ENAM Securities
India Research

CMP: Rs 838
Target Price: Rs 1,086
Potential Upside: 30%
Absolute Rating: BUY

JSW Steel

Relative to Sector: **Outperformer** **MATERIALS**

Stock Data

No. of shares	: 254 mn*
Market cap	: Rs 213 bn
52 week high/low	: Rs 1400/ Rs 752
Avg. daily vol. (6mth)	: 1.7 mn shares
Bloomberg code	: JSTL IB
Reuters code	: JSTL.BO

* based on fully diluted equity

Shareholding (%)		Mar-11	QoQ chg
Promoters	:	37.7	0.0
FIIs	:	24.5	(1.6)
MFs / UTI	:	0.6	0.1
Banks / FIs	:	4.8	0.1
Others	:	32.3	1.3

Relative Performance

Source: ENAM Research, Bloomberg

Surging volumes; de-leveraged B/S

Financial Summary

Y/E March	Sales (Rs mn)	PAT (Rs mn)	Cons. EPS* (Rs)	EPS (Rs)	Change (YoY %)	P/E (x)	EV/EBITDA (x)	P/BV (x)	RoE (%)	RoCE (%)	DPS (Rs)	D/E (x)
2010	188,970	11,531	-	62	597	-	-	-	13	16	11	1.8
2011	239,002	17,540	-	79	28	-	-	-	11	15	14	1.0
2012E	405,499	20,539	95	81	3	10.4	5.3	1.0	10	12	14	1.1
2013E	466,781	22,306	125	88	9	9.5	4.7	0.9	10	11	14	1.0

*Source: Company, ENAM estimates, *Consensus broker ests;* Note: We have incorporated Ispat as 47% subsidiary from FY12 in our ests.

Nitesh Jain
Sr. Vice President – Materials
nitesh.jain@enam.com (+91 22 6754 7626)

Jagdishwar Toppo
Executive Director – Materials
jagdishwar@enam.com (+91 22 6754 7605)

Sujan Sanisetty
Asst Vice President – Materials
sujan.sanisetty@enam.com

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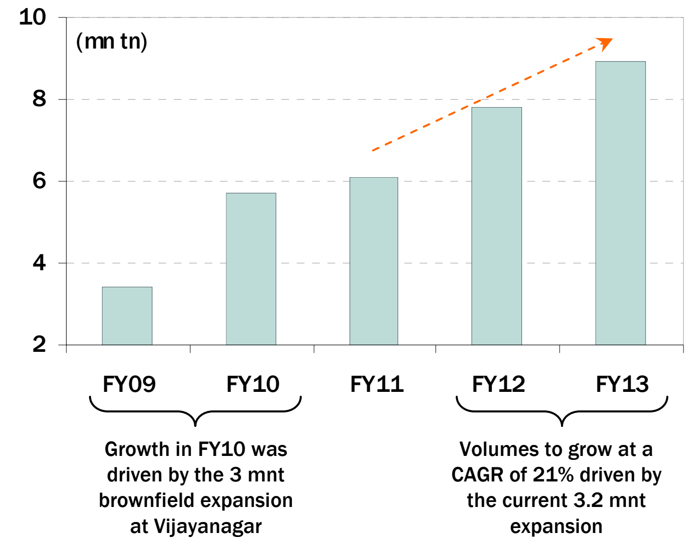
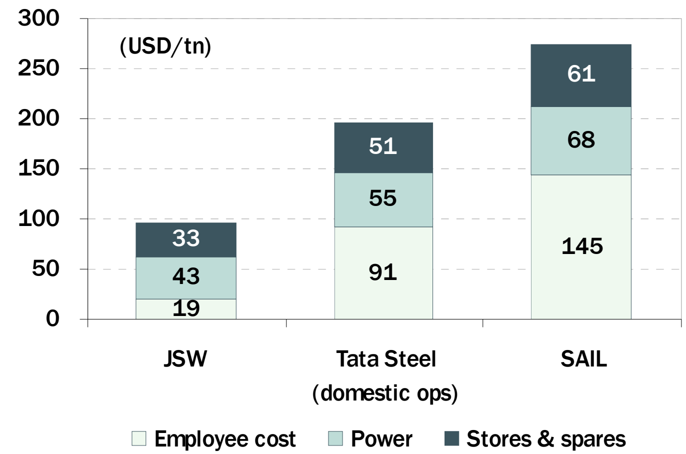
Investment Summary

- **Volume growth of 21% with reasonable margins for next two years to drive earnings**
  - 3.2 mnt brownfield expansion to be commissioned by June 2011
  - Lowest conversion costs enable JSW Steel (JSW) to earn reasonable margins despite lack of captive raw materials. JSW's per tonne employee cost is USD 20 as compared to USD 90 of Tata Steel and USD 145 of SAIL
- **Significant B/S de-leveraging post USD 1 bn equity issuance to JFE**
  - JSW's D/E ratio declined to 1x in FY11 from a high of 2x in FY09
  - Promoter's warrant conversion @Rs 1,200/share to further infuse >USD 500 mn into the company in FY12E
- **Steel prices to be driven by cost-push** rather than improvement in capacity utilizations. Our Indian HRC Steel price estimates for FY12 and FY13 are USD 800 and 835 resp. (currently at USD 780)
- Re-initiate with **BUY rating and a target price of Rs 1,086** (5.5x FY13E EV/EBITDA) on FY11–13 EBITDA CAGR of 27%. A 40% correction in stock price in last 6 months on Ispat acquisition and weak domestic steel demand & price, make valuations attractive. Key near-term triggers for the stock are: a) commissioning of the 3.2 mnt expansion and b) ramp-up of production from the Chile iron ore and US coking coal mines.

