

## Valuations: Indian companies

	Price (INR)	EV/EBITDA FY13E	EV/EBITDA FY14E	P/BV FY13E
<b>Steel</b>				
Tata Steel	401	6.8	6.1	1.4
SAIL	85	8.9	7.3	0.8
JSW Steel	757	6.6	6.0	1.0
JSPL	428	9.5	8.9	2.0
NMDC	194	5.4	4.1	2.6
Sesa Goa	171	5.5	4.5	1.0
<b>Non-ferrous</b>				
Sterlite Inds.	99	3.8	3.5	0.7
HZL	135	5.6	4.1	1.8
Nalco	51	7.3	6.5	1.1
Hindalco	121	7.2	6.3	1.2

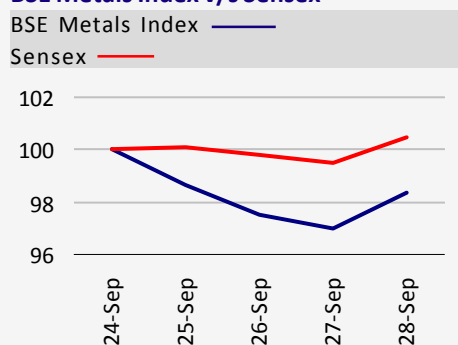
Note: Detailed table on pg 23 Source: MOSL

## Valuations: Global companies

	Price	EV/EBITDA CY11	EV/EBITDA CY12	P/BV CY11
<b>Mining</b>				
BHP	AUD 33.0	6.2	5.5	2.8
FMG	AUD 3.5	5.4	3.5	2.5
Rio Tinto	AUD 53.4	5.7	4.7	1.8
Vale	USD 17.9	5.0	5.1	1.2
Teck Res.	USD 29.5	5.2	4.6	0.9
Xstrata	GBp 957.5	7.2	5.7	1.0
<b>Steel</b>				
A. Mittal	EUR 11.2	6.1	5.1	0.4
Posco k	KRW 365.5	5.8	5.0	0.8
US Steel	USD 19.1	5.3	4.3	0.8
Nucor	USD 38.3	8.8	6.2	1.6
JFE	JPY 1,030	7.6	6.2	0.5
Gerdau	BRL 19.3	9.0	7.4	1.1
Bao Steel	CNY 4.6	5.5	5.8	0.8
<b>Non-ferrous</b>				
Alcoa	USD 8.9	9.2	6.4	0.7
Norsk Hyd.	NOK 26.8	9.1	6.0	0.8
Rusal	HKD 4.5	16.9	12.6	0.9

Detailed on pg 23 Source: Bloomberg

## BSE Metals Index v/s Sensex



Source: Bloomberg

Note: Indexed to 100 on 24 September 2012

Stock performance table on pg 24

**Investors are advised to refer through disclosures made at the end of the Research Report.**

## Metal Prices

	CMP 1-Oct	%	Week 24-Sep	%	Quarter 2-Jul	%	YTD FY13 2-Apr
<b>STEEL</b>							
TMT- Mumbai (INR/ton)	36,300	3	35,400	0	36,400	-9	39,900
HRC (USD/ton) fob CIS	540	-2	553	-2	553	-15	635
HRC (USD/ton) fob China	574	0	575	-11	645	-17	693
<b>METALLICS</b>							
Sponge iron - Raipur (INR/ton)	22,150	0	22,100	-2	22,600	-8	24,200
Pig iron - Raipur (INR/ton)	25,800	0	25,800	2	25,385	2	25,385
Iron ore spot (USD/ton) cfr China	108	0	108	-22	139	-28	150
Coke (USD/ton) fob	325	2	320	-8	355	-12	370
Shred. scrap (USD/ton) Rotterdam	345	-2	353	-13	398	-16	410
<b>ALUM.</b>							
LME inventories ('000 ton)	5,056	0	5,081	5	4,823	0	5,077
LME Spot (USD/ton)	2,094	2	2,059	14	1,834	0	2,098
Indian prices (INR '000/ton)	110	-3	113	4	105	2	108
<b>ZINC</b>							
LME inventories ('000 ton)	991	2	976	0	995	11	896
LME Spot (USD/ton)	2,088	2	2,046	13	1,843	4	2,003
Indian prices (INR '000/ton)	109	-4	113	4	104	5	103
<b>COPPER</b>							
LME inventories ('000 ton)	219	0	220	-14	256	-15	258
LME Spot (USD/ton)	8,267	1	8,155	9	7,604	-3	8,480
Indian prices (INR '000/ton)	437	-3	450	1	433	1	431
<b>OTHERS</b>							
Gold (INR/10gms)	31,301	-1	31,562	6	29,510	11	28,075
Sliver (INR/1kg)	60,915	-1	61,321	17	52,256	9	55,950
Lead Spot LME (USD/ton)	2,300	3	2,241	28	1,796	14	2,020
FC 6-8% C basis 60% Cr (USD/lb Cr)	1.05	0	1.05	-9	1.15	-12	1.19
<b>MISC.</b>							
INR/USD	52.8	-1	53.4	-5	55.4	4	50.9
BDI	766	-1	772	-24	1,004	-18	934

Source: Metal Bulletin/Bloomberg/Steel Mint/MOSL

## Global steel prices continue to decline; Category B mines can start operations after R&R and compensation

- Global steel prices remain subdued, down 0.3%, 1.8% and 2.8% in Europe, Turkey and North America. Prices were flat/mixed in Russia and China.
- Indian long steel prices increased 3% WoW while flat steel prices declined 0.8% WoW. Sponge iron prices increased 0.2% WoW at INR22,150/t. Rungta mines have cut offers for iron ore fines by INR300/t while keeping lumps prices unchanged due to weak demand.
- 63.5% Fe iron ore prices were flat WoW at USD108/t while the coking coal prices recovered by USD1 WoW to USD141.5/t fob.
- Base metals prices showed uptrend with Aluminium, Copper, Zinc and Lead increasing 2%, 1%, 2% and 3% respectively.
- NALCO has finalized a long-term contract to export 330kt of alumina in 2013 at 16.07% of the LME on FOB basis to Singapore based buyer.
- Mr Changfu, vice-chairman of CISA (China), has called for cut in miners' taxes and other cost to lower competitive edge of foreign producers.
- CEC has informed the SC that 63 category B mining lease in Karnataka may be allowed to be resumed after fulfillment of certain conditions.
- According to media reports, Government is banning power sales at market rates from captive coal block fired power plants. JSPL will be most impacted in our coverage universe.

