Investor Briefing

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BURNT BY COAL

Institutional investors lose billions on India's struggling coal sector

New research shows that big name institutional investors have seen their holdings in major Indian coal mining and coal-based power companies underperform the Bombay Stock Exchange Sensex by an average of ~10% per year since 2013, costing billions of dollars in foregone returns or opportunity costs.

Summary:

India's public sector banks are not the only ones to have been burnt by coal in India – big name institutional investors have also sacrificed billions through equity holdings in listed coal sector companies that have significantly underperformed the market. Analysis by equity research firm Equitorials[1] shows that equity investments by 16 top institutional investors (Indian and international) in 8 major listed companies in the coal mining and coal power sector have underperformed the benchmark BSE Sensex by over 10% p.a. between December 2013 and October 2018. These findings come even as the focus on the global financial sector's contribution to climate change through its support of fossil fuel industries is under the spotlight.

Indian Mutual Funds and Indian MF arms of global institutions are actively managed. It is possible that some of the holdings by international institutions are part of passively managed exchange funds, however, the pattern of trading seen in the analysis suggests active management.

The 16 institutional investors whose coal sector equity holdings were tracked are Reliance Nippon Mutual Funds, Aditya Birla Sun Life MF, DSP MF, HDFC MF, HSBC, (includes HSBC Mutual Funds, HSBC Holdings Plc and HSBC Investments HK Ltd), ICICI Prudential MF, SBI MF, UTI MF, LIC (LIC P&GS and MF), Franklin Templeton MF,

[1] *Equitorials is an equity research firm focusing on investment analysis in the Indian stock markets. The founders, hailing from top management institutes, have a cumulative experience of over 17 years working in the financial markets. Contact Jai Sharda jai@equitorials.com*

Goldman Sachs (includes GS Group and GS MF), Deutsche Bank AG, Fidelity International Ltd (includes Fidelity Management & Research Co and Fidelity Investments), Vanguard Group Inc, Standard Life Aberdeen PLC and Blackrock Inc (Blackrock Global Funds).

Equity investments by these funds in 8 publicly traded companies with interests in coal mining and power generation were tracked covering the Dec 2013 – October 2018 period. The 8 companies are Coal India, NTPC, Adani Power, Tata Power, Jindal Steel & Power, JSW Energy Ltd, Lanco Infratech, Reliance Infrastructure Ltd.

- **The average rate of return earned by these holdings across investors was just 0.5% per annum.**
- **If the same pattern of trading adopted by each institutional investor had been maintained for Sensex units instead of these 8 coal company stocks, the average rate of return would have been nearly 11% p.a.**
- **In other words, simply replacing the same value of equity investments in coal companies with S&P BSE Sensex would have yielded these investors a 10.4% higher average return on an annual basis from December 2013 to October 2018 for every dollar invested in these coal mining or coal power companies.**
- **Cumulatively, the foregone returns are estimated at over Rs. 25,000 crores (US$ 3.5 billion)**

Some institutional investors' coal holdings have fared worse than others, though all have significantly underperformed the Sensex.

Institutional Investor	XIRR on coal equities*	BSE Sensex XIRR	Underperformance (Annualised)
Aditya Birla SL MF	0.9%	12.5%	-11.6%
DSP MF**	-0.2%	10.8%	-11.0%
Franklin Templeton MF	1.6%	15.0%	-13.4%
Goldman Sachs MF	0.0%	10.9%	-10.9%
HDFC MF	2.9%	11.2%	-8.3%
HSBC MF	-2.8%	12.0%	-14.8%
ICICI Pru MF	1.5%	11.3%	-9.8%
Reliance Nippon MF	2.4%	13.8%	-11.4%
SBI MF	2.5%	11.9%	-9.4%
UTI MF	4.5%	14.1%	-9.6%
LIC	3.7%	11.3%	-7.6%
Standard Life Aberdeen PLC	-5.5%	12.1%	-17.6%
Deutsche Bank AG	0.9%	9.1%	-8.2%
Fidelity International Ltd	-2.9%	7.9%	-10.8%
Vanguard Group Inc	0.8%	10.4%	-9.6%
Blackrock Inc	-2.6%	10.4%	-13.0%
Average	**0.5%**	**10.9%**	**-10.4%**

* Adani Power, Coal India, Jindal Steel & Power, JSW Energy Ltd, Lanco Infratech, NTPC, Reliance Infrastructure Ltd, Tata Power.

**Includes DSP Blackrock holdings prior to the May 2018 split.

Indian institutional investors

Life Insurance Corporation (LIC) saw its investments (mainly in Coal India and NTPC) earn just 3.7% p.a, an underperformance of 7.6% p.a, whereas State Bank of India and Unit Trust of India mutual funds underperformed by over 9% p.a.