Steel volumes to grow @ 21%



JSW: Industry leading conversion cost



Source: Company, ENAM Research

Comparative valuation and sensitivity

Global comparative valuation

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Company Name	Mkt Cap ($ mn)	EV ($ mn)	OPM (%) CY11/ FY12	OPM (%) CY12/ FY13	EV/ EBITDA (x) CY11/ FY12	EV/ EBITDA (x) CY12/ FY13	P/ E (x) CY11/ FY12	P/ E (x) CY12/ FY13	P/ BV (x) CY11/ FY12	P/ BV (x) CY12/ FY13	ROE (%) CY11/ FY12	ROE (%) CY12/ FY13
Nippon Steel	20,617	42,047	10	11	7.9	6.5	14.0	10.0	0.8	0.8	5.8	8.4
POSCO	35,760	42,280	18	19	6.0	5.6	8.6	8.0	1.0	0.9	12.3	11.8
Arcelor Mittal	50,615	77,058	12	13	6.9	5.8	11.4	8.0	0.8	0.7	6.9	9.2
THYSSENKRUPP AG	25,921	37,035	8	9	6.9	5.3	16.1	9.7	1.7	1.5	10.4	15.4
JFE Holdings	15,662	33,621	11	13	7.0	5.8	14.9	9.4	0.8	0.8	5.0	8.3
Gerdau	16,190	24,140	16	18	6.9	5.8	11.5	8.8	1.1	1.0	11.2	14.3
US Steel	6,057	9,391	8	10	5.7	4.1	15.8	7.8	1.5	1.2	12.1	20.7
Nucor Corp	12,744	14,947	11	13	6.8	5.4	14.9	10.9	1.7	1.5	10.3	14.3
Usiminas	11,378	13,559	13	17	11.1	7.8	17.9	11.5	0.7	0.7	4.6	6.9
Evraz Group	13,916	21,347	22	22	6.1	5.5	10.4	8.1	1.6	1.4	15.7	18.0
China Steel Corp	15,896	18,322	17	18	12.4	10.9	15.9	12.8	1.7	1.6	11.5	13.3
Wuhan Iron	6,449	10,565	9	10	7.5	6.5	13.0	9.8	1.1	1.0	7.6	9.3
Angang Steel	7,389	12,636	11	12	6.9	6.0	19.7	13.8	0.9	0.8	3.8	5.6
Maanshan Iron	3,877	6,384	10	11	5.7	4.8	17.5	10.2	0.8	0.7	4.4	7.2
Baoshan Iron	15,901	25,596	14	16	5.0	4.3	7.5	6.2	0.9	0.8	11.4	12.4
Tata Steel	11,998	21,582	12	13	5.9	4.8	11.3	9.3	1.4	1.2	12.6	13.6
Jindal Steel and Power	12,760	15,824	47	43	7.6	6.2	11.8	10.4	3.0	2.3	29.1	25.4
SAIL	11,996	12,568	17	16	5.7	6.8	10.4	11.3	1.3	1.2	13.1	11.1
JSW Steel	**4,209**	**8,075**	**17.7**	**16.8**	**5.3**	**4.7**	**10.4**	**9.5**	**1.0**	**0.9**	**9.7**	**9.7**

Source: Bloomberg, ENAM Research

JSW is currently trading at below book value!

Sensitivity analysis

EPS - FY13E

(Rs)		Domestic HRC price (USD/ tonne)				
		785	810	835	860	885
Coking coal landed cost (USD/ton)	295	92	123	155	186	217
	320	59	90	121	152	184
	345	25	57	88	119	150
	370	(8)	23	54	86	117
	395	(42)	(10)	21	52	83

FY13 Target Price Sensitivity

(Rs)		Domestic HRC price (USD/ tonne)				
		785	810	835	860	885
EV/ EBITDA Multiple	4.5	339	559	778	997	1,216
	5.0	445	688	932	1,176	1,419
	5.5	550	818	1,086	1,354	1,622
	6.0	656	948	1,241	1,533	1,825
	6.5	761	1,078	1,395	1,712	2,028

EPS - FY13E

(Rs)		Domestic HRC price (USD/ tonne)				
		785	810	835	860	885
USD INR	40.0	(9)	20	49	79	108
	41.0	3	33	64	94	124
	42.7	25	57	88	119	150
	45.0	55	88	121	154	186
	48.1	94	130	165	200	235

FY13 Target Price Sensitivity

(Rs)		Domestic HRC price (USD/ tonne)				
		785	810	835	860	885
USD INR	40.0	234	485	736	987	1,238
	41.0	351	609	866	1,123	1,381
	42.7	550	818	1,086	1,354	1,622
	45.0	820	1,102	1,385	1,667	1,950
	48.1	1,183	1,485	1,787	2,089	2,391

EPS - FY13E

	EBITDA/ton (USD)				
	100	125	151	175	200
EPS (Rs)	35	61	88	113	140

EPS - FY13E

	JSW volumes (mnt)				
	8.0	8.5	8.9	9.5	10.0
EPS (Rs)	78	83	88	96	103

Source: ENAM Research

JSW has high earnings sensitivity due to its financial leverage

JSW: Volume growth to drive earnings

Volumes to grow 2x vs. industry

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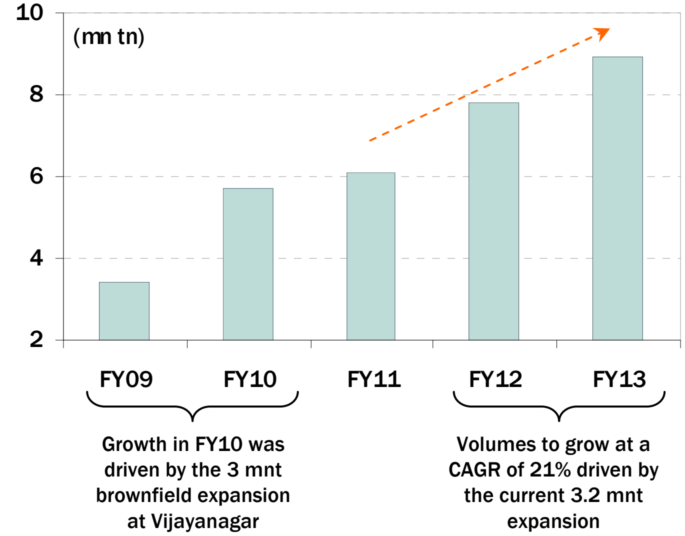
- **Volumes (excl. Ispat) to grow at a CAGR of 21% which is 2x the industry growth of ~10%**
  - Current 3.2 mnt brownfield expansion at Vijayanagar to be completed by end Jun-2011, thus leading to a FY11–13 volume CAGR of 21%.
- **FY11–13 EBITDA CAGR of 27% to be driven by the Vijayanagar expansion and recovery in Ispat profitability**
  - Led by the various initiatives undertaken by JSW at Ispat operations (refer table below), we expect EBITDA/t to improve to USD 97 and USD 113 for FY12 & FY13 respectively from a loss of ~USD 30 in 3QFY11. **Ispat reported EBITDA/t of ~USD 125 in 4QFY11**
  - Ispat acquisition has catapulted JSW as market leader in south/west which are the car producing hubs (60% of India's total car production)

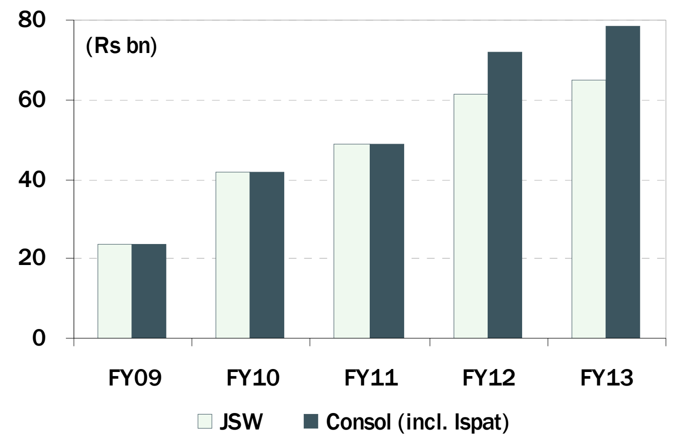
Steel volumes to grow @ 21% *



Initiatives to turnaround Ispat's profitability

	Near-term initiatives	Longer term initiatives
Iron ore	Iron-ore te be sourced from more economical sources. In addition, surpus pellets (2 mnt) from Vijayanagar to be transferred to Ispat	Setting up a 3 mnt pellet plant
Coke	Replacing imported coke: To operate a 350kt coke oven of Jindal Stainless, thus reducing the need for imported coke.	Setting up a 1 mnt coke oven plant
Power	Arrange power linkage at competitive prices	Setting up a 110MW power plant
Freight benefit	Rationalisation of distribution source by region depending upon proximity to Vijayanagar/Ispat facilities to result in freight savings	

