

Jindal Steel and Power (JNSP.BO)

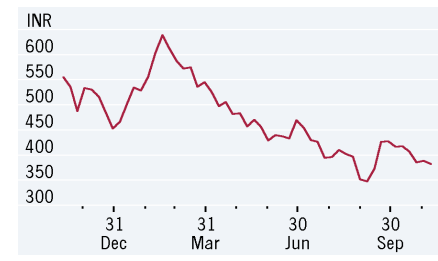
Nearing the End of Its Troubles

- Company Update
- Target Price Change
- Estimate Change

- **Maintain Buy** — As JSPL has successfully been able to resolve numerous controversies that have impacted the stock price over the past year. The govt. has allowed the company to retain the Jitpur coal block and all critical approvals for Godda project have been received. ~30% of Jindal Power's generation has been tied up in medium-term PPAs already and the company is bidding for more PPAs. The Supreme Court's judgment on allocation of natural resources has put captive coal block allocation including Utkal-B1 on a firm legal footing. Valuations are attractive at 9x P/E, 1.6x P/BV, 19% RoE and net D/E of ~1x.
- **2QFY13 PAT ~13% below estimate**— 2QFY13 PAT at Rs8.3bn (est. Rs9.6bn) was below due to (1) lower realization of Tamnar 1 at Rs3.3 (est. Rs3.64) impacting PAT by ~Rs0.6bn; (2) Higher provisions in JPL; (3) Higher tax rate due to deferred taxes. Sponge/pig iron production grew 2% YoY (-11% QoQ) and total steel sales volume fell 1.5% YoY (+18% QoQ). Realizations falls 4-9% QoQ across product categories.
- **Changing TP to Rs574 (from Rs636) / FY13-FY15E EPS cut by 7-12%** — as we (1) reduce steel sales volume by 6%/20%/4.2% in FY13/FY14/FY15; (2) delay commissioning of Angul DRI to Dec13 from Sep13; (3) Cut JPL's FY13 merchant price to Rs3.75 from 4/kwh; (4) no longer value Dumka project given slow progress; we continue to value Godda project; & (5) cut steel EV/E multiple to 6.5x.
- **Steady progress on execution** — Work on 1.5mtpa steel rolling mill at Shadeed and 4.2mtpa additional pellet plant has started. Mozambique coal mines have been opened and first shipment of 50k tons is expected in Feb/March 2013. These provide upside options to valuations and estimates.
- **Some key issues remain to be resolved** — Utkal-B1 mining lease is under execution (as per Orissa govt. document) and final signing is expected soon. Outcome of Shah Commission's inquiry in Orissa iron ore mining (not specific to JSPL) is another key overhang.

Buy	1
Price (09 Nov 12)	Rs382.45
Target price	Rs574.00
	<i>from Rs636.00</i>
Expected share price return	50.1%
Expected dividend yield	0.4%
Expected total return	50.5%
Market Cap	Rs357,527M
	US\$6,576M

Price Performance (RIC: JNSP.BO, BB: JSP IN)



Statistical Abstract

Year to	Net Profit	Diluted EPS	EPS growth	P/E	P/B	ROE	Yield
31 Mar	(RsM)	(Rs)	(%)	(x)	(x)	(%)	(%)
2011A	37,539	40.18	4.7	9.5	2.6	30.9	0.5
2012A	39,649	42.41	5.6	9.0	2.0	24.8	0.4
2013E	40,835	43.68	3.0	8.8	1.6	20.4	0.4
2014E	43,434	46.46	6.4	8.2	1.4	18.1	0.5
2015E	49,596	53.05	14.2	7.2	1.2	17.4	0.5