DSP MF saw its positions in these companies suffer a -0.2% loss each year, every year, on average. During that time period, the same investment into the Sensex would have yielded an annual return of 10.8%.

Aditya Birla SunLife MF, HDFC MF, ICICI Prudential MF, Reliance Nippon and SBI MF, all saw their coal equities underperform by between 8 and 11.4% per annum.

Foreign institutional Investors

Blackrock Inc investments in the coal companies considered yielded a -2.6% annual return (a loss of 2.6% p.a.). A comparative investment in the Sensex would have earned the world's largest investor a 10.4% p.a. return – an underperformance of 13%.

Goldman Sachs MF investments in coal companies yielded a 0% annual return, while a comparative investment in the Sensex would have yielded a 10.9% return on an annual basis.

Franklin Templeton Mutual Fund investments in Indian coal equities earned it 1.6% p.a., an underperformance of 13.4% annually as compared to the Sensex.

Fidelity and Vanguard saw their Indian coal holdings underperform the Sensex by 10.8% and 9.6% p.a. respectively.

UK-based Standard Life Aberdeen saw a huge 17.6% p.a. underperformance, with its Indian coal equities recording an annualized loss of 5.5%; global investment banks HSBC and Deutsche Bank AG underperformed by almost 15% and 8.2% p.a. respectively.

Good money after bad?

Despite the poor performance of these stocks over the last five years, a number of investors appear to have raised their holdings in some of the coal companies under consideration in 2018, as compared to a year ago.

For instance, **DSP** has increased its holdings in Adani Power, Tata Power and Jindal Steel & Power relative to 2017. **Aditya Birla Sunlife Mutual Fund** has increased its holdings in Tata Power and Jindal Steel & Power in 2018. **Reliance Nippon** has done likewise for JSW Energy and NTPC. **HDFC** has raised its stake in Adani Power, Coal India, Jindal Steel and Power and NTPC relative to 2017.

Among public sector entities, **SBI Mutual Funds** has raised its stake in Coal India, JSW Energy, NTPC and Tata Power relative to 2018, **LIC** has increased its holdings in Coal India and **UTI** has done likewise for NTPC and Tata Power.

Among global institutions, **Deutsche Bank** has been increasing its holdings in Coal India, Jindal Steel & Power, NTPC, and Tata Power relative to 2017, while **Blackrock** and Goldman Sachs have significantly increased their holdings in Jindal Steel & Power Ltd. **Franklin Templeton** has increased its Tata Power holdings relative to 2017.

Background

In 2013, the coal sector in India was widely regarded as an attractive financial proposition. The country's large, energy starved population was expected to guarantee that coal mining and coal power generation would grow in the high single or double digits for the foreseeable future. Coal India's massively over-subscribed 2010 IPO had set the stage for this narrative. Contrary opinions pointing to coal's downside risks (overcapacity being created in the thermal power sector,[1] unrealistic assumptions about growth in electricity demand, mining constraints,[2] bottlenecks in coal supplies, irregularities in coal mine allocations and the groundswell of community opposition to many new power plants and coal mines) were largely ignored, or deemed to be insignificant obstacles.

At the time, the staggering price drops realized by solar and wind power were still years off, and the view that coal would be indispensable if India was to provide electricity to all citizens was much more widely held than it is today. India's energy security risk in terms of the excessive reliance on imported fossil fuel (at the time mainly petrol and diesel) was meant to be reduced by increased reliance on domestic coal production and plans for coal gasification and coal to liquid conversion. However, in reality energy security has deteriorated as India today relies on a significantly higher share of imported petrol, diesel, liquid natural gas (LNG) as well as both thermal coal for power generation and coking coal for steel manufacturing.

Today, a strong case can be made that at least some of coal's woes are due to the fact that, post a 50% decline in Indian renewable energy tariffs since the start of 2016, new solar and wind power are now cheaper than any new coal power project, and is even able to provide electricity at cheaper tariffs than most existing coal projects.[3,4] Renewable energy is also proving to be deflationary, with zero tariff indexation locked in for the next 25 years in most reverse auction tenders held since 2017. In contrast, the capital cost, fuel cost and transportation costs of new coal fired power plants will continue to rise.

However, given recent holding patterns by these same institutional investors, one can question if the drastic changes underway in India's electricity sector have been truly factored in by asset managers. Are investments still being made on the basis of past assumptions that have now proven erroneous?

