpower Co. #1 hired CFO from Manpower Co. #2.

Exhibit 82: Manpower Co. #1 had 11 exits of KMPs and directors in the last five years

Manpower #1 cessations		
Designation	**Date**	**Reason**
CFO	04-Apr-17	No reason stated
CFO	24-Jan-18	Promoted to CEO
CS	23-Jun-18	No reason stated
CS	09-Nov-18	No reason stated
CFO	27-Jun-19	No reason stated
ED	29-Oct-19	Statutory limitation
CEO	31-Mar-20	Succession planning
CFO	01-Apr-21	To pursue entrepreneurship venture
CEO	10-Feb-22	No reason stated (Differences with promoter - as per media reports)

Source: Ambit Capital research, Company

Exhibit 83: Median remuneration paid by Manpower Co. #1to independent directors has reduced despite increase in revenue

Rs.mn	FY19	FY20	FY21
ID median sitting fees (Rs.mn)			
Manpower #1	0.5	0.7	0.4
Manpower #2	0.2	0.5	1.4
Sitting fees multiple (#1/#2) (no. of times)	2.3	1.4	0.3
Revenue (Rs.mn)			
Manpower #1	85,270	109,915	108,369
Manpower #2	44,476	52,007	48,815
Revenue multiple (#1/#2) (no. of times)	1.9	2.1	2.2

Source: Ambit Capital research, Company

Manpower Co. #1 has IDs concentrated in skills and experience in relation to finance and management whereas IDs of Manpower #2 possess diverse skill sets and experience which help increase the board quality.

Exhibit 84: Diversity in skills and experience in IDs also makes the board of Manpower Co. #2 stronger than Manpower Co. #1

Manpower Co. #2	Skills/experience	Manpower Co. #1	Skills/experience
ID number 1	Human resource management, legal expertise	ID number 1	Finance and management
ID number 2	Business leadership, customer insights expert	ID number 2	M&A - Finance
ID number 3	Finance and management	ID number 3	Finance and management
ID number 4	Human resource management, engineering	ID number 4	Taxation
ID number 5	Finance, writer, teacher		
ID number 6	Finance		

Source: SES, Ambit Capital research, Company

Significant acquisitions or loans and advances have indirect support of board members. Manpower Co. #1 in the last few years have made multiple acquisitions and also provided support to them in the form of loans and advances. However, majority of the acquisitions failed to get the expected synergies, instead these investments were impaired later.

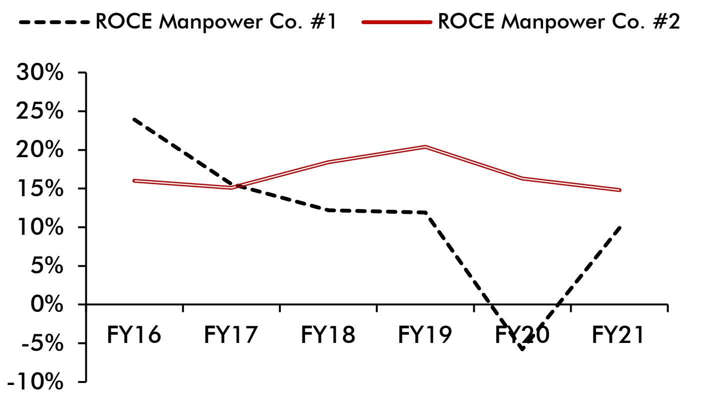
Manpower Co. #1 also invested in sports club which had no relation to the operations of the company.

Exhibit 85: Manpower Co. #1 made significant acquisitions over FY17-21; however Rs.7.7bn was written off in FY20

Rs.mn	FY17	FY18	FY19	FY20	FY21
Investment as per CFS	3,447	4,058	1,024	2,831	1,026
O/s goodwill*	9,187	10,959	11,769	8,358	11,769
Other Intangibles	1,944	813	18	540	-
Invest as a % of rev.	**34%**	**26%**	**15%**	**11%**	**12%**
Impairment					
Investment	-	-	-	1,158	112
Goodwill	-	-	-	5,062	-
Other Intangibles	-	-	-	1,335	-
Total	**-**	**-**	**-**	**7,555**	**112**
Impairment % as total investments made				**62%**	

*Source: Ambit Capital research, Company; *pertains to consolidated balance sheet as at the balance sheet date*

Exhibit 86: Low synergies out of significant acquisitions only deteriorated the ROCE for Manpower Co. #1



Source: Ambit Capital research, Company

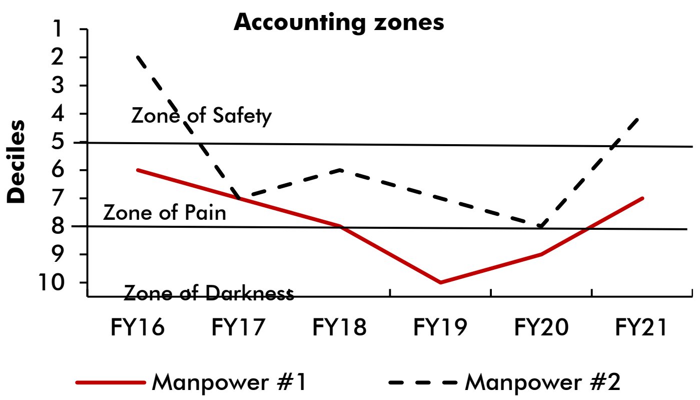
Board needs to ensure the transparency and fairness of related-party transactions. Manpower #1 historically had a high exposure to RPT loans which resulted in significant write-offs later.

Exhibit 87: RPT loans in Manpower #1 resulted in impairments or conversion to debentures/shares which were then written off

(₹ in mn)	FY18	FY19	FY20	FY21
Total loans	1,535	1,969	2,762	910
Less : Impairment	-	-	(243)	-
Less : Converted to debentures and written off	-	-	(1,290)	-
Less : Adjusted against shares	-	-	-	(645)
Net loans	1,535	1,969	1,230	265
Net loans as a % of net worth	6%	7%	4%	1%

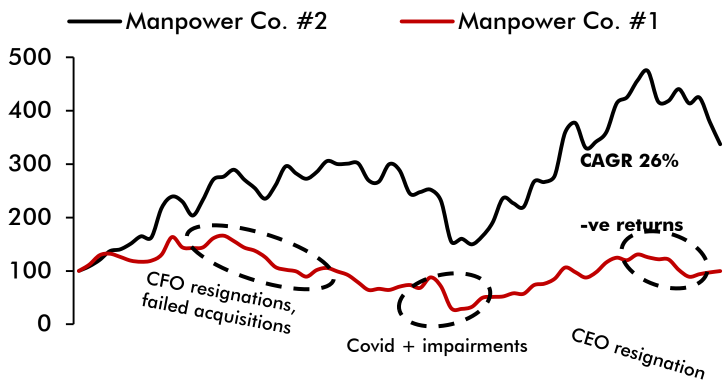
Source: Ambit Capital research, Company

Exhibit 88: Issues of Manpower Co. #1 got captured in our accounting framework



Source: Ambit Capital research. Note: We work on ~1400 companies (ex-BFSI) with a market cap of more than Rs.100 crores and use financial statements for the last six years. We have 11 equally weighted accounting ratios where we do relative ranking for companies on each of them and basis the final score , we divide the companies into deciles such that first five deciles (D1 to D5) we call them as Zone of Safety (best accounting quality companies) , next two deciles (D6 and D7) we call them as Zone of Pain (ZOP) (relatively weak accounting quality companies) and last three deciles (D8-D10) we call them as Zone of Darkness (ZOD) (worst accounting quality companies).

