

12 July 2007

BSE Sensex: 15092

# Jaiprakash Associates OUTPERFORMER

Wah Taj!

Mkt Cap: Rs189bn; US \$4.6bn

# Stock data Reuters JAIA.BO Bloomberg JPA IN 1-yr high/low (Rs) 882/317 1-yr avg daily volumes (m) 0.19 Free float (%) 52.3

#### Relative price performance



#### Performance (%)

	3-mth 6-mth		1-yr	3-yr	
JPA	54.8	18.7	105.6	778.6	
Sensex	15.1	7.4	38.1	205.2	

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S.S. Kantilal Ishwarlal Securities Pvt. Ltd. (SSKI) 701-702 Tulsiani Chambers, 7th Floor (East Wing), Nariman Point, Mumbai 400 021. Fax: 91-22-2204 0282 Jaiprakash Associates (JPA) is set to witness strong revenue growth in its construction business as execution of projects picks up pace. Earnings in the cement business are expected to rise sharply on the back of capacity expansion and cost savings from captive power plants. Moreover, JPA's Taj Expressway project has received all the approvals and the government is in the process of handing over 6,250-acres of land to JPA at five key locations. On a sum-of-parts basis, we have arrived at a fair value of Rs1,163 per share for JPA (including Taj Expressway's value of Rs678 per share based on discounted equity cash flows), which implies a 35% upside from the current levels. Reiterate Outperformer.

Order backlog and cement expansion to boost revenue growth: We expect an 8% CAGR in JPA's construction revenues over FY07-09, led by a high order backlog of Rs117.5bn and accelerated execution of orders in 2HFY08. In the cement division, JPA is aggressively expanding capacity from 7m tpa to 19.4m tpa by FY09 and 30m tpa by FY12. Also, the fact that HP and UP cement plants enjoy excise and sales tax exemptions for 10 years make them more profitable (Rs500-600/tonne) vis-à-vis peers.

**Taj Expressway – the key value driver:** JPA has been awarded the concession (BOT) for constructing a 160-km greenfield 6-lane access controlled Taj Expressway. Under the terms of the concession, the UP government is in the process of giving JPA 6,250 acres of land at Noida, Greater Noida, Jewar (the location of a proposed greenfield international airport), Agra and Mathura. Based on discounted equity cash flows, we have valued the project at Rs149bn or Rs678 per share of JPA (road at negative Rs15bn and real estate at Rs164bn).

All round growth; reiterate Outperformer: We estimate 16% CAGR in JPA's consolidated earnings over FY07-09 driven by strong performance of its cement business, Vishnuprayag hydel power plant and sale of property in Jaypee Greens. Based on sum-of-parts method, our fair value estimate (including Taj Expressway) comes to Rs1,163 per share. We reiterate our Outperformer rating on the stock.

#### **Key valuation metrics**

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As on 31 March	FY05	FY06	FY07P	FY08E	FY09E		
Net sales (Rs m)	31,376	35,560	39,588	46,378	56,350		
Adj. Net profit (Rs m)	2,607	3,095	5,730	6,634	7,670		
Shares in issue (m)	176	190	219	219	219		
Adj. EPS (Rs)	14.8	16.3	26.2	30.3	35.0		
% growth	21.4	10.0	60.8	15.8	15.6		
PER (x)	54.6	49.6	30.8	26.6	23.0		
Price/Book (x)	10.2	4.8	4.5	3.8	3.3		
EV/EBITDA (x)	20.7	22.2	16.4	14.5	13.0		
RoE (%)	19.9	13.5	16.1	15.5	15.3		
RoCE (%)	10.5	7.9	10.5	10.8	10.8		
Valuations based on closing price as of 11th July 2007							

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"Important disclosures appear at the back of this report"

# SSKI INDIA

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# **INVESTMENT ARGUMENT**

JPA, one of India's largest construction and private hydel power generation companies, is rapidly expanding its cement capacity (30mtpa by FY11) to emerge as India's third largest cement producer. JPA's recent diversification into thermal power generation, coal mining and steel manufacturing would create value for shareholders in the long run. Also, we expect JPA's real estate ventures, especially Taj Expressway, to be significant value drivers. With development rights over 6,250 acres of land in locations offering strong growth drivers and alongside a planned 6-lane expressway, the project is estimated to generate free cash flows of Rs43bn over FY08-12. Our fair value for Taj Expressway comes to Rs148.8bn (Rs678/share of JPA, ~78% of JPA's current market capitalization. We reiterate our Outperformer rating on the stock with a revised price target of Rs1,163/share based on SOTP valuation.

# A well-diversified group with operations in varied businesses

# ☐ JPA – interests in construction, cement, power and real estate

JPA is a diversified conglomerate with interests in construction, cement, hydel power generation and real estate. The company, with an order book of Rs117.5bn, is one of the largest construction companies in India, and is investing aggressively in expanding its cement capacity to emerge as the third largest cement group in the country. In addition, JPA operates three hydel power plants with a total capacity of 1700MW on BOO basis. The company also has significant interests in real estate development with the 452-acre Jaypee Greens project in Greater Noida and the 6,250 acres Taj Expressway project. Recently, JPA has also diversified in to the steel and coal mining business.

Construction (JPA)

Conder backlog Rs117.5bn)

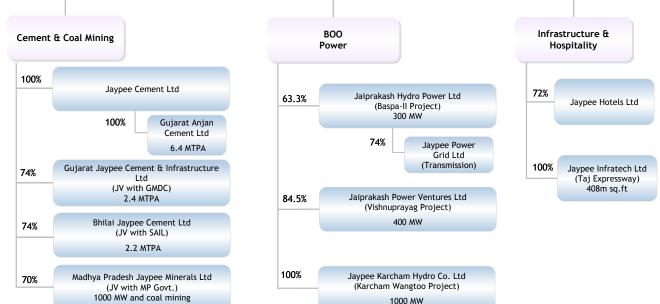
Cement & Coal Mining

Power (1700 MW)

Steel (0.55 MTPA)

Real Estate (415m sq.ft)

Exhibit 1: JPA – diversified business interests in construction, cement, power, real estate and hospitality



Source: Company

JPA earns robust margins of 17-20% in construction segment owing to its dominant position

#### CONSTRUCTION: ACCELERATING PROJECT EXECUTION

# ☐ JPA remains the leader in hydel power construction

JPA's construction revenues account for 44% of its standalone revenues and 29% of the EBITDA. The EPC business focuses on construction of hydropower projects with limited diversification into other segments. However, we believe the lack of diversification (in line with the management's strategy) is offset by JPA's leadership position across divisions. The dominant position enables JPA to earn higher margins of 17-20% unlike other construction companies.

**Exhibit 2: Margin trend of JPA's construction business** 

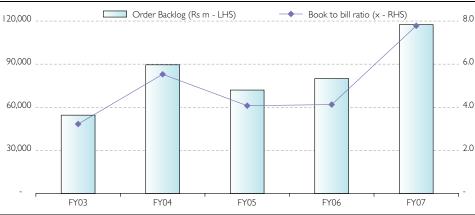


Source: SSKI Research

# ☐ Construction order backlog to witness inflows in FY08

JPA has an order backlog of Rs117.5bn, i.e. 7.8x its FY07 EPC revenues. Considering the strong order backlog, the management is now bidding for few new orders at higher margins, which has led to slower order booking over the past year. Moreover, the management believes there are enough orders to be generated by its own power plants. Consequently, JPA's order backlog would jump sharply in FY08 as it also awards real estate projects (Taj Expressway Real Estate) to its construction division.

Exhibit 3: JPA's order backlog at 7.8x FY07 revenues



Source: Company

Increasing order flows from captive power plants and road project to further swell order book in FY08

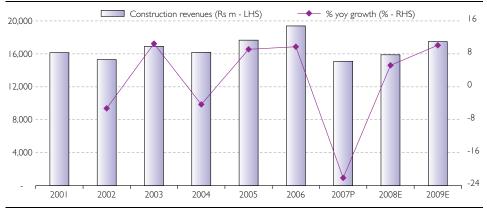
JULY 2007

Construction revenues set to pick up pace 2HFY08 onwards as construction commences on new projects

#### ☐ Construction revenues to pick up from 2HFY08

Revenue growth in the EPC segment has been subdued over the past year and the momentum is likely to continue till 2HFY08. This can be assigned to a slowdown in execution as a few projects have been in the completion stage, while others are in the mobilization stage (with relatively lower revenue recognition). During the year, JPA is likely to start construction on Sri Sailam Hydel Power Plant as well as the Karcham Wangtoo project, which would boost construction revenues from 2HFY08 onwards. Overall, we expect construction revenues to increase at 8% CAGR over FY07-09 led by high order backlog and pick up in execution.

Exhibit 4: Construction revenues – expect 8% CAGR over FY07-09



Source: Company, SSKI Research

Operating margins are expected to expand by 150bp to 18.8% over the next two years led by JPA's focus on the segment as also in view of the limited competition in the sector.

#### **CEMENT: CAPACITY EXPANSION TO DRIVE GROWTH**

#### □ Strong player in the northern markets

JPA's cement division has a production capacity of 7m tpa with a dominant market share of 21% in the northern states of Uttaranchal and Uttar Pradesh – its key markets. JPA also has a presence in central and eastern parts of the country.

#### ☐ Post capacity expansion, JPA among the top five cement producers

Capacity being expanded from 7m tpa currently to 30m tpa by FY11

JPA plans to expand its cement capacity from 7m tpa to ~30.5mtpa over the next four years in the northern and western regions of India to capture the growing cement demand. Post the expansion, JPA will be one of the top five cement producers in the country with a dominant share in the northern market.