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**Ferrous**

HRC Mumbai prices decreased 0.8% WoW to INR33,383/t

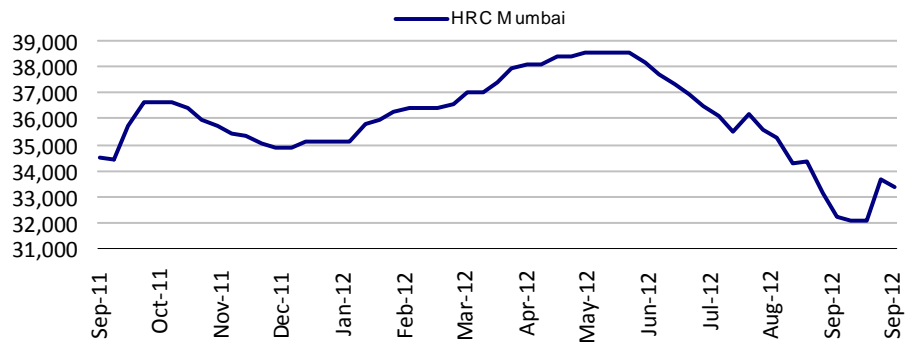
TMT Mumbai prices increased 3% WoW to INR 36,300/t

Sponge iron prices increased 0.2% WoW to INR 22,150/t

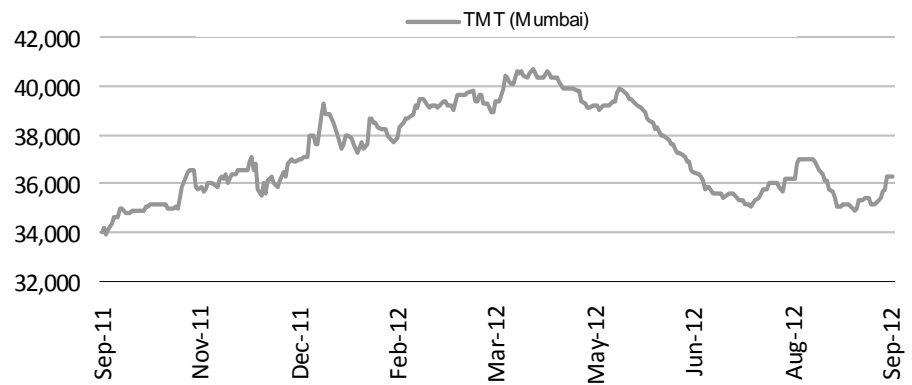
**Ferrous**

**INDIA**

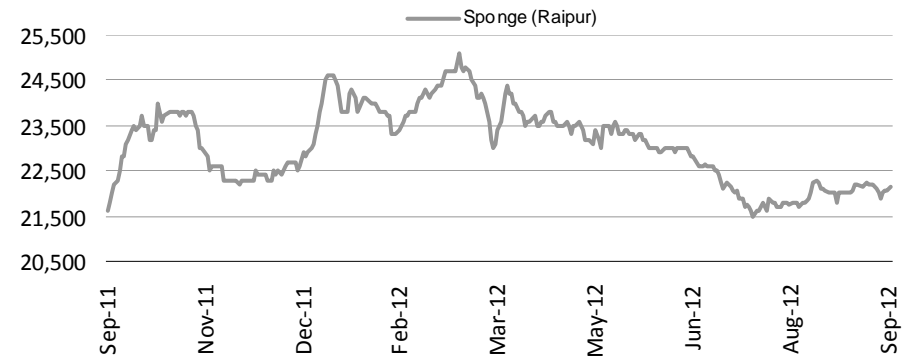
**Indian flat steel prices (INR/T, excl. ED & VAT)**



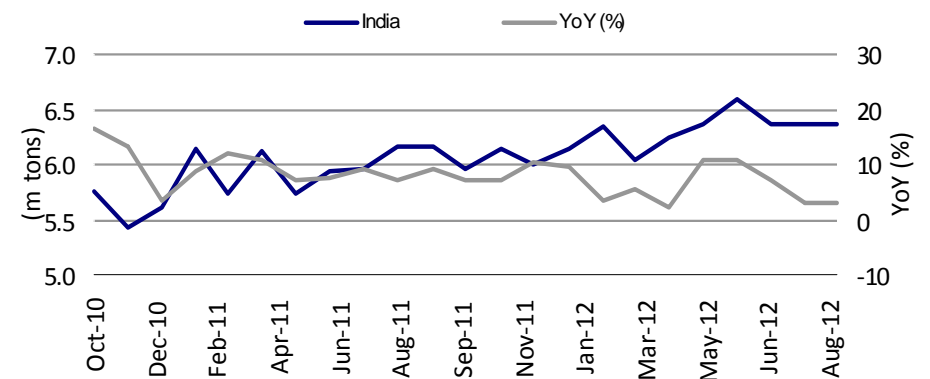
**Indian long steel price (INR/T, excl. ED & VAT)**



**Steel intermediates prices (INR/T, excl. ED & VAT)**



**India: Monthly crude steel production**



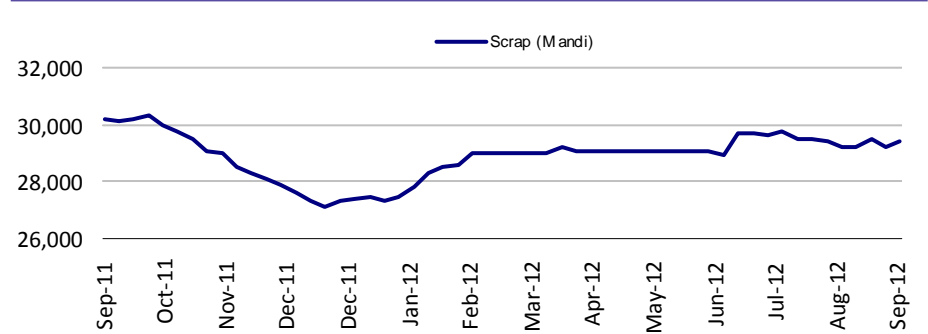
Source: SteelMint/WSA/MOSL

# Ferrous

## INDIA

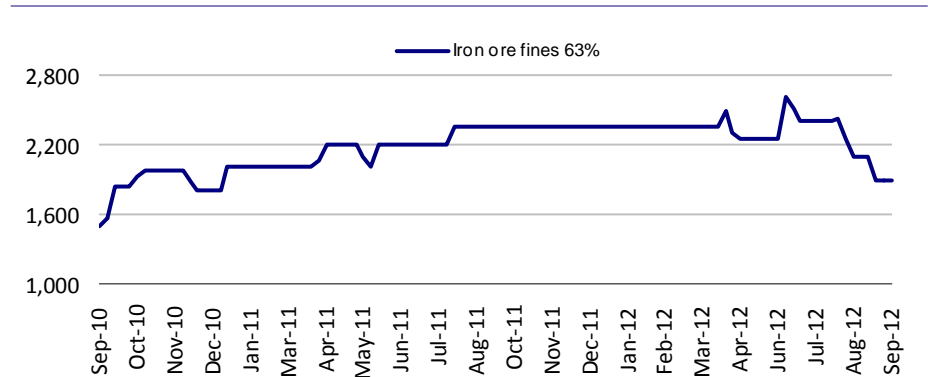
Scrap (Mandi) prices increased 0.9% WoW to INR29,450/t

Scrap Mandi (INR/t)