Source: Powered by dataCentral

Atul Tiwari, CFA

+91-22-6631-9866
atul.tiwari@citi.com

Raashi Chopra, CFA

+91-22-6631-9862
raashi.chopra@citi.com

Venkatesh Balasubramaniam

+91-22-6631-9864
venkatesh.balasubramaniam@citi.com

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

JNSP.BO: Fiscal year end 31-Mar						Price: Rs382.45; TP: Rs574.00; Market Cap: Rs357,527m; Recomm: Buy					
Profit & Loss (Rsm)	2011	2012	2013E	2014E	2015E	Valuation ratios	2011	2012	2013E	2014E	2015E
Sales revenue	131,122	182,086	195,595	219,810	257,604	PE (x)	9.5	9.0	8.8	8.2	7.2
Cost of sales	-79,470	-128,019	-134,146	-152,356	-175,282	PB (x)	2.6	2.0	1.6	1.4	1.2
Gross profit	51,652	54,067	61,448	67,454	82,322	EV/EBITDA (x)	7.8	8.0	7.8	7.7	6.4
Gross Margin (%)	39.4	29.7	31.4	30.7	32.0	FCF yield (%)	-13.5	-9.1	-9.7	-10.9	2.7
EBITDA (Adj)	63,162	67,932	75,380	82,601	103,456	Dividend yield (%)	0.5	0.4	0.4	0.5	0.5
EBITDA Margin (Adj) (%)	48.2	37.3	38.5	37.6	40.2	Payout ratio (%)	5	4	4	4	4
Depreciation	-11,510	-13,865	-13,931	-15,147	-21,134	ROE (%)	30.9	24.8	20.4	18.1	17.4
Amortisation	0	0	0	0	0	Cashflow (Rsm)	2011	2012	2013E	2014E	2015E
EBIT (Adj)	51,652	54,067	61,448	67,454	82,322	EBITDA	63,162	67,932	75,380	82,601	103,456
EBIT Margin (Adj) (%)	39.4	29.7	31.4	30.7	32.0	Working capital	-36,397	-27,410	1,984	-564	-4,622
Net interest	-2,596	-3,600	-8,813	-12,487	-18,705	Other	45	89	-13,382	-14,676	-18,030
Associates	158	200	0	0	0	Operating cashflow	26,810	40,610	63,982	67,360	80,804
Non-op/Except	815	1,419	1,419	1,350	850	Capex	-75,106	-73,284	-98,834	-106,413	-71,322
Pre-tax profit	50,028	52,086	54,055	56,316	64,467	Net acq/disposals	0	0	0	0	0
Tax	-11,830	-11,863	-12,677	-12,253	-14,119	Other	827	297	1,087	1,056	664
Extraord./Min.Int./Pref.div.	-659	-574	-543	-629	-752	Investing cashflow	-74,279	-72,987	-97,748	-105,357	-70,658
Reported net profit	37,539	39,649	40,835	43,434	49,596	Dividends paid	-2,065	-1,687	-1,738	-1,848	-2,111
Net Margin (%)	28.6	21.8	20.9	19.8	19.3	Financing cashflow	50,981	29,228	53,468	43,877	12,654
Core NPAT	37,539	39,649	40,835	43,434	49,596	Net change in cash	3,512	-3,148	19,702	5,880	22,800
Per share data	2011	2012	2013E	2014E	2015E	FCF ex acquisns & explorn	-48,296	-32,674	-34,853	-39,053	9,482
Reported EPS (Rs)	40.18	42.41	43.68	46.46	53.05						
Core EPS (Rs)	40.18	42.41	43.68	46.46	53.05						
DPS (Rs)	1.96	1.60	1.65	1.75	2.00						
CFPS (Rs)	28.70	43.44	68.44	72.06	86.44						
FCFPS (Rs)	-51.69	-34.95	-37.28	-41.78	10.14						
BVPS (Rs)	149.72	192.75	234.58	279.06	329.86						
Wtd avg ord shares (m)	934	935	935	935	935						
Wtd avg diluted shares (m)	934	935	935	935	935						
Growth rates	2011	2012	2013E	2014E	2015E						
Sales revenue (%)	18.2	38.9	7.4	12.4	17.2						
EBIT (Adj) (%)	6.5	4.7	13.7	9.8	22.0						
Core NPAT (%)	5.1	5.6	3.0	6.4	14.2						
Core EPS (%)	4.7	5.6	3.0	6.4	14.2						
Balance Sheet (Rsm)	2011	2012	2013E	2014E	2015E						
Cash & cash equiv.	4,640	1,492	21,194	27,074	49,874						
Accounts receivables	11,537	13,068	12,343	13,951	17,099						
Inventory	27,734	35,795	35,784	40,160	45,328						
Net fixed & other tangibles	243,277	303,945	386,363	477,629	527,817						
Goodwill & intangibles	0	0	0	0	0						
Financial & other assets	72,479	94,858	95,008	95,158	95,308						
Total assets	359,667	449,158	550,690	653,971	735,426						
Accounts payable	36,606	41,617	40,529	46,099	49,944						
Short-term debt	0	0	0	0	0						
Long-term debt	139,728	170,908	232,860	288,356	317,728						
Provisions & other liab	41,117	53,368	54,397	54,397	54,397						
Total liabilities	217,452	265,893	327,785	388,852	422,069						
Shareholders' equity	139,881	180,193	219,291	260,877	308,362						
Minority interests	2,335	3,071	3,614	4,243	4,995						
Total equity	142,216	183,264	222,905	265,120	313,357						
Net debt	135,088	169,416	211,666	261,282	267,855						
Net debt to equity (%)	95.0	92.4	95.0	98.6	85.5						

For further data queries on Citi's full coverage universe please contact Citi Research Data Services at CitiRsch.DataServices.Global@citi.com
For definitions of the items in this table, please click [here](#).

Maintain Buy, TP Rs574

A Number of Concerns Have Eased

JSPL's stock is down 16% YTD and has underperformed the BSE Sensex by ~37%.

Over this time period, JSPL's stock has been impacted by a number of controversies – controversies relating to “Coalgate” scam, controversy on iron ore mining in Odisha, concerns on new norms for bidding for sale of power, and delay in signing mining lease on Utkal B1 coal mines.

However, in the past past 2-3 months a number of these controversies have been resolved fully or partially.

