

NTPC-SAIL Power Company Limited (NSPCL): Born or Bound to Succeed?

Asian Journal of Management Cases
14(1) 13–24

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Management Sciences
SAGE Publications

sagepub.in/home.nav

DOI: 10.1177/0972820116681115

<http://ajc.sagepub.com>



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Abstract

The case presents an evaluation by the management of the National Thermal Power Corporation (NTPC) in the year 2001 for a joint venture with the Steel Authority of India Ltd (SAIL) in captive power generation. The joint venture is triggered by the financial and business restructuring plans proposed for the financial recovery of ailing SAIL in the late 1990s. The venture would primarily function to provide the much needed critical power supply to the manufacturing units of SAIL. Although the possibility of selling excess power to the outside markets remains feasible, the escalation of the capacity could be a bone of contention with NTPC and SAIL. Among several other considerations, NTPC needs to review the proposed valuations of ₹3,910 million for the proposed venture. Amidst the inward pressure from the Government of India, given the state of the affairs, while NTPC inner circles might be concerned about buying some ‘junk assets’, the stakeholders at SAIL would have been curious about a possible fire sale of its assets.

Keywords

Joint venture, public sector enterprises, financial and business restructuring, net present value

Discussion Questions

- (1) Discuss the financial health of SAIL during the 1990s. What were the possible reasons for the sluggish growth of the sector?
- (2) Discuss the financial and business restructuring plans at SAIL. Do the plans make sense to you?
- (3) What were the chief concerns of a potential partner in the joint venture for the said captive power plants of SAIL?
- (4) What were the value drivers for the potential strategic acquisition by NTPC?
- (5) Use these value drivers to formulate a DCF valuation model and value the venture.

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Since question No. 5 is central to the valuation of the venture and involves significant calculations in several steps; instructors may further break-up the question into the following parts:

- (5a) Project the income statement and balance sheet in the foreseeable future, say for the next 10 years, following the information in the case, exhibits 6 and 7, and taking suitable assumptions wherever required.
 - (5b) Estimate the financing needs of the firm through debt and equity assuming that all of the working capital is to be financed through internal funds or through raising new equity, but the capital expenditure is financed through debt and equity in the ratio of 70:30.
 - (5c) Estimate the free cash flows for the next 10 years and the terminal value assuming a terminal growth rate of 5% in the base case.
 - (5d) Estimate the cost of debt, the cost of equity and weighted-average cost of capital from the information given in the case.
 - (5e) Estimate the NPV of the venture.
- (6) Comment on the sensitivity of different assumptions regarding growth rates and cost of capital estimates on the valuation of the proposed venture.

In the last quarter of the fiscal 2001, the National Thermal Power Corporation (NTPC) entered into a joint venture with the Steel Authority of India Ltd (SAIL) carved out of the power generating capabilities of the steel giant as a strategic alliance. The assets were transferred to the venture from a wholly owned subsidiary of SAIL at a total consideration of ₹3,910 million in March 2001. The venture was a part of business reorganization plan suggested by McKinsey & Company to streamline the operations of SAIL by hiving off its non-core activities.¹

Since the government's nod to the business reorganization plan of SAIL, NTPC would have faced an inward pressure to consider the proposal even if the operating and organizational structure differed considerably at SAIL's captive power plants. Among major concerns would be the smaller power generating units with higher overhead costs and lower efficiency at these aging power plants of SAIL. Furthermore, there were concerns regarding the growth of the venture on account of the captive status of these plants. More importantly, the mounting losses and the financial health of SAIL themselves loomed large on its future, hence the demand for power through these plants.

Although there remained a possibility of selling excess power outside SAIL, this would require considerable expansion of capacity specifically in larger units. The required added capacities could conflict with the operating motives of SAIL which would strictly benefit from smaller plants.

Among other important concerns were the arrangements for fuel supply, tariff structure, ensured off-take through power purchase agreements (PPA) and employee integration. National Thermal Power Corporation needs to analyze whether there was inherently some value in the proposal for the joint venture or that it had to succumb to the government pressure and forcefully turn around the fortunes of the venture.