Analysing trading patterns of major institutional investors, it would seem that many investors continue to view India's coal problems as transient, despite overwhelming evidence that the coal sector is facing structural and irreversible decline over the medium to long term, casting doubts over its future as a viable investment option.

Questions for asset managers:

- **What level of expected return would justify the risks of continued investment in the Indian coal power sector in the hopes of a turn around?**
- **On what parameters is India's coal power sector better placed today than it was in 2013, justifying continued investment?**
- **Given the research in this analysis, what is a comfortable time horizon for a portfolio of Indian coal assets to achieve returns comparable to the BSE Sensex benchmark?**

The Indian Coal Power Sector Has Become Riskier

Exaggerated demand forecasts, ongoing construction could lead to even lower coal capacity factors: India's electricity demand forecasts have historically been exaggerated, leading in part of the issue of over-capacity and low capacity utilization factors plaguing the coal power sector. The National Electricity Plan finalized in January 2018 took into account past over-estimations and projected a more realistic annual electricity demand growth rate of 6.18% from FY2017 to FY2022.

FY 2017 and FY 2018 saw conventional (thermal, nuclear, large hydro) electricity generation grow 4.7% and 3.98% respectively, while total generation grew by 5.8% and 5.3% respectively. Despite this growth, FY 2018 saw coal and lignite PLFs at around 60%.

In the first seven months of FY 2019, conventional electricity generation has grown by 4.9%, and total generation by 6.8% year-on-year. Renewables have contributed around 1/3rd of the growth in electricity generation so far in FY 2019; coal power PLFs still average only about 61%. India currently has about 47GW of coal power officially listed as under construction, which the CEA assumes will come on line between now and 2022. This will lead, per the CEA, to a further fall in coal power PLFs to just 56.5% by 2022.[5]

Fuel supply risks remain: Coal prices continue to rise even as issues with transport from pithead to power plant remain. As of December 12, 2018, 14 plants across the country had critical coal stocks of less than 7 days, despite Coal India's production growing at 8.8% so far this fiscal.

Cost competitiveness: Coal has been dethroned as the lowest cost source of new electricity generation by solar PV and wind. New solar and wind projects offer electricity to discoms at tariffs ranging from Rs. 2.5 per kilowatt hour (kWh) to 3.5/kWh, whereas any emissions compliant new coal pithead project will have a starting tariff of at least Rs.4.39/kWh, per the CEA's report on New Environment Norms for the Thermal Power Plants. Even among operational coal plants, fewer than 1/3rd are cost competitive with new renewable projects on year one tariffs, even ignoring the contractually locked in deflation that renewable projects bring to the table. This cost disadvantage, along with lower than projected demand / overcapacity in the coal generation sector is the core reason why DISCOMS are not signing new long term PPAs for coal power plants. Barring a sudden and unforeseen spurt in demand, this situation is unlikely to change.

Debt overhang: The problem of stressed debt in the coal power sector continues to linger, as resolution under the IBC and NCLT mechanisms continues to drag on, particularly post the debacle of the IL&FS default and heightened risks to the Reserve Bank of India's independence. Of the 8 companies analysed, Lanco and Adani have significant assets listed as stressed by the Parliamentary Standing Committee on Energy in its March 2018 report.(6)

Climate, water and air pollution concerns will continue to drive renewable energy and act as a brake on coal: As extreme weather events linked to climate change grow in frequency and severity, the pressure from communities, investors, regulators and governments to boost clean energy and restrict carbon emissions will grow. On December 10, 2018, the Supreme Court of India held that all coal power plants must comply with air emission norms by 2022 at the latest. This will force all coal power plants to retrofit to meet new standards and pass on the resulting cost increase to consumers, further worsening coal power's competitive position vs renewables. Failure to comply is not an option: penalties will likely include being relegated to the bottom of the merit order dispatch.

Methodology and data sources:

16 of the largest, most prominent and widely recognized institutional investors with a presence in India were selected. The holdings of each of these investors in the most important coal mining and coal power generation companies in India were analysed on the basis of quarterly reports, public information and data accessed via Bloomberg. Share prices and dividend payouts from each of the coal companies were tracked on the same basis.

The change in holdings in each stock, as well as dividends, if any, were used to compute quarterly payouts and a total annualized rate of return on the entire portfolio of 8 coal companies for each institutional investor for the period under consideration – Dec 2013 to October 2018.

The same trading pattern was then used to evaluate comparative returns from equivalent investments in the S&P BSE Sensex. An annual dividend of 1.57% was used to calculate dividend from Sensex holdings[(7)], yielding a total annual rate of return that could be compared with that earned by investors' actual holdings in the coal company stocks.

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ENDNOTES

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