SC' decision on allocation of natural resources has settled a lot of dust

- Supreme Court judgment on allocation of natural resources has cleared the air on captive coal mines allocation. In the judgment, the Supreme Court has observed that the government has right to allocate natural resources to private industries / entrepreneurs for sake of industrial development and courts will intervene only if there is a case of malafide intent / corruption involved. This has cleared concern on large-scale de-allocation of coal mines and has also put allocation of Utkal-B1 coal mines on firm legal ground.

IMG has allowed JSPL to keep and develop Jitpur coal block

- The Inter Ministerial Group (IMG) has examined JSPL's Jitpur coal mines (along with many other coal mines allotted to private / government companies). JSPL has managed to show sufficient progress and has managed to retain the coal mine after paying bank guarantee. Jitpur coal mines will supply coal to first 660MW of Godda project (total capacity of 1320MW).

Government documents indicate progress on Utkal-b1 coal mining lease

- Delay in the signing of mining lease for Utkal-B1 coal mines has been an overhang on JSPL's stock as these mines are crucial for supplying coal to the 1.6mtpa steel / 2mtpa DRI Angul project. Final mining lease has not been signed yet. However all approvals (lands / EC etc) are in place and there appears to be no legal hurdle in signing the mining lease. Letters written by senior Orissa govt. officials show that the government has granted in-principle approval to sign mining lease and lease is under execution. Please see the link: http://odisha.edespacth.com/PDF_DEST/L007/2012/11/7854.pdf

New power sale SBD will take time to finalize

- Ministry of Power has published new guidelines for Case – 2 bids for public comments. We believe that new guidelines seem to be an attempt to fix the current system which is already working by and large properly and could result in a more convoluted and impractical regulatory regime. Please see our note on new guidelines : [India Infrastructure Insights #22](#)
- Central Electricity Regulatory Commission (CERC) has also raised objections on certain aspects of the new standard bidding document (SBD) and has said that fuel risk should not be “entirely” passed on to end consumer (Source : NDTV Profit).
- All these developments indicate that the new Case-2 SBD would undergo further changes and could take more time to be finalized. After this is achieved, Ministry of Power will undertake suitable modifications in the Case-1 bidding

document (which is relevant for JSPL). However it would take a while before new Case 1 SBD could be finalized. In the meantime, JSPL has already tied up 30% of output of Tamnar 1 project under PPA of >1 year duration.

High cost of marginal power generation => ~Rs3.5/kwh price should sustain

- So how could power price change under the new Case -1 SBD? We believe as long as power is priced using reasonable price of domestic coal (at Coal India's price) and latest capital costs, chances are very high that total price of power will be greater than Rs3.5/kwh.
- As of FY12, non pit head coal based generating stations of NTPC had tariffs ranging from Rs3.26-to Rs4.28/kwh. A majority of Case1 bids have been signed at level zed tariff of ~Rs3.26-Rs4.0/kwh.

Figure 1. Tariff of Central Thermal Power Stations, 2011-12 (Non Pit-Head Based)

Name	Capacity (MW)	Fixed charges (Paise/kWh)	Energy Charges (Paise/kWh)	Total (Paise/kWh)
FGUTPP TPS (St-I)*	420	85	242	326
FGUTPP (St-II)	420	97	242	339
FGUTPP (St-III)*	210	141	242	383
NCTP Dadri (St-I)	840	82	298	380
NCTP Dadri (St-II)*	980	156	264	420
Farrakka STPS (I&II)*	1600	77	298	375
Tanda TPS	440	112	316	428
Badarpur TPS*	705	80	341	421
Kahalgaon STPS (St-I)*	840	93	242	335
Kahalgaon STPS (St-II)*	1500	114	228	342
Simhadri (St-I)	1000	99	217	316
Simhadri (St-II)	500	162	216	378
Farakka STPS(St-III)	425	126	-	-
Sub-Total	9880			

Source: Citi Research, CERC,* Final tariff order issued by CERC

Figure 2. Capacity Contracted under Case-I Bidding Route during 2010-11 & 2011-12

Name of the Developer/Plant	Procurer	Capacity (MW)	Fuel Type	Levelized Tariff (Rs/kWh)	PPA Date/LOI Date/Tariff Adoption
M/s Athena Chhattisgarh Power Pvt Ltd	UPPCL	300	Coal	3.324	LOI issued dated 5.3.2011
M/s Wardha Power Company	GUVNL	1010	Domestic Coal	2.345	PPA dated 3.6.2010
M/s Shahpurji Pullorji & Co. Ltd.	GUVNL	800	Imported Coal	2.8	PPA dated 15.5.2010
M/s Essar Power Gujarat Ltd.	GUVNL	800	Imported Coal	2.8	PPA dated 15.5.2010
M/s. Indiabulls Power Ltd,Amravati	MSEDCL	1200	Domestic Coal	3.26	LOI issued dated 31.5.2010
M/s Adani Power Maharashtra	MSEDCL	1200		3.28	Tariff adopted dated 28-12-2010
M/s Emco Energy Ltd.	MSEDCL	200		2.879	Tariff adopted dated 28-12-2010
M/s Adani Power Maharashtra Ltd.	MSEDCL	125		3.28	Tariff adopted dated 19-05-2011
M/s KSK Wardha Power Ltd.	Rinfra-D	260		4.85	Tariff adopted dated 01-07-2011
M/s Vidharbha Industries Power Ltd.	Rinfra-D	134		4.24	Tariff adopted dated 31-05-2011
M/s Abhijeet	Rinfra-D	55		4.8	Tariff adopted dated 01-07-2011
M/s Adani Power Maharashtra Ltd.	MSEDCL	800		4.1	Tariff adopted dated 19-05-2011
M/s JSWE @ Ltd.	MSEDCL	200		4.1	Tariff adopted dated 19-05-2011