Exhibit 5: JPA cement capacity addition schedule

Project	Capacity	Expected	Thermal Power
	(MnTPA)	Commissioning	(MW)
Central India			
Rewa Cement Complex	7.0	Operational	88 MW
UP Cement Project (UPSCCL)	3.0	Oct07-Jun-08	65 MW
Jaypee Sidhi Cement Project	2.0	Mar-08	35 MW
Bhilai Jaypee Cement	2.2	Dec-09	
Total Central India	14.2		188 MW
Northern India			
Panipat (G)	1.5	Oct-07	
Bagheri (G)	2.0	Mar-08	30 MW
Baga	1.5	Oct-08	
HP-I	5.0		
HP-II	2.5	Mar-10	
Total Northern India	7.5		30 MW
Western India			
Gujarat Anjan Cement (Phase I)	2.4	Dec-08	55 MW
Gujarat Anjan Cement (Phase II)	4.0	Mar-10	35 MW
Gujarat Jaypee Cement & Infrastructure (GMDC)	2.4	Oct-10	
Total Western India	8.8		90 MW
Total	30.5		308 MW

Source: Company, SSKI Research

#### Himachal Pradesh - 5mtpa split location plant

JPA is setting up a 3.5mtpa greenfield cement plant in Himachal Pradesh with a split grinding unit of 1.5mtpa at Panipat, Haryana. The Panipat grinding unit is expected to be commissioned by October 2007 while the Himachal Pradesh plant will likely become operational by October 2008. The Himachal Pradesh plant is expected to give JPA access to key northern markets in Punjab and Haryana, while the Panipat grinding unit would enable JPA to gain foothold in the fast growing NCR region. The plant would also have a 30MW captive thermal power plant, which will improve the profitability of the cement plant.

The project (inclusive of the 30MW power plant) is expected to cost Rs11.5bn, and is likely to be funded at a 70:30 gearing ratio. This translates into an equity infusion of Rs3.5bn by JPA into the plant with the remaining funded by debt.

#### Brownfield expansion - 2.5m tpa plant in Himachal Pradesh

JPA is setting up another 2.5mtpa cement plant at Chamba in Himachal Pradesh. The plant is expected to be commissioned by March 2010. The project is estimated to cost Rs7.5bn, which is likely to be funded at a 70:30 gearing ratio. This implies an investment of Rs2.6bn as equity for JPA into the plant with the remaining to be funded through debt.

JPA's HP plant to give it access to new markets in Punjab and Haryana; grinding unit at Panipat to give foothold in NCR

The plant estimated to cost Rs7.5bn and to be operational by end-FY10

Excise exemption to improve profitability of cement business and give JPA a Rs500-600/tonne price advantage vis-à-vis other cement producers

Sales tax exemption on plants in UP leading to improved realizations for JPA on sales in UP

The new plant offers operational synergies with the existing plant in MP

Bhilai Jaypee Cement expected to have strong operating margins owing to high degree of blending possible with slag

#### Eligible for a 10-year excise waiver

Progress on JPA's greenfield cement plants of 5m tpa capacity at Bagha and 2.5m tpa at Chamba, in Himachal Pradesh are on track. The plants are likely to be commissioned between October 2008 and March 2010. The cement plants, by way of being manufacturing capacities in a hilly region, qualify for an excise waiver for 10 years under the Central government's scheme. The plants would be exempt from paying the excise duty of Rs400/tonne (plus an ad valorem excise duty if cement prices cross Rs190/bag) for 10 years after commissioning. The excise exemption would enhance profitability of the cement business as well as give JPA a price advantage of Rs500-600/tonne vis-à-vis other cement producers. Moreover, the cost of production would be competitive owing to the captive power plant as well as strategic location of plant enabling sourcing of flyash at a nominal cost.

#### JPA acquired UPSCCL plants of 3m tpa capacity in FY06

JPA had won the bid for Uttar Pradesh State Cement Corporation's (UPSCCL) cement plants for Rs4.59bn. JPA has bought the assets of the cement plants at Rs4.59bn in the form of an asset buyout. As a result, UPSCCL's liabilities (debt, accrued wages of employees, power dues, etc) remain on UPSCCL's books while JPA gets only the assets in the form of the cement plants.

#### UP plants to enjoy sales tax benefits for 10 years

JPA is in the process of modernizing and upgrading its plants; one unit of 0.5mtpa is expected to become operational by October 2007. The other unit of 2.5mtpa capacity is likely to commence commercial production by June 2008. Both the plants enjoy sales tax benefits for 10 years (i.e. sales from these cement plants in UP will not attract any sales tax or VAT). The plant would also have a 65MW captive thermal power plant. Consequently, these benefits and cost savings would improve JPA's realizations vis-à-vis other cement producers in the region.

#### 2m tpa Siddhi plant to be commissioned by March 2008

JPA is setting up a greenfield plant of 2m tpa at Siddhi in Madhya Pradesh (MP), close to its existing cement plant in Bela. The plant is expected to enable JPA to derive additional operating efficiencies by leveraging synergies with the existing plant. JPA is also setting up a 35MW captive power plant at the site so as not to be dependent on grid power. The total investment in the project, including the captive power plant, is expected to be ~Rs6bn. JPA placed equipment orders in November 2006; and we expect the plant to start commercial production by March 2008. Moreover, the plant has sales tax concessions for 15 years from start of commercial production for sales in Madhya Pradesh.

#### JV with SAIL for slag cement plants at Bhilai and Bokaro

JPA has formed a 74:26 JV – Bhilai Jaypee Cement – with Steel Authority of India (SAIL) for setting up a 2.2m tpa cement plant at Bhilai in Chhattisgarh. The clinker plant would be located at Satna near SAIL's limestone mines. The plant is expected to produce slag cement using the slag generated at SAIL's Bhilai steel plant. SAIL is estimated to generate ~1.5m tonnes of slag per annum at its Bhilai steel plant and the use of slag in cement manufacturing will significantly reduce the problem of the disposal of blast furnace waste. Moreover, with a high degree of blending possible with slag, the plant is expected to have strong operating margins. The project is expected to cost Rs6.12bn and be commissioned by December 2009.

Proximity of plant to Gujarat coast to give JPA foothold in western market and get into exports Similarly, JPA has entered into another 74:26 JV with SAIL for a 2mtpa plant at Bokaro to produce slag cement using the slag generated at SAIL's Bokaro steel plant. The project is likely to cost Rs6bn and start production by FY11.

#### Gujarat Anjan Cement – 6.4m tpa plant to be operational by Dec'08-Mar'10

In May 2006, JPA acquired Gujarat Anjan Cement, which was implementing a 6.4m tpa cement plant in Kutch, Gujarat. The acquisition helps JPA get a foothold in the western market as also commence exports as the plant would have a captive jetty on the Gujarat coast. The total investment in the plant is estimated at Rs19.2bn. Phase I of 2.4m tpa would likely be commissioned in December 2008, while JPA would expand the capacity to 6.4mtpa by FY10. The plant would also have a 90MW captive thermal power plant, which will drive significant cost savings.

# 74:26 JV with GMDC to set up 2.5m tpa cement and thermal power plants

JPA has formed a 74:26 JV), namely Gujarat Jaypee Cement and Infrastructure, with GMDC (Gujarat Mineral Development Corporation for setting up a 2.4m tpa cement plant in Kutch, Gujarat. The plant is likely to cost Rs9bn and is likely to commence production by October 2010. JPA also plans to set up a thermal power plant in a JV with GMDC using the lignite mined by GMDC.

#### ☐ 19.4m tpa of capacity to be commissioned by end-FY09

We expect JPA to commission ~12.4m tpa capacity over the next two years, thereby increasing its capacity from 7m tpa currently to 19.4m tpa by FY09. Accordingly, we expect volumes to be ramped up from 6.5m tpa in FY07 to 11.25m tpa in FY09, which would insulate our projected earnings from any delays in JPA's commissioning plans. Moreover, we have assumed a fall of 20% yoy in cement realizations in FY09, as we expect a huge oversupply situation in the cement market in FY09.

Despite volume ramp-up, we see lower realizations due to huge oversupply in the cement market over the next 2-3 years

Exhibit 6: Cement realizations to fall 20% in FY09 while new capacities push volume growth

	Volumes	Average realization		Growth (%)
	(m tonnes)	(Rs/ bag)	Volume	Realization
2002	5.1	2,172	103	15
2003	4.5	2,075	(12)	(4)
2004	4.4	2,154	(2)	4
2005	4.7	2,412	7	12
2006	5.6	2,519	20	4
2007P	6.6	3,278	17	30
2008E	7.3	3,604	11	10
2009E	11.4	2,898	57	(20)
0 001/10				

Source: SSKI Research, Company

# ☐ Excise & sales tax benefits for HP, UP plants offer margin cushion

Operating margin slide likely to be restricted to 300bp over FY07-09 despite 20% yoy lower realizations Overall, we expect JPA's cement revenues to register a 22% CAGR over FY07-09 led by the commissioning of new cement capacities. On the other hand, we believe operating margins would fall only by 300bp to 30.3% over the next two years despite a sharp 20% yoy fall in cement realizations. The cushion stems mainly from the excise benefits arising from the HP plant and sales tax benefits for the UP plant.

Exhibit 7: Cement margins to peak in FY08 on the back of strong realizations

	Cement revenues	% yoy growth	Margins (%)
2002	9,884	150	19.2
2003	8,235	(17)	16.2
2004	8,194	(1)	10.9
2005	9,971	22	18.7
2006	12,206	22	22.0
2007P	19,320	58	33.3
2008E	22,184	15	35.5
2009E	29,127	31	30.3

Source: SSKI Research, Company

# HYDROPOWER PLANTS: LEVERAGING ITS EXPERTISE TO DEVELOPMENT

In order to lo leverage its expertise in construction of hydropower projects, JPA has forayed into development of hydropower projects on a BOO basis. JPA currently has three projects in its hydropower portfolio with a total power-generation capacity of 1,700MW.

Exhibit 8: JPA has 1700MW of hydropower capacity

(Rs m)	Capacity	Commissioning	Туре	Project	Total	JPA	JPA's equity
	(MW)	date		cost	equity	stake (%)	investment
JHPL (Baspa II)	300	FY04	PPA	16,120	4,910	63	3,113
JPVL (Vishnuprayag)	400	FY07	PPA	17,700	5,020	84	4,227
JKHCL (Karcham Wangtoo)	1000	FY11	Merchant / PPA	50,000	15,000	100	15,000

Source: SSKI Research, Company

With approval of project cost at Rs15.3bn for the project, tariffs have been finalized

# ☐ Jaiprakash Hydro Power (JHPL – Baspa II)

JPA's first BOO hydropower project, Baspa-II, a run-of-the-river 300MW project in the state of Himachal Pradesh, was developed by its subsidiary Jaiprakash Hydro Power (JHPL). The Baspa project has been a success for the group and provides a more than 24% return on invested equity for JHPL.