Exhibit 89: Weak accounting quality and governance practices also led to negative returns to investors of Manpower Co. #1



Source: SES, Ambit Capital research, Bloomberg; share price adjusted to base 100 since 01-Apr-17 to 22-Jun-22

A...G...E....S....in that order of significance

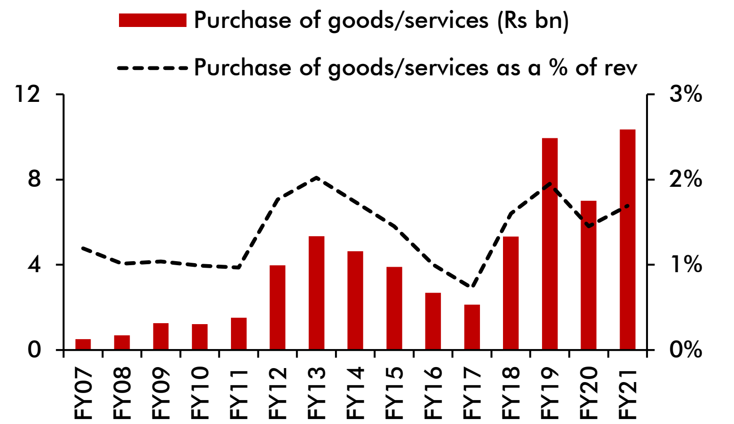
A tale of two steel companies

Steel Co. #1 demonstrated consistent good accounting quality over the last decade. Whilst, Steel Co. #2 flared accounting issues around volatility in depreciation rates, very high related party transactions and promoter compensation, high advances (beyond suppliers or employees), weak audit quality etc.! Steel Co. #1 adopted certain governance practices even before they were made mandatory by law. For instance, Steel Co. #1 always had at least 50% directors as independent (IDs). Further, the differential (30-70X higher vs Steel Co. #2) in remuneration paid to IDs, appointment of much experienced individuals highlights difference in thinking pattern of these two companies. Moreover, Steel Co. #1 demonstrated socially responsible behaviour even before CSR was made mandatory. CSR spends by Steel Co. #1 were higher by 2-25X vs Steel Co. #2. On environment too, Steel Co. #1 initiated the actions to curb GHG emissions much ahead of Steel Co. #2

Accounting Quality is the first window to boardroom

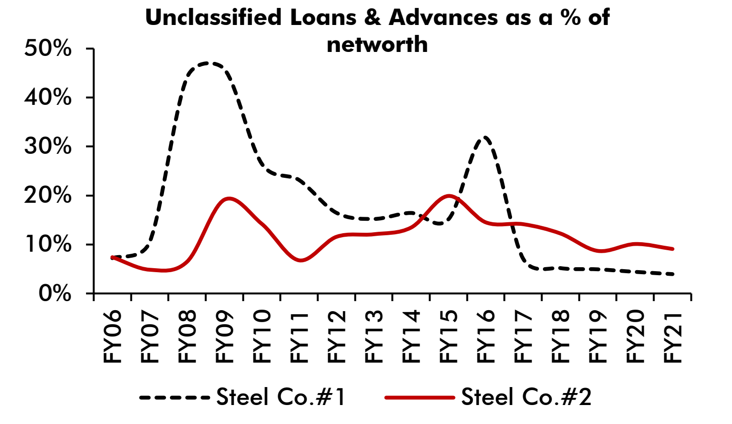
Very high related-party transactions, managerial remuneration and payment of advances essentially highlight possibility of pilferage activities. Such activities are the first red flag on governance. Hence, we believe good accounting quality is always a pre-requisite before an opinion is framed on recent decorative sustainability reports

Exhibit 90: Purchases from KMP-owned entities were consistently rising for Steel Co. #2



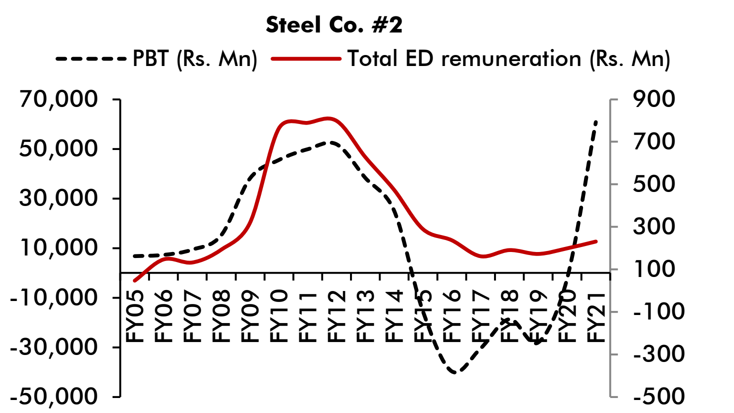
Source: Ambit Capital research, Company

Exhibit 91: Unclassified advances for Steel Co. have remained consistently high



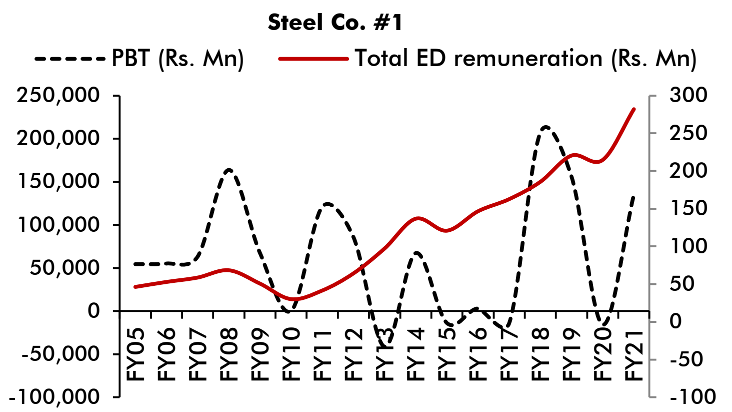
Source: Ambit Capital research, Company

Exhibit 92: ED remuneration (largely promoters) was too high and moved in line with PBT level; have recently normalized



Source: Ambit Capital research, Company

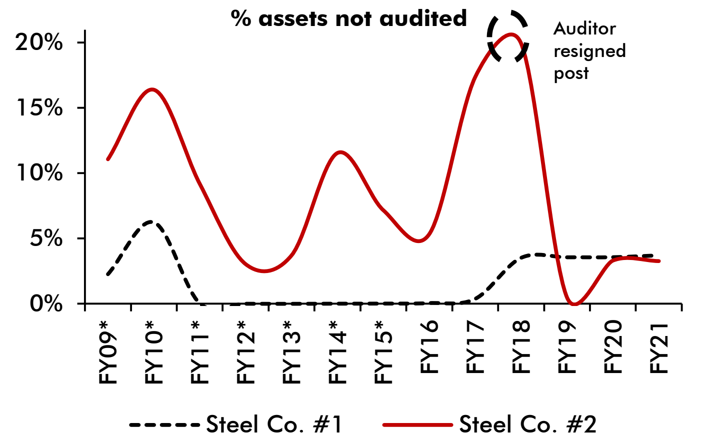
Exhibit 93: Total ED remuneration growth for Steel Co.#1 has been gradual irrespective of profit levels



Source: Ambit Capital research, Company

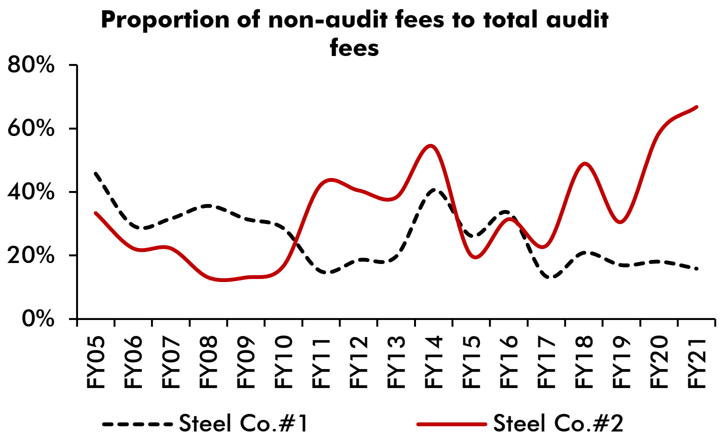
Audit quality is a reflection of seriousness on accounting and governance practices. Usually 100% accounts of group entities are certified by auditors; accordingly <100% audit suggests that the signing auditor is not taking the responsibility of certain portion of overall consolidated accounts. High non-audit fees paid to auditors could trigger impairment of auditor's independence.

