

**Power Sector**  
*Sector Report*
**Power sector stress - Background**

The Indian power sector has seen some pressure in the recent past on the back of mounting debt levels and various external factors like lower coal availability and poor power demand due to lack of Power Purchase Agreements (PPA) etc affecting the financial conditions of the power generating companies. As per Reserve Bank of India (RBI), the total outstanding loans of scheduled commercial bank to the power sector (including renewables) stood at Rs.5.65 trillion as on March 2018 and nearly 80% of this amount is accounted for by the Public Sector Banks (PSBs) and almost a fifth of this exposure is stressed on account of various structural factors plaguing the power sector. **The RBI, on February 12, 2018, issued a new circular scrapping all previous restructuring mechanisms such as Strategic Debt Restructuring (SDR) and issued stricter norms to deal with the stressed assets (or Non-Performing Assets) which are further adding to the woes of the power sector.** Under the new RBI rules, creditors to companies that are defaulting on loans of Rs.20 bn or more, as on March 1, 2018, are required to implement a Resolution Plan within 180 days, or file for insolvency under the Insolvency and Bankruptcy Code (IBC) within 15 days from the expiry of the deadline. If a company defaults after March 1, 2018, then the 180 days will be counted from the date of first such default which was August end. The Allahabad High Court had recently refused to grant any relief on Reserve Bank of India's revised framework on the resolution of stressed assets, where the deadline for the resolution of these stressed assets lapsed on August 27, 2018 and these stressed assets were required to face insolvency proceedings. **However, Hon' Supreme Court has provided a relief to Power sector stressed assets, where the Supreme Court has put a stay on the RBI's February 12, 2018 order which has provided some additional time for Bankers to finalize resolution plan for about 13 GW of projects which are presently in their final stages or under the High Level Empowered Committee (HLEC) under the Chairmanship of Cabinet Secretary, to submit its report on corrective actions.**

We believe, with many of these stressed power sector assets eventually moving to the IBC proceedings they could be sold at a much lower cost or scrap/replacement cost to the prospective bidders under the proceeding. This is likely to pave way for the consolidation in the power generation sector with few cash rich or lesser leveraged large power generating companies like NTPC, JSW Energy, Tata Power and also Adani Power amongst these others are likely to grab these assets at a throw away prices\* (*Source: As per Financial Express article dated 29 Aug 2018*). However, concerns of reducing demand – supply gap for power sector as witnessed in the recent months and expected rise in power supply once these stranded power plants become operational may further lead to rise in concerns for the overall power sector given the higher power supply scenario going ahead.

**Snapshot of 34 stressed thermal power assets**

According to the latest report of standing committee (Ministry of Power) on stressed power assets, committee has highlighted that total coal based power capacity in the private sector may be nearly 90,000 MW out of which 75,000 MW is already operational. It further highlights that approximately 60,000 MW to 65,000 MW of this capacity may be under financial stress due to the sectoral issues i.e. non-availability of adequate fuel or delay in power sale agreement tie-ups amongst many others. The Committee apprised that ~66 GW of conventional Independent Power Producer capacity is under various degrees of financial stress in the Electricity Sector which includes 54,805 MW of Coal based Power plants (44 Assets), 6831 MW of Gas based Power plants (9 Assets) and 4571 MW of Hydro Power plants (13 Assets). However, out of 44 coal based stressed assets, the Committee has focused on 34 coal based thermal power plants which were categorized as 'stressed' and required resolution.