JPA divested 36.67% of its stake in JHPL to the public through an open offer to unlock value for its shareholders. Accordingly, it raised Rs5.4bn at an implied valuation of 3x PBV. The funds raised from the stake sale have been utilized towards its equity contribution for the Karcham Wangtoo project.

The project cost for the plant has recently been approved at Rs15.3bn, post which tariff has been finalized. JHPL has received all the arrears on the tariff along with an interest of 8% on the arrears (booked in FY07). With the approval of project cost and tariff, we believe the concerns on the project have been addressed.

# ☐ Jaiprakash Power Ventures (Vishnuprayag - JPVL)

Visnuprayag project generates a return of 28% inclusive of incentives JPA's second project in the hydropower BOO space, the 400MW Vishnuprayag hydroelectric project, has also been operational since October 2006. This project was developed by Jaiprakash Power Ventures (JPVL), JPA's 84.3% subsidiary, with the remaining 15.7% being held by ICICI Bank. The project was commissioned before time, which reduced its cost to Rs17.7bn (earlier estimated at Rs19bn) with an equity investment of Rs5.3bn. The project earned a profit of Rs718m, implying similar returns to that of JHPL (28% inclusive of incentives).

For offtake of 80% of power produced at JKHCL, JPA has a PPA with PTC

# ☐ Jaypee Karcham Hydro Corporation (JKHCL)

JPA is currently executing the 1,000MW Karcham Wangtoo project, a run-of-theriver scheme on the Satluj River in Himachal Pradesh, through its 100% subsidiary Jaypee Karcham Hydro Corporation (JKHCL). The project, likely to be commissioned in 2011, achieved financial closure in September 2006 and construction work has already commenced. The project cost, estimated at Rs50bn, is proposed to be funded at a 70:30 debt to equity ratio. JPA has already invested Rs7.5bn as equity and debt of Rs2.4bn into JKHCL as of end-FY07. JPA has entered into a PPA with PTC for offtake of 80% of the capacity, while the remaining 20% will be sold on merchant power sale basis.

We expect JPA's 2,100MW hydropower projects to become operational in FY14

# ☐ Leveraging its expertise into development of hydropower plants

To augment its hydropower generation capacity, JPA has signed an MoA (Memorandum of Agreement) with the Arunachal Pradesh government to set up another two hydropower plants of 2,100 MW (500 MW Hirong and 1,600 MW Lower Siang) on a BOO basis. Both the projects would give 12% free power to the state, which will hold 11% equity in the projects. We expect these plants to achieve financial closure after two years and become operational only in FY14.

#### REAL ESTATE INITIATIVES: KEY VALUE DRIVERS

# ☐ Taj Expressway valued at Rs678 per share of JPA

The UP government is implementing the Taj Economic Zone project, which envisages the construction of a 6-lane expressway connecting Greater Noida and Agra. Among other industrial growth initiatives, an international airport and an aviation hub are also being developed along the expressway. JPA was awarded the concession for constructing the 160-km greenfield 6-lane access controlled Taj Expressway (TE) on a BOT basis in 2003.

Being a greenfield project, the Taj Expressway would involve large costs on land acquisition and construction. Therefore, as an incentive, the UP government has granted development rights over 6,250 acres of land along the expressway to JPA for a period of 90 years. The land is to be allotted at five locations — Noida, Dhankaur (outskirts of Greater Noida), Jewar (the location of a proposed greenfield international airport), Agra and Mathura.

Our fair value estimate of the road BOT plus real estate project based on DCF comes to Rs148.8bn Our value of the road BOT project works out to negative Rs15.2bn, mainly due to the high land acquisition and construction costs. For the real estate development portion of the project, we have assumed a development schedule of 408m sq. ft (6,250 acres at an FSI of 1.5x) over FY09-29. Using a 15% cost of equity for residential development and 17% for commercial properties, we arrive at a discounted-cash-flow-to-equity value of Rs164bn. Consequently, our fair value estimate of the consolidated project (road BOT plus real estate) comes to Rs148.8bn or Rs678 per share of JPA.

JPA awarded concession for constructing a 160-km greenfield 6-lane access controlled Taj Expressway on BOT basis in 2003

Exhibit 9: Taj Expressway real estate development – summary

Segment	Acres	mn sq. ft.	Realisation (Rs/sq. ft.)	Const. Cost (Rs/sq.ft.)	Land Cost (Rs m)	Start	End	Key drivers	Cost of equity	NPV (Rs m)
NOIDA										
Residential – Super-premium		14.7	7,500	2,500		Apr-08	Apr-19	Proximity to South Delhi, one of the most premium localities of Delhi	15%	23,541
Residential – Mid-range	1.250	27.0	4,250	1,600	4.200	Apr-08	Apr-18	Direct connectivity to Delhi through the Noida Toll Bridge	15%	23,207
Residential – High-end		24.5	5,500	2,000		Apr-08	Apr-18	Planned extension of the Delhi Metro up to Noida city centre by 2010     Sound industrial base and emerging centre	15%	27,542
Commercial		15.5	80*	2,000		Apr-09	Mar-20	for IT and ITES investments	17%	28,518
DHANKAUR										
Residential	1,250	81.7	3,200	1,400	2,500	Apr-II	Mar-23	Well connected to Delhi thorough the Noida expressway and Noida Toll Bridge. Directly connected to the Delhi-Lucknow NH-24 and to the main Delhi-Kolkata rail route     Planned city and well developed basic infrastructure and utilities     Sound industrial growth and emerging IT/ITES destination     Proposed greenfield international airport at Jewar, ~50 kms away	15%	32,476
JEWAR										
Residential	1,250	81.7	2,700	1,200	1,563	Apr-14	Mar-27	Proposed greenfield international airport	15%	19,908
AGRA										
Residential	1,250	81.7	1,500	1,000	1,250	Apr-14	May-29	Important site on the domestic and global tourism circuit     Strong SME presence in leather goods, jewellery, handicrafts etc.     Vital junction on the north India road network. 4 national highways pass through the city — NIH-2 (Delhi-Kolkata), NIH-3 (Mumbai-Agra), NIH-II (Agra-Bikaner) & NIH-93 (Agra-Moradabad).	15%	4,404
MATHURA										
Residential	1,250	81.7	1,500	1,000	1,250	Apr-14	May-29	Extremely important religious destination for Indians     Industrial growth led by IOC's 6mtpa refinery in Mathura	15%	4,404

Source: SSKI Research

For further details on the project, please refer to page 17.

# ☐ Jaypee Greens – 1.9m sq. ft already sold

JPA is developing a township spread across 452 acres in Greater Noida, including a 192-acre golf course. Jaypee Greens is one of India's first 'golf-centric' townships offering a mix of residential, commercial and hotel development. The township also includes a 60-acre nature reserve with landscaped parks, lakes, etc. Jaypee Greens has a development potential of ~7m sq. ft and we estimate the same to be sold over a period of seven years starting FY08. JPA has so far already sold ~1.9m sq. ft of space at Jaypee Green since its launch.

Exhibit 10: Jaypee Greens - phase I development plan

Particulars	Total area	Area sold (till date)	Avg. realization
	(m sq. ft)	(m sq. ft)	(Rs / sq. ft)
Estates	0.67	0.44	6,080
Villas	0.55	0.50	5,954
Town Homes	0.09	0.08	5,880
Apartments	4.00	0.87	5,283
Total	5.31	1.89	-

Source: Company

India's first 'golf-centric' townships, offers a mix of residential, commercial and hotel development

Jaypee Greens, one of

JULY 2007

#### Exhibit 11: Jaypee Greens – development schedule

(m sq. ft)	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Area sold	2.46	0.70	0.70	0.70	0.70	0.70	1.06

Source: SSKI research

#### Realizations remain robust

We have assumed a weighted average base realization (beginning of FY07) of Rs7,000/sq. ft for the project We have assumed a weighted average base realization (beginning of FY07) of Rs6,500/sq. ft, in line with properties being sold currently by JPA in Jaypee Greens and also on the basis of selling rates of similar properties in Noida and Greater Noida. Construction costs are estimated at Rs3,000/sq. ft of saleable area (including the additional cost of developing the golf course, parks, etc). We have assumed a nominal 4% annual rise in realizations and construction costs.

#### Jaypee Greens valued at Rs19.3bn

We have valued Jaypee Greens on an NAV basis by discounting the equity cash flows at a rate of 14%. The discount rate has been assumed considering the relatively low risk in residential development and the fact that the company is already in possession of the land and is selling it in phases.

# **New initiatives: Exploring growth in power and steel**

#### ☐ Entry into thermal power generation – coal block allotted

Besides hydropower, JPA has also announced plans to enter thermal power generation. The company has signed up an agreement with the Madhya Pradesh (MP) government to set up a 1,000MW (2x500 MW) coal-based pithead thermal power plant on a BOO basis. JPA plans to sell the power generated from the plant on a merchant basis.

1,000MW coal-based pithead thermal power plant on BOO basis signed with MP government

An agreement for a

Project cost estimated at Rs40bn

JPA has already formed a joint venture, namely Madhya Pradesh Jaypee Minerals, (70% owned by JPA) with the MP government for mining the coal block associated with the plant. We expect JPA to complete the financial closure of the plant over the next 18 months with commencement of operations likley by FY12. The project cost is estimated at Rs40bn. The work on the coal block (extractable reserves of 155m tonnes) has already started and we believe the JV would need to invest an additional ~Rs10bn in the mines over the next three years.

The project, entailing a cost of Rs22bn, likely to be commissioned by FY11

# □ 500MW thermal power plant generation in UP

JPA is also planning to set up a 500MW (2x250MW) coal-based thermal power plant at Churk, Uttar Pradesh. JPA plans to sell the power generated from the power plant on a merchant basis. The project cost is estimated at Rs22bn, and the plant is likely to be commissioned by FY11.

#### □ 50MW wind power plant likely to be commissioned by FY08

JPA plans to set up 50MW (25\*2MW) of windpower capacity in Maharashtra to avail of tax benefits. The project is likely to cost Rs2bn and is proposed to be funded at a gearing of 70:30. The plants are likely to be commissioned by FY08.