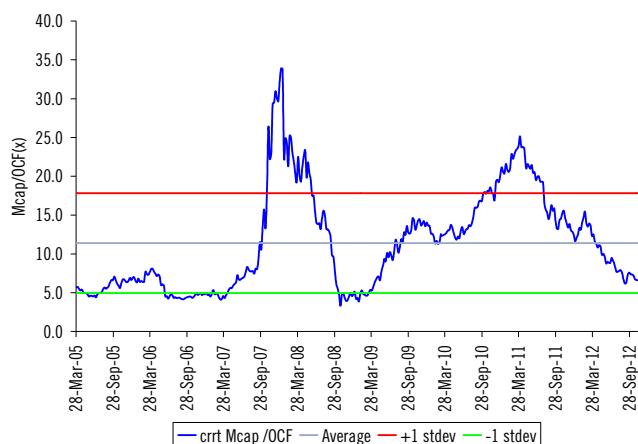
Source: Citi Research, CERC

- **However some issues still remain to be resolved** - Only outside risk at this point of time remains the ongoing inquiry of the Shah Commission on iron ore mining in Orissa and the Orissa government's recent demand of penalties from a number of miners for alleged over-mining. While both of these issues are not specific to JSPL, they remain an overhang.

Valuations pricing in a lot of negatives

- Valuations are attractive; JSPL is currently trading at a FY13E P/E of 9x, P/BV of 1.6x with RoEs of 19%, RoCE of 11% and FY12-FY15 EPS CAGR of 8%.
- The company is generating strong flows. JSPL generated FY12 operating cash flows (including working capital changes, and loans and advances but excluding other income and interest cost) of Rs40bn and average OCF over FY09-FY12 of Rs39n per year vs. current market cap of Rs358bn
- Balance sheet parameters at FY12 end remain very robust – FY12 net D/E of 0.94x, RoE of 25%, RoCE of 13%.
- There are multiple upside options – (1) We do not value coal mines in Indonesia, Mozambique, and South Africa. These mines could provide further upside to valuations and could add Rs43-Rs130/share; (2) while we are still maintaining our long-term merchant price estimates of ~Rs3.5/kwh, merchant prices are at ~Rs4-4.25/kwh. In case the financial health of DISCOMs improves (due to debt restructuring etc.), it may provide upside support to merchant prices. (3) Additional 4.2mtpa pellet plant (on which work has started) could add ~15-20% to consolidated FY12 EBITDA in 2-3 years.
- Work on both Angul (2mntons DRI, 1.6mnt steel, 810MW captive power) and Tamnar 2 (2400MW) power projects remains on track. JPL is likely to place equipment order for Godda project soon.

Figure 3. JSPL – Current Market Cap/Operating CF



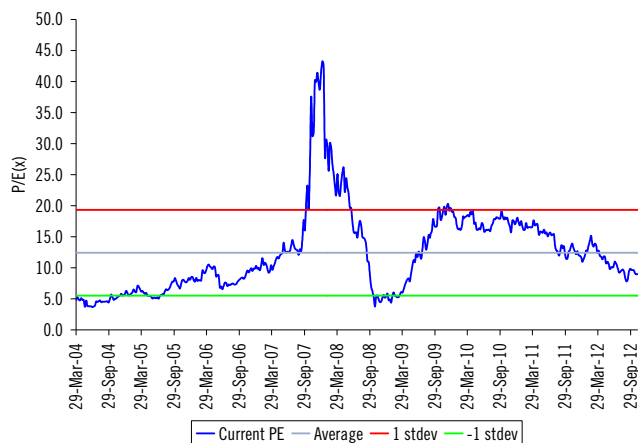
Source: Citi Research

Figure 4. JSPL – Current EV/Operating CF



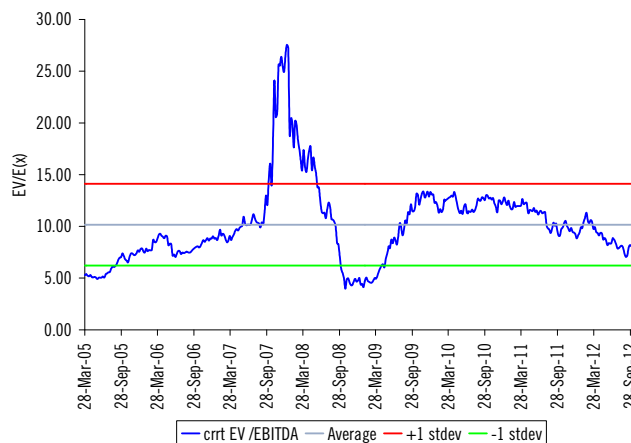
Source: Citi Research

Figure 5. JSPL – Current P/E



Source: Citi Research

Figure 6. JSPL – Current EV/EBITDA



Source: Citi Research

Reducing Target Price To Rs574 from Rs636

We reduce our target price to Rs574 from Rs636 as:

- We reduce EV/RBITDA multiple on steel business to 6.5x from 7x earlier in line with other steel producers given the uncertain demand outlook.
- We remove valuation of Dumka (1320MW) power project from our TP given slower than expected progress on getting various approvals and land acquisition. We continue to value 660MW (out of total capacity of 1320MW) Godda project as JPL has managed to receive all critical approvals and land acquisition is in advanced stages. JPL is also close to placing equipment orders for the Godda project.
- We roll over DCF value of power projects to March13E from September12E earlier.

Figure 7. JSPL – Sum of the parts

	Stake	Capacity Methodology	Equity Value	JSPL's value	Per Share	Old Per Share
JSPL Steel Parent	100.0%	5mtpa 6.5x EV/EBITDA March 15E discounted to March14 @ 13% CoE	171,691	171,691	184	239
JSPL Oman Shadeed	100.0%	1.5mtpa 6x EV/EBITDA March 14E	19,628	19,628	21	14
JPL	96.4%	5380MW DCF on FCFE at 13% CoE	282,009	271,857	291	309
JSPL captive	100.0%	1350MW DCF on FCFE at 13% CoE	31,239	31,239	33	35
JSPL (excess power from JPL)	100.0%	DCF on FCFE at 13% CoE	41,602	41,602	45	39
Total				536,017	574	636

Source: Citi Research

We reduce our FY13-FY15 EPS by 7-12% as we

- Now assume that Angul project will be commissioned by December 2013 vs. September 2013 earlier.
- Reduce our steel sales FY13-FY15 volume assumptions by 6% to 20% to factor in uncertain demand environment and slight delay in commissioning of Angul project

- Tweak our steel price and coking coal price assumptions.
- Adjust our depreciation and interest cost assumptions
- Reduce Jindal Power's FY13 merchant realization to Rs3.75/kwh from Rs4/kwh in FY13 inline with 1HFY13 trends. Our long run merchant realization remains at Rs3.5/kwh from FY14 onwards.

Figure 8. JSPL – Consolidated Earnings Revision

Revenue	FY13E	FY14E	FY15E
Old	199,508	226,413	254,397
New	195,595	219,810	257,604
% Change	-2%	-3%	1%

EBITDA	FY13E	FY14E	FY15E
Old	76,293	92,367	105,571
New	75,380	82,601	103,456
% Change	-1%	-11%	-2%

PAT	FY13E	FY14E	FY15E
Old	44,793	49,277	53,501
New	40,835	43,434	49,596
% Change	-9%	-12%	-7%

EPS	FY13E	FY14E	FY15E
Old	47.92	52.71	57.23
New	43.7	46.5	53.1
% Change	-9%	-12%	-7%

Source: Citi Research estimates

Figure 9. JSPL - Assumptions

	FY13E	FY14E	FY15E
DRI/Pig Iron Capacity (mn tons)			
New	3.04	5.04	5.04
Old	3.04	5.04	5.04
DRI/Pig Iron Production (mn tons)			
New	3.0	3.4	4.5
Old	3.0	4.1	4.5
Sales volume incl. pig and sponge iron (mn tons)			
New	2.66	2.94	3.78
Old	2.83	3.66	3.94
Parent Captive Power (MW)			
New	1,703	1,703	1,703
Old	1,703	1,703	1,703
Pelletization capacity (mn tons)			
New	4.5	4.5	4.5
Old	4.5	4.5	4.5
Pellet sales (mn tons)			
New	1.7	1.6	0.1
Old	1.9	0.2	0.0
HRC Realization (US\$/ton)			
New	671	676	676
Old	671	683	683
Sponge Iron Net Realization (Rs/ton)			
New	20,767	20,625	20,600
Old	21,027	21,094	21,112
Pig Iron Net Realization (Rs/ton)			
New	25,609	25,373	25,029
Old	25,930	25,864	25,636
Pellet Realization (US\$/ton)			
New	142	144	142
Old	167	156	149
Coking Coal Prices (US\$/ton)			
New	223	200	200
Old	245	229	227
Iron Ore Prices (Rs/ton)			
New	2,345	2,462	2,585
Old	2,238	2,350	2,467