EBITDA to grow @ 27% CAGR

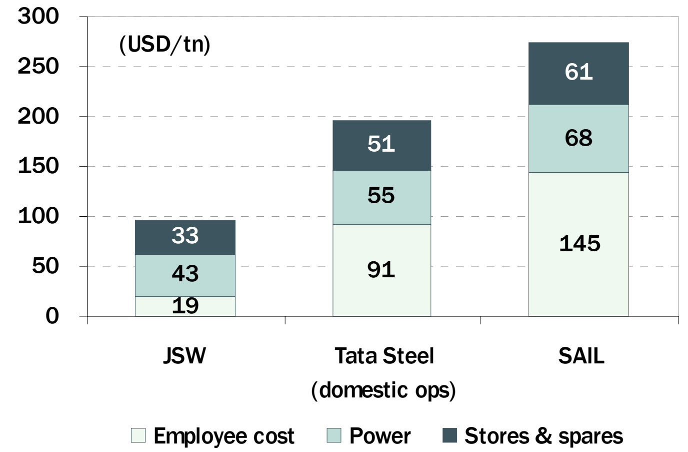


Source: Company, ENAM Research, Note: * - Excludes Ispat volumes

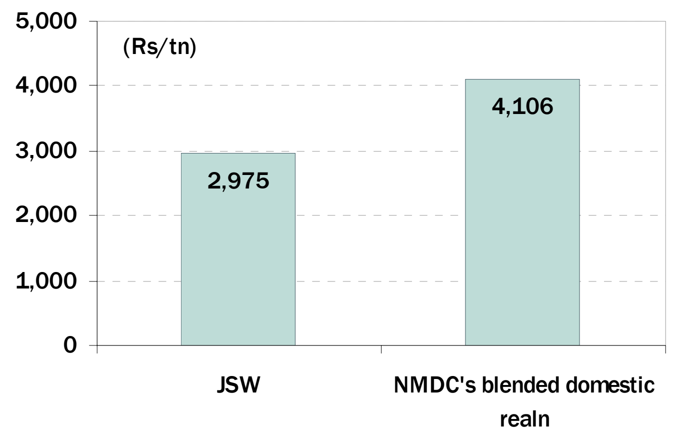
Cost efficient despite low levels of RM integration

- **One of the lowest cost converters in the world**
  - Conversion costs amongst the lowest in the world driven by: a) low employee costs (7,700 employees vs. 34,000 in Tata Steel & 116,000 in SAIL and b) low stores and other maintenance costs led by relatively newer and efficient plants
- **Iron ore costs competitive despite low levels of integration**
  - Despite low levels of integration (~20% currently), iron ore costs are competitive due to: a) procuring low grade iron ore (48–50% Fe) from local mines in the region and b) low freight costs because of its proximity to mines in the Bellary-Hospet region.
- **Increasing costs to export iron ore (railway freight cost and export tax) an indirect positive**
  - Increase in export tax to 20% from 5% earlier, and increasing railway freight (~2x in last one year) to benefit players like JSW
  - NMDC cut prices of fines from 1QFY12 by ~15% in order to mark it to the FOB export price (i.e. due to increase in export duty and rail freight)
- **Beneficiation plants to further lower costs due to increased use of low-grade ore. Co increasing capacity to 20 mnt from 10 mnt** currently, as part of the 3.2 mnt steel expansion
- Met-coke capacity to rise to 5.1 mnt post the current 1.9 mnt expansion by end 1QFY12, **thereby making it fully self-sufficient** (vs. external purchases of ~10–15% in FY10 & FY11)

JSW: Industry leading conversion cost



JSW's iron ore cost vs. NMDC's domestic realization



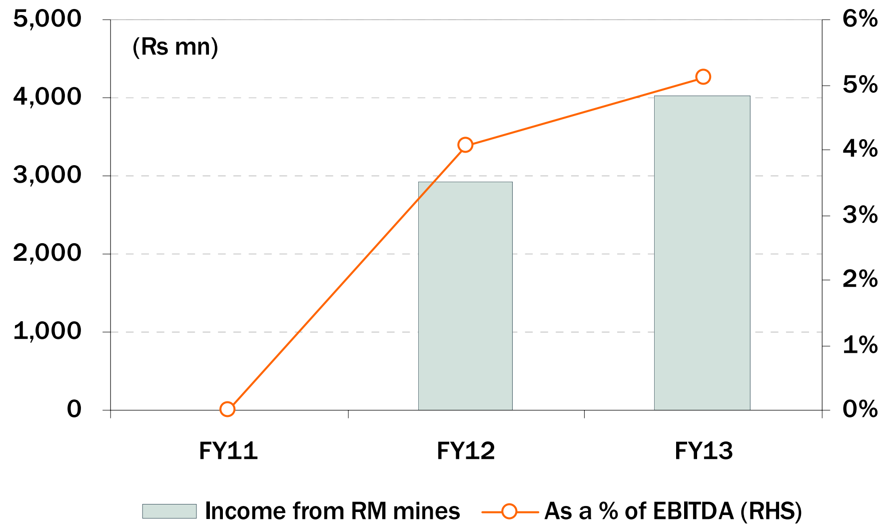
Source: ENAM Research

RM integration gathering pace

- **Iron ore:** Mine at Chile operational currently (70% JV), with the first shipment made in April 2011. **Company targets to produce 1 mnt and 2 mnt in FY12 and FY13 respectively.** JSW has outsourced beneficiation at present and plans to build its own beneficiation facility within two years. Cost of production currently is at ~USD 65/t, which is expected to go down to ~USD 50 once it commissions its own beneficiation facility.

- **Coking coal:** Mine at Virginia (USA) with an estimated reserve base of 123 mnt. JSW targets to produce from this mine to the extent of **0.5 mnt in FY12** and increase gradually thereafter. We have assumed volumes from this mine conservatively at 0.5 mnt each for FY12 and FY13.

Income from sale of iron ore and coking coal to act as an hedge against rising RM prices



Source: ENAM Research

Sizeable expansions planned in the long-term

- **Increased value added steel capacity** (capex: Rs 40.3 bn): Setting up a new **CRM (cold-rolling mill) complex of 2.3 mnt** at Vijayanagar in order to increase value added capacity post the current 3.2 mnt expansion. Phase 1 of CRM – 0.95 mnt of CRC and 0.4 mnt of galvanizing capacity will be ready by 1QFY13, while phase 2 (CRM – 0.95 mnt) will be commissioned later.