Exhibit 94: Steel Co. #2 consistently had high amounts of assets not audited by auditors at all



*Source: Ambit Capital research, Company. *due to the limitations of the data, % calculation till FY14/FY15 for Steel Co. #2/Steel Co. #1 is net assets not audited/net worth, post which % is calculated using assets not audited/total assets*

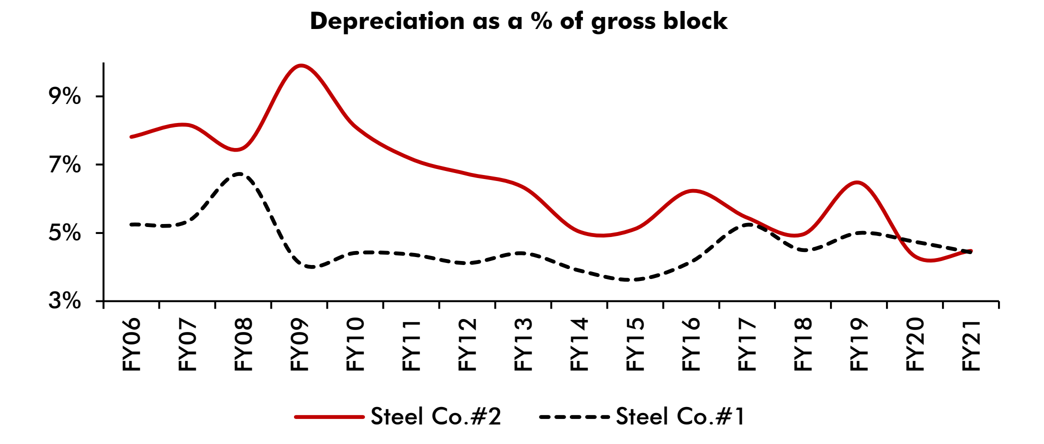
Exhibit 95: Suggesting amiss! proportion of non-audit fees to total audit feed is consistently going up for Steel Co. #1



Source: Ambit Capital research, Company

Life of the assets can be decided by the companies. It is easy to manipulate the estimate around life of the assets (no. of years) to adjust the profits. Consistent volatility in depreciation rate warrants further attention. Despite similar composition of gross block of assets and given there were no major changes in the composition of assets, volatility in depreciation rates of Steel Co.#2 highlights accounting challenges.

Exhibit 96: Depreciation rates for Steel Co. #2 have sharply reduced; but the volatility in depreciation rate was persistent until recently



Source: Company, Ambit Capital research

Exhibit 97: Steel Co. #1 had stable depreciation rates over years due to largely consistent composition of fixed assets

Steel Co. #1	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Goodwill	1%	1%	16%	13%	13%	13%	13%	9%	9%	8%	4%	4%	4%	3%	3%	3%
Freehold Land	1%	2%	1%	1%	1%	1%	1%	1%	1%	1%	15%	13%	12%	10%	10%	9%
Buildings / premises	6%	9%	8%	8%	8%	8%	8%	9%	9%	9%	10%	8%	8%	12%	13%	12%
Plant & Machinery	86%	82%	70%	72%	72%	72%	71%	75%	75%	75%	66%	71%	72%	71%	71%	71%
Others	6%	6%	5%	6%	6%	5%	6%	6%	6%	7%	6%	4%	4%	4%	4%	4%

Source: Company, Ambit Capital research

Exhibit 98: For Steel Co. #2, the changes is composition of assets, particularly from FY06 to FY13, could not justify the sharp drop in the depreciation rate from FY09; volatility is still present though gross block composition stabilized post FY16

Steel Co. #2	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Freehold Land	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	4%	4%	4%	3%	3%	4%
Buildings / Premises	10%	10%	14%	12%	13%	11%	12%	13%	11%	12%	13%	13%	13%	12%	12%	12%
Plant & Machinery	82%	83%	79%	80%	77%	78%	78%	78%	70%	71%	66%	67%	68%	68%	69%	68%
Patents, trademarks & designs	0%	0%	0%	0%	0%	0%	0%	0%	12%	10%	9%	9%	8%	7%	7%	9%
Electrical installations & plants	2%	2%	1%	1%	1%	4%	4%	3%	2%	3%	3%	3%	4%	5%	5%	2%
Others	5%	5%	4%	6%	8%	6%	5%	5%	4%	3%	5%	5%	5%	4%	4%	5%

Source: Ambit Capital research, Company

Past board behavior and actions speak a lot about 'G'

Steel co. #1 believed in maintaining the independence of the board even before the regulators made it mandatory to have 50% directors as independent. Chairpersons of the board of Steel Co. #1 were always non-executive directors. They were eminent individuals from the same group of Steel Co. #1, but not actively involved in the business of Steel Co. #1. On other hand, Steel Co. #2 always had some promoter director as chairperson of the board.

Exhibit 99: Steel Co. #1' s board has a blend of significant number of IDs, non-promoter NEDs on the back of chairperson being a NED; remember, best governance practices include provision on making a NED/ID as a chairperson of the board

Composition	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Total directors	13	13	12	15	14	14	13	12	14	15	12	11	10	10	10	10	10
Independent directors	38%	54%	50%	53%	57%	57%	46%	50%	50%	53%	50%	55%	50%	50%	50%	50%	50%
Executive directors	0%	0%	0%	7%	0%	0%	0%	0%	7%	7%	8%	9%	10%	10%	10%	10%	10%
MD	23%	23%	25%	7%	7%	7%	8%	8%	7%	13%	8%	9%	10%	10%	10%	10%	10%
Non-executive directors	23%	23%	25%	33%	36%	36%	46%	42%	29%	27%	33%	27%	30%	30%	30%	30%	30%
Nominee directors	15%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Chairperson (ED, NED, ID)	NED	NED	NED	NED	NED	NED	NED	NED	NED	NED	NED	NED	NED	NED	NED	NED	NED
Women directors	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1

Source: SES, Ambit Capital research, Company. Ambit Capital research, ID = independent director, NED = Non-executive director, ED= executive director, MD = managing director;

Exhibit 100: Steel Co. #2 had low % of IDs till the mandatory rule on proportion; since FY12, promoter ED has assumed the role of chairman on board

Composition	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
Total Directors	11	11	11	12	16	16	15	17	18	15	17	13	17	15	13	11	10
Independent directors	27%	27%	18%	17%	38%	44%	40%	35%	39%	40%	41%	54%	53%	47%	46%	45%	50%
Executive directors	36%	36%	27%	25%	19%	19%	20%	24%	28%	20%	24%	23%	18%	20%	23%	18%	20%
MD	9%	9%	18%	17%	13%	13%	13%	12%	17%	20%	6%	8%	6%	7%	8%	18%	10%
Non-executive directors	18%	18%	18%	17%	19%	19%	20%	18%	11%	13%	12%	8%	6%	7%	8%	9%	10%
Nominee directors	9%	9%	18%	25%	13%	6%	7%	12%	6%	7%	18%	8%	18%	20%	15%	9%	10%
Chairperson (ED, NED, ID)	NED	NED	NED	NED	NED	NED	NED	ED	ED	ED	ED	ED	ED	ED	ED	ED	ED
Women directors	0	1	1	1	1	1	1	1	1	1	2	1	1	1	1	2	2

Source: Ambit Capital research, Company. ID = independent director, NED = Non-executive director, ED= executive director, MD = managing director

Strong independence is also required on at least two most important committees of the board, audit committee (AC) and nomination and remuneration committee (NRC). AC is entrusted with the job of overseeing the issues raised by auditors, approval of related-party transactions etc. NRC is entrusted with the role to decide appointment of individuals on the board and fixation of their remuneration. Presence of promoter directors on these committees can impair the independence expected from these committees