Source: Citi Research estimates

2QFY13 Conference Call Takeaways

- **Angul Captive (6x135MW)'s 4th unit commissioned** – JSPL has commissioned 4th unit of Angul CPP on 9th November 2012. Remaining 2 units will be commissioned by end FY13.
- **JPL's PLF was low at 85% due extended maintenance shutdown** – JPL's PLF at 85% was lower than average PLF of ~98-99% due to maintenance shutdown and transmission bottlenecks. This had a large impact on JPL's PAT in the quarter.
- **Tamnar 2 (2400MW) unit 1 to be commissioned by May 2013** – Construction work is in full swing and first unit of 600MW will be commissioned by May 2013. JPL has approached government to supply coal for Tamnar 2 phase 2 (1200MW) through coal linkage as well as this plant will also be commissioned before FY15.
- **Angul project update** - Angul steel melting shop will be commissioned by June 2013. Angul gas based DRI plant will start trial runs by June 2013 and will be commissioned by September 2013 (Cit est. – December 2013)
- **Shadeed expansion** - Work on 1.5mtpa steel rolling mill at capex of US\$250mn has been started and will be completed in 12 months time. After completion of work, Shadeed will be able to produce very low cost steel in Gulf region. This is not factored in our estimates yet.
- **South African Mines** – FY13 production target is 1.5mnt and coal mines are profitable even at current prices of coal.
- **Mozambique mines** – 3mtpa beneficiation plant will be commissioned next month and mines have been exposed now. JSPL is expecting first ship of 50kmt of coking coal India in February/March 2013. No targets have been set up but strategy to cut down on purchase of expensive coking coal from Australia and use Mozambique coal.
- **Additional 4.2mtpa pellet plant** – Work on additional 4.2mtpa of pellet plant at capex of ~Rs7bn has been started and plant will be commissioned in 1-1.5 years.
- **2nd phase of Angul project** – As execution of phase 1 of Angul project is in advanced staged, preparations are being made to start work on 2nd phase of Angul which will take total capacity of Angul project to 6mtpa.
- **Utkal – B1 mining lease** – Management mentioned that all legal requirements for signing of mining lease have been completed and mining lease is expected to be signed soon.
- **Have not received any letter for Tensa mines** – JSPL has not received any demand letter from government of Orissa levying penalty for alleged overproduction from Tensa mines.
- **Jindal Power ties up 30% of output on medium term basis** – Jindal Power has tied up 30% of output of Tamnar 1 (1000MW) project under PPAs of duration of more than 1 year. We believe the tariff is ~Rs4.4/kwh. This remains an upside risk to our estimates as we are still assuming ~Rs3.5/kwh as long-term merchant realization.

2QFY13 Results

- 2QFY13 PAT down ~12% YoY and 13% below estimate** – JSPL 2QFY13 consolidated PAT at Rs8.3bn declines ~12% YoY and was ~13% below Citi at Rs9.6bn. Key reason for miss was (1) Jindal Power's average realization at Rs3.31/kwh lower than estimates at Rs3.64/kwh consequently Jindal Power's PAT was lower at Rs2.6bn was lower than Citi at Rs3.3bn (2) Higher tax rate at 28% due to deferred taxes on commissioning of plate mill at Angul.
- Volumes rise** — Sponge/pig iron production rose 2% yoy and fell ~11% QoQ to 767kt. Steel production grew 10% yoy and fell ~10% QoQ in 2Q. Sales volume (metallics and steel) declined 1.5% YoY (+18% QoQ). This compares to India's steel consumption growth of 2% during 2Q. Average realizations fell 4-9% qoq across products. 3Q realizations could be lower than 2Q as steel producers cut prices by Rs500-1,000/t in Oct12

Figure 10. JSPL Consolidated Results

Year End Mar31 (Rsmn)	2QFY12	1QFY13A	2QFY13	2QFY13E	% YoY	% QoQ	v/s Est
Net sales	44,066	46,804	46,069				
Other operating income	166	211	483				
Total income	44,232	47,015	46,552	48,242	5%	-1%	-4%
Chg in inventory	706	4,669	1,918				
Consumption of raw materials	(13,188)	(18,514)	(14,870)				
% of income	28.2%	29.4%	27.8%				
Purchase of traded goods	(364)	(622)	(17)				
Employee cost	(1,317)	(1,661)	(1,613)				
% of income	3.0%	3.5%	3.5%				
Stores and spares	(3,936)	(4,199)	(4,436)				
% of income	8.9%	8.9%	9.5%				
Power & fuel	(2,377)	(4,006)	(3,548)				
% of income	5.4%	8.5%	7.6%				
Other expenditure	(6,718)	(4,749)	(7,823)				
% of income	15.2%	10.1%	16.8%				
EBITDA	17,038	17,932	16,164	17,479	-5%	-10%	-8%
Margins %	38.5%	38.1%	34.7%	36%			
Depreciation	(3,343)	(3,529)	(3,690)	(3,779)			
EBIT	13,695	14,404	12,474	13,961	-9%	-13%	-9%
Margins %	31.0%	30.6%	26.8%	28.8%			
Other Income	253	176	786	176			
Interest	(1,255)	(1,861)	(1,588)	(1,861)			
PBT	12,693	12,719	11,672	12,276	-8%	-8%	-3%
Tax	(3,181)	(2,671)	(3,277)	(2,403)			
Rate %	25.1%	21.0%	28.1%	20.0%			
PAT	9,511	10,048	8,395	9,612	-12%	-16%	-13%
Minorities	(203)	(113)	(117)	(118)			
Associates	38	111	55	111			
PAT	9,347	10,046	8,333	9,605	-11%	-17%	-13%
Total exceptional	(593)	(6,193)	640				
Reported PAT	8,754	3,853	8,973	9,605			

