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# CRASH OF THE TITANS

## Bets on India's coal sector have cost institutional investors US $3 billion since 2016

**HDFC Mutual Funds, ICICI Prudential, DSP, Reliance Nippon and other leading Indian and foreign institutional investors have seen their equity holdings in coal mining and coal-based power companies underperform the Bombay Stock Exchange Sensex by between 14% and 32% per year since 2016—cumulatively costing these investors US $3 billion/₹229 billion.**

# HIGHLIGHTS

- The rate of return of each investor’s holdings in these coal sector stocks ranged between a low of –25.5% (Reliance Nippon) and a high of –4.5% p.a.
- These investors’ holdings in these equities underperformed against the S&P BSE Sensex by a range of between 31.9% and 13.5% p.a.
- Cumulatively, this has cost the institutions in question US$ 3B since 2016, with the biggest opportunity costs suffered by public sector giant LIC, followed by HDFC MF, ICICI Prudential MF and Reliance Nippon MF.
- Indian mutual funds have seen a significantly larger underperformance of their coal sector holdings than their international peers, due to heavier exposure. Most leading Indian mutual funds have seen their holdings in coal reliant companies underperform the S&P BSE Sensex by 24% or more.

Despite the global decline of the coal industry, and similar headwinds in India, big institutional investors, foreign and domestic, have maintained significant positions in many Indian coal mining and coal power entities. Analysis commissioned by Climate Risk Horizons and conducted by research firm Equitorials,[1] shows that in the case of 8 major BSE-listed entities, this faith has not been justified in terms of rewards to investors.

This analysis looked at the equity holdings and trading patterns of 15 institutional investors in 8 BSE-listed entities with significant operations in the coal mining or coal power sector, covering the time period Q4 FY 2016 to Q2 FY 2021. Of the 8 entities, only one, NTPC, is currently a component of the benchmark S&P BSE Sensex.

TABLE 1

**TOP 8 BSE-LISTED COAL-SECTOR ENTITIES**

| |
|---|
| ADANI POWER LIMITED |
| COAL INDIA LIMITED |
| JINDAL STEEL & POWER LIMITED |
| JSW ENERGY LIMITED |
| LANCO INFRATECH LIMITED |
| NTPC LIMITED |
| RELIANCE INFRASTRUCTURE LIMITED |
| TATA POWER |

# DATA & METHODS

The equity holdings of 15 large institutional 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 of each investor 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—Q4 FY 2016 to Q2 2021.

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, yielding a total annual rate of return that could be compared with that earned by investors' actual holdings in the coal company stocks.

* Based on www.kotaksecurities.com/ksweb/Meaningful-Minutes/What-you-should-know-about-dividend-yield-stocks

TABLE 1
## TOP 8 BSE-LISTED COAL-SECTOR ENTITIES

| INVESTOR | XIRR ON COAL EQUITIY HOLDINGS | XIRR ON EQUIVALENT BSE SENSEX INVESTMENT | UNDER-PERFORMANCE (ANNUALISED) | PROFIT/LOSS (₹ BILLION) |
|---|---|---|---|---|
| **Aditya Birla Sun Life MF** | –19.4% | 7.1% | –26.5% | –7.313 |
| **DSP MF*** | –20% | 4.5% | –24.5% | –1.908 |
| **Franklin Templeton MF** | –15.2% | 9.3% | –24.5% | –5.520 |
| **HDFC MF** | –25% | 6.7 | –31.7% | –41.348 |
| **HSBC MF** | –7.1% | 9.3% | –16.4% | –0.098 |
| **ICICI Prudential MF** | –16.9% | 8.3% | –25.2% | –43.817 |
| **Reliance Nippon MF** | –25.5% | 6.4% | –31.9% | –31.439 |
| **SBI MF** | –17.1% | 8.4% | –25.5% | –10.923 |
| **UTI MF** | –18.4% | 7.9% | –26.3% | –4.671 |
| **LIC (P&GS and MF)** | –4.5% | 10.9% | –15.5% | –50.515 |
| **Standard Life Aberdeen PLC** | –6.6% | 6.9% | –13.5% | –0.233 |
| **Deutsche Bank AG** | –6.9% | 7.7% | –14.6% | –0.082 |
| **Fidelity International** | –11.7% | 9.5% | –21.1% | –2.406 |
| **Vanguard Group** | –9.5% | 9.6% | –19.1% | –11.754 |
| **Blackrock** | –10.1% | 9.6% | –19.6% | –16.992 |
| TOTAL | | | | –229.026 |

*Includes DSP Blackrock holdings prior to May 2018 split.