Particulars	Admitted to NCLT	Expected to be resolved under Samadhan Scheme	Expected to be referred to NCLT	Referred to NCLT	Resolved	Resolved under Samadhan Scheme	Total	Completion Status in %
No. of Projects	5	9	10	2	7	1	34	
<b>Capacity (in MW)</b>								
Completed	270	6120	6260	0	8220	1980	22850	59%
Partial	0	5740	1920	0	0	0	7660	20%
Under Construction	4170	0	2520	1670	0	0	8360	22%
<b>Total</b>	<b>4440</b>	<b>11860</b>	<b>10700</b>	<b>1670</b>	<b>8220</b>	<b>1980</b>	<b>38870</b>	<b>100%</b>
Debt (in Rs. Bn)	164	585	484	80	334	115	1761	
Resolution Status of Debt in %*	9%	33%	27%	5%	19%	7%	100%	

*Source: Standing Committee Report on Energy Sector; \*As on 6 Sept 2018*

### Key details of the stressed power plants referred by Standing Committee report:

- There are total 34 such stressed power projects.
- These 34 power projects have a total capacity of 38,870 MW.
- Out of these 38,870 MW capacity power projects, ~59% or 22850 MW capacity projects are completed, ~20% or 7,660 MW capacity are partially completed and ~22% or 8,360 MW capacity is under construction (where project progress achieved in these under construction projects is ranging from 45% to 85%).
- Total debt outstanding of these 34 projects stood at ~Rs.1.76 trillion, with ~26% (or Rs.449 bn) worth of debt been resolved till date\*.
- Out of these 34 projects, ~5 projects are admitted to NCLT, 9 projects are expected to be bidded out under Samadhan Scheme, 10 projects are expected to be referred to National Company Law Tribunal (NCLT), 2 projects have already been referred to NCLT, 7 projects are resolved and 1 project was recently resolved under Samadhan Scheme.

*\*As on 6 September 2018*

### Benefits of the NCLT and Samadhan resolution

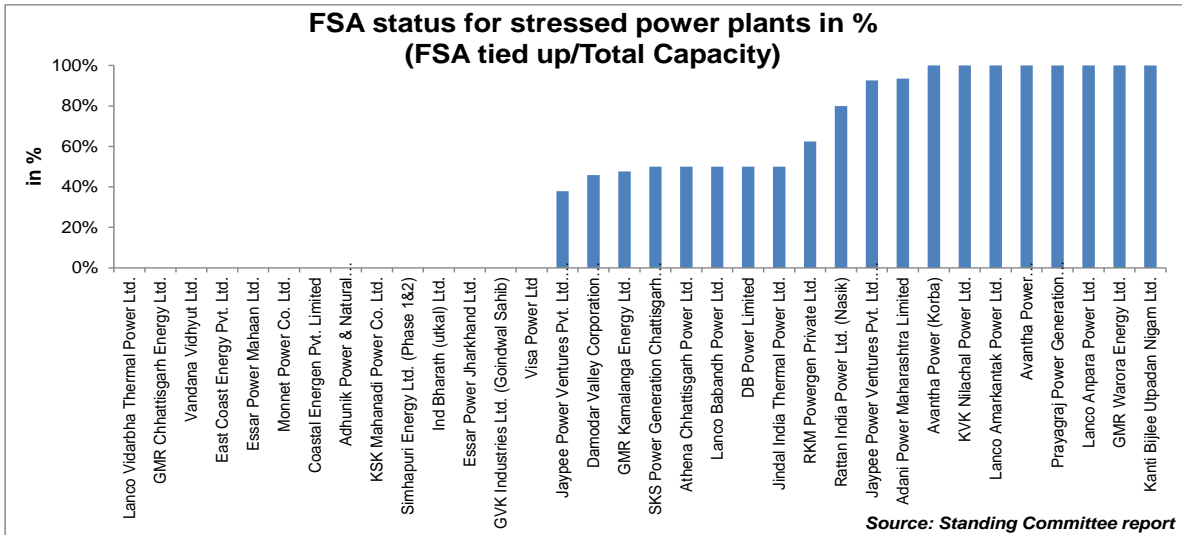
The RBI's circular required banks/lenders to finalize the resolution plan in case of a default on large accounts of Rs.20 bn and above within 180 days (irrespective of sectors), failing which insolvency proceedings will have to be invoked against the defaulter. However, to avoid selling of stressed assets at salvage or a much discounted value which may require banks/lenders to undertake larger haircut, the Rural Electrification Corporation (REC), which is under the administrative control of the Power Ministry, has drawn up a plan "SAMADHAN" to turnaround assets of such stressed power plants. Under SAMADHAN (Scheme of Asset Management and Debt Change Structure), the bankers' consortium shortlisted about 11 power plants with an overall capacity of over 12 GW, which are either complete or nearing completion. The scheme is an effort to avoid liquidation of these plants at a significantly lower value. Under the SAMADHAN scheme, the bankers would be addressing those assets which are either complete or near completion. Banks/lenders would carry out an assessment of what would be sustainable debt for these assets, and the remaining debt which is unsustainable would be converted into equity (to be held by the banks) and ~24.5% stake would be allowed to remain with promoters. The banks can sell the equity to players who want to run these plants. The idea is that these plants will be run and not liquidated. However, the balance projects which would fail to attract prospective buyers under SAMADHAN and also remaining stressed assets which could not be resolved by lenders in the last 180 days post the RBI circular on IBC norms would be sold via NCLT proceedings in the coming months under a stipulated timeline.