The Steel Industry and SAIL

The Steel Authority of India Ltd (SAIL) was the 14th largest steel producer in the world. It was one of the 'Navratna' (nine jewels) public sector² undertakings in India.³ Steel Authority of India Ltd was the

largest steel manufacturer in India accounting for 31 per cent of the crude steel production and more than 25 per cent of the market share in India. Exhibits 1 and 2 compare the market share and steel production of firms in India. The market positioning of SAIL was perhaps correctly highlighted by its tag line—‘There is a little bit of SAIL in everybody’s life.’

Steel Authority of India Ltd⁴ had an installed capacity of 10.19 million tonnes of saleable steel, 1.18 million tonnes of mild steel, 0.18 million tonnes of alloy steel and 0.19 million tonnes of hot-rolled carbon steel. The main integrated manufacturing plants were located at Bhillai, Rourkela, Durgapur and Bokaro. Auxiliary facilities included manufacturing plants of alloy and special steel at Durgapur, Salem and recently merged Visvesvaraya Iron and Steel Plant (VISL), Bhadravati. Exhibit 3 shows the manufacturing facilities and their revenues.

In the fiscal year 1999–2000, SAIL had recorded net losses for 2 consecutive years and decrease in net profits for 4 consecutive years in a row. This had eroded the peak net worth of ₹84.9 billion attained in the fiscal year 1997–1998 by 44 per cent. On account of mounting losses, SAIL could not pay any dividends since 1998. Exhibit 4 shows the financial data pertaining to SAIL for last 5 years. According to the provisions of Sick Industrial Companies Act (SICA) 1985, if the accumulated losses of a company resulted in the erosion of more than 50 per cent of its peak net worth in immediately preceding 4 financial years, the company is supposed to report such erosion to the Board for Industrial and Financial Reconstruction (BIFR). Subsequently, such firms remained in the close watch list of BIFR which could propose structural changes in management or an ultimate liquidation of these companies.

Among the major causes of the financial slump at SAIL were the factors associated with inordinate capacity expansion in steel post-liberalization. Steel production in India was opened up for private players in the early 1990s. The capacity expansion plans of these firms were tied up with the prospective economic growth of India. Although India witnessed sound economic growth in the 1990s, the lead came from the service sector rather than manufacturing. Major thrust on infrastructure development including roads, power, water-supply, irrigation and railways was envisaged by the Government of India. However, in the hope of a greater participation from the private sector, the infrastructure development initiatives by the government of India remained sluggish in the latter half of the decade. Moreover, private participation in capital formation remained unexpectedly silent.⁵

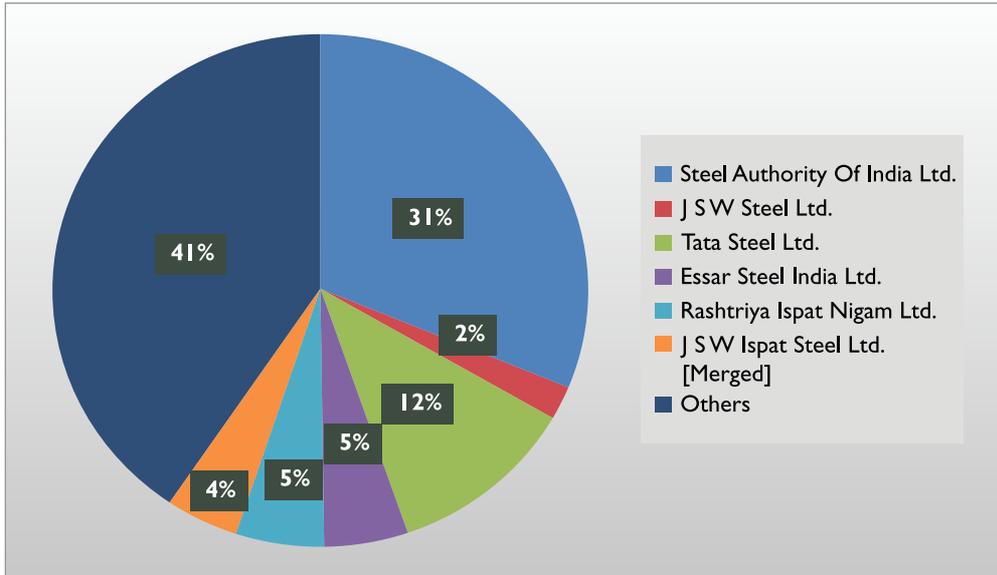
In the year 2000, the installed capacity of steel production in India was about 33 million tonnes while the domestic demand remained at approximately 26 million tonnes. Further, the off-take to international markets through export remained silent owing to anti-dumping and other countervailing duties