- **Brownfield expansion at Vijayanagar** (capex: Rs 27 bn) : JSW plant to further increase capacity at the current location **by 2mnt**, thereby increasing total capacity to 12 mnt. The company plans to commission this by Jun-2013.

- **West Bengal greenfield project** (capex: Rs 160 bn): 94% JV with West Bengal government to setup a 4.5 mnt greenfield plant by FY15.

Key assumptions

	FY09	FY10	FY11	FY12E	FY13E
Crude capacity (kt)					
JSW	4,800	7,800	7,800	10,200	11,000
Ispat				3,300	3,300
Total	**4,800**	**7,800**	**7,800**	**13,500**	**14,300**
Volumes (kt)					
JSW	3,421	5,705	6,100	7,825	8,925
Ispat				2,475	2,805
Total	**3,421**	**5,705**	**6,100**	**10,300**	**11,730**
Avg. realisation (Rs/tonne)					
JSW	37,653	29,488	36,215	37,087	37,813
Ispat				38,495	38,343
EBITDA/tonne (Rs)					
JSW	5,920	7,423	8,106	7,053	6,453
Ispat				4,273	4,827
EBITDA/tonne -USD (INR/USD at Rs 45)					
JSW	132	165	180	157	143
Ispat				95	107
Revenues (Rsmn)					
JSW	161,047	190,738	241,161	315,593	365,686
Ispat				95,275	107,552
Total	**161,047**	**190,738**	**241,161**	**410,868**	**473,238**
EBITDA (Rsmn)					
JSW	23,738	41,873	48,786	61,218	64,880
Ispat				10,576	13,539
Total	**23,738**	**41,873**	**48,786**	**71,795**	**78,418**

Source: ENAM Research

Our FY12 volume estimate is 13% below management guidance of 9 mnt

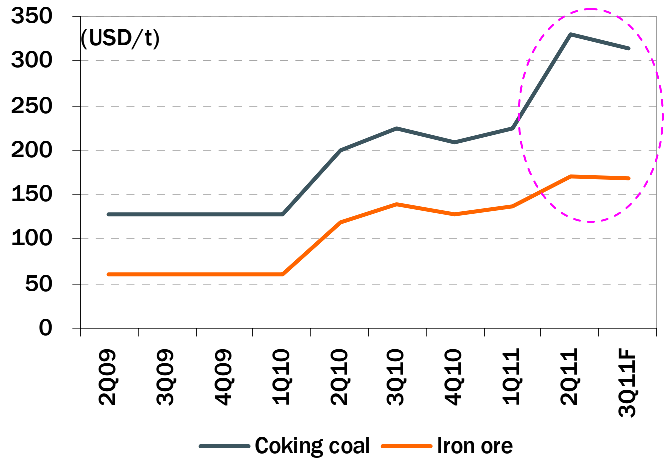
Management guidance of sustainable EBITDA/t of USD 175

Steel industry outlook

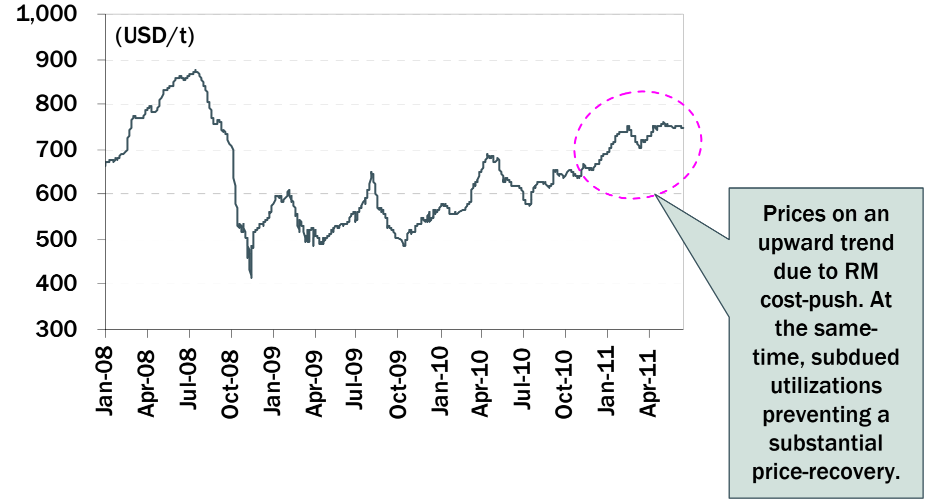
Steel prices to be driven by cost push

- **RM prices expected to remain firm (*refer slides 23-28 in annexure*), which would support steel prices**
  - **Coking coal:** Contract prices for the Jun and Sep quarter settled at USD 330/t and USD 315/t respectively (vs. USD 225/t in March qtr). We expect prices to subside marginally later, as weather related concerns fully settle in Australia. In the medium term, we expect firm coking coal prices on rising Chinese imports.
  - **Iron ore:** Jun and Sep quarter prices settled 25% higher vs. Mar qtr at ~USD 171/t given the strong spot prices. Capacity addition by top 4 miners expected to start production only by 2014-15. Thus, we expect iron ore prices to remain firm over the next 2 years.
  - **Our Indian HRC Steel price estimates for FY12E and FY13E are at USD 800 and USD 835 per ton respectively**

Contract iron-ore and coking coal prices



Chinese domestic HRC price (incl. 17% VAT)



Source: Bloomberg, ENAM Research

Capacity utilization in China to remain @ ~85%

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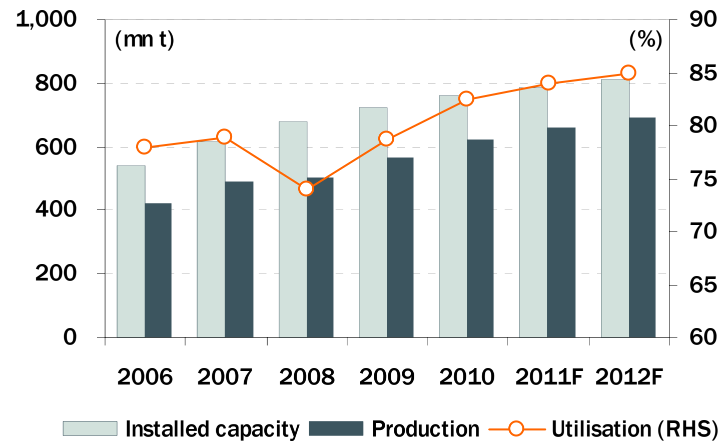
- **Capacity utilizations in developed countries improving gradually**
  - Developed nations witnessed a spurt in steel production in 2010 (EU27 – 25% YoY, North America – 37% YoY)
  - Production levels in North America are expected to return to the previous peak (of 2007) by 2012. EU-27 will however remain below the 2007 levels, albeit the gap is narrowing constantly (10% below 2007 peak by 2012 compared to 18% in 2010).
- **Utilization in China expected to remain at ~85%**
  - Demand growth to slowdown from 2010 levels due to the end of govt. stimulus packages, ongoing credit tightening and measures to cool-off the property market in China.
  - Worldsteel expects Chinese demand to grow at ~5% each in 2011 & 2012 as compared to 10-14% during 2009-10.
  - **Utilization in China to remain at ~85% in 2011 and 2012**, driven by new capacities