FIGURE 1

## XIRR COMPARISON: COAL HOLDINGS VS. SENSEX

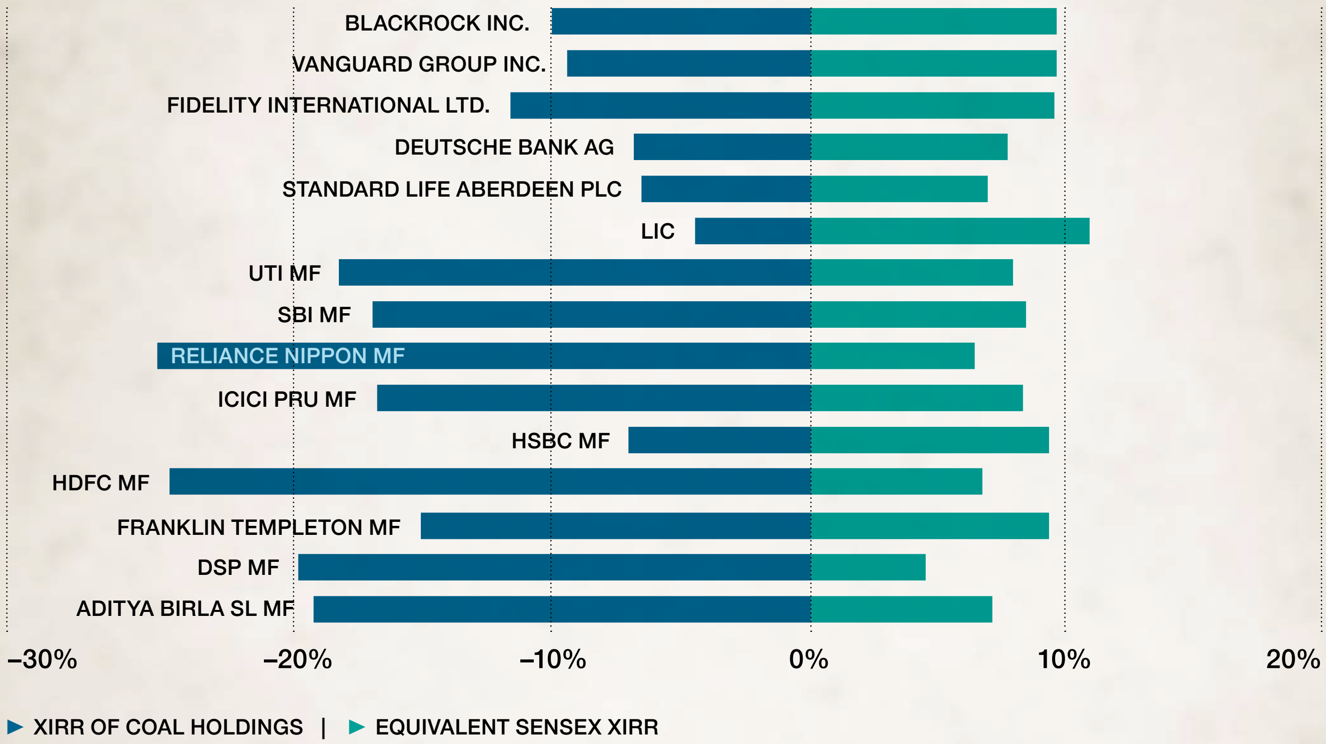
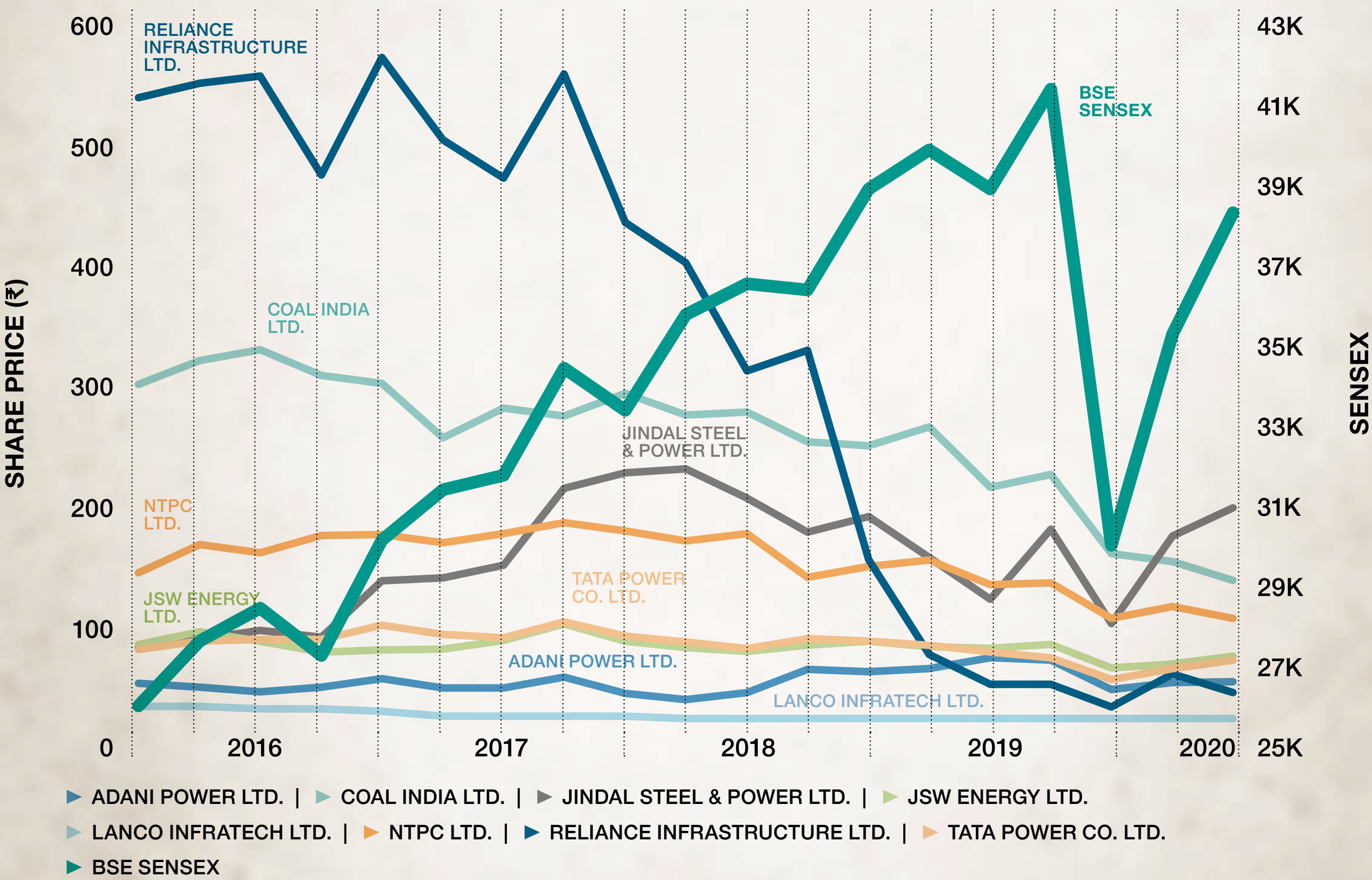



FIGURE 2

## PERFORMANCE OF COAL-RELIANT ENTITIES VS. BSE SENSEX



# KEY POINTS

## SBI MUTUAL FUND

SBI Mutual Fund is 37% stake owned by French giant Amundi Asset Management. The fund has significantly increased its stake in Coal India, JSW Energy and NTPC between March 2016 and September 2020.