We expect the project to be completed by end-2010

# ☐ JV with Powergrid for evacuation of power from JKHCL

JPA, through its subsidiary JHPL, has diversified into the transmission segment with the formation of a subsidiary Jaypee Powergrid (74% owned by JHPL and 26% by Powergrid) for evacuation of power generated at its 1,000MW Karcham Wangtoo plant. The project is expected to cost Rs9.8bn and likely to be funed at a gearing of 2.3x. Currently, JPL has invited bids from various transmission companies for construction of the transmission lines and the associated substation infrastructure. We expect the project to be completed by end-2010.

# ☐ Buyout of Malvika Steel's assets for backward integration

The acquisition is quite value accretive for JPA

JPA has recently acquired Malvika Steel's assets for Rs2.07bn, which is located at Jagdishpur, UP. The plant would have a capacity of 550,000 tonnes of integrated long products. JPA plans to invest Rs15bn (inclusive of the acquitision cost) in the project, which is spread over 754 acres of land. A similar new plant would have cost JPA Rs22bn-25bn. Consequently, we believe the acquisition of the plant is quite value accretive for JPA and would be positive for JPA's stakeholders in the longer term.

JPA has acquired the plant for utilization of steel required in its construction activities of roads, power plants and real estate projects. Consequently, ~50% of the output will be utilized for JPA's captive consumption.

# ☐ MoU for oil and gas exploration block

JPA has bid for oil exploration block in consortium with Prize Petroleum JPA has bid for an onland oil exploration block in South Rewa under the New Exploration Licensing Policy VI. JPA has formed a consortium with Prize Petroleum (subsidiary of Hindustan Petroleum Corporation). JPA has signed a production sharing contract with the government in February 2007.

#### FINANCIAL ANALYSIS AND VALUATIONS

# ☐ Expect 19% CAGR in consolidated revenues over next two years

We believe JPA's standalone revenues would witness a strong 19% CAGR over FY07-09 led by commissioning of new cement capacities as well as pick up in construction revenues. Consolidated revenues too are likely to register 19% CAGR over FY07-09 led by commissioning of the Vishnuprayag plant (JPVL).

Lower margins in JHPL a drag on JPA's overall margins

# ☐ Consolidated margins could fall by 30bp over FY07-09

JPA's standalone margins are likely to expand by 110bp to 27.4% led by expansion in construction margins. However, consolidated margins are likely to fall by 30bp to 34.7% led by lower margins in JHPL (Baspa II) as the interest and depreciation costs fall over the next two years.

# ☐ Consolidated earnings likely to register 16% CAGR over FY07-09

Considering the robust revenue growth and margin expansion in the standalone business, we expect 23% CAGR in standalone earnings over FY07-09. Consolidated earnings would witness an estimated 16% CAGR over FY07-09.

Total investment of Rs281bn planned in various projects; Rs69bn of capex over FY07-12

#### ☐ Rs281bn earmarked as capex over FY07-12

JPA has planned a total investment of Rs281bn in various cement and power projects, either directly through JPA balance sheet or through various SPVs. The total equity required for all the projects is Rs69bn (JPA's share likely to be Rs61.7bn) over the next five years. JPA has so far spent Rs28bn on these projects including an equity investment of Rs15.5bn.

Exhibit 12: JPA's capex and funding plan over FY07-12

(Rs m)	Total	Total	Total	Stake	JPA's	JPA's equity to
	Cost	Debt	Equity	(%)	equity	be invested
5 mtpa Himachal Plant incl. power plant (30 MW)	11,500	8,050	3,450	100	3,450	1,208
2.5 mtpa Chamba Plant - HP	7,500	4,875	2,625	100	2,625	2,625
3 mtpa UPSCL capex incl. power plant (65MW)	9,000	5,850	3,150	100	3,150	945
2 mtpa Siddhi cement plant incl of power plant (35MW)	6,000	3,900	2,100	100	2,100	1,850
Malvika Steel	15,000	10,500	4,500	100	4,500	2,430
JKHCL	50,000	35,000	15,000	100	15,000	7,500
Jaypee Power Grid (JPL - Transmission)	9,800	6,860	2,940	74	2,176	2,176
Gujarat Anjan Cement Ltd (6.4 mtpa)	19,200	13,440	5,760	100	5,760	4,836
SAIL Bhilai Slag Cement (2.2 mtpa)	6,120	3,978	2,142	74	1,585	1,372
SAIL Bokaro Slag Cement (2 mtpa)	6,000	3,900	2,100	74	1,554	1,554
GMDC JV (2.4 mtpa)	9,000	5,850	3,150	74	2,331	2,331
Madhya Pradesh JP Minerals Ltd.	10,000	6,500	3,500	70	2,450	2,350
MP -Thermal Power plant (2x500MW)	40,000	28,000	12,000	70	8,400	8,400
Thermal power plant at Churk (2x250MW)	22,000	15,400	6,600	100	6,600	6,600
Total capex (excl. Taj Expressway)	221,120	152,103	69,017		61,681	46,176
Taj Expressway	60,000	9,000	5,000	100	5,000	5,000
Total capex (incl. Taj Expressway)	281,120	161,103				51,176
Funding						
Free cash of FY07-12						25,000
Cash on books						18,000
Total internal accruals						43,000

Source: Company, SSKI Research

JPA expects to part fund projects through expected free cash flows of Rs25bn over next 4-5 years and ~Rs18bn cash on books

# ☐ Funding of capex through internal accruals and increased leverage

JPA would have to further invest Rs51.2bn as equity in the new cement and power projects over the next 4-5 years. JPA's consolidated free cash flows over the next five years are likely to be Rs25bn over this period. Moreover, JPA currently has ~Rs18bn as cash on its books. As a result, we believe JPA can meet its future capex from internal accruals and incremental debt. However, there could be some timing mismatches in the internal accrual and capex requirements, which can lead JPA to look for equity over the next 12-18 months.

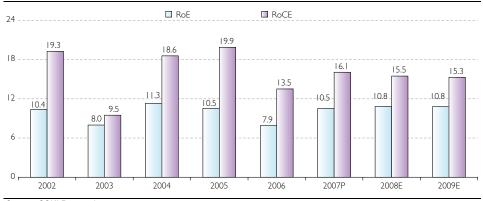
In addition, any adverse change in cement cash flows due to change in cement prices can impact the funding pattern of JPA's new projects. This could again lead to JPA raising funds from the capital markets.

Expect RoCE and RoE to expand to 10.8% and 15.3% respectively in FY09

#### □ RoE and RoCE likely to improve over the next two years

Considering the strong earnings growth momentum over the next two years as well as value accretive capex plans, we expect JPA's RoCE and RoE to expand to 10.8% and 15.3% respectively in FY09 against 10.5% and 16.1% respectively in FY07. The relatively lower RoCE and RoE can be assigned mainly to JPA being in the capex mode, whereby funds are already invested upfront and returns are likely to be back-ended.

Exhibit 13: Return ratios to improve over the next two years



Source: SSKI Research

#### ☐ JPA's fair value using SOTP at Rs1163/share

We have arrived at the fair valuation of JPA based on sum-of-parts methodology.

Construction business valued at 10x FY09E EV/EBITDA, cement business at USD100/tonne

> JPA's stake in JHPL valued at market price, JPVL at 2.5x on P/BV based on its RoE

Jaypee Greens valued on DCF, Taj Expressway on NPV of toll earnings & land development revenues We have valued the construction business at 10x FY09E EV/EBITDA, which is based on peer valuation. Similarly, we have valued the cement business at US\$100/tonne for 19.4m tpa cement capacity to be installed by FY09. Our valuation metric of US\$100/tonne is at a sharp discount of 40-50% to other cement players' valuations as we expect cement prices to fall sharply in FY09.

We have valued JPA's stake in JHPL at the current market price, while the JPVL power plant has been valued at 2.5x on Price/BV multiple based on its RoE. On the other hand, we have valued JKHCL at book value as the power plant is likely to be commissioned after 3-4 years.

The project value of Jaypee Greens has been arrived by discounting its free cash flows to equity. Similarly, we have valued the Taj Expressway project on NPV basis of its toll earnings as well as land development revenues.

Accordingly, the sum-of-parts value of JPA works out to Rs1,163/share based on the above assumptions.

#### SSKI INDIA

Exhibit 14: JPA's SOTP valuation comes to Rs1163/share

Valuation metric	FY09
10x EV/EBITDA	32,850
US\$100/ton for 19.4mtpa cement capacity	78,570
Market Value (CMP - Rs37/share)	25,444
	63.4
	18,787
2.5x BV	25,253
	84.0
	21,212
Rs10/share (book value)	20,500
	100.0
	20,500
NPV of its cashflows	19,308
Combined NPV of road and real estate cash flows	148,831
	340,878
	86,190
	254,688
	219
	1,163
	US\$100/ton for 19.4mtpa cement capacity Market Value (CMP - Rs37/share)  2.5x BV  Rs10/share (book value)  NPV of its cashflows

Source: SSKI Research

We have set an SOTP based value of Rs1,163 per share for JPA

# ☐ Reiterate Outperformer

Considering the huge value unlocking from Taj Expressway and Jaypee Greens, along with the value accretive expansion of its cement capacity, we believe JPA stock is highly undervalued. We expect JPA to get re-rated as it gets possession of land parcels in Noida and four other locations on Taj Expressway. Consequently, we reiterate our Outperformer rating on the stock with an SOTP value of Rs1,163/share.

# **TAJ EXPRESSWAY**

JPA was awarded the concession for constructing a 160-km greenfield 6-lane access controlled Taj Expressway on BOT basis in 2003 by the UP government. As an incentive in view of the huge land acquisition and construction costs, the UP government would grant development rights over 6,250 acres of land along the expressway to JPA for a period of 90 years. Using a discounted-cash-flow-to-equity method, we have valued the road BOT and the real estate development portions of the project separately at a negative NPV of Rs15.2bn and an NPV of Rs164bn respectively. Consequently, our fair value estimate of the consolidated TE project (road BOT plus real estate) comes to Rs148.8bn or Rs678 per share of JPA.