Exhibit 101: Steel Co.#1 never had an ED sitting on the AC

AC composition No.of members	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
ID	2	3	3	4	3	3	3	3	3	3	3	3	3	4	3	4	4
CP (ED, NED, ID)	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
NED	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1

Source: Ambit Capital research, Company. AC = audit committee, ID = independent director, NED = Non-executive director, ED= executive director, CP = chairperson

Exhibit 102: Steel Co. #2 's has one ED on the board; remuneration difference between promoter ED and this ED suggests that this ED might not have enough upper hand over the promoter

AC composition No. of members	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
ID	3	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3
ED	NA	NA	NA	NA	NA	1	1	1	1	2	2	1	1	1	1	1	1
CP (ED, NED, ID)	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
NED	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: Company, Ambit Capital research, AC = audit committee, ID = independent director, NED = Non-executive director, ED= executive director, CP = chairperson

Exhibit 103: Steel Co. #1 never had EDs on their NRC; it is pertinent to note that KMP remuneration grew rationally

NRC composition	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
ID	2	2	2	2	2	2	2	2	2	2	3	3	2	2	2	2	2
CP (ED, NED, ID)	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	NED	ID	ID	ID	ID
NED	1	1	1	1	1	1	1	1	2	1	1	1	0	2	1	1	1

Source: Company, Ambit Capital research. D = independent director, NED = Non-executive director, ED= executive director, CP = chairperson

Exhibit 104: Steel Co. #2 did not form NRC until FY13; interestingly, promoter remuneration was extremely high then

NRC composition	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
ID	NRC Committee not formed								3	3	3	3	4	4	3	3	3
CP (ED, NED, ID)									ID	ID	ID	ID	ID	ID	ID	ID	ID

Source: Company, Ambit Capital research. D = independent director, NED = Non-executive director, ED= executive director, CP = chairperson

Boards do add value to the business of the company. The experience of the directors does matter. A company with relatively less experienced directors may get deprived of expected guidance from these individuals

Exhibit 105: Steel Co. #1 has directors holding directorship in multiple prominent listed companies; median mcap of these companies was ~Rs3tn

Median no. of directorship held in public companies	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
IDs	9	7	9	4	3	6	7	6	6	5	5	5	7	4	3	4	3
ED	3	2	2	NA	NA	NA	NA	NA	4	3	5	5	8	7	6	5	5
Chairperson	13	13	13	13	10	10	10	10	9	9	10	10	7	7	5	6	6
MD	5	6	7	4	4	2	2	2	2	0	2	2	5	7	6	7	7
NED	11	9	9	4	4	6	3	2	6	2	6	9	12	9	4	4	6
Women directors	NA	NA	NA	NA	NA	NA	NA	NA	6	6	7	7	9	8	7	6	6

Source: Company, Ambit Capital research, data related to public company directorships

Exhibit 106: Most of the Steel Co #2's directors did not hold directorship in major listed companies; highest mcap of company where they held directorship is Rs303bn

Median no. of directorship held in public cos	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
IDs	3	3	4	3	3	1	1	2	2	2	2	3	0	0	2	4	2
ED	2	2	3	5	9	7	8	8	6	4	3	3	3	1	1	0	0
Chairperson	8	7	6	6	8	8	8	7	6	5	5	4	4	3	0	0	0
MD	3	4	4	4	5	5	5	6	1	1	0	2	2	2	1	1	0
NED	6	7	6	6	7	7	7	4	5	4	4	5	0	1	0	1	0
Women directors	8	7	6	5	6	8	8	4	2	0	1	1	0	1	0	3	1

Source: Company, Ambit Capital research, data related to public company directorship

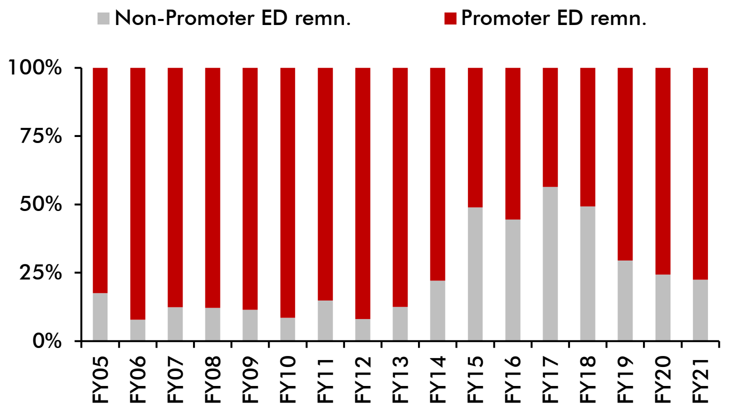
Payments made to the IDs or NEDs suggest whether a company is serious about getting value-add from them. Significantly low payments to IDs probably suggest that IDs are appointed only to maintain statutory requirement.

Exhibit 107: Low remuneration is an indicator of lower role and importance of IDs and NEDs

FY	Ratio of Steel Co.#1 to Steel Co. #2 Median ID rem. (no. of times)	Median NED rem. (no. of times)	Revenue (no. of times)
FY11	69	216	8
FY12	60	335	6
FY13	21	48	5
FY14	23	166	6
FY15	42	116	5
FY16	33	71	4
FY17	37	43	4
FY18	21	19	4
FY19	39	28	3
FY20	28	14	3
FY21	29	11	3

Source: Ambit Capital research, Company

Exhibit 108: Barring FY15-18, promoter has had a share of >75% of total ED rem in case of Steel Co. #2



Source: Ambit Capital research, Company

Another parameter to test the behavior of directors is board meetings. In our case, Steel Co. #2 had much lower attendance in meetings versus Steel Co. #1

Exhibit 109: Median attendance of directors of Steel Co. #1 has always been higher, ranging from 70% to 100%

Median attendance	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
ID	73%	71%	41%	64%	65%	72%	100%	79%	100%	67%	89%	94%	91%	93%	86%	100%	100%
ED	100%	100%	100%	75%	NA	NA	NA	NA	100%	100%	100%	100%	100%	100%	100%	100%	100%
Chairperson	91%	100%	100%	100%	90%	89%	80%	100%	100%	100%	100%	89%	100%	100%	100%	100%	100%
MD	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
NED	91%	93%	100%	100%	90%	100%	80%	100%	94%	89%	89%	89%	91%	100%	100%	80%	100%
Women directors	NA	NA	NA	NA	NA	NA	NA	NA	71%	67%	56%	78%	82%	86%	71%	80%	100%

Source: Ambit Capital research, Company, ID = independent director, NED = Non-executive director, ED= executive director, MD = managing director

Exhibit 110: Attendance for Steel Co. #2 across different board positions was unsatisfactory

Median attendance	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
ID	75%	50%	40%	50%	100%	75%	75%	75%	100%	83%	92%	83%	90%	92%	100%	83%	100%
ED	75%	75%	70%	100%	88%	80%	100%	100%	100%	100%	86%	83%	90%	89%	100%	50%	100%
Chairperson	25%	50%	40%	25%	25%	25%	0%	100%	100%	67%	86%	100%	90%	89%	100%	83%	100%
MD	100%	75%	80%	100%	85%	75%	100%	100%	100%	100%	100%	100%	100%	67%	100%	75%	100%
NED	12%	32%	40%	25%	12%	50%	40%	25%	80%	55%	36%	33%	50%	67%	40%	67%	100%
Women directors	0%	50%	40%	25%	25%	25%	0%	0%	100%	50%	29%	50%	50%	67%	40%	71%	100%

Source: Ambit Capital research, Company, ID = independent director, NED = Non-executive director, ED= executive director, MD = managing director

Concrete Steps on different 'E' by Steel Co. #1

Steel Co. #2 has just started to disclose key environment metrics while Steel Co. #1 has been rated A- for its environmental disclosures by CDP (carbon disclosure project), a leading global non-profit focused on environmental disclosures, putting it amongst the top six steel companies globally. Steel Co. #2's CO2 emissions are the highest amongst the majors. Steel Co. #2 also has the highest water consumption. However, it scores well on lower energy intensity, largely due to efficient DRI processes, waste disposal disclosures and zero liquid discharge. Steel Co. #2 has increased the use of byproduct gas from 12% to 20% in FY21.