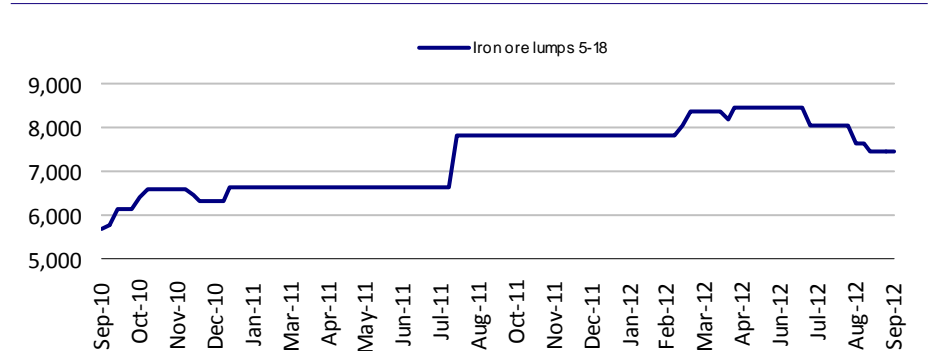
Iron ore 63% fines prices decreased 5% WoW to INR1,800/t

Iron ore fines 63% (INR/t) ex mine



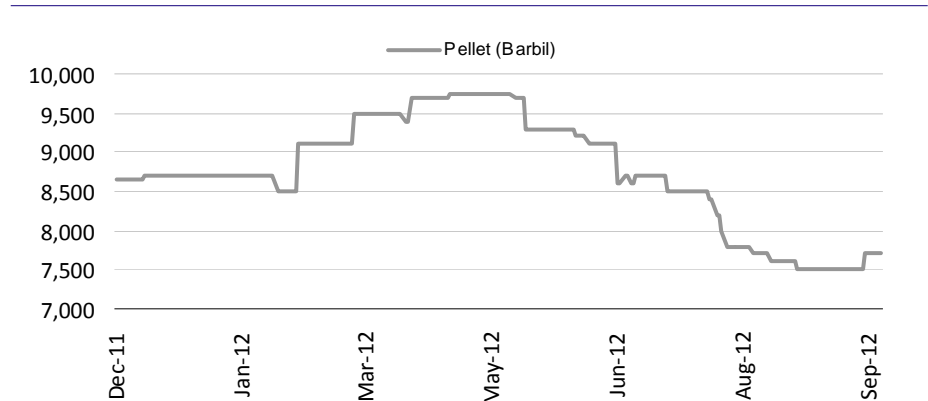
Iron ore 63% lumps Odisha prices were flat WoW at INR7,250/t

Iron ore lumps 63% 5-18 (INR/t)



Pellet prices increased 3% WoW to NR7,700/t

Pellet (Barbil) INR/t

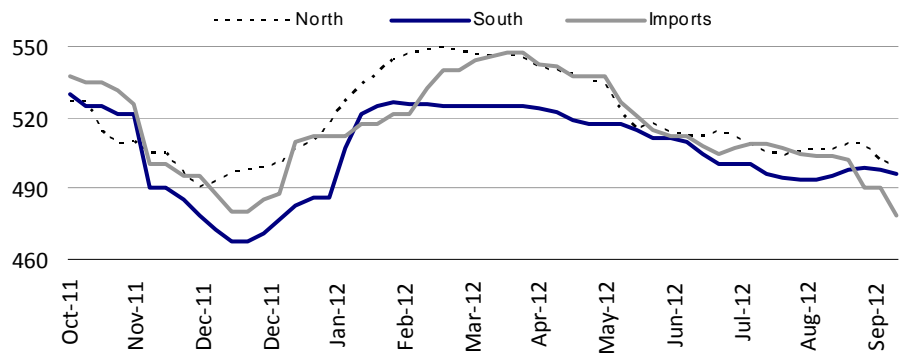


Source: SteelMint/WSA/MOSL

European Union

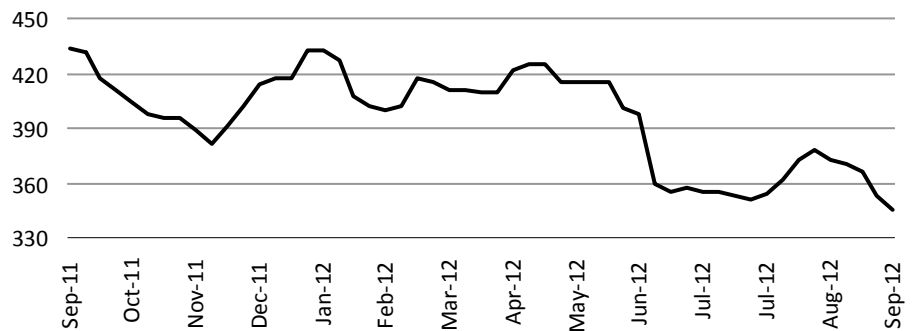
European steel prices (EUR/ton)

European HRC prices decreased 0.2% WoW to Euro500/t

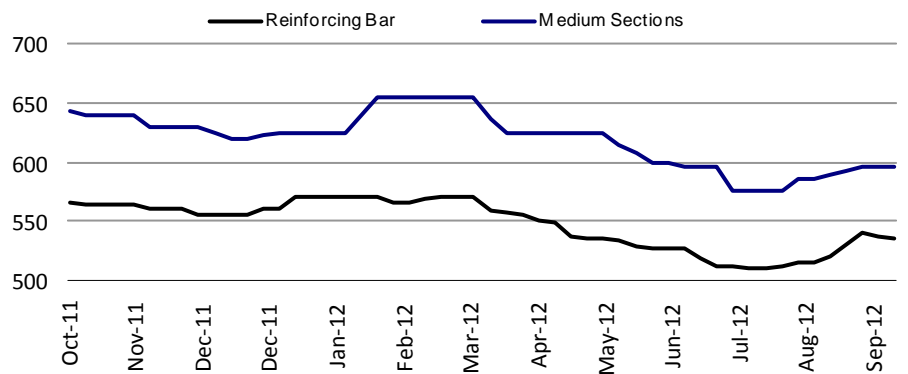


Rotterdam: shredded scrap prices (USD/t)

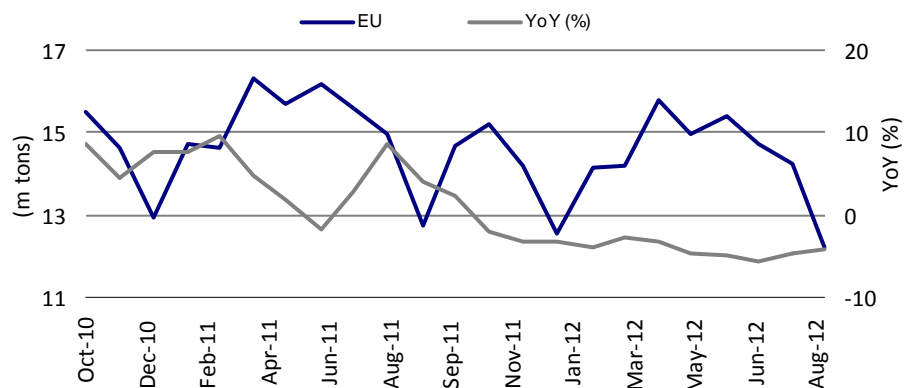
Rotterdam Shredded scrap prices decreased 2.1% WoW to USD 345t



European medium section prices (EUR/ton)