Global steel production by region

	2005	2006	2007	2008	2009	2010	2011F	2012F
China	353	419	489	500	574	627	658	691
Growth (%)		*19%*	*17%*	*2%*	*15%*	*9%*	*5%*	*5%*
EU27	196	207	210	198	139	173	181	188
Growth (%)		*6%*	*1%*	*-6%*	*-30%*	*25%*	*5%*	*4%*
% below prev. peak prodn (2007)						***-18%***	***-13%***	***-10%***
North America	128	132	133	124	82	112	124	132
Growth (%)		*3%*	*1%*	*-7%*	*-34%*	*37%*	*11%*	*6%*
% below prev. peak prodn (2007)						***-16%***	***-7%***	***-1%***
Total	**1,144**	**1,247**	**1,346**	**1,327**	**1,229**	**1,414**	**1,497**	**1,587**
Growth (%)		*9%*	*8%*	*-1%*	*-7%*	*15%*	*6%*	*6%*

Chinese crude steel production and utilization

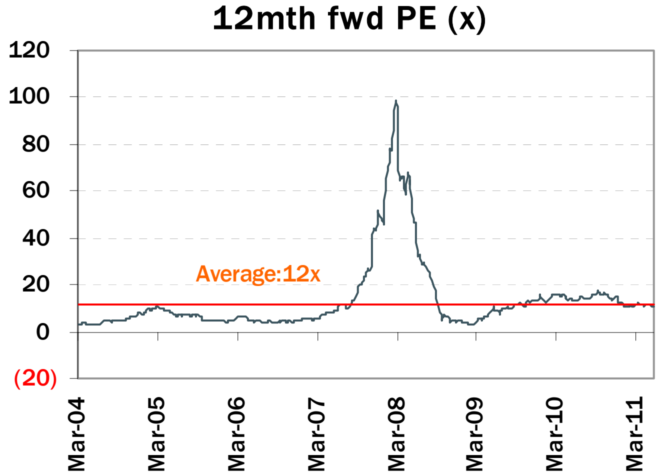


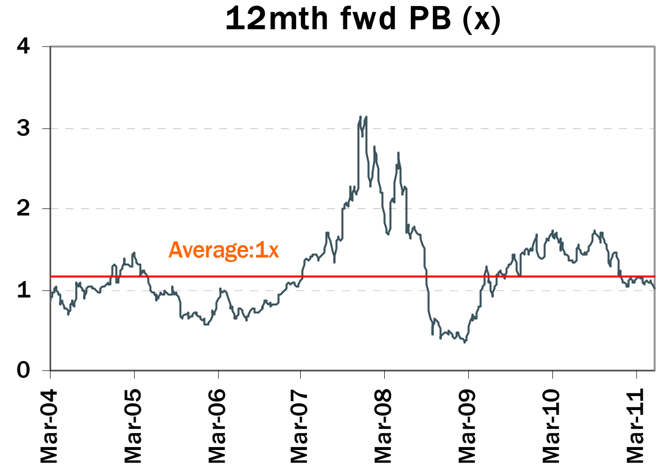
Source: Shanghai Metals Market, Worldsteel, Antaike, ENAM Research

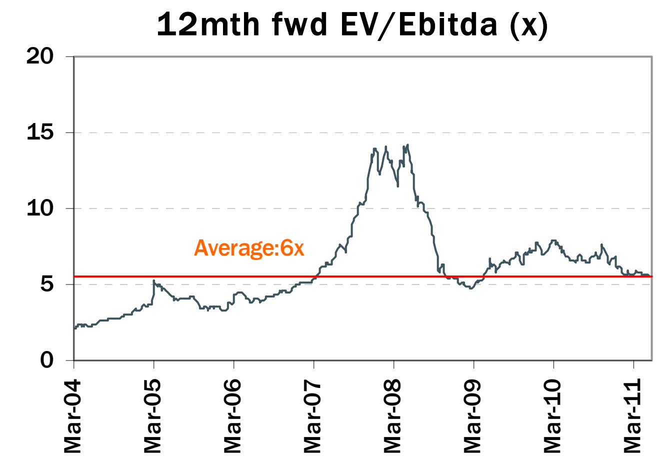
Key risks to our call

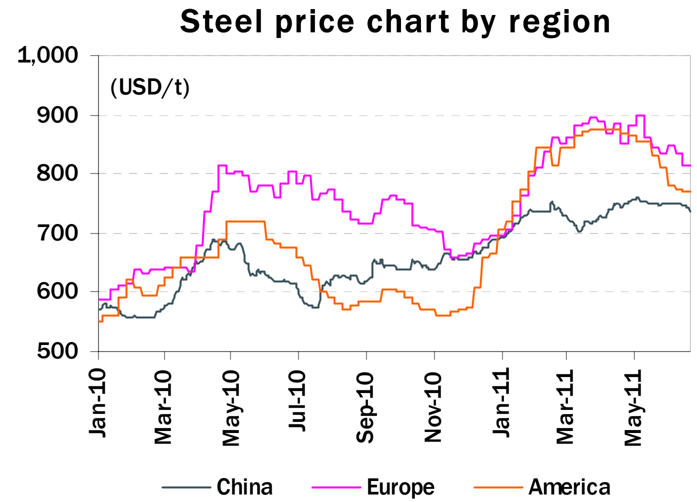
- Substantial delays in commissioning of the 3.2 mnt brownfield expansion
- State wide ban on iron ore mining in Karnataka (as part of measures to check illegal mining) would hamper JSW's ability to procure low grade cheaper iron ore
- Sharp spurt in global coking coal prices
- Inability to continue the turnaround in Ispat profitability, that was seen in 4QFY11
- Sharp decline in steel prices in China, thereby impacting domestic steel prices

JSW: Historical valuation









Source: Bloomberg

JSW financials

Company Financials

Profit & Loss (Rs mn)

Y/E March	2010	2011	2012E	2013E
Net sales	**188,970**	**239,002**	**405,499**	**466,781**
Other operating income	1,768	2,159	5,369	6,457
Total income	**190,738**	**241,161**	**410,868**	**473,238**
Cost of goods sold	140,157	165,487	320,504	372,900
Contribution (%)	*27*	*32*	*22*	*21*
Advt/Sales/Distrn O/H	8,708	26,888	18,569	21,920
Operating Profit	**41,873**	**48,786**	**71,795**	**78,418**
Other income	108	682	1,800	1,504
PBIDT	**41,980**	**49,468**	**73,594**	**79,923**
Depreciation	12,987	15,597	25,431	27,361
Interest	11,438	9,454	17,790	18,823
Other pretax	0	0	0	0
Pre-tax profit	**17,556**	**24,417**	**30,373**	**33,739**
Tax provision	6,467	7,823	10,761	10,958
(-) Minority Interests	(443)	(946)	(927)	475
Associates	0	0	0	0
Adjusted PAT	**11,531**	**17,540**	**20,539**	**22,306**
E/o income / (Expense)	4,155	0	0	0
Preference dividend	289	279	279	279
Reported PAT	**15,976**	**17,819**	**20,818**	**22,585**