Exhibit 111: Steel Co. #2 had the highest Co2 emissions in FY21 amongst peers

Year	Unit	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Steel Co. #1 (Standalone)	tCO2/tcs	2.30	2.29	2.38	2.35	2.31	2.32	2.43
Steel Co. #1 (subsidiary A)	tCO2/tcs	1.74	1.84	1.79	1.77	1.76	1.77	1.78
Steel Co. #1 (subsidiary B)	tCO2/tcs	1.80	2.12	2.18	2.21	2.22	2.14	2.16
Steel Co. #1 (subsidiary C)	tCO2/tcs	1.93	1.93	1.99	1.98	1.98	1.97	1.98
Indian peer	tCO2/tcs	2.56	2.44	2.59	2.75	2.52	2.49	NA
Steel Co. #2	**tCO2/tcs**	**NA**	**NA**	**NA**	**NA**	**2.63**	**2.59**	**NA**
Foreign peer	tCO2/tcs	1.91	1.88	1.90	1.92	1.94	NA	NA
Foreign peer	tCO2/tcs	2.14	2.14	2.11	2.12	2.11	2.08	NA
Foreign peer	tCO2/tcs	1.61	1.64	1.60	1.69	NA	NA	NA
Foreign peer	tCO2/tcs	1.39	1.39	1.38	1.36	1.41	NA	NA
Foreign peer	tCO2/tcs	0.86	0.86	0.89	0.91	0.93	0.93	NA
Foreign peer	tCO2/tcs	2.38	2.28	2.29	2.31	2.39	NA	NA
Foreign peer	tCO2/tcs	2.02	1.99	2.01	2.02	NA	NA	NA
Global Avg.	**tCO2/tcs**	**1.91**	**1.88**	**1.91**	**1.94**	**2.02**	**2.06**	

Source: Ambit capital research, company reports

Exhibit 112: Use of coke oven gas reduces energy requirement – lowest in India

Year	Unit	FY16	FY17	FY18	FY19	FY20	FY21	FY22
Steel Co. #1 (Standalone)	Gcal/tcs	5.77	5.67	6.04	5.83	5.78	5.76	5.67
Steel Co. #1 (subsidiary A)	Gcal/tcs	4.68	4.66	4.78	4.73	4.69	4.85	4.89
Steel Co. #1 (subsidiary B)	Gcal/tcs	5.07	5.47	5.64	5.78	5.69	5.47	5.54
Steel Co. #1 (subsidiary C)	Gcal/tcs	4.83	4.95	5.07	5.07	5.02	NA	NA
Indian peer	Gcal/tcs	7.71	6.29	6.59	6.25	6.57	6.38	NA
Steel Co. #2	**Gcal/tcs**	**NA**	**NA**	**NA**	**NA**	**5.18**	**5.22**	**NA**
Foreign peer	Gcal/tcs	6.05	2.27	2.26	2.27	2.46	NA	NA
Foreign peer	Gcal/tcs	5.78	5.74	5.74	5.74	5.78	5.83	5.62
Foreign peer	Gcal/tcs	4.14	4.18	4.11	4.17	NA	NA	NA
Foreign peer	Gcal/tcs	0.95	0.97	0.99	1.01	1.03	NA	NA
Foreign peer	Gcal/tcs	1.21	1.17	1.2	1.22	1.23	1.26	NA
Foreign peer	Gcal/tcs	NA	NA	NA	NA	NA	NA	NA
Foreign peer	Gcal/tcs	5.59	5.52	5.59	5.62	NA	NA	NA
Global Avg.	**Gcal/tcs**	**4.67**	**4.08**	**4.18**	**4.13**	**4.13**	**4.89**	

Source: Ambit capital research, company reports

Exhibit 113: Steel Co. #2's water consumption is the highest amongst Indian peers; Steel Co. #1 water consumption improved significantly

Year	Unit	FY17	FY18	FY19	FY20	FY21	FY22
Steel Co. #1 Standalone	m3/tcs	3.83	3.93	3.50	3.11	2.70	2.71
Steel Co. #1 (subsidiary A)	m3/tcs	4.64	4.95	4.96	4.93	5.20	4.76
Steel Co. #1 (subsidiary B)	m3/tcs	6.07	4.48	6.03	6.53	8.73	8,7
Steel Co. #1 (subsidiary C)	m3/tcs	5.12	4.79	5.29	5.43	NA	NA
Indian peer	m3/tcs	4.57	4.13	3.79	2.73	2.53	NA
Steel Co. #2	**m3/tcs**	**NA**	**NA**	**NA**	**2.87**	**2.93**	**NA**
Foreign peer	m3/tcs	4.12	3.77	3.69	3.74	NA	NA
Foreign peer	m3/tcs	5.00	3.90	3.90	2.3	2.4	NA

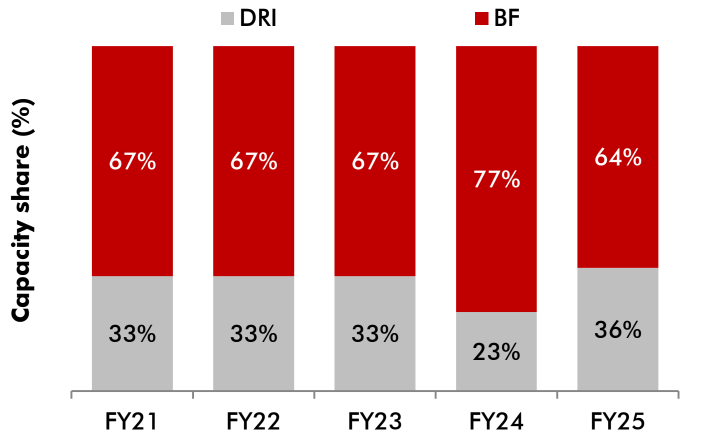
Source: Ambit Capital research, Company

Exhibit 114: Further improvement for Steel Co. #1 in dust emissions in FY21; Steel Co. #2 does not disclose dust emissions

Year	Unit	FY17	FY18	FY19	FY20	FY21	FY22
Steel Co. #1 Standalone	kg/tcs	0.44	0.46	0.42	0.39	0.34	0.39
Steel Co. #1 (subsidiary A)	kg/tcs	0.28	0.28	0.26	0.28	0.30	0.24
Steel Co. #1 (subsidiary B)	kg/tcs	0.48	0.57	0.64	0.57	0.69	0.55
Steel Co. #1 (subsidiary C)	kg/tcs	0.34	0.38	0.38	0.38	NA	NA
Indian peer	kg/tcs	1.06	0.99	NA	0.98	NA	NA
Foreign peer	kg/tcs	0.09	0.09	0.08	0.09	NA	NA
Foreign peer	kg/tcs	0.67	0.67	0.61	0.63	0.64	0.62

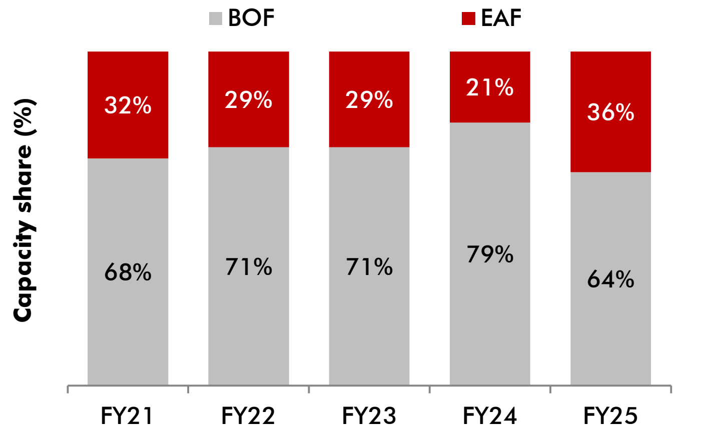
Source: Ambit Capital research, Company

Exhibit 115: BF share to increase >70% in FY24 before falling to <65% as 2.7MT DRI gets commissioned in FY25