#### **PROJECT BACKGROUND**

# ☐ UP plans an economic/industrial corridor along Noida-Agra region

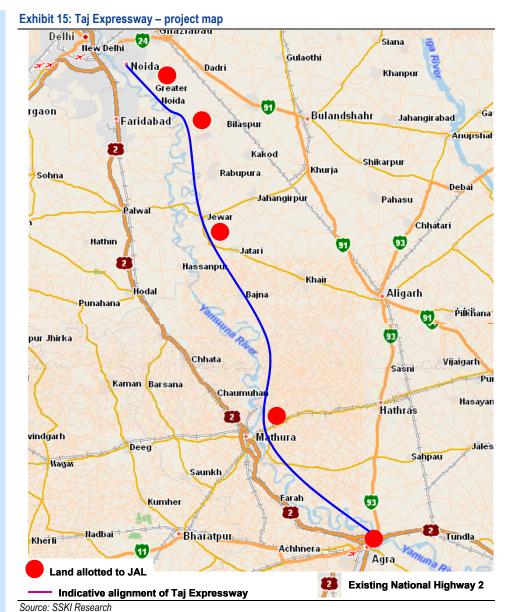
The government of Uttar Pradesh (UP), in April 2001, had constituted the Taj Expressway Industrial Development Authority (TEIDA) to develop a 6-lane expressway connecting Greater Noida and Agra in UP. The expressway is proposed to be an extension of the existing Noida-Greater Noida expressway and is expected to significantly cut down on travel time between Delhi and Agra as also relieve the existing National Highway 2 (NH-2) between Delhi and Agra, which is already congested and runs through the heart of industrialized cities like Faridabad, Ballabhgarh and Palwal. The TEIDA also proposes to develop a Taj Economic Zone, an international airport and an aviation hub along the Taj Expressway.

#### ☐ IPA awarded the concession for constructing Taj Expressway

JPA was awarded the concession for constructing the 160-km greenfield 6-lane access controlled Taj Expressway in 2003. Being a greenfield project, Taj Expressway would involve large costs on land acquisition and construction of the 6-lane access controlled highway. Therefore, as an incentive, the UP government will grant development rights over 6,250 acres of land along the expressway to JPA for a period of 90 years.

The 6-lane expressway to run through industrialized cities and proposed locations for an international airport and an aviation hub

The project involves huge land acquisition and construction costs



Source. Son Nesearch

# TAJ EXPRESSWAY: ROAD DEVELOPMENT

# ☐ JPA to develop Taj Expressway on BOT basis

The expressway will be operated on a BOT basis by JPA for a period of 36 years after construction is completed. JPA would have the right to charge toll from expressway users at NHAI notified rates.

JPA to have the right to charge toll from users at NHAI notified rates

Exhibit 16: Salient features of Taj Expressway	
Length (kms)	160
Concession period (years)	36
Construction period (years)	6
Concession start date	April 2013
Concession end date	March 2049
Project cost (Rs bn)	52.8
Gearing (x)	2.33
Revenue stream	Toll
Source: Company, SSKI Research	

Project cost estimated at Rs52.8bn and proposed to be funded at a gearing of 2.33x

- The Taj Expressway project was awarded to JPA in 2003 but was delayed on account of legal inquiries initiated by the new political regime in UP against the erstwhile state government which cleared the project. After an independent enquiry commission cleared the project in October 2006, work is expected to commence from September 2007.
- The total project cost is estimated at Rs52.8bn, (Rs330m/km), inclusive of land acquisition costs, and is likely to be funded at a gearing of 2.33x. Consequently, JPA's equity investment is expected to be Rs15.8bn, while debt will be raised for the remaining Rs36.9bn.
- JPA is likely to construct the road itself and the preliminary civil works on the project are expected to commence from September 2007.

Land acquisition for the project is underway

- Land acquisition for the road project is currently underway and ~300 acres near Noida have already been acquired by the state government and handed over to JPA. The cost of the land acquisition has to be borne by JPA; the cost is the same as the total land acquisition cost of the government.
- The construction of the expressway is likely to take six years, and the road is expected to be commissioned in April 2013.

Expressway to compete with existing NH-2

- The expressway connects Noida to Agra, and will compete with the existing Delhi-Agra 4-lane National Highway 2 (NH-2), which is also proposed to be 6-laned. The Delhi-Agra stretch is a busy stretch of National Highway with heavy tourist traffic towards the Taj Mahal and the historic city of Fatehpur Sikri.
- Currently, NH-2 sees traffic of ~45,000 pcu/day and we have assumed Taj Expressway to attract 33% of the existing traffic on the Delhi-Agra stretch, i.e. 15,000 pcu/day. We have assumed a nominal 5% annual growth in traffic.

Toll rates assumed at NHAI specified rate of Re0.65/pcu/km; to be escalated 5% annually

- Toll rates have been assumed in line with NHAI specified rates of Re0.65/pcu/km. Toll rates have been assumed to increase in line with the WPI, and hence are escalated at 5% annually.
- Regular maintenance is assumed at Rs1m/km in the year the expressway is commissioned and is assumed to increase at 6% per annum. Periodic maintenance is assumed to be first undertaken in the sixth year of the expressway's operation (at 5% of the project cost) and every sixth year thereafter (escalating at 25% over the cost of the last maintenance undertaken).

Exhibit 17: Traffic and toll rate assumptions for Taj Expressway

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	 FY48	FY49
Traffic (pcu)	15,000	15,750	16,538	17,364	18,233	19,144	20,101	21,107	22,162	23,270	 110,880	116,424
Traffic growth (%)		5	5	5	5	5	5	5	5	5	 5	5
Toll rates (Rs/pcu)	104	109	115	120	126	133	139	146	154	161	 769	807
Toll rate growth (%)		5	5	5	5	5	5	5	5	5	 5	5

Source: SSKI Research

We have used a discounting rate of 18% to reflect the risks of land acquisition and traffic for valuing the project

# □ Road project valued at a negative NPV of Rs15.2bn

We have valued the road construction, operation and maintenance portion of the Taj Expressway project at a negative NPV of Rs15.2bn, using a discounted-cash-flow-to-equity method. We have used a discounting rate of 18% to reflect the risks of land acquisition and traffic, considering an existing 4-lane link (and proposed to be widened to six lanes) already connects Delhi to Agra. The negative NPV in the project arises primarily due to the six year long construction period, large cash outflows in the first six years on construction and the relatively lower traffic volumes, which do not generate sufficient revenues to recoup the project cost and return on investment.

JULY 2007

Exhibit 18: Taj Expressway road project – income statement

(Rs m)	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	 FY48	FY49
Revenues	-	-	-	-	-	-	1,127	1,243	1,370	 31,113	34,302
O&M Cost	-	-	-	-	-	-	160	170	180	 1,160	1,230
Increase (%)						-	6	6	6	6	6
Insurance Cost	-	-	-	-	-	-	5	5	5	 5	5
Employee Costs	-	-	-	-	-	-	68	72	76	 490	520
Other Establishment Cost	t -	-	-	-	-	-	104	108	112	 395	410
Total Cost	-	-	-	-	-	-	337	355	373	 2,050	2,165
EBITDA	-	-	-	-	-	-	791	888	997	 29,063	32,137
Depreciation	-	-	-				1,703	1,703	1,703	 1,703	1,703
EBIT	-	-	-	-	-	-	(913)	(815)	(706)	 27,359	30,434
Interest	-	-	-				4,066	3,896	3,557	 -	-
Profit before tax	-	-	-	-	-	-	(4,978)	(4,711)	(4,264)	 27,359	30,434
Tax @ 11% (80IA benefit	) -	-	-	-	-	-	-	-	-	 9,029	10,043
Net profit	-	-	-	-	-	-	(4,978)	(4,711)	(4,264)	 18,331	20,390

Exhibit 19: Taj Expressway road project – balance sheet

(Rs m)	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	 FY48	FY49
Equity	2,000	4,000	5,280	6,336	11,088	15,840	15,840	15,840	15,840	 15,840	15,840
Reserves & surplus	-	-	-	-	-	-	(4,978)	(9,689)	(13,953)	 134,815	155,206
Net worth	2,000	4,000	5,280	6,335	11,088	15,840	10,862	6,151	1,887	 150,655	171,046
Debt		-	5,280	14,784	25,872	36,960	36,960	33,880	30,800	 -	-
Total Liabilities	2,000	4,000	10,560	21,120	36,960	52,800	47,822	40,031	32,687	 150,655	171,046
Net Block	-	-	-	-	-	-	51,097	49,394	47,690	 (28,479)	(38,239)
CWIP	2,000	4,000	10,560	21,120	36,960	52,800				 (8,057)	-
Cash	-	-	-	-	-	-	(3,286)	(9,375)	(15,017)	 186,880	208,942
Net WC			-	-	-	-	11	12	14	 311	343
Total Assets	2,000	4,000	10,560	21,120	36,960	52,800	47,822	40,031	32,687	 150,655	171,046

Exhibit 20: Taj Expressway road project – cash flows

(Rs m)	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	 FY48	FY49
EBITDA	-	-	-	-	-	-	791	888	997	 29,063	32,137
Less: Tax	-	-	-	-	-	-	-	-	-	 (9,029)	(10,043)
Operating CF	-	-	-	-	-	-	791	888	997	 20,034	22,094
Project capex	(2,000)	(2,000)	(6,560)	(10,560)	(15,840)	(15,840)	-	-	-	 -	-
Maintenance capex										 -	(8,057)
Working capital				-	-	-	(11)	(1)	(1)	 (29)	(32)
CF to Debt & equity	(2,000)	(2,000)	(6,560)	(10,563)	(15,845)	(15,945)	779	887	996	 20,005	14,005
Debt raised / repaid	-	-	(5,280)	(9,504)	(11,088)	(11,088)	-	3,080	3,080	 -	-
interest payment		-	-	-	-	-	4,066	3,896	3,557	 -	-
CF to debt	-	-	(5,280)	(9,504)	(11,088)	(11,088)	4,066	6,976	6,637	 -	-
Net equity cashflow	(2,000)	(2,000)	(1,280)	(1,059)	(4,757)	(4,857)	(3,286)	(6,089)	(5,642)	 20,005	14,005
Discount rate (%)	18										
NPV	(15,166)										

Source: SSKI Research

#### TAJ EXPRESSWAY: REAL ESTATE DEVELOPMENT

# ☐ JPA to be allotted land at five locations along Taj Expressway

As part of the concession, JPA will be allotted development rights over 1,250 acres of land each at five different locations along the expressway, totalling 6,250 acres. The five locations identified are Noida, Dhankaur (outskirts of Greater Noida), Agra, Mathura and Jewar (in Gautam Buddha Nagar district, near the proposed new international airport).