Exhibit 1. Market Share of Steel Manufacturing Units in India

Percentages	1995–1996	1996–1997	1997–1998	1998–1999	1999–2000
Steel Authority of India Ltd	19.81	16.88	27.34	27.50	26.90
JSW Steel Ltd	0.00	0.00	0.43	1.22	1.88
Tata Steel Ltd	11.65	11.05	8.66	8.43	8.94
Essar Steel India Ltd	2.75	6.02	5.81	4.91	4.79
Rashtriya Ispat Nigam Ltd	7.75	7.39	6.91	5.73	5.65
JSW Ispat Steel Ltd [Merged]	1.80	1.74	1.55	2.54	3.76
Jindal Steel & Power Ltd	0.00	0.00	0.00	0.05	0.08
Bhushan Steel Ltd	1.00	0.96	0.99	1.44	1.82
Uttam Galva Steels Ltd	1.16	1.18	1.04	0.96	1.18

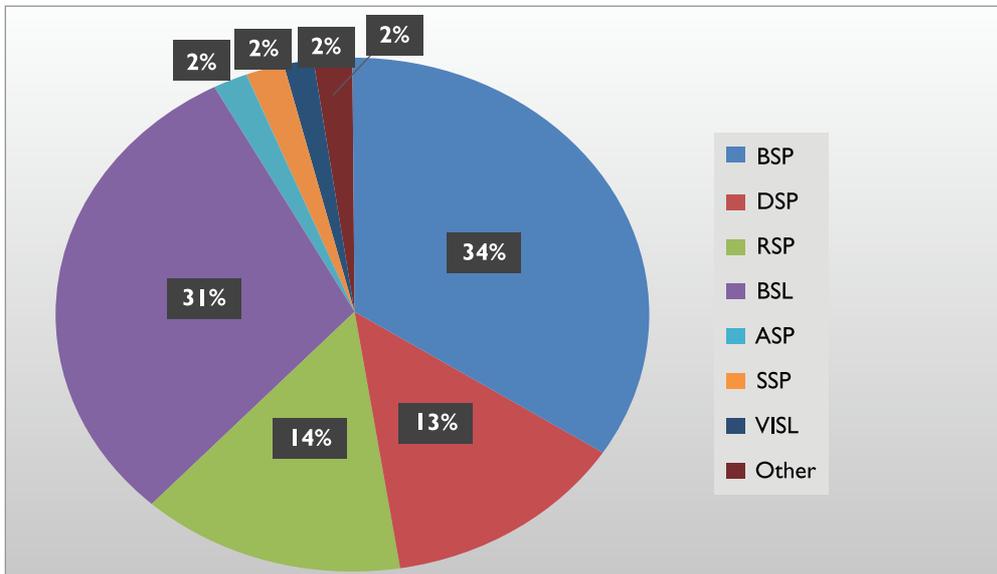
Source: Centre for Monitoring of Indian Economy (CMIE).

Exhibit 2. Steel Production in India FY 1999–2000



Source: Centre for Monitoring of Indian Economy (CMIE).

Exhibit 3. Manufacturing Facilities and Revenues at SAIL



Source: Annual Report for FY2000 of SAIL.

Exhibit 4. Financial Performance of SAIL

INR Million	1999–2000	1998–1999	1997–1998	1996–1997	1995–1996
Sales	1,625.00	1,499.40	1,462.40	1,413.10	1,471.00
Operating Profit (PBDIT)	120.20	150.30	249.80	245.80	271.20
Interest Expenses	178.90	201.70	155.40	117.90	80.80
Profit before Tax	-172.00	-161.80	14.90	58.80	131.90
Profit after Tax	-172.00	-157.40	13.30	51.50	131.90
Net Worth	476.50	688.60	848.90	799.80	793.70
Total Loans	1,508.20	2,101.70	2,001.50	1,742.10	1,457.40
Net Fixed Assets	1,587.30	1,830.70	1,413.70	1,262.40	877.10