Source: Company, Ambit Capital research

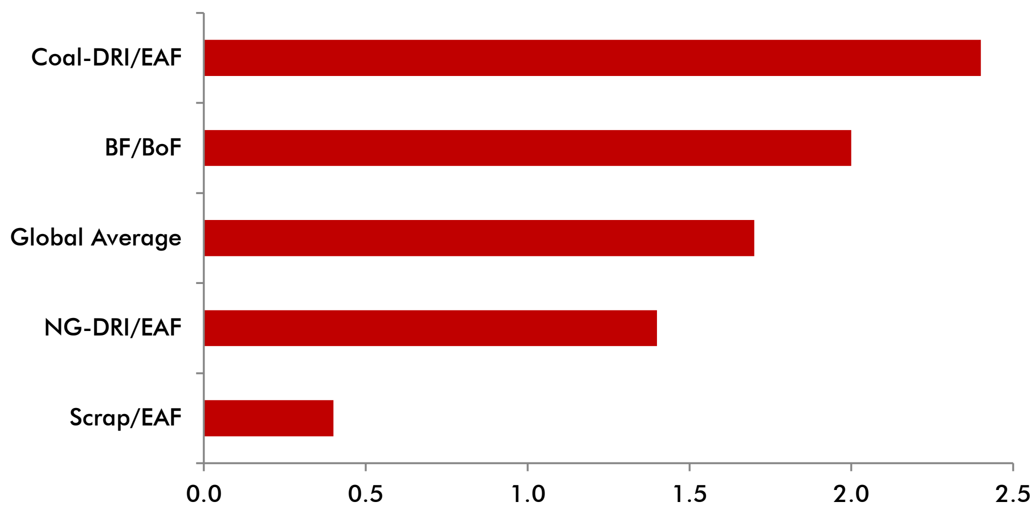
Exhibit 116: DRI expansion to be complimented by a 3MT EAF expansion in FY25; BOF to grow by 3.3MT in FY24



Source: Company, Ambit Capital research

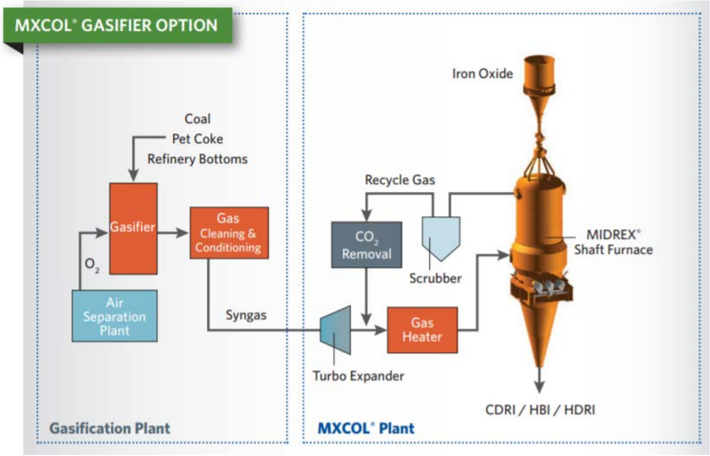
Coal-DRI accounts for 35% of Steel Co. #2's steelmaking capacity. This production method generates the highest Co2 emissions, typically 20% above BF-BoF. While Steel Co. #2 has roped in Midrex Technologies for syngas and COG (coke oven gas) recycling through its patented technology, this technology has apparently not helped Steel Co. #2 reduce its DRI emissions below that for typical BF-BoF processes yet. Peers are using CDQ (coke dry quenching) for coke oven gas recycling, though Midrex claims its technology can help recycle and re-use much higher coke over gas. We will have to see if Steel Co. #2 can ramp up coke oven gas recycling above 20% achieved in FY21, and lower Co2 emissions to levels seen for BF-BoF. Steel Co. #2 has also not disclosed its FY25 and FY30 Co2 targets.

Exhibit 117: Coal-DRI/EAF route (36% of Steel Co. #2's capacity mix) accounts for the highest Co2 emissions – 20% higher than typical BF/BoF route



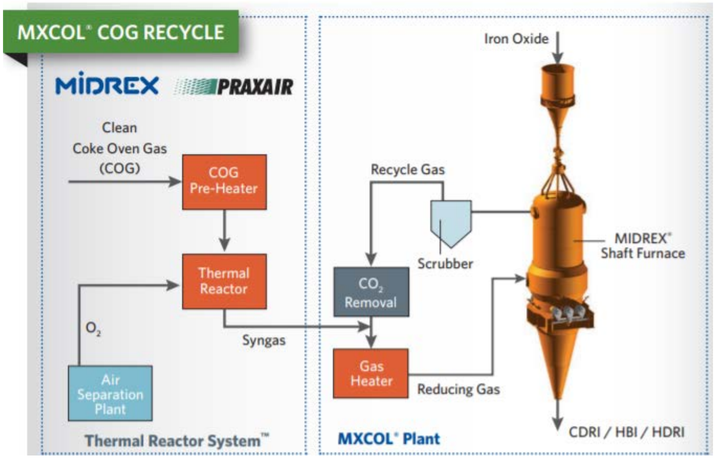
Source: BHP Billiton, European Parliamentary Research Service, Ellis & Bao, 2020, Company

Exhibit 118: Steel Co. #2 uses Midrex gasifier that turns coal into syngas – syngas is potentially more efficient than direct combustion of coal



Source: Midrex, Company Ambit Capital research

Exhibit 119: Midrex's TRS® allows production of DRI with a variety of fuels, including coke oven gas



Source: Midrex, Company Ambit Capital research

The 7MT plant emits an estimated 13MT of Co2 per year. Together with the government, Steel Co. #1 foreign subsidiary has signed an Expression of Principles document. These plans, which will need government financial and regulator support, if approved would lead to 40% or 5MT per year Co2 reduction by 2030. If achieved, this would imply tco2/tcs of 1.15 for Ijmuiden by 2030. These plans involve:

- **Project 1** - Capturing Co2 from the two blast furnaces and storing it in empty North Sea gas fields.
- **Project 2**: Steel Co. #1's factories at two locations are engaged in Project 2, which envisages the construction of a 100MW green hydrogen plant at the site.
- **Project 3**: This project is connected to Project 1 and Project 2 and examines the feasibility of carbon capture and storage (CCS) under the North Sea as well as carbon usage.

Other initiatives

- **Project 4:** A new smelting reduction technology for which Steel Co. #1 co-owns the intellectual property rights to produce steel without the need for coke making or agglomeration processes. The company commenced upscaling of 1MTPA demo plant in FY22.
- **Responsible supply chain policy** – Steel Co. #1 is taking the initiative to improve its environmental track record across its entire supply chain. It has adopted a Responsible Supply Chain Policy, which is based on four important principles of Fair Business Practice, Human Rights, Health and Safety and Environmental Protection.
- **Carbon capture and storage technologies** – A small 5 Tonne Per Day (TPD) carbon capture pilot plant has been commissioned at one of its subsidiaries. Steel Co. #1 has signed a strategic memorandum of understanding (MoU) with the Council of Scientific & Industrial Research (CSIR) to work towards accelerating development and deployment of CCU&S technologies in the steel industry. Steel Co. #1 commissioned 5 Tonne per Day (TPD) CO2 capture plant to extract CO2 directly from the blast furnace gas, a first in India, by a steel company. The company also successfully tried continuous injection of Coal Bed Methane (CBM) gas in one of its blast furnaces.
- **GreenPro Ecolabel –** Steel Co. #1 has collaborated with CII Green Business Centre and relevant stakeholders in the Indian steel sector to develop GreenPro framework for steel rebars for the first time in India. It remains to be seen whether the price-conscious Indian consumer would pay a price premium for low Co2, environmentally friendly rebar products. The Indian government should take the initiative and give preference to low Co2 products in its bidding advertisements.