#### ☐ All the 6,250 acres land already notified

We have assumed the cost of acquisition of land at various locations in the range of Rs1m-3.25m/acre The land at each of the five locations has been notified by the respective local administration and is likely to be acquired at the notified government rates. The acquired land will then be handed over to JPA for the project, at the same rate at which it is acquired by the government. We have assumed the cost of acquisition of land at various locations in the range of Rs1m-3.25m/acre.

Exhibit 21: JPA to be acquire development rights over 6,250 acres of land for ~Rs10.8bn

Location	Area (acres)	Land acquisition rate (Rs m / acre)	Total land cost (Rs m)
Noida	1,250	3.25*	4,200
Dhankaur	1,250	2.00	2,500
Jewar	1,250	1.25	1,563
Mathura	1,250	1.00	1,250
Agra	1,250	1.00	1,250
Total	6,250		10,763

Source: Company; \* Land already acquired for Rs2m/acre, balance land to be acquired assumed at cost of Rs5m/acre

# ☐ JPA given possession of 900 acres of land

The UP administration has acquired 300 acres of land for the expressway and the same has already been handed over to JPA. JPA has also been allotted 600 acres of land in Noida for real estate development, while the remaining 650 acres is expected to be handed over by October 2007. We expect JPA to get possession of the land at the remaining four locations (5,000 acres) by end-FY09.

# ☐ FSI of 1.5x for the entire land – development of over 400m sq. ft

The concession agreement allows the Taj Expressway SPV an FSI of 1.5x at all the five locations where JPA gets land development rights. Consequently, with a total of 6,250 acres of land, we estimate a development potential of ~400m sq. ft for JPA across the five locations.

#### **KEY ASSUMPTIONS**

#### □ Noida emerging as an alternative to South Delhi

#### Key growth drivers

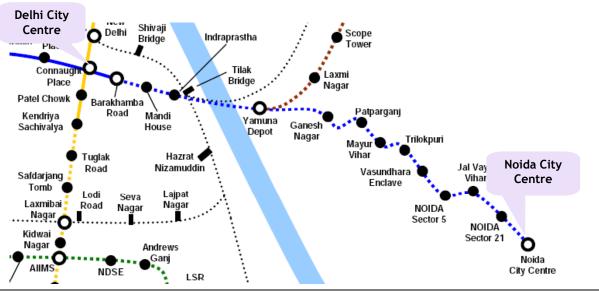
- Proximity to South Delhi, one of Delhi's premium localities
- Direct connectivity to Delhi through the Noida Toll Bridge and the planned extension of Delhi Metro up to Noida city centre by 2010
- Sound industrial base Panasonic, Samsung, Timex, Subros, Super Cassettes (T-Series), etc are already operating in Noida

Land acquisition at Noida to be completed by October 2007, by end-FY09 at other four locations

Noida offers proximity to South Delhi, direct connectivity to Delhi, a sound industrial base, etc

• Emerging centre for IT and IT-related investments – Moser Baer, HCL, TCS, etc are some of the large IT companies already operating there. IT parks under development by Unitech, DLF, etc are expected to spur further investments in the sector in Noida.

Exhibit 22: Proposed Delhi Metro network – 2021



Source: SSKI Research; Map not to scale

We estimate ~60% of the development to be in the residential segment, ~20% in the commercial segment and 10% as institutional

Residential development assumed to be at three different price points...

#### Development plan

We have assumed JPA to undertake a mix of residential and commercial development in Noida based on the current development rules. Of the total 1,250 acres of land, we estimate ~60% of the development to be in the residential segment, ~20% in the commercial segment (office, IT parks, retail, etc) and 10% as institutional. The remaining 10% of the land is expected to be left for open and green areas. However, the FSI has been assumed at 1.5x on the full 1,250 acres of land, which allows JPA to develop and sell a total of 81.7m sq. ft of space.

Residential development in Noida is assumed to be across three different price segments. Of the total ~66m sq. ft of residential development, 14.7m sq. ft is assumed in the super-premium segment, 27m sq. ft is assumed in the mid-range segment while the remaining 24.5m sq. ft is assumed in the high-end housing segment. We have assumed JPA to launch sales of all residential properties in Noida from April 2008 onwards. The mid-range and high-end properties are expected to be developed over a period of 11 years, while the super-premium properties are assumed to be developed over 12 years.

Commercial development in Noida is assumed over 15.5m sq. ft with the properties expected to be launched in April 2009 and likely to be completely developed over a period of 11 years.

Exhibit 23: Noida land development plan and schedule

City	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
Super-premium	-	-	0.9	1.2	1.2	1.2	1.3	1.5	1.8	1.6	1.3	1.0	0.9	0.9
Mid-range	-	-	2.2	2.4	2.4	2.7	2.7	2.7	3.2	3.0	2.4	1.6	1.6	-
High-end	-	-	1.7	2.0	2.0	2.2	2.2	2.5	2.9	2.7	2.5	2.0	2.0	-
Commercial	-	-	-	0.9	1.1	1.2	1.6	1.9	2.8	2.2	1.6	1.1	8.0	0.5
Source: SSKI Resear	ch								•	•			•	•

#### ...and base realizations in the range of Rs4,250-7,000 per sq. ft

#### Realizations and construction costs

For residential development, we have assumed base realizations (end-FY07) in the range of Rs4,250-7,000/sq. ft according to the segment in which the development is planned. Our realization assumptions are based on recent project launches in Noida as also realization trends in JPA's own project, 'Jaypee Greens', in Noida. For commercial development, we have assumed a weighted average rental (mix of office, IT and retail development) of Rs80/sq. ft /month.

Exhibit 24: Realisations and construction cost assumptions at Noida

Segment	Area	Realization	Constr. cost	Development plan		
	(m sq. ft)	(Rs / sq. ft)	(Rs / sq. ft)	Start	End	No. of years
Super-premium	14.7	7,500	2,500	Apr-08	Apr-19	12
Mass Housing	27.0	4,250	1,600	Apr-08	Apr-18	11
Middle-level	24.5	5,500	2,000	Apr-08	Apr-18	11
Commercial	15.5	80*	2,000	Apr-09	Mar-20	11

Source: SSKI Research; \* indicates rent per sq. ft. per month

#### Realization and construction cost escalation

Realizations have been assumed to increase at 6% annually over FY08-14 and 5% per annum thereafter. Construction costs have also been assumed to increase at 6% annually for the entire project period.

# □ Dhankaur / Greater Noida – a mix of industrial and IT led growth Key current and future drivers

Greater Noida weel connected to Delhi, directly connected to NH-24...

- Well connected to Delhi through the Greater Noida-Noida Expressway and Noida Toll Bridge.
- Directly connected to the Delhi-Lucknow National Highway-24 and to the main Delhi-Kolkatta rail route at Boraki Railway station
- Modelled on a planned township with clear land usage norms under an Outline Development Plan – 2021

• Well developed basic infrastructure and utilities – uninterrupted power supply with privatised distribution, established water supply systems, functional sewage lines, operating telecom systems, etc

- Sound industrial growth with a number of large companies already operating there Honda Siel Cars, LG Electronics, Delphi, Escorts Yamaha, etc
- Emerging IT/ITES destination with a number of state government incentives for encouraging investments in the sector. A few large IT companies (including Wipro and NIIT) are already operational in Greater Noida
- Plans afoot to develop an integrated transportation hub around Boraki railway station, involving an inter-state bus terminal, rail transit operation facilities, etc
- A proposed greenfield international airport at Jewar village (~50 kms from Greater Noida)

...with well-developed basic infrastructure and utilities

#### We expect JPA to undertake only residential development at Dhankaur

#### Development plan

We have assumed JPA to undertake only residential development over the 1,250 acres of land in Dhankaur, representing ~81m sq. ft of saleable area. We expect JPA to get possession of land in Dhankaur by end-FY09 and assume launch of properties in April 2011. We expect the entire development in Dhankaur to be completed over a period of 12 years.

Exhibit 25: Dhankaur development schedule

(m sq. ft.)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23
Residential	3.3	4.9	6.5	7.4	9.0	7.4	7.4	7.4	7.4	7.4	7.4	6.5

Source: SSKI Research

#### Realizations and construction costs

We have assumed base realizations (end-FY07) of Rs3,200/sq. ft for JPA's Dhankaur residential development. Our realization assumptions are based on recent project launches in Greater Noida and the current pricing trends. Construction costs have been assumed at Rs1,400/sq. ft.

Exhibit 26: Dhankaur development plan, realisations and construction costs

Segment	Area	Realization	Construction cost		Development pla			
	(m sq. ft)	(Rs / sq. ft)	(Rs / sq. ft)	Start	End	No. of years		
Residential	81.7	3,200	1,400	Apr-11	Mar-23	12		

Source: SSKI Research

#### Realization and construction cost escalation

Realizations have been assumed to increase at 6% annually over FY08-14 and 5% per annum thereafter. Construction costs have also been assumed to increase at 6% annually for the entire project period.

# ☐ Jewar – greenfield international airport to spur growth

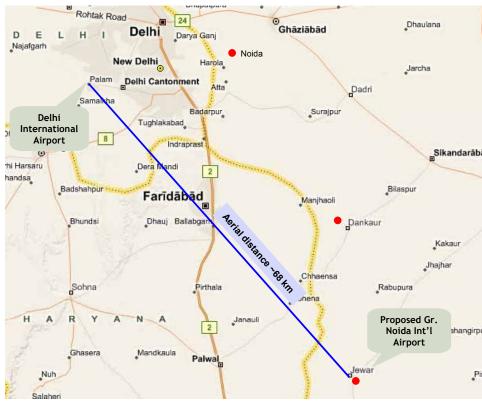
#### Key current and future drivers

The government of India plans to develop five greenfield airports in the country (in addition to the greenfield airports under development at Bangalore and Hyderabad) over the next 5-7 years. One of the five airports is proposed to be developed at Jewar, in Gautam Buddha Nagar district of Uttar Pradesh, about 50kms from Greater Noida. The proposed international airport, to be spread over 1,500 hectares of land, is expected to be the key growth driver of the real estate market in and around Jewar.