**We believe, given the higher supply scenario in the power segment, these power plants may find it difficult to find the prospective buyer. However power plants with adequate Fuel Supply Agreement or Power Purchase Agreement (PPA) may find it easy to find the new buyer. On the other hand, under the NCLT resolution, the perspective bidder with positive cash balances or relatively lower debt may be able to buy the stressed assets at a deep discount price as compared to the original cost for the setting up the same. For example, as per Standing Committee report on Energy Sector, a particular Thermal Power Plant (TPP) was bidded at Rs.3.4 mn/MW historically where the original cost for 1 MW of TPP would be approximately in the range of Rs.50-60 mn/MW. Similarly, Tata Power announced that Resurgent Power (Tata Power holds 26% stake in Resurgent Power) received a letter of intent from creditors of Uttar Pradesh based Prayagraj Power Generation Company Ltd. (Jaypee Bara) to acquire 75.01% stake in the firm at a bid of around Rs.60 bn. This translates into around Rs.40.4 mn/ MW at the bid price. On the other hand, bankers/lenders could be able to recover more than than 50% of the Rs.110.86 bn borrowed by Prayagraj from a group of 17 entities led by State Bank of India (as on 31 October 2017).**

**Key reasons for stressed power plants unlikely to find prospective buyer under NCLT going ahead**

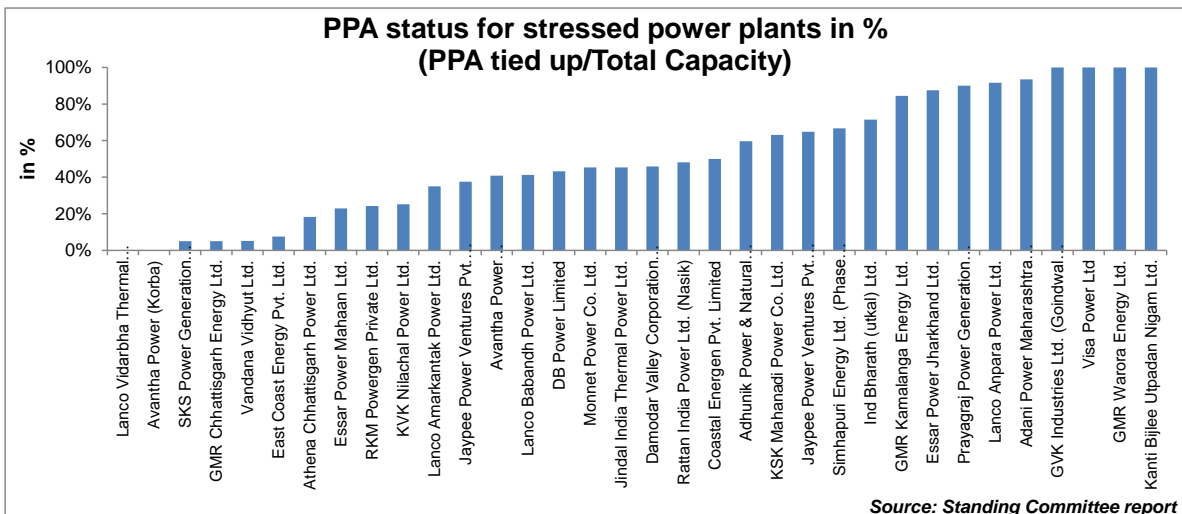
**• Inadequate Fuel Supply Agreement (FSA)**