- **Sea Cargo Charter** - Steel Co. #1 became the first steel producer globally to join the Sea Cargo Charter to reduce Scope 3 emissions in ocean trade.
- **Increased scrap usage in foreign subsidiary** - In FY22, Steel Co. #1's subsidiary A and subsidiary B increased clean scrap charging in melting shops to 6.6%, 17.5% and 17.6% compared to 4.8%, 16.9% and 16.8% in FY21. Subsidiary C uses 100% steel scrap as primary raw material.
- **Internal carbon pricing**: Steel Co. #1 increased the internal carbon pricing from $15 to $40/t CO2 emissions in FY21 to boost the carbon abatement projects appraisal. The pricing will be reviewed in FY23.
- **Renewable energy generation**: In India, 150MW of renewable projects have been implemented in FY22, increasing the share of renewable energy generation. Foreign facilities will commission 11.8MW of solar plants in FY23.
- Steel Co. #1 is selling GGBS as replacement for OPC in cement – this helps reduce emissions for RMC players

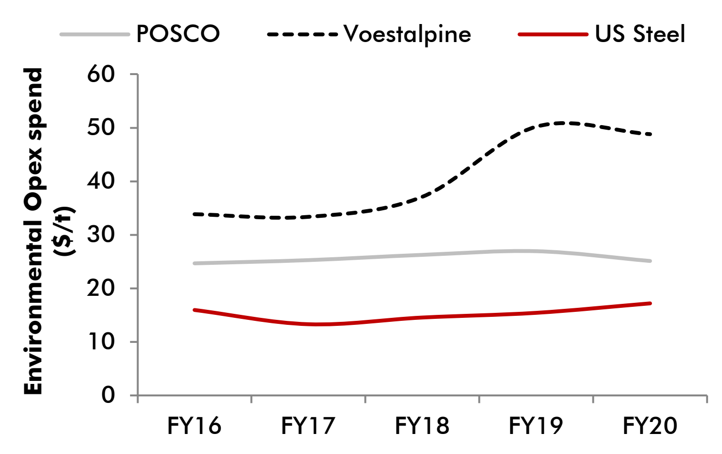
Scrap recycling – Steel Co. #1 commissioned a small 0.5MT scrap recycling plant in Rohtak. Management aims to replicate such modular units across India and increase its scrap processing capacity to >5MT by 2030. Higher pool of scrap availability combined with investment in technology for collection and processing of scrap would help increase the share of EAF in India. EAFs in even coal-dependent countries such as India have 0.6 tCo2/tcs vs >2tco2/tcs for BFs.

Exhibit 120: Scrap recycling charge in BoF is increasing YoY across Steel Co. #1 – higher scrap helps replace pig iron in BoF, resulting in lower Co2 emissions

Company	Unit	FY18	FY19	FY20	FY21	FY22
Steel Co. #1 standalone	%	-	-	-	4.9	6.8
Steel Co. #1 subsidiary A	%	-	-	3.7	3.2	4.3
Steel Co. #1 subsidiary B	%	16.0	17.1	14.7	16.9	17.5
Steel Co. #1 subsidiary C	%	15.9	16.5	17.4	16.8	17.6

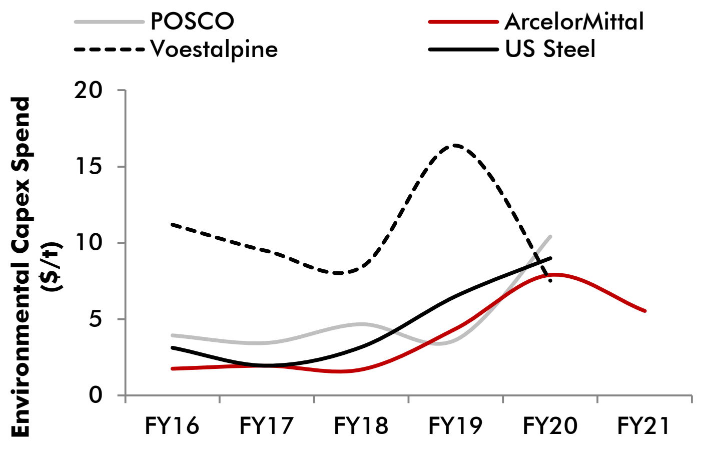
Source: Ambit Capital research, Company

Exhibit 121: Environment op. exp/t - Steel Co. #1 doesn't disclose, but peer average suggests it could be $200mn for Steel Co. #1 foreign subsidiary



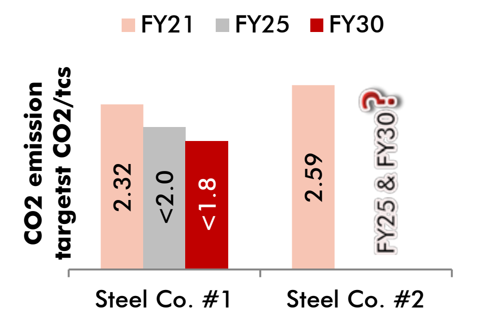
Source: Ambit capital research, company reports

Exhibit 122: Env. capex/t - Steel Co. #1 foreign subsidiary may be at $10/t ($100mn) based on peers



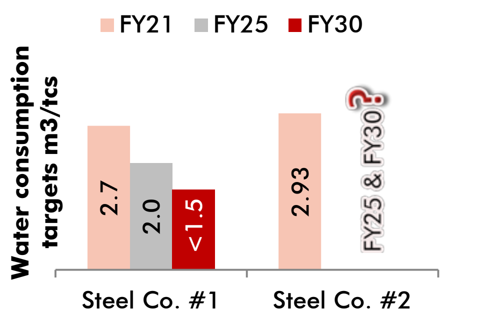
Source: Ambit capital research, company reports

Exhibit 123: Unlike Steel Co. #1, Steel Co. #2 hasn't disclosed its FY25/FY30 targets



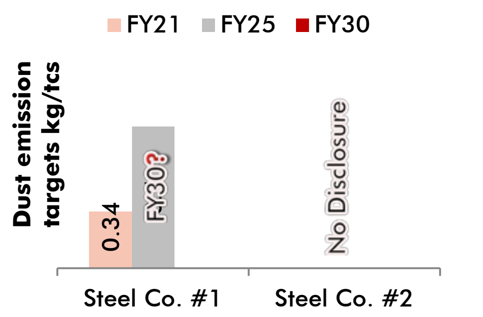
Source: Ambit Capital research, Company

Exhibit 124: While Steel Co. #1 leads the water conservation race, Steel Co. #2 hasn't started



Source: Ambit Capital research, Company

Exhibit 125: Steel Co. #2 doesn't even provide full disclosure of current dust emissions