European Union: Monthly crude steel production

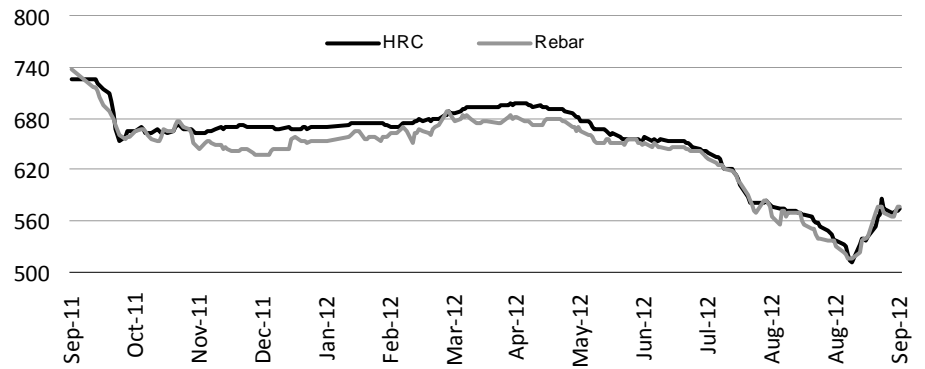


Source: Metal Bulletin/Bloomberg/WSA/MOSL

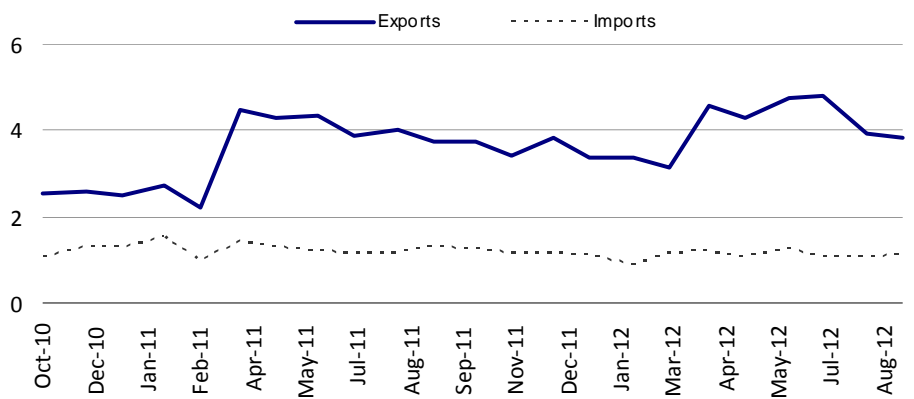
**China**

China steel prices were mixed with HRC prices decreasing 0.3% WoW while Rebar prices increasing 1.2% WoW

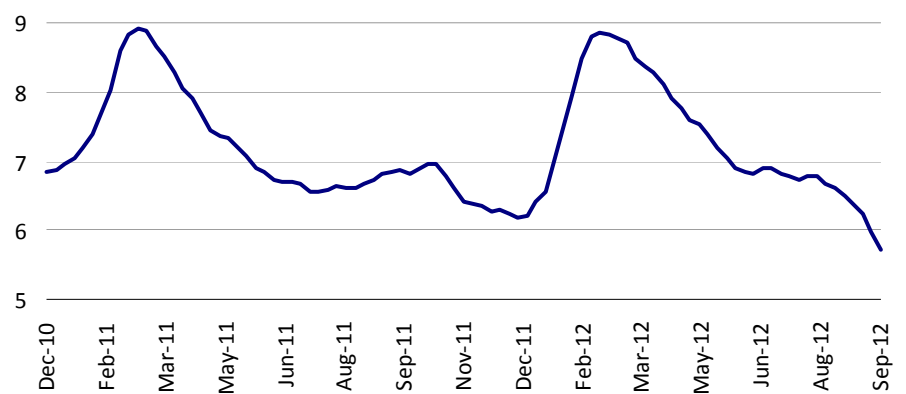
**China domestic prices (USD/ton)**



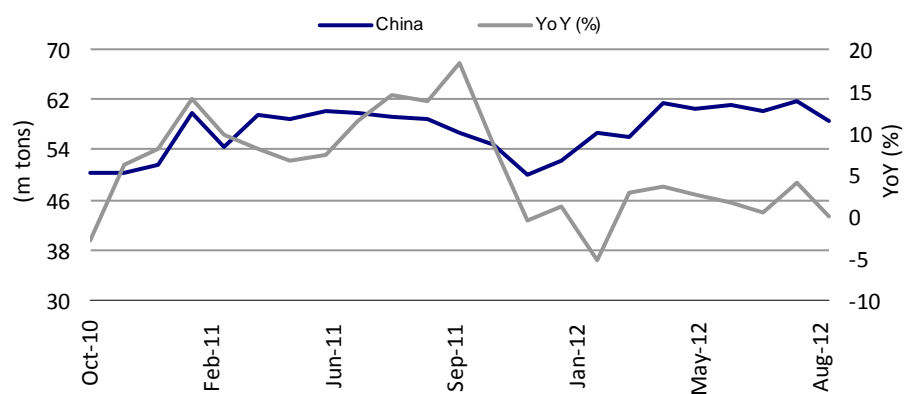
**Steel trade (m ton)**



**Steel inventories (m tons)**



**Monthly crude steel production**

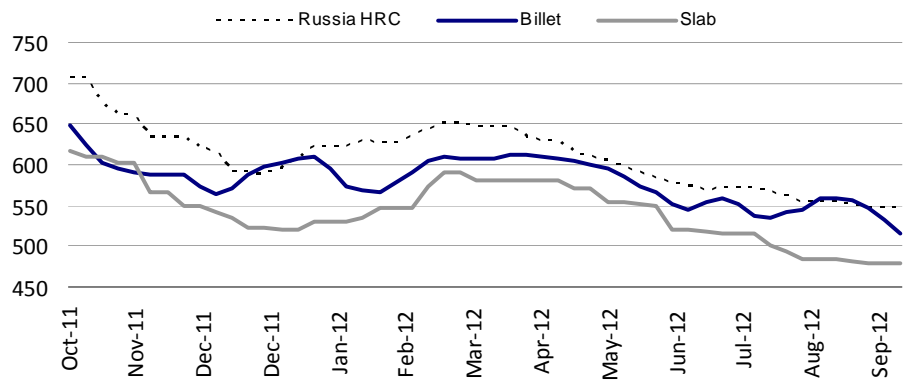


Source: Metal Bulletin/Bloomberg/WSA/MOSL

Other regions

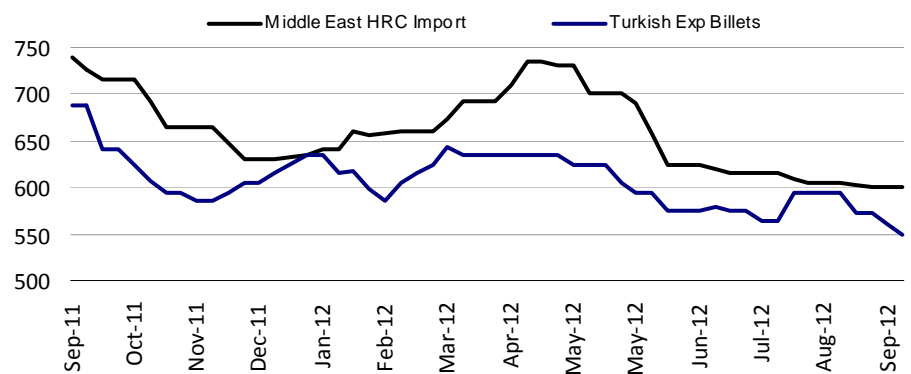
CIS steel export prices (USD/ton)