Source: Annual Report for FY2000 of SAIL.

imposed by developed countries and China. Moreover, such restrictions diverted the sale of cheap steel to countries like India where there were inadequate mechanisms to counter such dumping. Furthermore, the imports in India were made favourable by allowing them under open general license categories and by cutting down of peak custom duties from 85 per cent half-a-decade ago to around 30 per cent in 1999–2000.⁶

Steel industry in India had also suffered due to inadequate price realization of the steel throughput on account of inferior quality of its steel and increased global competition. Many firms in the major user industries, such as automobiles, preferred to import flat steel for their manufacturing plants owing to less satisfactory quality of domestic flat steel. Quality concerns were also shown by Indian railways, which was one of the largest consumers of long steel in India and route almost all of its supplies through SAIL. Among specific and unmet demand of Indian railways were high-quality, longer length rails for their ambitious high-speed rail projects.⁷

On the cost front too SAIL lagged behind its peers and importers owing to its huge wage bills, outdated technology, interest burden and fixed cost overheads. In the year 1998–1999, SAIL had an overwhelming employee base of around 175,000. In order to compete on the technology front, SAIL had designed a modernization package in the latter half of the decade worth ₹120,000 million. The package was primarily financed through debt raised from the Steel Development Fund (SDF).⁸ Total SDF loans amounts to ₹64,150 million as in 1996. This had raised the debt-equity ratio to more than 3:1. Large amount of debt in its books raised concerns about the interest paying capacity⁹. The interest coverage ratio (operating income to interest expenses) went down from over 3 to less than unity between 1995 and 2000 (Exhibit 4).

Financial and Business Restructuring at SAIL¹⁰

Addressing the mounting losses and the erosion of the net worth, SAIL was all set to design a business restructuring plan with the help of McKinsey & Company in the year 1999. The restructuring was sought both for the reorganization of its financials and the business itself. Among the salient features of the financial restructuring plan submitted to the government was seeking a waiver of ₹50,730 million of SDF loans or its conversion into equity. Further, government guarantee and a subsidy of 50 per cent on interest were sought on the prospective loans of ₹15,000 million to be raised by SAIL for financing the reduction in manpower through voluntary retirement scheme.

Exhibit 5. Identified Non-core Assets for Business Restructuring

1. Power plants at Rourkela, Durgapur and Bokaro.
 - a. 2 × 60 MW captive power plant-II at Rourkela Steel Plant and the Central Power Training Institute at Rourkela.
 - b. 2 × 60 MW captive power plant-II at Durgapur Steel Plant.
 - c. 122 MW (2 × 55 MW plus 12 MW back pressure turbine) captive power plant-I, 3 × 60 MW captive power plant-II and steam generating capacity of 660 MT/hour at Bokaro Steel Plant.
2. Oxygen Plant-2 of Bhilai Steel Plant
3. Salem Steel Plant (SSP), Salem
4. Alloy Steels Plant (ASP), Durgapur
5. Visvesvaraya Iron and Steel Plant (VISL), Bhadravati
6. Fertiliser Plant at Rourkela.

Source: Annual report for FY2000 of SAIL.

The proposal for business restructuring was a comprehensive road map to achieve specific milestones in a specified time in the near future. Focus was laid on identification and divestment of non-core activities such as power, steam and oxygen generation for steel plants; divestment of peripheral steel manufacturing units producing alloy and special steel; ‘rightsizing’ of manpower by systematic reduction in redundant areas; cost control by improving asset utilization and resource planning; and greater customer focus through servicing of key accounts and management of high-demand products.

Non-core activities were identified by SAIL in the area of power and steam generation, production of oxygen and manufacturing of alloy and special steel. Power generated at the power plants was solely used by its integrated steel plants and the associated townships. These plants are therefore termed as captive power plants. Almost all of the power generating capacity is thermal in nature where coal for fuel is supplied by indigenous captive mines of SAIL located in the close proximity to these power plants. The power plants were identified as first or second stage, that is, CPP-I or CPP-II depending on the segment of the steel plants fed by them. CPP-I plants fed power to most critical operations of the steel manufacturing plants such as blast furnace, basic oxygen furnace and steel mills. Thus, these power plants were deemed to be integral to the core operations of SAIL. On the other hand, CPP-II plants fed power to auxiliary units and also act as a backup power supply to critical plant processes.