Source: Company, Citi Research

Figure 11. JSPL Standalone Results

Year End Mar31 (Rsmn)	2QFY12	1QFY13A	2QFY13A	2QFY13E	% YoY	% QoQ	v/s Est
Net sales	33,172	33,118	35,420				
Other operating income	166	193	470				
Total income	33,338	33,311	35,890	35,128	7.7%	8%	2%
Chg in inventory	47	4,442	429				
RM	(10,257)	(13,039)	(10,807)	(11,171)			
% of income	30.6%	25.8%	28.9%	31.1%			
Purchase of traded goods	(797)	(1,105)	(429)	(850)			
Employee cost	(933)	(1,117)	(1,046)	(1,150)			
% of income	2.8%	3.4%	2.9%	3.3%			
Stores and spares	(3,795)	(4,125)	(4,181)	(3,600)			
% of income	11.4%	12.4%	11.6%	10.2%			
Power & fuel	(2,316)	(2,955)	(2,605)	(3,000)			
% of income	6.9%	8.9%	7.3%	8.5%			
Other expenditure	(4,419)	(4,035)	(5,442)	(3,200)			
% of income	13.3%	12.1%	15.2%	9.1%			
EBITDA	10,867	11,377	11,809	12,157	8.7%	4%	-3%
Margins %	32.6%	34.2%	32.9%	34.6%			
Depreciation	(2,139)	(2,372)	(2,489)	(2,400)			
EBIT	8,728	9,005	9,320	10,018	6.8%	3%	-4%
Margins %	26.2%	27.0%	26.0%	27.8%			
Other Income	77	122	74	150			
Interest	(1,754)	(2,186)	(1,779)	(2,200)			
PBT	7,051	6,942	7,616	7,707	8.0%	10%	-1%
Tax	(1,911)	(1,694)	(2,431)	(1,927)			
Rate %	27.1%	24.4%	31.9%	25.0%			
PAT	5,140	5,248	5,185	5,781	0.9%	-1%	-10%
Exceptional items (After Tax)	(1,182)	(5,123)	640				
Reported PAT	3,958	124	5,825	5,781			

Source: Company, Citi Research

Figure 12. Jindal Power – 2QFY13 Results

Year End Mar31 (Rsmn)	1QFY11	2QFY11	3QFY11	4QFY11	1QFY12	2QFY12	3QFY12	4QFY12	1QFY13	2QFY13	2QFY13E
Sales	9,276	7,856	7,966	8,280	7,495	6,573	7,996	7,732	7,505	5,651	6,212
PAT	5,600	4,590	4,871	4,955	4,528	4,098	4,813	4,214	3,144	2,602	3,284
PLF (Press Release)		89.0%	101.4%	100.84%	99.00%	92.0%	102.0%	97.3%	99.2%	85.0%	85.0%
Generation	2,210	1,972	2,238	2,178	2,166	2,043	2,255	2,125	2,166	1,878	1,877

Source: Company, Citi Research

Jindal Steel and Power

Company description

Jindal Steel and Power (JSPL) came into existence in 1998 after the demerger of Jindal Strips Limited. Over the past ten years, JSPL has transformed itself from being a producer of sponge iron to a diversified conglomerate having a presence in steel manufacturing, power generation and mining a wide range of minerals, from iron ore and coal to diamonds and limestone. The company also has presence in the oil, gas and infrastructure sectors.

JSPL owns ~180m tonnes of domestic iron ore and ~2.56bn tonnes of domestic thermal coal. The company has ~3mtpa steel and ~2200MW power capacity currently operational which will increase to ~7000MW by FY17.

JSPL is a part of O.P. Jindal Group and has ~15,000 employees.

Investment strategy

JSPL, with its strong execution, cash generation and balance sheet management, has emerged as one of the most integrated steel and power companies in India. Access to captive raw material supplies for steel and power, flexibility to vary steel product mix, 10 years of timely execution without dilution and low cost of power generation give JSPL an edge over its peers in both power and steel.

We have a Buy rating on JSPL given strong business fundamentals, attractive valuations, RoEs, and execution track record

Valuation

We value JSPL's power business using a discounted cash flow approach as power plants generate largely predictable cash flows for fixed time periods. While applying DCF one can choose free cash flow to the firm (FCF) or free cash flow to equity (FCFE). We prefer FCFE as individual projects are highly geared and gearing changes as debt is rapidly paid off.

We value JSPL's steel business at 6.5x March15 EV/EBITDA and discount steel equity value to March14 using 13% COE to fully factor in impact of Angul EBITDA and net debt in valuations.

If we assume JSPL executes all its power projects in line with our assumptions, we arrive at a value of Rs574/share. This includes Rs184 for the steel business, Rs291 for Jindal Power, Rs33 for 1,350MW captive power plants and Rs45 for excess power purchased from JPL at fixed prices. At our target price the stock would trade at a P/E of 13x, and EV/EBITDA of 10x FY13E.