## DSP MF

DSP has increased its stake in Adani Power, NTPC and Tata Power since 2019, while reducing its exposure to Coal India Limited.

## RELIANCE NIPPON MF

Reliance Nippon MF has increased its holdings in Coal India, Jindal Steel & Power, JSW Energy and NTPC over the course of 2020.

## ICICI PRUDENTIAL MF

ICICI Prudential MF has increased holdings significantly in Adani Power and Coal India.

## UTI MF

There has been a large increase in UTI MF's holdings in Coal India, NTPC and Tata Power since December 2019. U.S. giant T. Rowe Price has a 26% stake in UTI MF.

## BLACKROCK

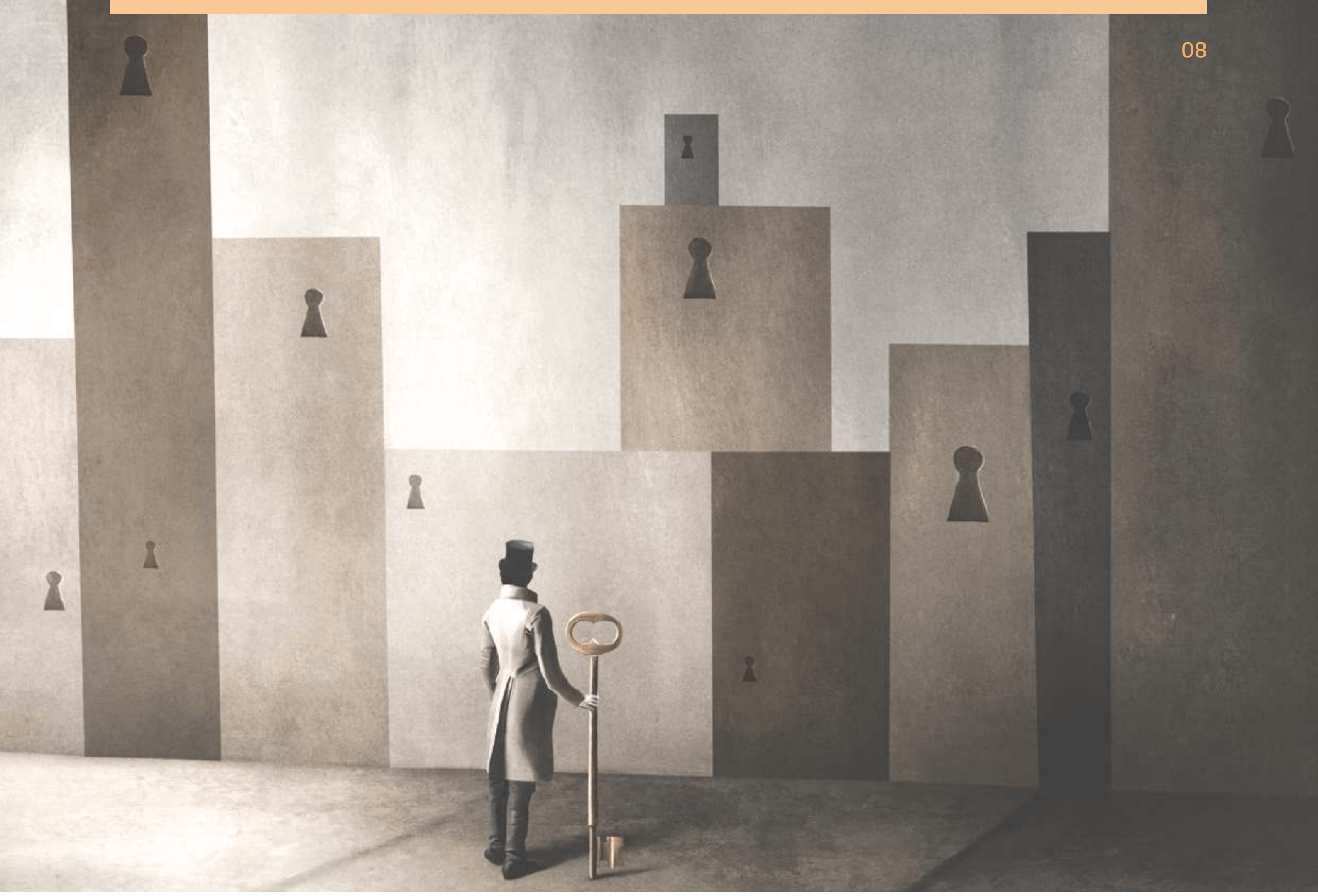
In January 2020, Blackrock made a commitment to divest itself of companies that derive over 25% of revenues from thermal coal mining, and to "closely scrutinise other businesses that are heavily reliant on thermal coal as an input, in order to understand whether they are effectively transitioning away from this reliance."[3] However, as of September 2020, Blackrock still appears to hold significant positions in 7 of the 8 companies in question, including the world's largest coal miner Coal India, as well as Adani Power, Jindal Steel & Power and NTPC.