Along with the power generating capacity, SAIL also had in-house manufacturing capacity for oxygen. Further, the power plant at Bokaro could produce significant industrial grade steam which could be used by several other industries. The alloy steel plant at Durgapur, the steel plant at Salem and the VISL at Bhadravati specialize in producing alloy and special grade steel. However, since the demand for such specialized product could not be established in India, these plants could not contribute significantly to its revenue base. Therefore, these specialized plants also were identified by SAIL as non-core. Exhibit 5 shows the proposed assets for divestment by SAIL in the proposal submitted to the Government of India. The exhibit also shows other initiatives planned by SAIL in lieu of the business reorganization plan.

Hiving Off of Power Generation: Proposal to National thermal Power Corporation¹¹

In the bid to regain profitability, SAIL submitted the business reorganization plan to the government in 1999. Subsequent to the approval of the said plan, SAIL chalked a detailed road map with identifiable

timelines to achieve the specific objectives. Among the major restructuring moves was the mandate to hive off the power generation capacities to potential players in power sector by creating a joint venture company. The objective for such a joint venture would be to supply captive power to the steel plants of SAIL and also to generate excess return on capital by selling excess power to external parties.

Steel Authority of India Ltd had issued an initial expression of interest for interested parties for its second-stage power plants housed at its steel plants located in Rourkela, Durgapur and Bokaro. The initial plans were to get Enron from USA on board with a majority stake of 51 per cent in the new venture.¹² However, owing to the distressed state of SAIL, the response was expected to be lukewarm even with major players operating in the power sector. However, an active intervention by the Government of India would have led to NTPC identified as prospective partner for the strategic alliance in power generation. Talks with NTPC were initially started for the acquisition of two thermal power plants of 120 MW each at Rourkela and Durgapur. Later the captive power plants of 74 MW at Bhilai and 302 MW at Bokaro were also to be included in the joint venture.

National Thermal Power Corporation was the largest thermal power generation company of India contributing nearly one-fourth of total electricity generated in the country. In the year 2000, NTPC had an installed capacity of 18,137 MW and could produce a total of 118.67 billion units of electricity from its coal- and gas-based stations. The coal-based stations contributed roughly 84 per cent of the total generated electricity while the rest was contributed by the gas-based stations. Total revenue for NTPC in the year 1999–2000 was ₹190 billion with the profit after tax amounting to ₹35.39 billion.¹³

Power generation infrastructure and modus operandi at SAIL's captive power plants differed considerably with those of NTPC plants in subtle but important ways. The installed capacities of SAIL's captive power plants under consideration for the joint venture were much lower than those of the NTPC plants. The average installed capacities per power plant of coal- and gas-based power plants at NTPC were about 2,000 MW and 500 MW, respectively. Smaller operating units often led to higher variable cost for the power generating companies.

Operating efficiency at NTPC and SAIL plants was also much different. National Thermal Power Corporation was the leader in power sector when evaluated on the basis of operating performance. The average availability of power at NTPC plants was about 88 per cent which was way higher than the national average of about 73 per cent. Similarly, average plant loading factor (PLF) at NTPC plants was more than 80 per cent. National Thermal Power Corporation attributed the high operating efficiency of its plants to the timely maintenance involving periodic renovation and modernization (R&M) interventions. Such interventions would have often called for costly replacement of spares from original equipment manufacturers (OEM) only. On the other hand, since power generation at SAIL was a non-core activity, allocation of adequate budget could have often got compromised. Upkeep of plant in such set-ups often was undertaken based on the philosophy of repair and maintenance of the existing equipment. The difference in operation of the power plants was also manifested in different organizational structures of the two firms. While large power generation companies followed a decentralized structure, smaller plants could benefit from a centralized set-up.

Among major concerns for NTPC about the possible alliance with SAIL to operate its captive power plant would have been the growth prospects of the joint venture. While there was a possibility of external sale of excess power to deficit consumers through the captive power plants, it would require significant additions to the installed capacity. Higher installed capacity would also help in lowering the per unit variable cost of generating power. However, at the same time, higher capacity would conflict with the precise requirements of power by SAIL. At the heart of this conflict was the tariff setting structure of the power so generated.