The UP state government has recently submitted a techno-economic feasibility report on the airport to the Ministry of Civil Aviation (MCA). The MCA has put the airport project on the fast track and is expected to give an in-principle approval for the project in about three months, i.e. by October 2007. The total project cost is estimated at Rs35bn. The airport is proposed to be developed using a Public Private Partnership (PPP) model with the private sector partner holding a 74% stake in the SPV which will develop the airport. The remaining 26% would be held equally by the state government and the central government (through the Airports Authority of India).

The proposed international airport expected to be the key growth driver of the real estate market in and around Jewar

# Exhibit 27: Proposed international airport at an aerial distance of ~68kms from Delhi airport



Land parcels allotted to JAL

Source: SSKI Research

We expect the entire development in Jewar to be completed in 13 years

#### Development plan

We have assumed JPA to undertake only residential development over the 1,250 acres of land at Jewar, representing ~81m sq. ft of saleable area. We expect JPA to get possession of the entire land in Jewar by end-FY09 and assume launch of properties in April 2014. We expect the entire development in Jewar to be completed over a period of 13 years.

Exhibit 28: Jewar - development schedule

(m sq. ft.)	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Residential	4.1	5.7	8.2	7.4	6.5	6.5	6.5	6.5	6.5	6.5	6.5	5.7	4.9

Source: SSKI Research

#### Realizations and construction costs

We have assumed base realizations (end-FY07) of Rs2,700 for residential development at Jewar. Construction costs have been assumed at Rs1,200/sq. ft.

Exhibit 16: Jewar - development plan, realizations and construction costs

Segment	Area	Realisation	Construction cost	cost Development plan		it plan
	(m sq. ft)	(Rs / sq. ft)	(Rs / sq. ft)	Start	End	No. of years
Residential	81.7	2,700	1,200	Apr-14	Mar-27	13

Source: SSKI Research

#### Realization and construction cost escalation

Realizations have been assumed to increase at 6% annually over FY08-14 and 5% per annum thereafter.

# ☐ Agra and Mathura – flourishing tourist destinations

#### Key current and future drivers

- Agra is one of the most important tourism sites in India, attracting widespread domestic and global tourist traffic driven mainly by the Taj Mahal and other historical places such as Agra Fort and Fathepursikri
- Mathura is also an important domestic tourist destination, particularly religious tourism
- Many small scale industrial enterprises in the leather goods, jewellery and handicraft segments are active in Agra
- Industrial development in Mathura is primarily led by Indian Oil Corporation's 6m tpa petroleum refinery
- Agra is an important junction on the road network in Northern India with four national highways – NH-2 (Delhi-Kolkatta), NH-3 (Mumbai-Agra), NH-11 (Agra-Bikaner) and NH-93 (Agra-Moradabad) passing through or beginning from/ terminating into the city.

#### Development plan

We expect the entire development to be completed over 15 years in Agra and Mathura We have assumed JPA to undertake only residential development over the 1,250 acres of land each in Agra and Mathura, representing about 81m sq. ft of saleable area in both locations. We expect JPA to get possession of the entire land in Agra and Mathura by end-FY09 and assume launch of properties in April 2014, only after the Taj Expressway is commissioned. We expect the entire development to be completed over 15 years in each of the two cities.

Exhibit 29: Agra and Mathura development schedule

Location	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Agra	3.3	4.9	5.7	7.4	6.5	6.5	5.7	5.7	5.7	5.7	5.7	5.7	4.9	4.1	4.1
Mathura	3.3	4.9	5.7	7.4	6.5	6.5	5.7	5.7	5.7	5.7	5.7	5.7	4.9	4.1	4.1

Source: SSKI Research

#### Realizations and construction costs

We have assumed base realization (end-FY07) of Rs1,500/sq. ft for JPA's Agra and Mathura residential development. Construction costs have been assumed at Rs1,000/sq. ft.

Exhibit 18: Development plan, realizations and construction costs at Agra and Mathura

Segment	Area	Realization	Construction cost		Development plan	
	(m sq. ft)	(Rs / sq. ft)	(Rs / sq. ft)	Start	End	No. of years
Agra	81.7	1,500	1,000	Apr-14	Mar-29	15
Mathura	81.7	1,500	1,000	Apr-14	Mar-29	15

Source: SSKI Research

#### Realization and construction cost escalation

Realizations have been assumed to increase at 6% annually over FY08-14 and 5% per annum thereafter.

# ☐ Cash flow schedule and revenue accounting assumptions

We have assumed an end-to-end time frame of 24-36 months for construction and development of properties by JPA.

#### Realizations and cash flow schedule

We have assumed 35 % of property value to be received in year one for residential projects and 5% for commercial projects

For residential projects, we

construction to be taken

up in line with advances

have assumed

from buyers

As residential properties are generally pre-sold, we have assumed that 35% of the total value of the property is received in the first year from booking – i.e. 10% as upfront payment and 25% in progress payments over the next 12 months. The remaining 65% payments are received over a period of two years (35% in year two and 30% in year three).

For commercial properties, we have assumed that only 5% of the property value is received as advance from buyers each in the first and second year of launch, while 90% is received only on completion of construction.

#### Construction schedule

In case of residential properties, as progress payments are typically linked to the construction schedule, we have assumed that construction on any given project is taken up largely in accordance with the advances received from buyers. Accordingly, construction work equivalent to 25% of the total development is taken up in year one, 30% in year two and the remaining 45% in year three.

In case of commercial development, 40% of the construction work is assumed to be taken up in the first year, 50% in the second year and the remaining 10% is completed in the third year.

The difference between construction commenced but not completed treated as WIP and adjusted in subsequent year revenues

Completion of construction is assumed to follow commencement of construction with a minor lag. The costs incurred on construction completed in any given year are booked in the profit and loss account in that year, while value of the property proportional to the completed construction are recognised as revenues and booked accordingly. The difference between construction commenced but not completed is treated as WIP and adjusted in revenues in the subsequent year.

Exhibit 30: Schedule of residential cash flows

Year (% of property value)	1	2	3
Advances received	35	35	30
Construction commenced	25	30	45
Construction completed	20	35	45

Source: SSKI Research

#### Exhibit 31: Schedule of commercial cash flows

Year (% of property value)	1	2	3
Advances received	5	5	90
Construction commenced	40	50	10
Construction completed	30	30	40
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Source: SSKI Research

#### ☐ Free cash flows of Rs43bn over FY08-12E

We expect the property development portion of the Taj Expressway project to generate free cash (post-tax and payment of Rs10.6bn for land acquisition) of Rs43bn over FY08-12.

Exhibit 32: Summary real estate development cash flows

(Rs m)	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
Land acquisition outflows										
Noida - Super-premium residential	(756)	-	-	-	-	-	-	-	-	-
Noida – Mid-range residential	(1,386)	-	-	-	-	-	-	-	-	-
Noida – High-end residential	(1,260)	-	-	-	-	-	-	-	-	-
Noida – Comemrcial	(798)	-	-	-	-	-	-	-	-	-
Dhankaur – Residential	-	(2,500)	-	-	-	-	-	-	-	-
Jewar – Residential	-	(1,563)	-	-	-	-	-	-	-	-
Agra – Residential	-	(1,250)	-	-	-	-	-	-	-	-
Mathura – Residential	-	(1,250)	-	-	-	-	-	-	-	-
Total	(4,200)	(6,563)	-	-	-	-	-	-	-	-
Net development inflows										
Noida – Super-premium residential	-	1,409	3,105	4,432	4,961	5,555	6,437	7,843	8,567	8,307
Noida – Mid-range residential	-	1,816	3,627	4,939	5,624	6,179	6,683	7,674	8,221	7,933
Noida – High-end residential	-	1,924	3,859	5,290	6,081	6,706	7,640	9,107	9,940	10,023
Noida – Comemrcial	-	-	(357)	(930)	5,959	7,338	8,764	11,409	14,738	25,659
Dhankaur – Residential	-	-	-	-	2,231	5,377	8,891	11,541	14,521	15,102
Jewar – Residential	-	-	-	-	-	-	-	728	1,806	2,400
Agra – Residential	-	-	-	-	-	-	-	728	1,806	2,400
Mathura - Residential	-	-	-	-	-	-	-	2,669	6,140	10,234
Total	-	5,149	10,234	13,731	24,857	31,155	38,415	51,699	65,740	82,058
Net project cash flows	(4,200)	(1,414)	10,234	13,731	24,857	31,155	38,415	51,699	65,740	82,058

Source: SSKI Research

We have used a 15% discount rate to value residential and 17% rate for commercial property development

#### ☐ Total property valued at Rs164bn

We have valued the property development portion of the TE project on a discounted-cash-flow to equity basis. Given that residential properties are largely pre-sold, we believe JPA's residential development carries a relatively lower risk. However, at the same time, the project carries the risk of land acquisition and sales in relatively undeveloped real estate markets of Agra and Mathura. Consequently, we have used a 15% discount rate to value JPA's residential property development and a 17% discount rate for commercial property development. Overall, we estimate a DCF value of Rs164bn for the real estate development portion of the TE project.

Exhibit 33: Noida real estate development to contribute ~60% of total real estate value

City	NPV of cash flows (Rs m)	NPV (Rs/share)
Noida	102,208	468
Dhankaur	32,476	148
Jewar	19,908	91
Agra	4,404	20
Mathura	4,404	20
Total	164,000	747

Source: SSKI Research

# □ Value highly sensitive to realizations and timing

Every 1% decrease in our base case realizations reduces the total value of the project by 1.8% We have carried out a sensitivity analysis of changes in realizations and project launches on our estimate of the real estate value of Taj Expressway. Every 1% decrease in our base case realizations reduces the total value of the project by 1.8%. In terms of the timing of project launches, a one year delay over our assumed project launch dates reduces the total value of the project by 9.6%.