Russian HRC prices were flat WoW at USD548/t to their two year low levels



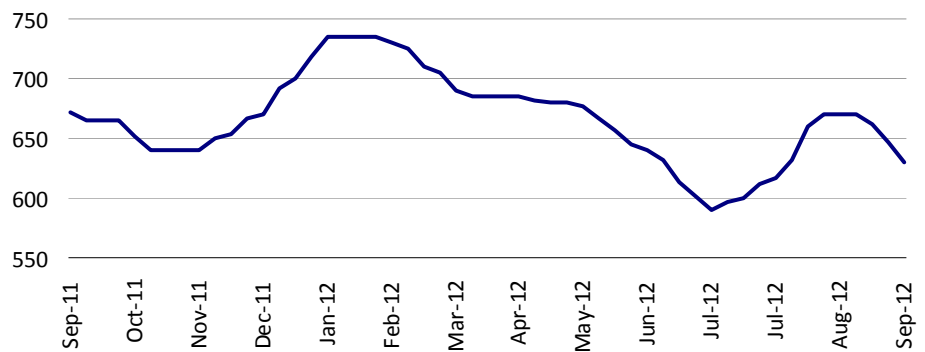
Middle East import and Turkish export steel prices (USD/ton)

Middle east import HRC prices were flat WoW at USD600/t

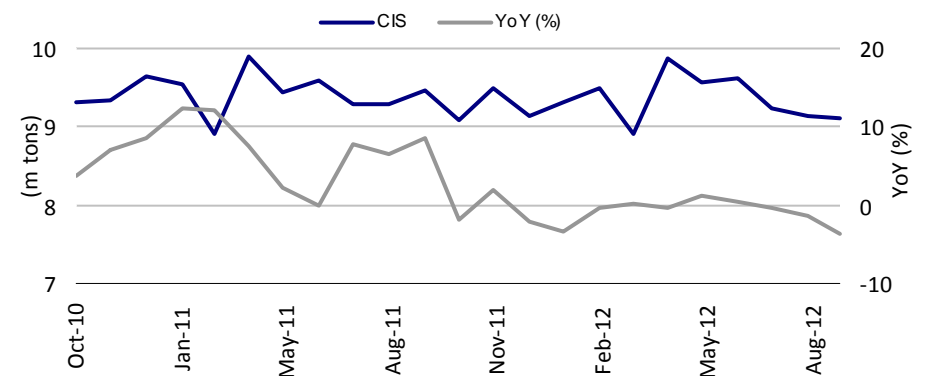


North America HRC prices (USD/ton)

North American local HRC prices decreased 2.8% WoW to USD629/t



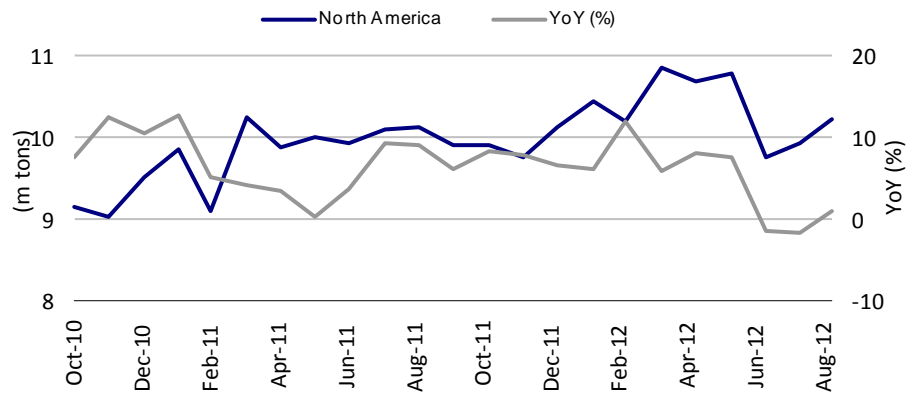
CIS: Monthly crude steel production



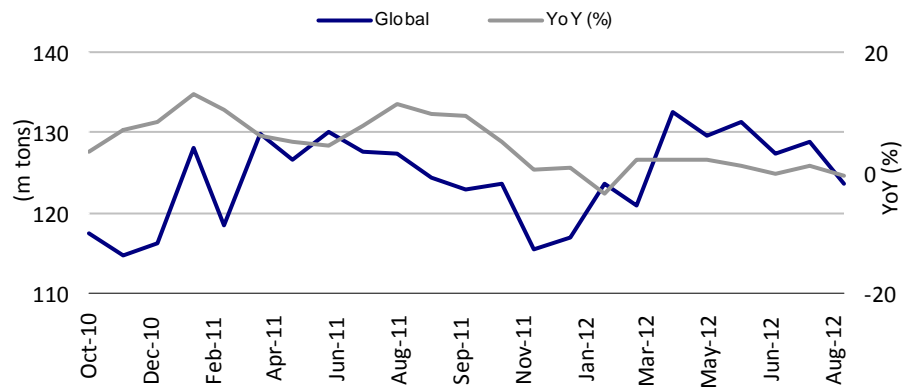
Source: Metal Bulletin/WSA/Bloomberg/MOSL

Other regions

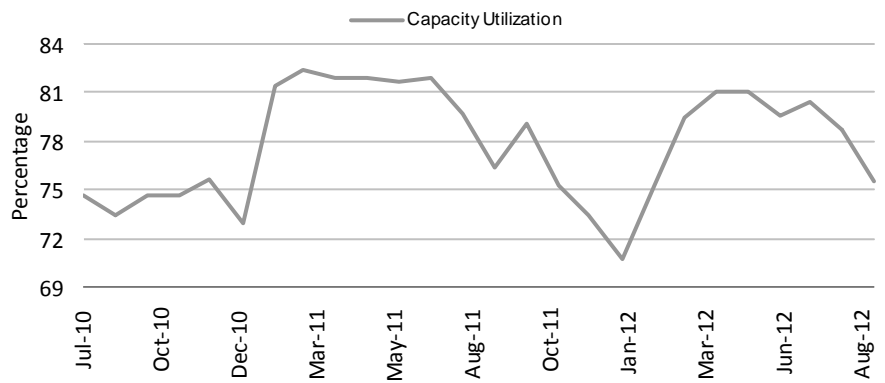
North America: Monthly crude steel production



Global: Monthly crude steel production



Global: Monthly crude steel capacity utilization



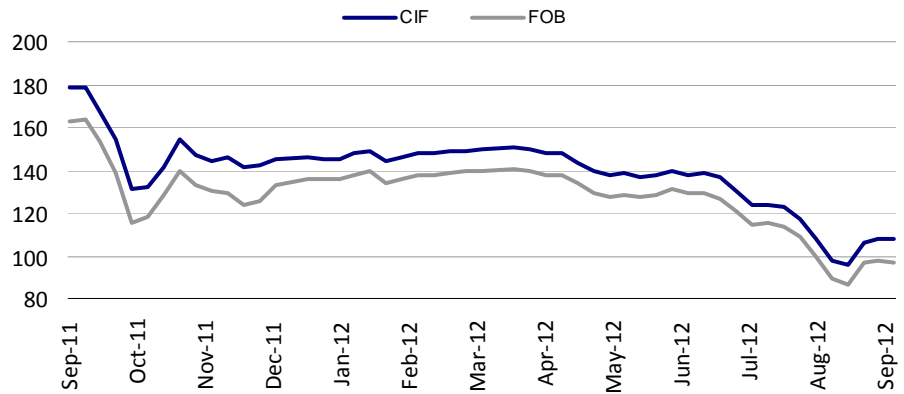
Source: Bloomberg/WSA/MOSL



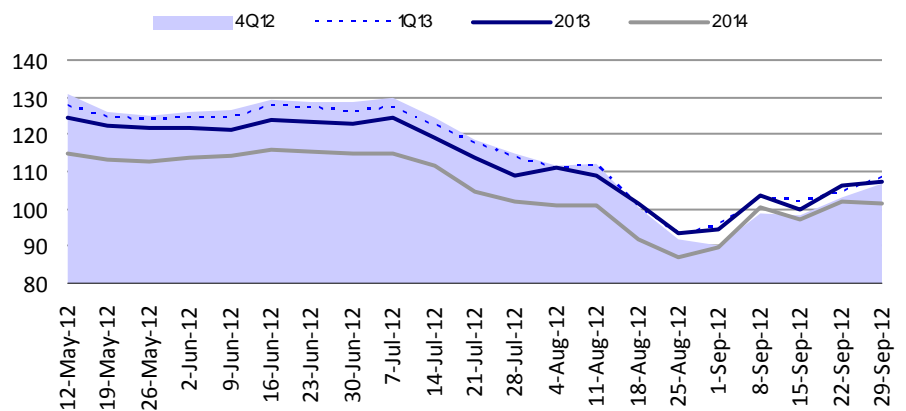
Steel raw materials

Indian 63.5% grade iron-ore fines in China (USD/ton)

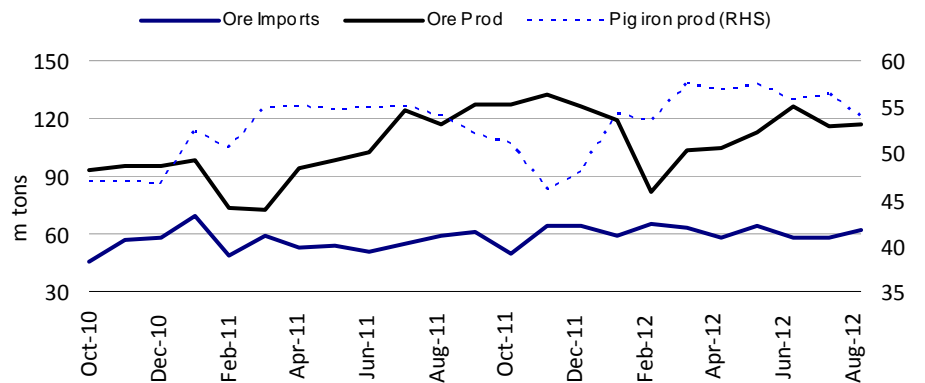
China spot CFR iron ore prices were flat WoW at USD108/ton DMT



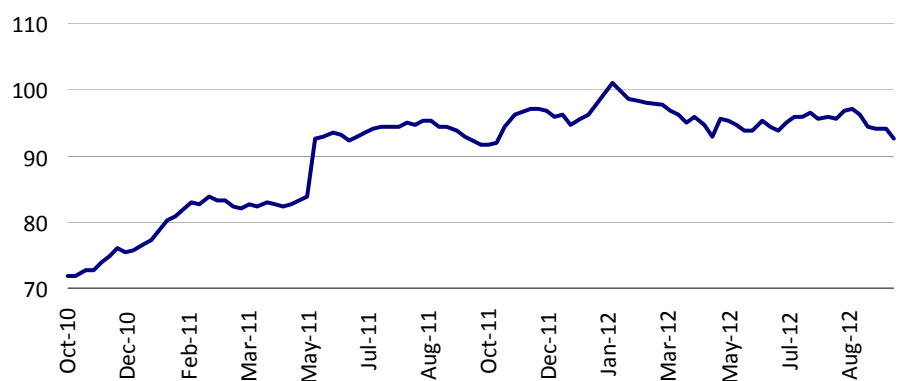
OTC iron-ore swaps (USD/ton)



China iron-ore production and imports (m tons)



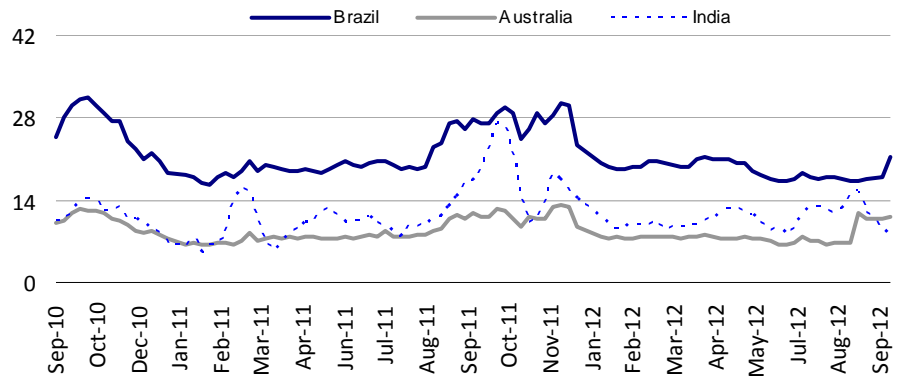
China iron-ore inventories (m tons)



Source: Metal Bulletin/Bloomberg/MOSL

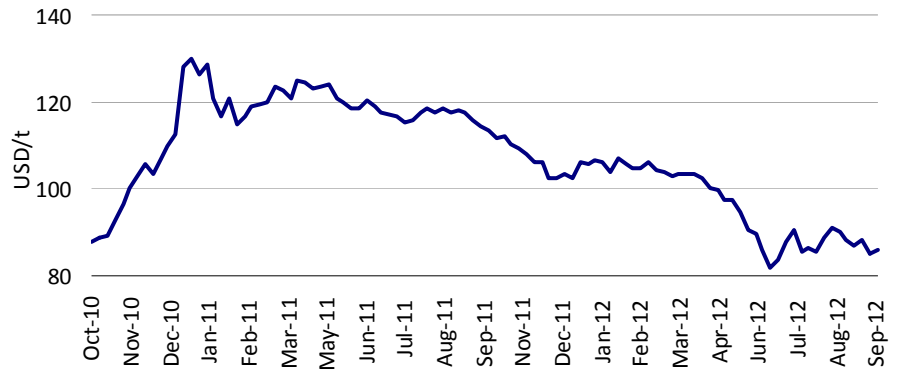
Steel raw material

Freight rates to China (USD/ton)