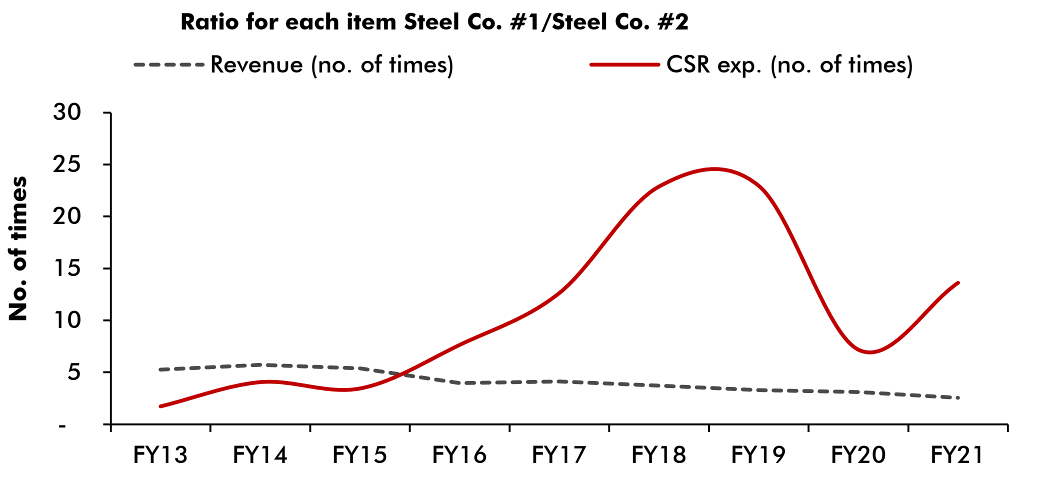


Source: Ambit Capital research, Company

Drive to make social change is naturally high in some

Steel Co. #1 was very active in making contributions towards various community initiatives even before CSR laws became mandatory in India. This reflects the social responsibility intent of the company. Unless Steel Co. #2 consistently highlights its achievements on social parameters over the next few years, it is difficult to appreciate its social actions.

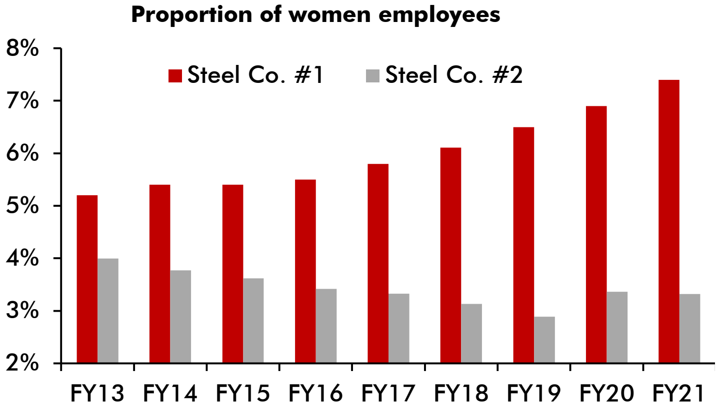
Exhibit 126: Despite not being mandatory previously, CSR spends for Steel Co.#1 were always high



Source: Ambit Capital Research, Company

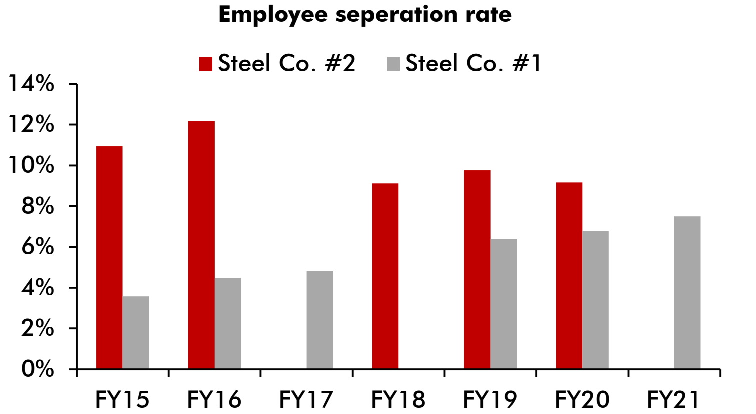
While Steel Co. #1 has been instrumental in improving the gender diversity and taking initiatives around employee health and safety, Steel Co. #2 is yet to adopt the same at least as per available data. Steel Co. #1 has been a better performer on every parameter around employee initiatives such as gender diversity, injury frequency rate and attrition, training on safety and skill development.

Exhibit 127: Proportion of women employees is slowly increasing for Steel Co. #1 versus Steel Co. #2



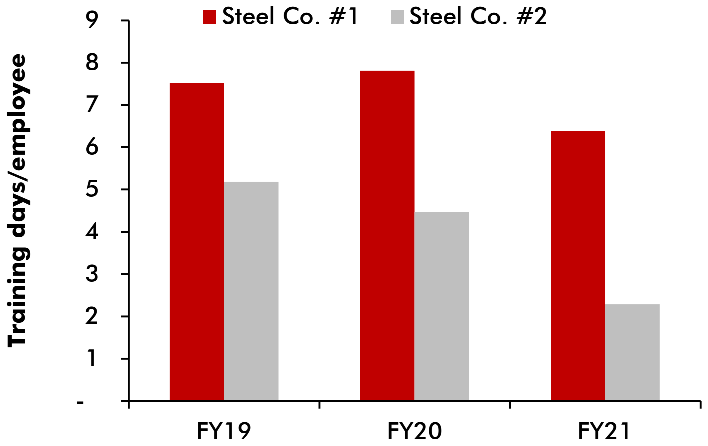
Source: Ambit Capital research, Company

Exhibit 128: Employee separation rate of (layoffs + resignations) for Steel Co. #1 has always been lower



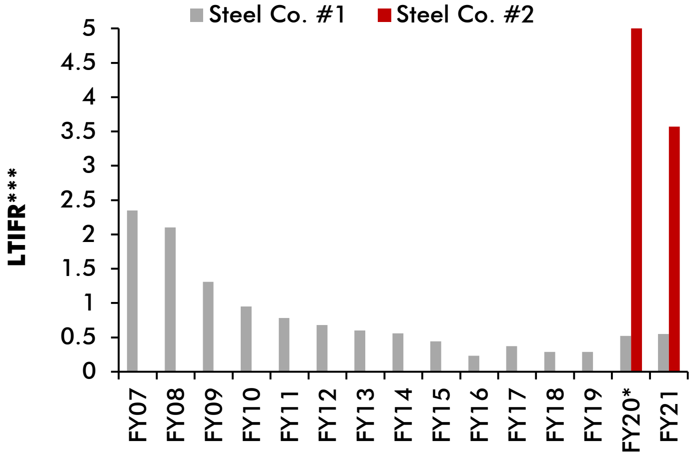
Source: Ambit Capital research, Company. Data was not available for Steel Co. #1 in FY18. Whilst data was not available for Steel Co. #2 in FY17 and FY21

Exhibit 129: Steel Co. #1 has been probably more active in its approach towards employee training



Source: Ambit Capital research, Company

Exhibit 130: Steel Co. #2 claimed reduction in injury time each year since FY15 by 20-50%, yet the LTIFR is 13x/6x of Steel Co. #1 in FY20/FY21



*Source: Ambit Capital research, Company. *** LTIFR refers to lost time injuries for every one million man-hours worked.*

"S" is most daunting parameter to assess. With CSR being mandatory, companies have had to spend on community development. However, we believe most companies see it as a regulatory checklist and only a few follow this in true spirit. We rate the identified indicators for community development on our five scale model to assess stewardship. The model gives equal weightage (20 points each) to the five factors:

- Ideation of community initiatives
- Consistency in commentary
- Transparency in reporting
- Cash outlay
- Impact assessment

Exhibit 131: Steel Co. #2 fails on points such as impact assessment, consistency and transparency

Ambit's five scale model	Steel Co. #1 (Score - 440/500)					Steel Co. #2 (Score - 300/500)				
	Areas of interest					Areas of interest				
	Social infra.	Agri. support	Skill develop.	Education	Health	Social infra.	Agri. support	Skill develop.	Education	Health
Ideation of community initiatives	20	20	20	20	20	20	20	20	20	20
Consistency in communication YoY	20	20	20	20	20	0	0	0	20	20
Transparency in communication	0	20	0	20	20	0	20	0	20	20
Actual cash outlay	20	20	20	20	20	20	20	20	20	20
Impact assessment*	0	20	20	20	20	0	0	0	0	0

*Source: Ambit Capital research, Company; *points are given if impact assessment is done at least once in two years*

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NOT RATED	We do not have any forward-looking estimates, valuation, or recommendation for the stock.
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