Key ratios (%)

Y/E March	2010	2011	2012E	2013E
Sales growth	**19.0**	**26.5**	**69.7**	**15.1**
OPM	**22.2**	**20.4**	**17.7**	**16.8**
Oper. profit growth	76.4	16.5	47.2	9.2
COGS / Net sales	73.5	68.6	78.0	78.8
Overheads/Net sales	4.6	11.1	4.5	4.6
Depreciation / G. block	4.8	5.3	4.7	4.8
Effective interest rate	6.9	5.7	8.9	8.0
Net wkg.cap / Net sales	(0.2)	(0.1)	(0.0)	(0.0)
Net sales / Gr block (x)	0.8	0.9	1.0	0.8
Incremental RoCE	116.7	11.5	11.4	14.4
RoCE	**15.5**	**14.6**	**11.9**	**11.3**
Debt / equity (x)	1.8	1.0	1.1	1.0
Effective tax rate	36.8	32.0	35.4	32.5
RoE	**12.5**	**10.6**	**9.7**	**9.7**
Payout ratio (Div/NP)	13.5	18.2	17.7	16.3
EPS (Rs.)	**61.6**	**78.6**	**80.8**	**87.8**
EPS Growth	596.8	27.6	2.8	8.6
CEPS (Rs.)	131.1	148.6	180.9	195.4
DPS (Rs.)	11.3	14.3	14.3	14.3

Source: Company, ENAM Research. Note: We have incorporated Ispat as 47% subsidiary from FY12 onwards in our ests.

Company Financials

Balance sheet

(Rs mn)

Y/E March	2010	2011	2012E	2013E
Total assets	**273,336**	**352,888**	**463,629**	**487,410**
Gross block	267,921	292,172	539,389	564,389
Net fixed assets	214,528	223,182	379,245	376,884
CWIP	69,562	100,000	37,440	62,440
Investments	4,144	29,138	0	0
Wkg. cap. (excl cash)	(29,058)	(30,845)	(8,645)	1,324
Cash / Bank balance	5,168	20,480	27,291	18,881
Others/Def tax assets	8,992	10,932	28,297	27,880
Capital employed	**273,336**	**352,888**	**463,629**	**487,410**
Equity capital	1,871	2,231	2,542	2,542
Reserves	90,097	162,630	208,923	227,569
Borrowings	164,521	167,534	231,670	236,805
Others	16,848	20,494	20,494	20,494

Cash flow

(Rs mn)

Y/E March	2010	2011	2012E	2013E
Sources	**25,729**	**93,209**	**70,973**	**51,617**
Cash profit	30,156	36,196	47,562	46,482
(-) Dividends	0	0	0	0
Retained earnings	30,156	36,196	47,562	46,482
Issue of equity	(556)	54,000	18,706	0
Borrowings	(3,871)	3,013	4,705	5,135
Others	0	0	0	0
Applications	**25,729**	**93,209**	**70,974**	**51,617**
Capital expenditure	17,741	54,690	50,000	50,000
Investments	178	24,994	0	0
Net current assets	7,734	(1,787)	14,162	10,027
Change in cash	75	15,312	6,811	(8,410)

Source: Company, ENAM Research. Note: We have incorporated Ispat as 47% subsidiary from FY12 onwards in our ests.

Annexure

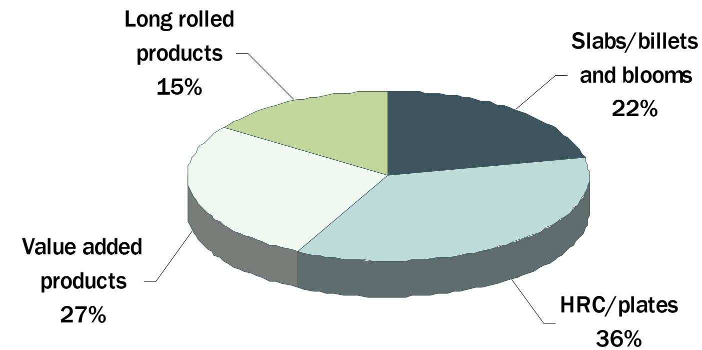
JSW: Capacity and product category breakup

Capacity break-up (post the current expansion expected by end-1QFY12

Sinter	14.1
Beneficiation	20.0
Pellet	8.4
Coke oven	5.1
Crude steel	**11.0**
- Vijayanagar	10.0
- SISCOL	1.0

Note: Overall, the company will have excess pellet capacity to the extent of 2 mnt. This will be transferred to Ispat, until it commissions its next phase of 2 mnt expansion by FY14.

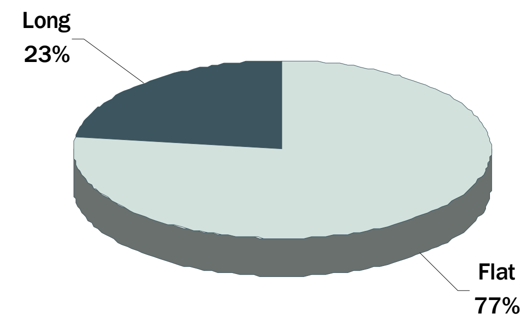
JSW: FY10 product breakup



Ispat capacity break-up

Facilities	Capacity (mtpa)
Sinter Plant	2.8
Blast Furnace	2
Sponge Iron	1.6
Twin Shell ConArc	3.6
HRM	3.3
ColdRolled	0.33
Galvanized Coils / Sheets	0.325
Colour Coated Sheets	0.096
Tubes and Pipes	0.06

JSW: Category break-up post expansion



Source: Company, ENAM Research

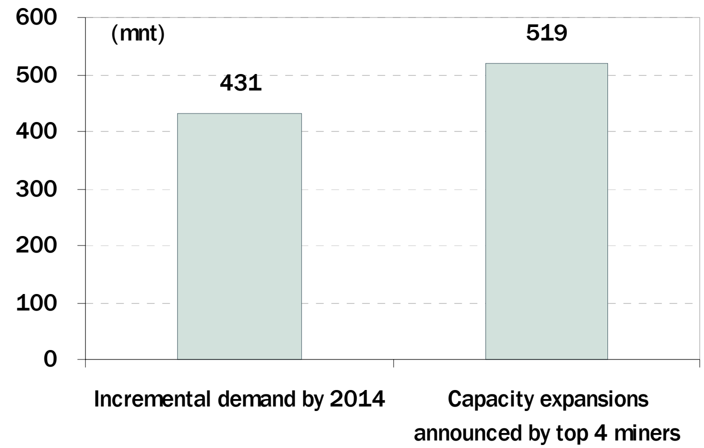
Iron-ore outlook

Iron ore: Prices to remain firm over next 2 years

ENAM
It's possible!