Risks

Downside risks to our target price include: fuel supply risk from Coal India, coal mining risk, execution risk, merchant tariff risks, financial closure risk, receivables risk, regulatory and legal risk, R&R, land acquisition, environmental clearance risk, lower-than-expected operating parameters

Appendix A-1

Analyst Certification

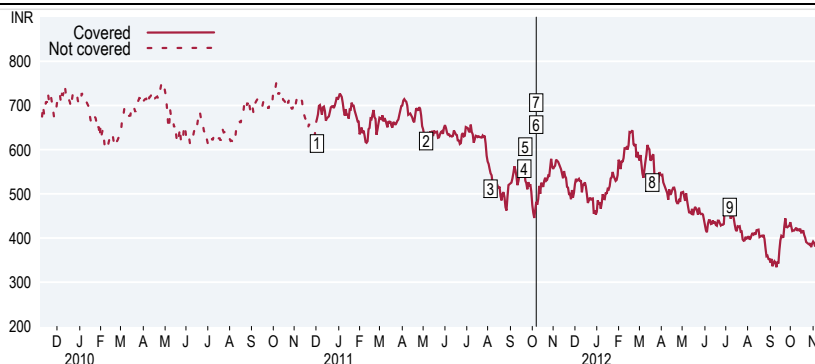
The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Jindal Steel and Power (JNSP.BO)

Ratings and Target Price History Fundamental Research

Analyst: Atul Tiwari, CFA
Covered since December 2 2010



	Date	Rating	Target Price	Closing Price
1	2-Dec-10	*2L	*676.00	669.40
2	5-May-11	*1L	*726.00	619.45
3	4-Aug-11	1L	*650.00	546.20

	Date	Rating	Target Price	Closing Price
4	21-Sep-11	1L	*640.00	556.95
5	22-Sep-11	1L	*645.00	529.65
6	7-Oct-11	Stock rating system changed		

	Date	Rating	Target Price	Closing Price
7	7-Oct-11	*1	645.00	481.95
8	20-Mar-12	1	*672.00	586.60
9	6-Jul-12	1	*636.00	455.15

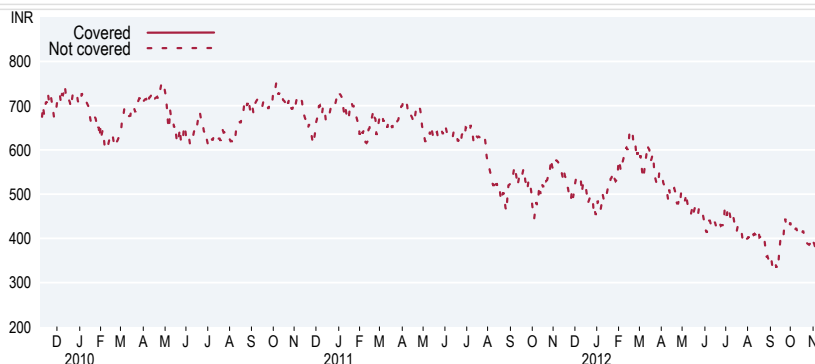
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Jindal Steel and Power (JNSP.BO)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Atul Tiwari, CFA
Covered since December 2 2010



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Jindal Steel and Power.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Jindal Steel and Power in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Jindal Steel and Power.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Jindal Steel and Power.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Jindal Steel and Power.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/epublic/citi_research_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Research Ratings Distribution

Data current as of 4 Oct 2012	12 Month Rating			Relative Rating		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Research Global Fundamental Coverage	51%	38%	11%	7%	85%	7%
% of companies in each rating category that are investment banking clients	50%	47%	45%	59%	47%	50%

Guide to Citi Research Fundamental Research Investment Ratings:

Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

Investment Ratings: Citi Research investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of Citi Research management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.

Relative three-month ratings: Citi Research may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings**, which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of the Citi Research expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets India Private Limited

Atul Tiwari, CFA; Raashi Chopra, CFA; Venkatesh Balasubramaniam

OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 09 November 2012 04:00 PM on the issuer's primary market.

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities

transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Research research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to Citi Research research reports.

Important disclosure regarding the relationship between the companies that are the subject of this Citi Research research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures.

For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

This Citi Research research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of Citi Research. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in **Australia** through Citi Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in **France** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations,

and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Via dei Mercanti, 12, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in a CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Building, 39 Da-dong, Jung-gu, Seoul 100-180, Korea. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 (FAA) through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in **Spain** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gasset, 4th Floor, Madrid, 28006, Spain. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on

request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority.

Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Research's Products can be found at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs) and other product that is made available through other distribution channels only to certain categories of clients to satisfy legal or regulatory requirements, Citi Research concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual Citi Research analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. Citi Research simultaneously distributes product that is limited to QIBs only through email distribution.

The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints. Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes Citi estimates, data from company reports and feeds from Reuters and Datastream.

© 2012 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST