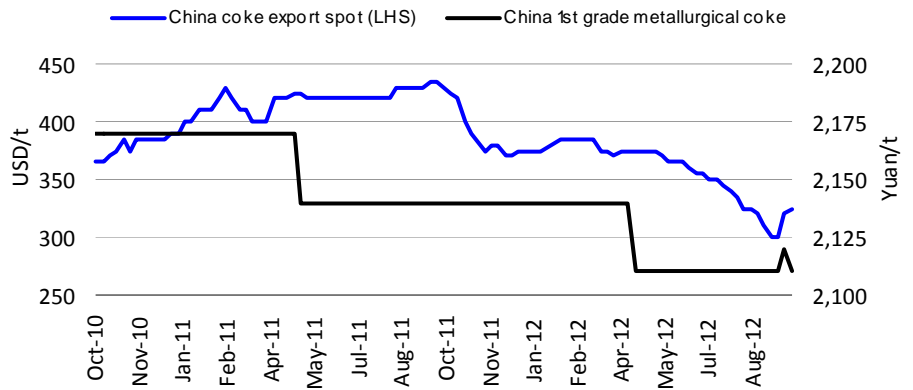
Coal price index

Richards Bay Steam Coal



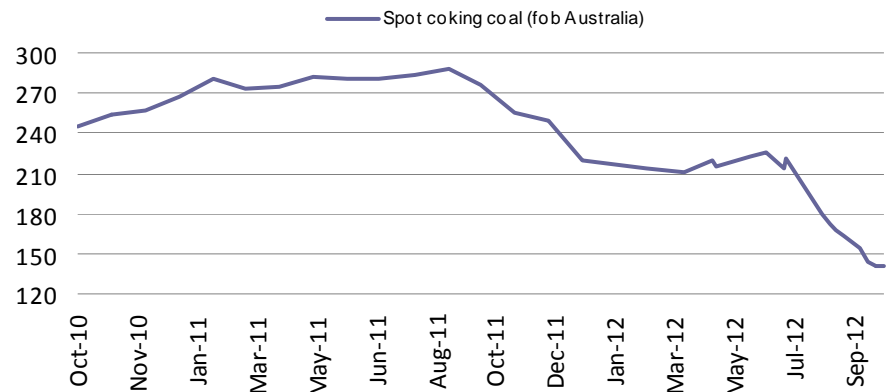
Richard bay steam coal price increased 1% WoW to USD86/ton

Coke price index



China 2nd grade coke spot prices increased 2% WoW at USD325/ton

Coking coal (USD/t)

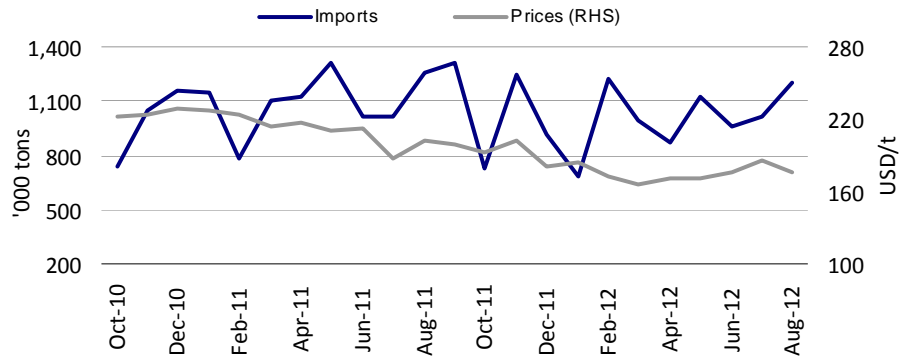


Spot Hard Coking coal FOB Australia prices increased by USD1/t to USD141.5/t

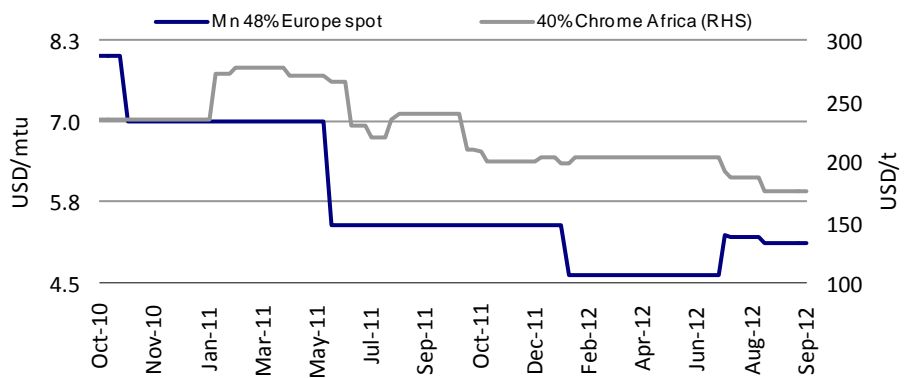
Source: Metal Bulletin/Bloomberg/MOSL

**Ferro alloys**

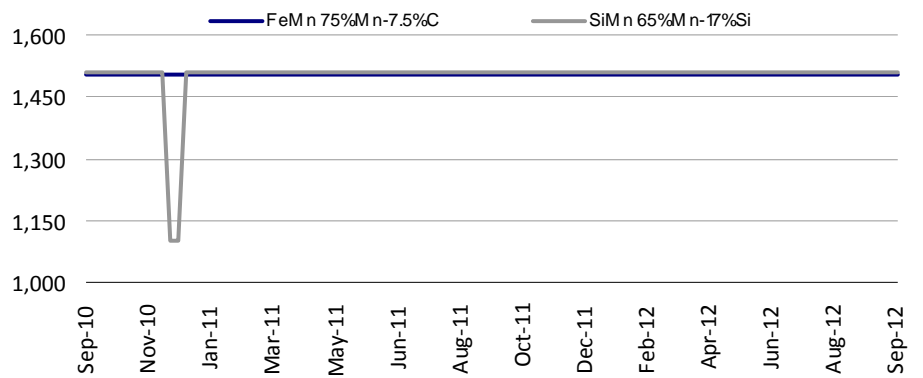
**China's imports of manganese ore and conc**



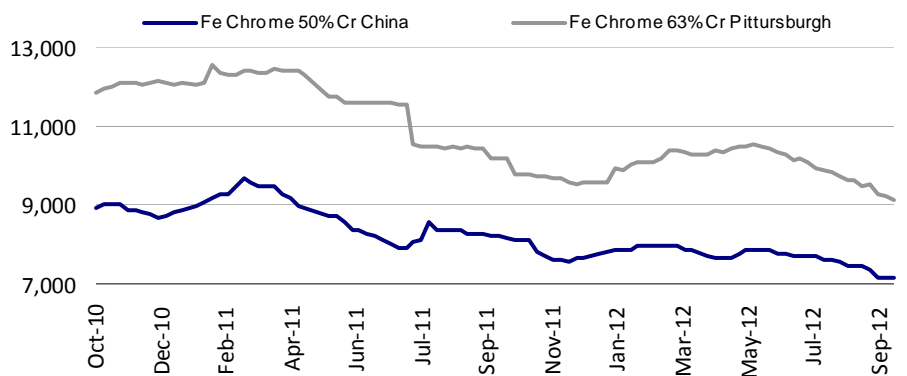
**Manganese and chrome ore FOB spot prices**