- **Big 4 miners plan to increase capacity by 71% by 2015…**
  - Big 4 miners (Vale, BHP, Rio and Fortescue) plan to increase capacity to 1,250 mnt from the current 731 mnt by 2015.
- **…but unlikely to result in a demand-supply imbalance in the near-term**
  - Most of the expansions planned are back-ended with significant volumes coming post 2013.
  - In addition, high likelihood of execution delays as seen in the past.

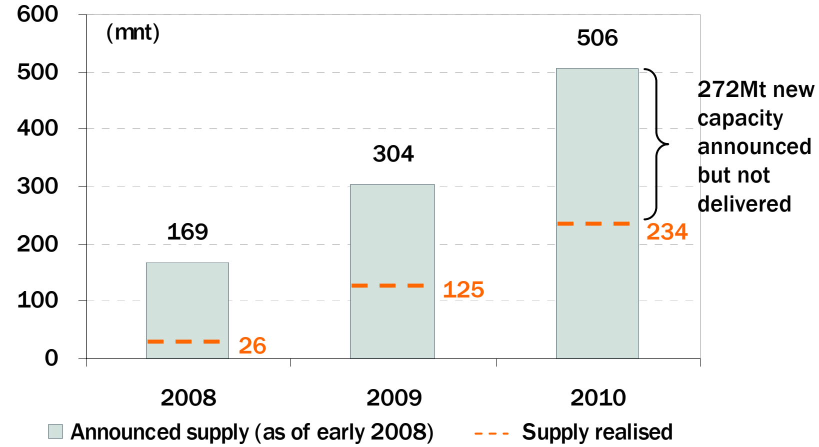
Iron ore – incremental demand vs. capacity



Summary of expansion plans announced by Big 4 miners

	Current capacity (mnt)	Capacity planned by 2015 (mnt)	Expansion (mnt)	Comments
BHP	155	240	85	First production expected from the expansion in 2014.
Vale	311	522	211	Expansion is mostly backended with the most significant expansion - Serra Sul (90 mnt) planned for 2014.
Rio Tinto	225	333	108	Half of the expansion expected by 2013 and the remaining by 2015.
Fortescue	40	155	115	Of the incremental 115 mnt, 40 mnt is expected in 2012, 40 mnt in 2013 and the remaining in 2014.
Total			**519**	

Announced incremental supply vs. actual delivered



Source: Company data, ENAM Research, BHP, Worldsteel

Prices to remain close to higher end of Chinese COP

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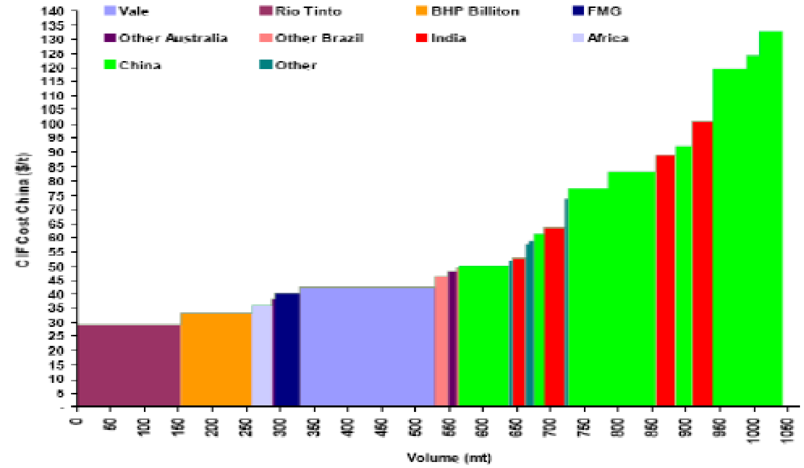
It's possible!

- **Fe level of iron ore mined in China is ~20-25%, thus have a higher cost of production**
  - Domestic iron ore production in China is correlated to global iron ore price, as production is economically feasible only at high prices.

- **Driven by tight market (as most of the additional supplies will come post 2013), we believe that China needs to continue mining from domestic sources. Thus we expect iron ore prices to remain at higher end of cost of production in China.**

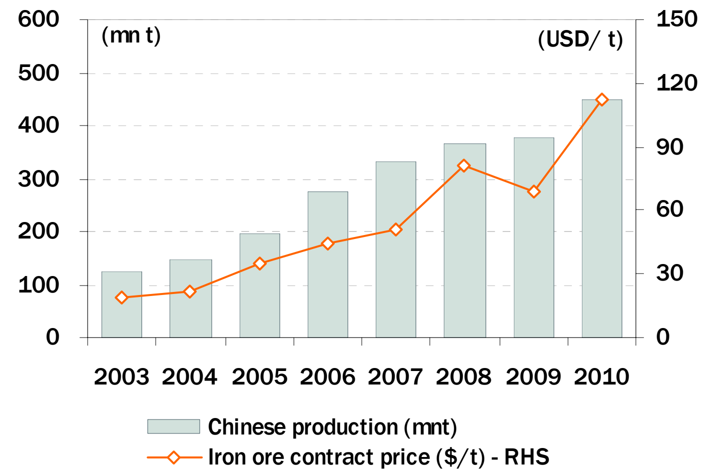
- **Our spot iron ore price estimates (63% Fe grade) are USD 155/t and USD 145/t for FY12 and FY13 respectively.**