Central Electricity Regulatory Commission (CERC) regulates the pricing of electricity in India. As per the tariff structure prevalent during 1999–2000, the tariff was estimated based on a fixed return on equity along with an incentive for generating power in effective terms. The power generating stations were allowed to charge the consumer for the fixed overheads and variables cost incurred as per their actual lay-offs. Further, the tariff included the charge for financing arrangements through debt capital. The pro forma income statement reflecting the revenue estimation using CERC guideline and other parameters is shown in Exhibit 6.

The CERC also mandates at least 51 per cent in-house off-take by the captive power plants for them to retain their captive status. Captive status helps the power generating companies to avoid the hassles associated with competitive bidding along with other players to make sale to end consumers. Captive units could sell up to 49 per cent of their installed capacities to end users directly by mutually agreed upon specific PPA.¹⁴

Exhibit 6. Pro Forma Income Statement (Revenue collection as per CERC guidelines)

Sales		Remarks	
	1	Return on equity (ROE)	Required ROE was 16% in FY2000. It was grossed up for the taxes payable on it.
	2	Incentive	Incentives was 2% of the total equity capital invested for operating the plant at 85% efficiency. It was grossed up for the taxes payable on it.
	3	Depreciation	
	4	Interest charges	Cost of debt for power generating companies were estimated to range between 12 and 14%.
	5	Corporate office expenditure	Approximately 40% of the total revenue constitutes corporate office and site expenditure where they were further allocated in the ratio of 3:5.
	6	Site expenditure	
	7	Total	
Operating Expenditure	3	Depreciation	
	5	Corporate office expenditure	
	6	Site expenditure	
	8	Total	
Operating Income	9	EBIT	Item (7)-(8)
Interest Expenses	4	Interest charges	
Profit before Tax	11	PBT	Item (9)-(4)
Tax	12	Tax	Taxes would be payable at minimum alternate tax rate of 20%.
Profit after Tax	13	PAT	Item (11)-(12)
Dividends	14	Dividends	Dividend payout to be decided by management.
Retained Earnings	15	RE	Item (13)-(14)

Source: Authors' estimation from the invoice raised by NTPC to its industrial clients and the CERC regulation documentations from www.cercind.gov.in/pressabt.rtf, Retrieved 20 March 2015.

Given the fact that the power supplied by the captive power plants would often act as redundant and as backup supply, and that the fixed overheads for these plants, at least up to 51 per cent, were to be borne by SAIL, it would like to avoid significant capacity expansion at these plants. However, the added capacity could ensure higher return on capital invested by SAIL in the venture. Further, SAIL's premises were adequately endowed with land and other relevant infrastructure required for future expansion. Quite succinctly, after meeting the in-house demand for power of SAIL, the growth of the venture would rest solely upon the sale of excess power to open markets.

Growth due to the sale of excess power to open markets was reassuring given the positive outlook of demand for power in India in the coming future. As of March 2000, there was a large unmet demand for power in India. The peak demand deficit was 11.2 per cent, and the energy deficit was 7.1 per cent.

Merger and Acquisitions in Public Sector Undertakings (PSUs) in India

Merger and acquisition (M&A) activities in the Indian public sector increased substantially post-liberalization with the onset of measures such as de-licensing of industries, public sector de-reservation in all the nine manufacturing industries considered to be of strategic importance and the easing of Monopolies and Restrictive Trade Practices Act (MRTP) regulation and Foreign Exchange Regulation Act (FERA) in the 1990s. These regulations had created a highly protected industrial regime where there was little competition and there was no comprehensive policy for industrial development (Neogi & Ghosh, 1998).

The major roadblocks for M&A activities in the public sector were the restrictive nature of political and regulatory system in India and the lack of large capital required to invest in this capital intensive sector. Since the capital requirements were often huge, the participation from the private sector was limited. This was true even when government policies were steered towards increased participation for private sector in strategic industries.

Owing to stricter regulation and implicit government control, Indian firms were forced to take on entrepreneurial pursuits in unrelated domains where the capabilities are difficult to develop in the short run. Following this, these firms often struggled with a critical focus required for growth in the core sector of their specialization. Studies in Indian context have found that Indian firms, both in private and public sectors, are much diversified, and this diversification has led to increased M&A activities. Further, India has a large percentage of unrelated diversifiers as compared to the USA, the UK, France, Germany and Italy (Kar, Barai, Suzuki & Minakshi, 2015).