## LIC P&GS & MUTUAL FUND

As the largest public sector institutional investor, LIC's performance is particularly noteworthy. It accounts for the largest "loss" of over ₹50 billion. A significant portion of this can be attributed to LIC's forced acquisition of nearly 40% of shares on offer at Coal India's January 2015 Offer For Sale, at about ₹358 a share.[2] Between December 2017 and March 2018, LIC had offloaded most of those shares, with the scrip at between ₹263–283. Apart from this, there has been a secular decline in the prices of all other coal stocks.

## HDFC MF

HDFC MF has increased its holdings in Coal India, Jindal Steel & Power and NTPC compared to 2019.

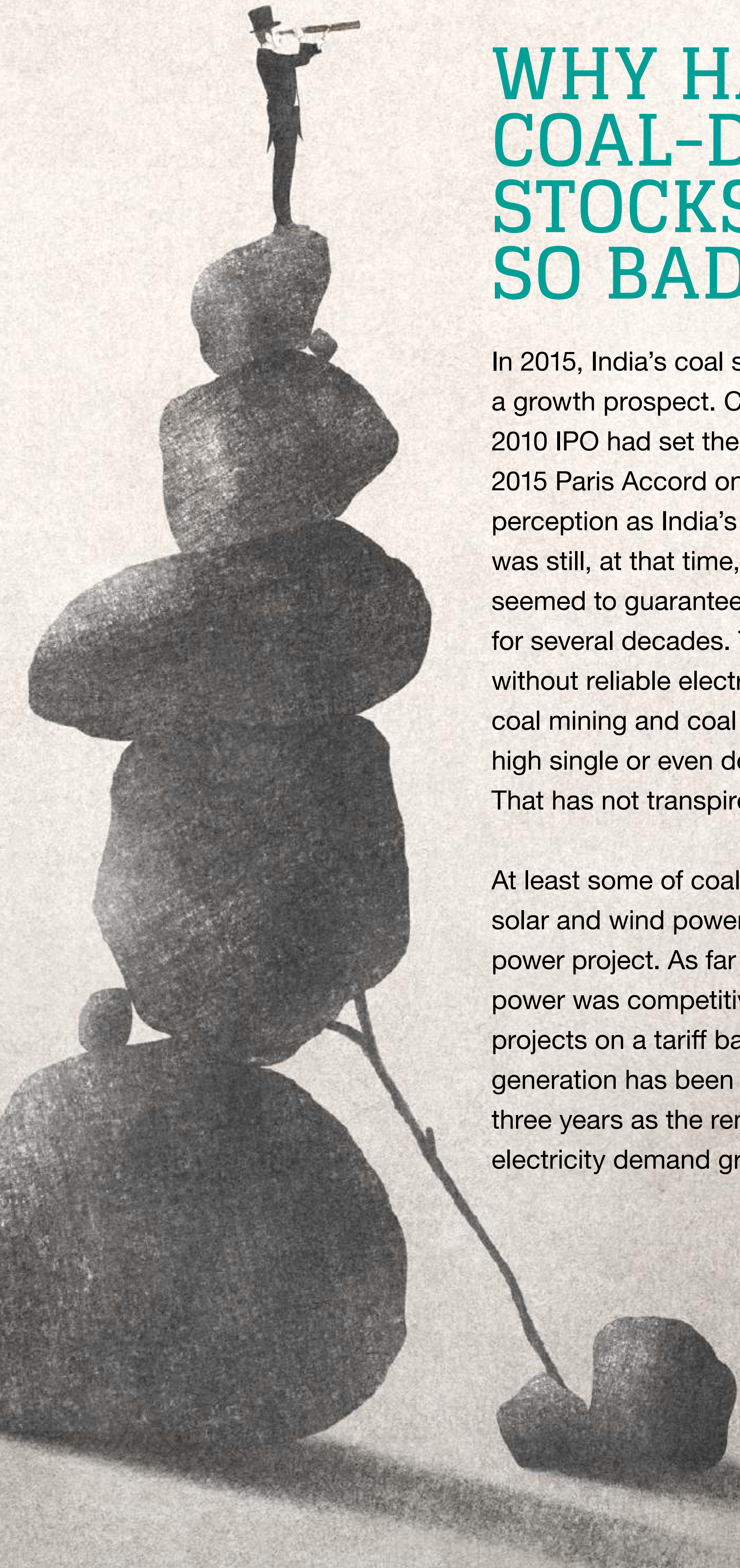


# QUESTIONS FOR FUND MANAGERS

- The last 5 years have shown that all coal-dependent equities have struggled. What level of expected return over what timehorizon would be needed to justify the risk of continued investment in the Indian coal power sector in hope of a turnaround?

- If continued investment is premised on expectation of a turn around, what are the parameters on which India's coal sector is better placed today than it was in 2015?

- Given global changes in efforts to combat climate change, cost trajectories for clean energy and the likely shrinkage of the coal sector, what is the medium/long term outlook for the coal-dependent entities your fund is investing in?