Supply curve to Chinese market for iron ore fines



Source: Atlas Iron ore presentation

Chinese domestic ore production vs. global prices



Source: Atlas iron ore, Worldsteel

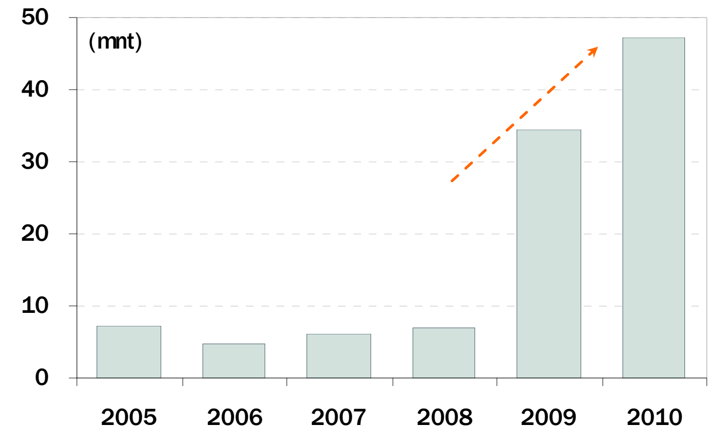
Coking coal outlook

Coking coal: Supply shortages to continue

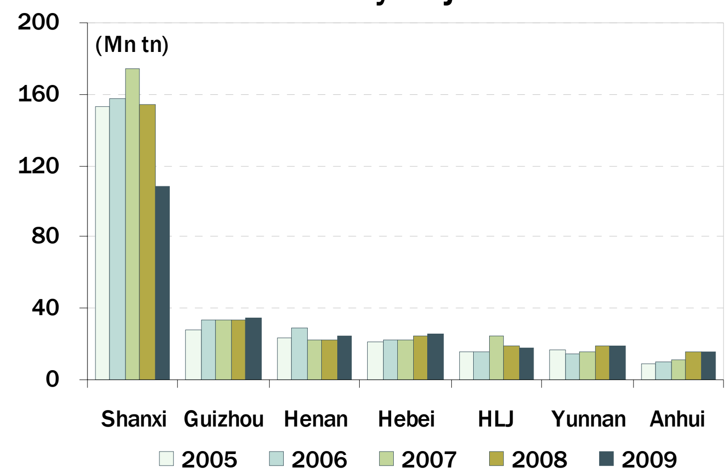
ENAM
It's possible!

- China which was largely self-sufficient in coking coal, increased its imports substantially from 2009.
- We expect Chinese imports to increase further as domestic production will not keep pace with steel production growth.
  - Shanxi province – the largest producer in China has shown production declines in 2008 and 2009.
- Global shortage to continue as no significant capacities planned by miners.
  - Frequent weather related disruptions in Australia (which accounts for ~50% of world trade) will add further to shortage woes.
- Contract price for Jun and Sep quarters are at ~USD 330/t and USD 315/t respectively from USD 225/t in Mar quarter.
  - Though we expect this to ease slightly later as weather related concerns subside, we expect the same to remain at levels above that of Mar qtr.
- Our coking coal price estimates for FY12 and FY13 are at USD 275/t and USD 300/t respectively.

Chinese coking coal imports

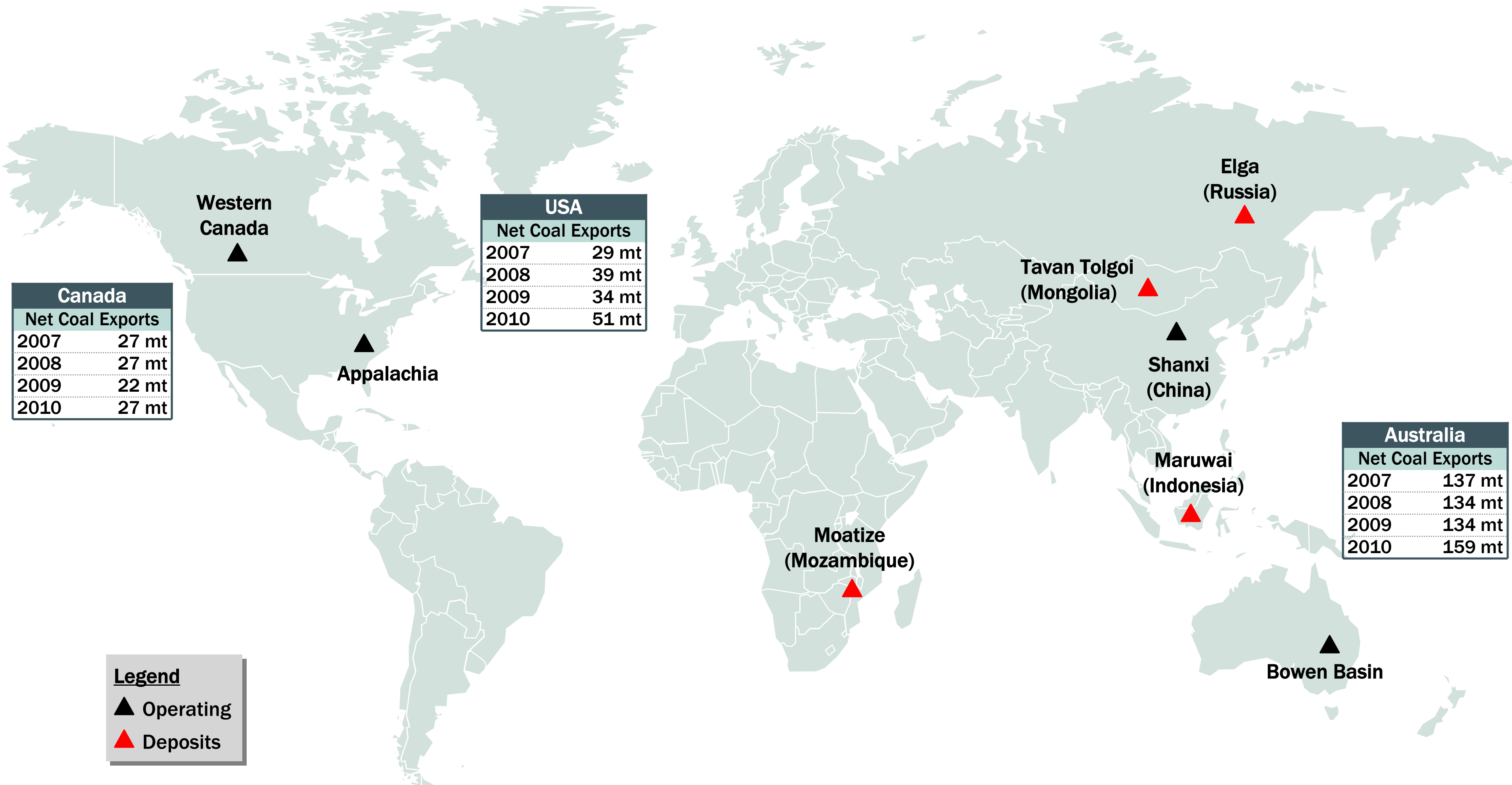


Run-of-Mine Hard Coking Coal Production by Major Province



Source: Bloomberg, Tech Coal

Minimal capacity addition over last 4 years



Canada	
Net Coal Exports	
2007	27 mt
2008	27 mt
2009	22 mt
2010	27 mt

USA	
Net Coal Exports	
2007	29 mt
2008	39 mt
2009	34 mt
2010	51 mt

Australia	
Net Coal Exports	
2007	137 mt
2008	134 mt
2009	134 mt
2010	159 mt

Source: Teck Coal, ENAM Research

ENAM Securities Pvt. Ltd.

7, Tulsiani Chambers, Free Press Journal Marg, Nariman Point, Mumbai – 400 021, India..
Tel:- Board +91-22 6754 7600; Dealing +91-22 2280 0167;
Fax:- Research +91-22 6754 7679; Dealing +91-22 6754 7575

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Disclosure of interest statement (As of June 20, 2011)

1. Analyst ownership of the stock	No
2. Firm ownership of the stock	No
3. Directors ownership of the stock	Yes
4. Investment Banking mandate	No
5. Broking relationship	No

We are committed to providing completely independent and transparent recommendations to help our clients reach a better decision.