With the onset of increased participation from the private sector, strategic stakes in public sector entities became the source of critical financing for the Government of India in the new millennium. Since post-merger performances of many mergers in India were dismal (Pawaskar, 2001), a demerger of the sort envisaged by SAIL by offloading its non-core assets would have been expected to yield positive results.

The Evaluation

In the middle of the year 2000, management teams of NTPC carried onsite inspections for the proposed joint venture constituting captive power plants at Rourkela and Durgapur. As expected, the inspection visits had faced difficulty on account of massive opposition by employees and the labour union at SAIL.

Among major concerns of these public sector employees were the prospective job loss or a makeshift job arrangement at a proposed 'private limited' firm. Nevertheless, the inspections were made with an active support from SAIL's management. With great difficulties, the management at SAIL could appease the concerns of the existing employees about any job loss. In this league, SAIL also considered a possibility of issuing an executive circular so as to make the transition voluntary for the existing employees. Further, the employees would have an option to revert back to the parent firm within 3 years of joining the proposed venture.

Subsequent to the site inspection, a third-party valuation was conducted to propose the transfer price for the assets under consideration. The proposed valuation by external evaluator was to be considered by the management of NTPC and SAIL so as to assess whether it was in line with their own assessments. As far as the objectives of SAIL were concerned, it would be better off with access to reliable power at a competitive price and a better return on its investment. For NTPC, the venture should, at least, earn the specified return on its capital in other competitive projects.

Among major factors, influencing the transfer price of the assets under consideration was the ongoing tariff structure guided by CERC. Tariffs by CERC were formulated on cost plus basis where a fixed return on equity¹⁵ would be applicable after charging for different operating and non-operating costs incurred by the power stations.

Some features in the proposed venture specifically favoured the power generating capabilities of NTPC. Consistent supply of coal for thermal power plants was a seeping issue for NTPC. The development of coal mines and the extraction of coal thereof were not keeping pace with the country's capacity addition in the power sector. Further, pricing on imported fuel was also a concern. In a stride to ensure consistent availability of fuel for their power plants, NTPC had even proposed the government to venture into coal mining. In the case of this particular joint venture, fuel supply would have been by and large assured by the captive mines of SAIL.

Even though large capacity additions would not be called for by SAIL, the existing steel plants had adequate land and other infrastructure for any possible future expansion of the power generating capabilities of the venture. In the salient features of the proposal extended to NTPC, SAIL would have been willing to share several support facilities ranging from operating to personnel needs to the power plants and their employees.

An important consideration for NTPC would be higher orders of renovation and maintenance required, at least for the next few years, for the proposed power plants. This was in line with the R&M interventions carried out at NTPC plants regularly. Since the objective of such renovation and maintenance would be to support the capacity for future use, these expenses would be essentially capital in nature requiring significant financing.

Despite the fact that the newly acquired plants would call for a higher level of capital injection at the early stages, the parent firms would be keen on getting substantial dividends on their investments. This could serve the investment objective of SAIL for getting sustained cash flows and also would be in line with hefty dividends paid at NTPC.

Extending the proposal, it would have been envisaged to finance the joint venture with 70 per cent debt and 30 per cent equity, as was usually done for projects at NTPC. Steel Authority of India Ltd and NTPC could have 50 per cent shares each in the proposed venture. The future expansions and other work of capital nature could be carried on with similar financing structure in the future. However, internal accruals and equity (not debt) might be used to finance the working capital needs. The 74 MW unit at Bhillai and 302 MW units at Bokaro could be integrated with the venture soon but at a later stage.

The external evaluation had been carried over for the first-stage acquisition of the two plants at Rourkela and Durgapur based on asset replacement basis. For the proposed two units each of 60 MW at Rourkela and another two units at Durgapur, a total transfer price of ₹3,910 million had been suggested.