# WHY HAVE COAL-DEPENDENT STOCKS PERFORMED SO BADLY?

In 2015, India's coal sector was still widely believed to be a growth prospect. Coal India's massively over-subscribed 2010 IPO had set the stage for this narrative. The December 2015 Paris Accord on climate change did little to alter this perception as India's energy poverty and the fact that coal was still, at that time, the cheapest source of new electricity seemed to guarantee a rapidly expanding coal industry for several decades. The fact that millions of Indians were without reliable electricity was expected to guarantee that coal mining and coal power generation would grow in the high single or even double digits for the foreseeable future. That has not transpired.

At least some of coal's woes are due to the fact that new solar and wind power are now cheaper than any new coal power project. As far back as 2017 and 2018, new renewable power was competitive with 60–70% of operational coal projects on a tariff basis.[4,5] Coal's share in India's electricity generation has been falling, albeit slowly, over the past three years as the renewable energy industry took off and electricity demand growth remained below expectations.

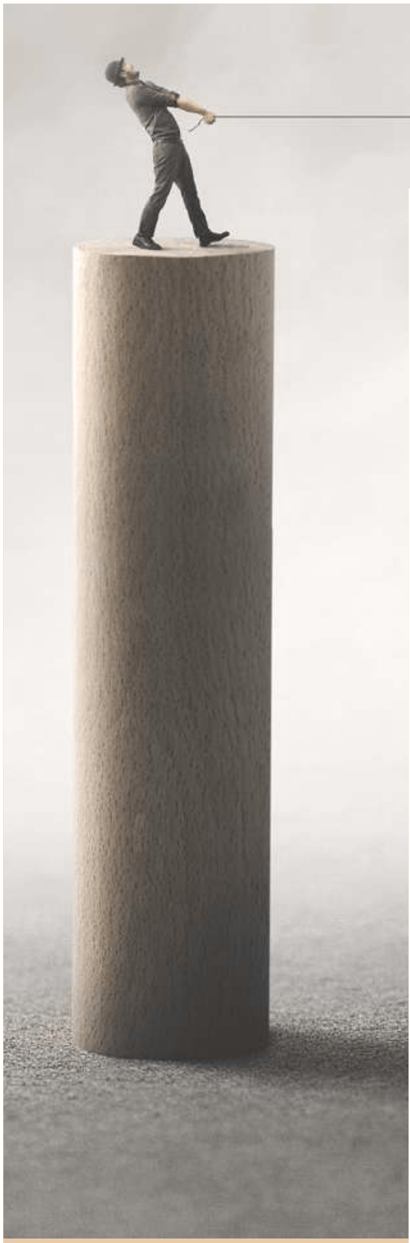
Recent equity holding patterns by these 15 institutional investors suggest that the drastic changes underway in India's electricity sector have yet to be factored in to asset managers' investment decisions. Are investments still being made on the basis of past assumptions that have now proven erroneous?