The key reason for the poor state of these 34 stressed power plants was unavailability of adequate FSA. Currently, coal linkage is allowed only for long term and medium term PPAs. As a result, most of the power plants do not have adequate fuel-supply arrangements, requiring them with only alternative to go for e-auction which tends to be expensive in nature. Out of 34 stressed assets referred by Standing Committee, ~14 Power plants with 15510 MW of capacity have no FSA (~0%). Additionally, even though few power plants have 100% FSA, actual FSA would depend of the power plants ability to secure long term PPAs which would be the true reflective of its FSA. Thus, we believe, with lack of adequate FSA agreements for most of the stressed power plants, prospective buyers would be closely evaluating the possibilities for successfully turning these power plants operational and profitable as soon as possible.



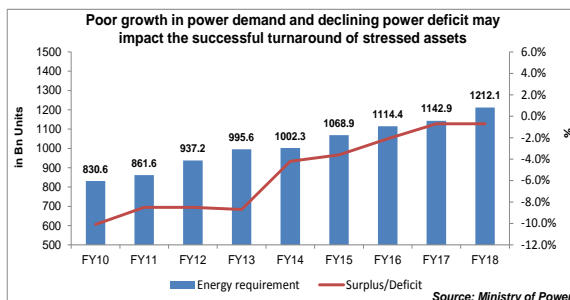
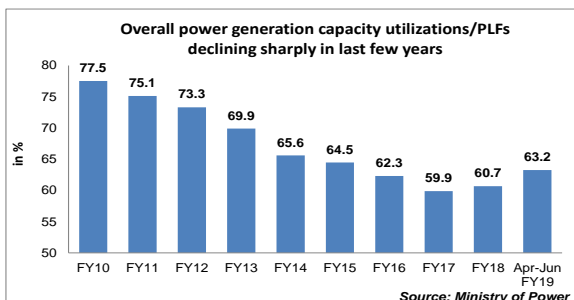
**• Inadequate Power Purchase Agreement (PPA)**

Other factor, which affected the health of these power plants, was the unavailability of Long term PPAs. Various factors like tepid growth in power demand, competitive merchant power rates (in short term power supply market), and poor demand from DISCOMs on account of their poor financial health have led to lower long-term PPAs for these stressed power plants. Out of 34 stressed power plants, 20 Power Plants with total capacity of 22030 MW have less than 50% of their capacity tied up with PPAs and only 4 Power Plants with capacity of 2130 MW have 100% PPA.



- **Poor power demand and lower Plant Load Factors (PLFs) for the industry**

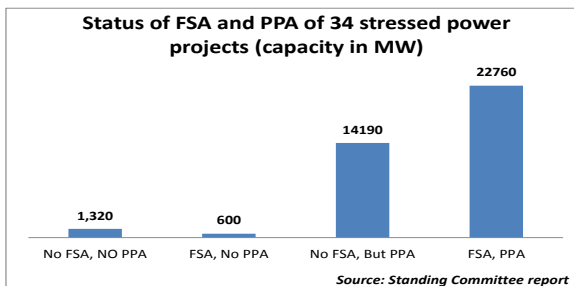
Lower power demand in India has been the key reason for poor financial health of the thermal power plants in India. This was mainly due to the poor financial conditions of Discoms balance sheet which resulted in poor demand for the power sector. The basic problem is one of a mismatch between the revenues and expenses of the Discoms. According to the Central Electricity Authority, the average revenue realized by Discoms per unit of electricity distributed by them is Rs.3.76 while their cost of supply is Rs.5.01 a unit (as per Ujwal DISCOM Assurance Yojana or “Uday” documents, Ministry of Power), which is a deficit of Rs.1.25 a unit straightaway. This was mainly due to increasing base of rural electricity supply which is typically highly subsidized and non-remunerative, and second, the inability to control Aggregate Technical and Commercial (AT&C) losses. Thus, heavy losses resulted in poor financial conditions for the Discoms and this in turn affected its ability to pay the power generating companies. Poor demand from Discoms resulted in declining PLF (or capacity utilization) for most of the power plants and also lower power demand from Discoms wrongly indicated the reducing power deficit.