Going ahead, the management at NTPC had to decide on several parameters affecting the sanctity of the valuations established by the third party. This was because there might be concerns within NTPC about the buying of 'junk assets'. On the contrary, there could have been similar apprehensions within SAIL for making a fire sale of its power plants. According to an article that appeared in the latter half of 2000 in a major national daily, 'Steel Authority of India has to sell-off its power plants to National Thermal Power Corporation at a heavy discount.'¹⁶ Exhibit 7 shows relevant parameters from electricity generation industry and Exhibit 8 shows data pertaining to other parameters relevant for valuation of the venture.

Exhibit 7. Relevant Parameters for Electricity Generation Industry

Parameters (Units)	1994–1995	1995–1996	1996–1997	1997–1998	1998–1999	1999–2000
Cash to Current Liabilities (ratio)	0.13	0.21	0.18	0.24	0.20	0.20
Inventory Cycle (days)	149.66	144.37	128.38	122.00	119.77	108.16
Debtors (days)	125.22	130.60	134.83	149.29	164.23	175.32
Creditors (days)	197.40	182.89	167.06	165.46	164.72	162.82
Gross Fixed Assets (₹million)	498,440.80	594,854.10	690,280.90	838,301.30	870,580.40	1,018,949.70
Depreciation Expenses (₹million)	25,917.40	33,595.81	43,032.94	47,268.00	55,224.50	61,843.70

Source: Centre for Monitoring of Indian Economy (CMIE).

Exhibit 8. Macroeconomic Indicators and other Parameters Pertaining to NTPC

Year	Minimum Bank Lending Rates	Yield on 5 Years Treasury Securities (%)
Minimum Bank Lending Rates and Yield on Treasury Securities*		
1996–1997	14.5–15	12.967
1997–1998	14	11.484
1998–1999	12–13	11.554
1999–2000	12–12.5	10.449
2000–2001	11–12	9.613
Additional Information		
Market Beta for NTPC		0.88**
Market Risk Premium		10.55***

Source: * Reserve Bank of India (RBI) and *** Brealey, R.A., Myers, S.C., Allen, F., & Mohanty P. *Principles of corporate finance* (special Indian edition, 10th ed., p. 178).

Note: ** Beta estimated through regression of historical stock returns on broad market index (NIFTY 50).

Notes

1. Annual reports of SAIL in 1999 and 2001.
2. Public sector firms in India were classified as firms which are directly controlled by Government of India through a stakeholding of more than 51 per cent.
3. Navratna status was conferred to the largest of the public sector undertakings in India.
4. Information on SAIL was gathered from its annual reports for the years 1998–2000.

5. Retrieved 15 March 2015, from <http://www.frontline.in/static/html/fl1621/16210460.htm>
6. Ibid.
7. Ibid.
8. Steel Development Fund was formulated with an objective to provide soft loans to the steel manufacturing firms. The contribution for the fund came from a levy from largest steel manufacturing firms.
9. Retrieved 15 March 2015, from <http://www.frontline.in/static/html/fl1621/16210460.htm>
10. Information on SAIL was gathered from its annual reports for the years 1998–2000.
11. Ibid.
12. <http://economictimes.indiatimes.com/steel-authority-of-india-%28sail%29-ltd/infocompanyhistory/companyid-11974.cms>
13. Information on NTPC was gathered from its annual reports for the years 1998–2000.
14. Retrieved 20 March 2015, from www.cercind.gov.in/pressabt.rtf
15. During the year 1999–2000, the required return on equity for setting the tariff for power generated at NTPC plants was around 16 per cent as estimated by the invoices raised to the consumer and its own balance sheet figures.
16. *The Economic Times*. Retrieved 25 November 2014, from [http://economictimes.indiatimes.com/steel-authority-of-india-\(sail\)-ltd/infocompanyhistory/companyid-11974.cms](http://economictimes.indiatimes.com/steel-authority-of-india-(sail)-ltd/infocompanyhistory/companyid-11974.cms)

References

- Kar, R.N., Barai, M.K., Suzuki, Y., & Minakshi. (2015). Cross border M&As in emerging economies: Evidence from Indian trends and future directions. *Transnational Corporations Review*, 7(2), 190–208.
- Neogi, C., & Ghosh, B. (1998). Impact of liberalisation on performance of Indian industries: A firm level study. *Economic and Political Weekly*, 33(9), 16–24.
- Pawaskar, V. (2001). Effect of mergers on corporate performance in India. *Vikalpa*, 26(1), 19–32.