The trading patterns of most major institutional investors seem to indicate that they 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.

# INVESTMENT IN THE INDIAN COAL POWER SECTOR HAS BECOME RISKIER

## SURPLUS COAL CAPACITY

Overly optimistic electricity demand forecasts have led to significant surplus coal power capacity in the system, and low capacity factors, particularly in the case of private generators. The National Electricity Plan finalized in January 2018 took into account past over-estimations and attempted to project a more realistic annual electricity demand growth rate of 6.18% from FY 2017 to FY 2022. However, as of FY 2020, actual demand (pre-Covid lockdown) lagged projections by 7.5%. Covid-induced economic disruption is likely to throw GDP growth off for several quarters. TERI has suggested that the impact of Covid-19 will mean an Indian economy that is between 7% to 17% below the pre-Covid trend in terms of Gross Value Added by 2025, translating into total electricity demand of anywhere from 75 TWh (optimistic scenario) to 258 TWh (pessimistic scenario) below the pre-Covid trend.[6]



## COST COMPETITIVENESS

Solar PV and wind are the cheapest new source of electricity generation. With storage costs also set to decline rapidly[7,8] coal's share in India's total electricity generation is starting to shrink. New solar and wind projects offer electricity to discoms at tariffs ranging from a low of ₹2 to a high of ₹3/kilowatt hour (kWh). Any emissions compliant new coal pithead project will have a starting tariff of at least ₹4.39/kWh, per the CEA's report on New Environment Norms for the Thermal Power Plants.

Increasingly, even operational coal plants are being displaced by renewable energy. Fewer than one-third are cost-competitive with new renewable projects on year one tariffs (ignoring the contractually locked in deflation implied in renewable PPAs due to low variable costs). 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 jump in demand the likes of which India has never seen, 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.

## ENVIRONMENTAL ISSUES

Climate, water and air pollution concerns will continue to drive renewable energy and act as a brake on coal. Extreme weather events linked to climate change grow in frequency and severity, eroding the social license of the coal industry as the market penetration of renewable alternatives deepens.

In December 2018, the Supreme Court of India held that all coal power plants must comply with air emission norms by 2022 at the latest. This forces 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. Eventually, power plants will have to comply, even if there are temporary changes to the deadlines: penalties for violating the norms on FGDs will likely include being relegated to the bottom of the merit order dispatch.

# WHAT SHOULD COAL-DEPENDENT COMPANIES DO?

1

Diversification away from coal and towards coal-independent revenue sources would help protect shareholder value. NTPC has started to move in this direction but remains heavily coal-dependent.

2

Capex investments should be re-examined in light of the ongoing and inevitable decline in the coal market, which will likely accelerate. Higher dividend payouts would arguably do more to boost shareholder value.

# WHAT SHOULD INVESTORS AND ASSET MANAGERS DO?

1

Evaluate coal companies transition plans to reduce their long term exposure to risk from India's energy transition.

2

Scrutinise large capex proposals that have a payback horizon of more than 5 years.

3

Diversify their energy portfolios away from coal to growth sectors such as renewables, energy storage, smart grid and demand management services/ solutions.

# ENDNOTES


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 20 years working in the financial markets.

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## CLIMATE RISK HORIZONS

Climate Risk Horizons' (CRH) work highlights the systemic risks that disruptive climate change poses to investors, lenders and infrastructure investments. Through a data-driven, research-oriented approach that incorporates a holistic understanding of climate policy, energy infrastructure and regulatory processes, CRH provides advice on risk management strategies to minimise stranded, non-performing assets and economic disruption in the face of climate change.



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