We believe, successful resolution of these stressed power sector assets largely depends on the overall improvement in power demand in the country. Although some of the financial distress in power generation is directly linked to unavailability of coal linkages and long term PPAs, we believe a large part of the stressed power projects were impacted due to poor financial conditions of Discoms, which impacted the overall power demand growth. We believe, successful bidding of the stressed power plants under the NCLT or SAMADHAN scheme would largely depend on addressing these key issues apart from reduction in debt of these stressed assets via stake sale. Additionally, even after the successful sale of the stressed assets, improvement in the operating performance and turnaround of these assets would largely depend on addressing these key macro issues rather than the few micro/company specific issues largely in the form of high debt.

**Buyers are likely to bid for only those plants which have adequate FSA and long term PPA**

The resolution of the stressed power projects under NCLT or SAMADHAN scheme largely depends on the availability of FSA and PPA as plants with inadequate arrangements may find it difficult to find a prospective buyer for the assets. This leaves a limited opportunity with the prospective buyers as only 22760 MW of stressed power plants capacity have both PPAs and FSA. Historically 8 projects with 10200 MW of capacity out of 38870 MW of total capacity of stressed assets which have been resolved had PPA agreement ranging from ~43% to 100% of their total capacities tied up apart from FSA for most of these plants. Thus, only those assets with PPAs and fuel arrangements could possibly be looked at by investors, and there are just a handful of such assets out of around 34 stressed assets identified. On the buyer side, we believe few power producers like NTPC, Tata Power, JSW Energy, Torrent Power and Adani Power are likely to be the key contenders for buying these power plants under the NCLT resolution as these companies have publically stated their interest in buying these stressed assets (\*Source: As per Financial Express article dated 29 Aug 2018). We believe, given the low or reasonably lower Long Term Debt – Equity for power producers like NTPC, Tata Power, and JSW Energy makes them the strong contender in the NCLT bidding process.



Company	Cash & Bank Balance (Rs Mn)	D/E Ratio	Long Term D/E Ratio
Tata Power Co.	11857.8	3.4	1.7
NTPC	43876	1.2	1.0
Adani Power	8566.1	27.1	18.3
Torrent Power	3175.5	1.2	1.2
JSW Energy	3110.3	1.2	1.1

Source: Capitaline, Data as on FY18

**View: Power remains one of the most critical components of infrastructure that compliments the economic growth of the country. We believe, the resolution of stressed power projects under the NCLT is likely to be positive for the banking sector which would be able to recover large part of the Non-Performing Assets post the successful sale of the stressed assets under the NCLT resolutions. Additionally, for the overall power sector, we believe these stranded assets becoming operational are likely to further add to the power supply which is already in a new surplus state. We believe, government's efforts to provide coal linkages under the Shakti scheme or other pilot scheme to procure ~2500 MW electricity for 3 years under medium term power arrangements from commissioned power plants are in right direction to resolve the intermediate issues for these stressed power plants. Over the long term, government of India's thrust on providing free or easy and uninterrupted electricity access to every household by implementation of Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY) and Saubhagya schemes are likely to result in increased demand of electricity which may structurally resolve the issue for the entire sector. We believe that with government's strong reforms on improving financial health of the Discoms with the implementation of Ujwal Discom Assurance Yojana (UDAY) is likely to result in increase in the demand for electricity by Discoms over the near to medium term. Also the Government's focus on the manufacturing sector through its flagship initiative Make in India is likely to drive the electricity demand higher, as ~40% of the electricity demand in the country currently comes from the industrial segment. The Government's plan to provide affordable 24x7 power for all homes, industrial and commercial establishments and adequate power for farms by 2019 is also likely to spur the demand for electricity in the long term as more and more households are electrified. Thus the opportunity size in power sector continues to remain sizable and is likely to help the growth of companies in this sector over the longer term. We remain long term positive on the power generating companies and have NTPC Ltd in our model portfolio.**