#### Exhibit 34: 1 year delay in project launches reduces NAV by 9.6%

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Source: SSKI Research

# ☐ Key triggers and milestones

#### Land acquisition

Progress on land acquisition one of the key milestones to watch out for

The process of land acquisition for the Taj Expressway project is currently underway with ~900 acres of land already acquired by the local administration and handed over to JPA. In our opinion, the progress on land acquisition is one of the key milestones to watch out for, as it would determine the progress on construction of the expressway and timing of real estate project launches.

In our opinion, if speedy land acquisition at Dhankaur, Jewar, Agra and Mathura enables JPA to launch properties in these cities one or two years earlier than our estimated timeline, the value of the real estate development could increase by 4.2% and 8.9% respectively.

Exhibit 35: 2-year early launch at Dhankaur, Agra and Mathura increases NAV by 8.9%

Action	% chg in NAV
1 year early launch at Dhankaur, Agra, Mathura and Jewar	4.2
2 year early launch at Dhankaur, Agra, Mathura and Jewar	8.9
Causas CCVI Dagasash	

Development of international airport at Jewar

Airport at Jewar to trigger traffic growth on TE as also spur growth in real estate markets Another key trigger for the JPA stock could be the finalisation of the airport plans at Greater Noida. Not only will the airport drive traffic growth on the expressway, but it will also spur growth in the real estate markets of Dhankaur and Jewar, where JPA will have a total 162m sq. ft of property development.

For every 100bp rise over the currently estimated growth in realizations in FY15 in Dhankaur and Jewar (assuming the airport becomes operational in FY14), the total value of the real estate development increases by 0.6%.

#### □ Risks

The key risks to our value relate to land acquisition, realizations and absorption at each of the five locations.

#### Land acquisition

Delay in land acquisition, and hence launch of projects, to impact project cash flows and its value JPA has so far been handed possession only of 300 acres of land for construction of the expressway and 600 acres of land for real estate development. Any delay in land acquisition would lead to a delay in the launch of the projects. This would adversely impact project cash flows and the total value of the real estate development.

#### Realizations

A steep increase in interest rates may impact demand for residential real estate We have assumed base case realizations in line with the current pricing trends in the five locations of Noida, Dhankaur, Jewar, Agra and Mathura. However, external risks such as a steep increase in interest rates may impact demand for residential real estate, thereby impacting realizations and value of the project.

#### Any delay in absorption to impact value of project

#### Timing of development

We have assumed the total development along the Taj Expressway to be absorbed over a period of 11-15 years. Any delay in absorption would adversely impact the value of the project.

# **CONSOLIDATED VALUE OF TAJ EXPRESSWAY**

We have valued the entire Taj Expressway project as the sum of the discounted-cash-flow-to-equity value of the road and the real estate development projects.

BOT project valued at Rs15.2bn and real estate development project at Rs164bn We have valued the expressway BOT project at Rs15.2bn using an 18% discounting rate, while the real estate development is valued at Rs164bn using a discount rate of 15% for residential properties and 17% for commercial properties. Consequently, our consolidated value for the project comes to Rs158.8bn or Rs678/share of JPA.

Exhibit 36: Taj Expressway - composite value

Segment	NPV (Rs m)
Expressway BOT	(15,169)
Real estate development	164,000
Total	148,831
Value (Rs / share)	678

Source: SSKI Research

Exhibit 37: JPA appears comparatively cheap vis-à-vis similar sized real estate players

Company	Land Bank	Key locations	Developable area	Market Cap	EV	EV
	(acres)		(mn sq. ft.)	(Rs bn)	(Rs bn)	(Rs / sq. ft.)
Unitech	10,838	NCR - 83mn sq. ft. Chennai - 110mn sı Kolkata - 82mn sq. Agra - 38mn sq. ft.	•	424	448	913
DLF	10,255	NCR - 300mn sq. ft Kolkata - 131mn sq		980	984	1,714
Jaiprakash*	6,250	NCR - 163mn sq. ft Agra - 82mn sq. ft.	. 408.4	164	164	402

Source: SSKI Research; \* Indicates value of Taj Expressway

# SSKI INDIA

#### Income statement

As on 31 March (Rsm)	FY05	FY06	FY07	FY08E	FY09E
Net sales	31,376	35,560	39,588	46,378	56,350
% growth	19.8	13.3	11.3	17.2	21.5
Operating expenses	22,553	26,624	25,744	30,019	36,775
EBITDA	8,823	8,936	13,844	16,359	19,575
% growth	15.5	1.3	54.9	18.2	19.7
Other income	973	1,618	1,674	1,597	1,598
Net interest	(3,418)	(3,462)	(4,338)	(4,926)	(5,395)
Depreciation	2,351	2,160	2,345	2,900	4,115
Pre-tax profit	4,027	4,932	8,834	10,131	11,663
Deferred Tax	885	53	70	78	93
Current Tax	489	1,447	2,274	2,796	3,273
Profit after tax	2,653	3,432	6,490	7,257	8,297
Adj. Net profit (Rs m)	2,607	3,095	5,730	6,634	7,670
Non-recurring items	(540)	3,858	(200)	(350)	(880)
Net profit after					
non-recurring items	2,067	6,953	5,530	6,284	6,790
% growth	18.0	236.4	(20.5)	13.6	8.0

**Key ratios** 

As on 31 March	FY05	FY06	FY07	FY08E	FY09E
EBITDA margin (%)	28.1	25.1	35.0	35.3	34.7
EBIT margin (%)	20.6	19.1	29.0	29.0	27.4
PAT margin (%)	8.3	8.7	14.5	14.3	13.6
RoE (%)	19.9	13.5	16.1	15.5	15.3
RoCE (%)	10.5	7.9	10.5	10.8	10.8
Gearing (x)	3.7	2.0	1.8	1.7	1.8

#### **Valuations**

As on 31 March	FY05	FY06	FY07	FY08E	FY09E
Reported EPS (Rs)	11.7	36.6	25.3	28.7	31.0
Adj. EPS (Rs)	14.8	16.3	26.2	30.3	35.0
PER (x)	54.6	49.6	30.8	26.6	23.0
Price/Book (x)	10.2	4.8	4.5	3.8	3.3
EV/Net sales (x)	5.8	5.6	5.7	5.1	4.5
EV/EBITDA (x)	20.7	22.2	16.4	14.5	13.0

#### **Balance sheet**

As on 31 March (Rs m)	FY05	FY06	FY07	FY08E	FY09E
Paid-up capital	1,762	2,151	2,151	2,151	2,151
Preference share capital	-	-	-	-	-
Reserves & surplus	11,789	26,746	32,419	38,686	45,744
Total shareholders' equity	13,911	31,914	39,426	46,320	54,010
Total current liabilities	14,231	19,433	19,480	25,131	31,998
Total Debt	51,057	64,449	72,252	80,088	95,103
Deferred tax liabilities	5,018	5,024	5,094	5,172	5,265
Other non-current liabilities	-	166	166	166	166
Total liabilities	70,306	89,072	96,992	110,558	132,532
Total equity & liabilities	84,218	120,987	136,419	156,878	186,541
Net fixed assets	53,178	73,265	87,472	104,472	125,532
Investments	1,533	1,986	5,044	7,389	9,241
Total current assets	29,124	45,472	43,640	44,754	51,505
Deferred tax assets	-	-	-	-	-
Other non-current assets	383	263	263	263	263
Working capital	14,893	26,039	24,160	19,622	19,507
Total assets	84,218	120,987	136,419	156,878	186,541

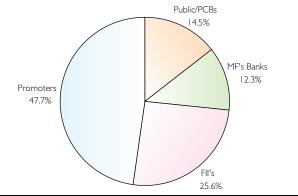
#### **SOTP Valuation**

Construction business         10x EV/EBITDA         32,850           Cement         US\$100/ton         78,570           Baspa II (JHPL)         Market value, 63%         18,787	(Rs m)	Valuation metric	FY09E
	Construction business	10x EV/EBITDA	32,850
Baspa II (JHPL) Market value, 63% 18,787	Cement	US\$100/ton	78,570
	Baspa II (JHPL)	Market value, 63%	18,787
Vishnu Prayag (JPVL) 2.5x BV , 84% 21,212	Vishnu Prayag (JPVL)	2.5x BV, 84%	21,212
Karcham Wangtoo (JKPL) Book value , 100% 20,500	Karcham Wangtoo (JKPL)	Book value , 100%	20,500
Jaypee Green value NPV of cashflows 19,308	Jaypee Green value	NPV of cashflows	19,308
Taj Expressway NPV of cashflows 148,831	Taj Expressway	NPV of cashflows	148,831
Total EV 340,878	Total EV		340,878
Less: Consolidated Debt 86,190	Less: Consolidated Debt		86,190
Market Capitalisation 254,688	Market Capitalisation		254,688
No of share (m shares) 219	No of share (m shares)		219
Target price (Rs/share) 1,163	Target price (Rs/share)		1,163

#### **Cash flow statement**

As on 31 March (Rsm)	FY05	FY06	FY07	FY08E	FY09E
Pre-tax profit	4,027	4,932	8,834	10,131	11,663
Depreciation	2,351	2,160	2,345	2,900	4,115
chg in Working capital	(1,997)	(2,350)	376	551	(3,894)
Total tax paid	(489)	(1,447)	(2,274)	(2,796)	(3,273)
Ext ord. Items	(540)	3,858	(200)	(350)	(880)
Operating cash Inflow	3,352	7,153	9,081	10,436	7,732
Capital expenditure	(7,322)	(20,088)	(14,206)	(17,000)	(21,060)
Free cash flow (a+b)	(3,970)	(12,935)	(5,125)	(6,564)	(13,328)
Chg in investments	(1,281)	(453)	(3,058)	(2,345)	(1,852)
Debt raised/(repaid)	14,764	13,392	7,803	7,836	15,014
Capital raised/(repaid)	(486)	3,549	-	-	-
Dividend (incl. tax)	(193)	(708)	110	(657)	(767)
Misc	(2,161)	5,242	(576)	(2,147)	(2,857)
Net chg in cash	6,673	8,087	(846)	(3,876)	(3,790)

# **Shareholding pattern**



As of June 2007

31 JULY 2007

#### SSKI INDIA

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