**Background**

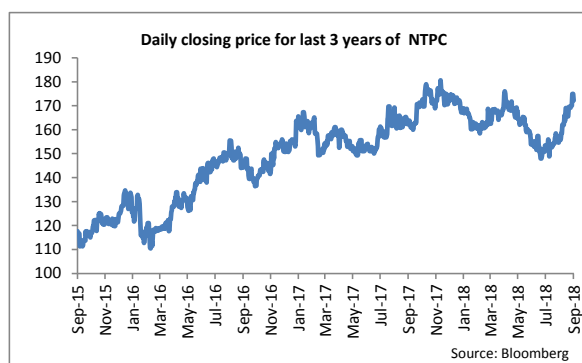
NTPC Ltd. (NTPC) is India's largest energy conglomerate to accelerate power development in India. NTPC has established itself as the dominant power major with presence in the entire value chain of the power generation business. From fossil fuels it has forayed into generating electricity via hydro, nuclear and renewable energy sources. To strengthen its core business, NTPC has diversified into the fields of consultancy, power trading, training of power professionals, rural electrification, ash utilisation and coal mining as well. The total installed capacity of the company is ~53 MW as on June 2018.

Key Details	
52 week H/L(Rs)	188/149
Book Value (Rs) YTD	126.6
FV (Rs)	10
PE (TTM)	13.1
Dividend Yield (%)	3.1

Shareholding Pattern (%) on 30 June 2018	
Promoter	61.71
Institutions	34.86
Public	3.43
Total	100.00

**Valuations and Chart**

PE		
FY18	FY19E	FY20E
14.0	12.0	9.8

**Earnings Summary**

Y/E	Sales	Growth	EBITDA	Margin	Adj PAT	EPS	Growth	P/E	Div. Yield
31-Mar	Rs Bn	(%)	Rs Bn	(%)	Rs Bn	Rs	%	X	%
17A	783	10.5	213	27.2	97	11.8	-9.6	14.2	2.6
18A	835	6.6	217	26.0	99	12.0	1.9	14.0	2.9
19E	926	11.0	251	27.1	115	14.0	16.5	12.0	2.9
20E	1037	12.0	286	27.6	141	17.1	22.5	9.8	2.9

**View:** NTPC Ltd is the largest power generating company in India with an installed capacity of ~53.6 GW at the end of Q1FY19. During Q1FY19, NTPC's profitability was impacted marginally due to under recovery of fixed cost, given challenges in coal supplies in its key operating thermal plants. This has lowered the plant availability during the quarter and led to overall under recovery in the fixed cost for the company. However, going forward, company expects under-recovery to be lower/nil as government has taken various steps to improve the coal availability which is likely to improve the profitability in FY19. We believe NTPC commercialization of capacity momentum is expected to continue in FY19/20 as well on the back of commercialization target of ~5 GW in FY19 and a similar target for FY20. This suggest commissioning activity to pick going ahead and we believe this is likely to increase the declared capacity and increase in earnings for the company going forward. With strong pipeline of capacity addition in order to achieve its long term capacity guidance of 130 GW by 2032, growth visibility for the company remains promising. We have a Buy rating on the stock with target price of Rs.219 which is 1.5x FY20E (maintaining earlier multiple) book value of Rs.146/share. Any revision in the target price would depend upon changes in the capacity addition/execution, PLF and general business momentum.

Rating Interpretation	
Rating	Expected to
Buy	Appreciate more than 10% over a 12 to 15 month period
Hold	Appreciate below 10% over a 12 to 15 month period
Under Review	Rating under review
Exit	Exited out of the Model Portfolio

**Disclaimer:** This communication is being sent by the Investment Advisory Group of HDFC Bank Ltd., registered under SEBI (Investment Advisors) Regulations, 2013

This note has been prepared exclusively for the benefit and internal use of the recipient and does not carry any right of reproduction or disclosure. Neither this note nor any of its contents may be used for any other purpose without the prior written consent of HDFC Bank Ltd, Investment Advisory Group. In preparing this note, we have relied upon and assumed, without any independent verification, accuracy and completeness of all information available in public domain or from sources considered reliable.

This note contains certain assumptions and views, which HDFC Bank Ltd, Investment Advisory Group considers reasonable at this point in time, and which are subject to change. Computations adopted in this note are indicative and are based on current market prices and general market sentiment. No representation or warranty is given by HDFC Bank Ltd, Investment Advisory Group as to the achievement or reasonableness or completeness of any idea and/or assumptions.

This note does not purport to contain all the information that the recipient may require. Recipients should not construe any of the contents herein as advice relating to business, financial, legal, taxation, or other matters and they are advised to consult their own business, financial, legal, taxation and other experts / advisors concerning the company regarding the appropriateness of investing in any securities or investment strategies discussed or recommended in this note and should understand that statements regarding future prospects may not be realized. It may be noted that investments in equity and equity-related securities involve a degree of risk and investors should not invest any funds unless they can afford to take the risk of losing their investment. Investors are advised to undertake necessary due diligence before making an investment decision. For making an investment decision, investors must rely on their own examination of the Company including the risks involved. Investors should note that income from investment in such securities, if any, may fluctuate and that each security's price or value may rise or fall. Accordingly, investors may receive back less than originally invested. Neither HDFC Bank nor any of its employees shall be liable for any direct, indirect, special, incidental, consequential, punitive or exemplary damages, including lost profits arising in any way from the information contained in this material.

This note does not constitute an offer for sale, or an invitation to subscribe for, or purchase equity shares or other assets or securities of the company and the information contained herein shall not form the basis of any contract. It is also not meant to be or to constitute any offer for any transaction.

HDFC Bank and its affiliates, officers, directors, key managerial persons and employees, including persons involved in the preparation or issuance of this material may from time to time, have long or short positions in, and buy or sell the securities thereof, of company (ies) mentioned herein. HDFC Bank may at any time solicit or provide commercial banking, credit, advisory or other services to the issuer of any security referred to herein. Accordingly, information may be available to HDFC Bank, which is not reflected in this material, and HDFC Bank may have acted upon or used the information prior to, or immediately following its publication.

HDFC BANK neither guarantees nor makes any representations or warranties, express or implied, with respect to the fairness, correctness, accuracy, adequacy, reasonableness, viability for any particular purpose or completeness of the information and opinions. Further, HDFC BANK disclaims all liability in relation to use of data or information used in this report which is sourced from third parties.

**Disclosures:**

Research analyst or his/her relatives or HDFC Bank or its associates may have financial interest in the subject company in ordinary course of business. Research analyst or his/her relatives does not have actual/ beneficial ownership of 1% or more securities of the subject company at the end of the month immediately preceding the date of publication of research report: HDFC Bank or its associates may have actual/beneficial ownership of 1% or more securities of the subject company at the end of the month immediately preceding the date of publication of research report. Subject company may have been client of HDFC Bank or its associates during twelve months preceding the date of publication of the research report. HDFC Bank or its associates may have received compensation from the subject company in the past twelve months. HDFC Bank or its associates may have managed or co-managed public offering of securities for the subject company in the past twelve months. HDFC Bank or its associates may have received compensation for investment banking or merchant banking or brokerage services from the subject company in the past twelve months. HDFC Bank or its associates may have received compensation for products or services other than investment banking or merchant banking or brokerage services from the subject company in the past twelve months. HDFC Bank or its associates has not received compensation or other benefits from the subject company or third party in connection with the research report. Research analyst has not served as an officer, director or employee of the subject company. Neither research analyst nor HDFC Bank has been engaged in market making activity for the subject company. Three year price history of the daily closing price of the securities covered in this note is available at [www.nseindia.com](http://www.nseindia.com) and [www.bseindia.com](http://www.bseindia.com).