**Ferro and silico manganese prices (USD/t)**



**Ferro chrome CIF prices (CNY/t)**



Source: Metal Bulletin/Bloomberg/MOSL

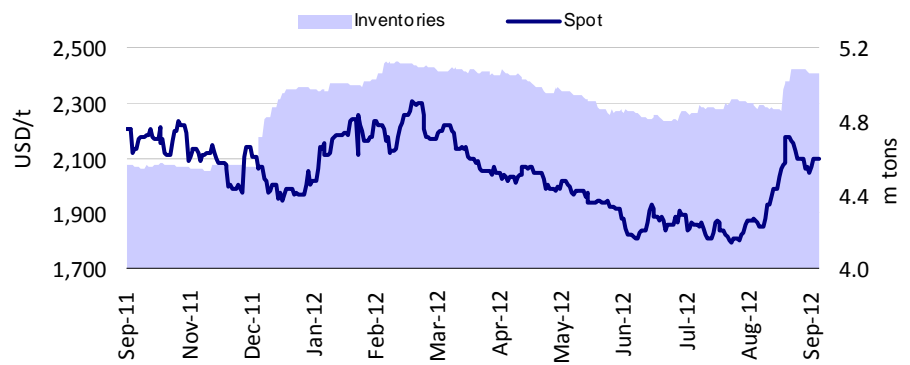
Non-ferrous

Non-ferrous

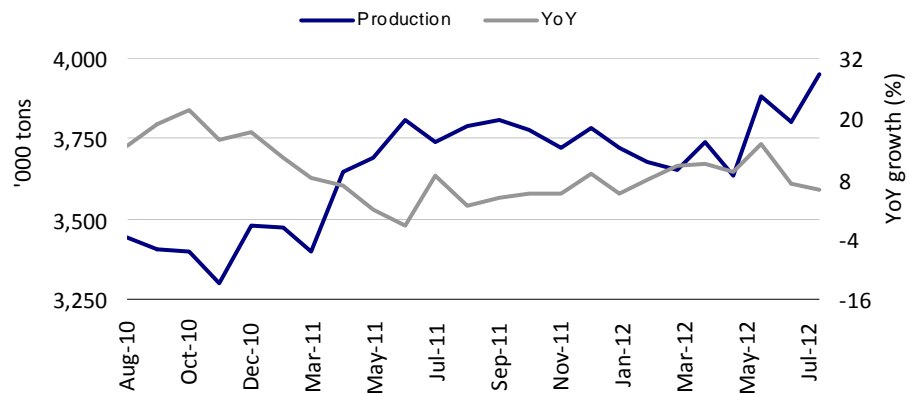
Aluminum

Aluminum spot prices increased 1.7% WoW to USD2,094/ton

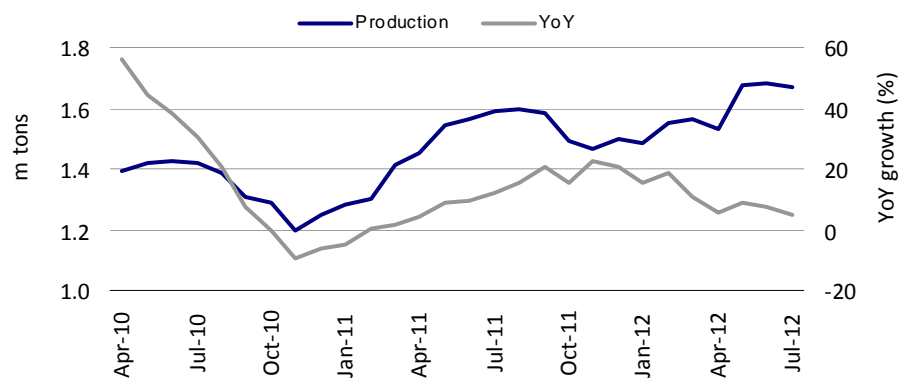
LME inventories and prices



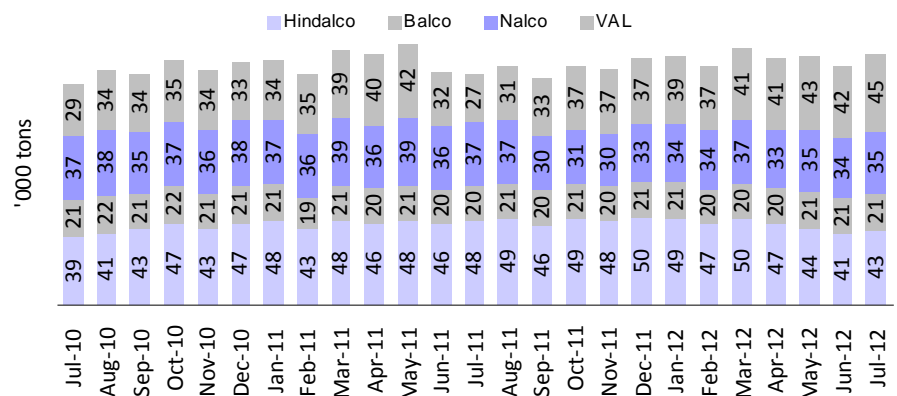
Global primary aluminum monthly production and YoY growth



China primary aluminum monthly production and YoY growth



India: Company-wise primary aluminum monthly production

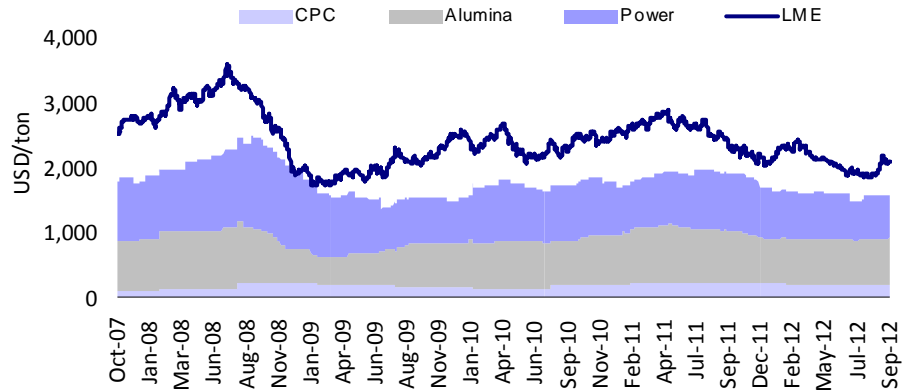


Source: Metal Bulletin/Bloomberg/MOSL

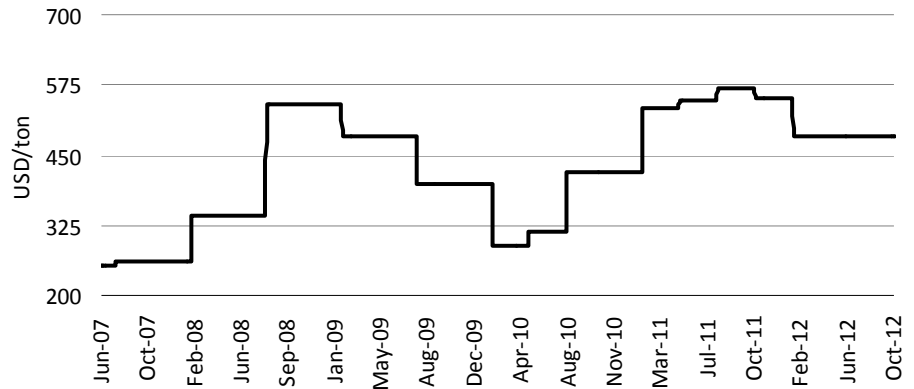
# Non-ferrous

## Aluminum

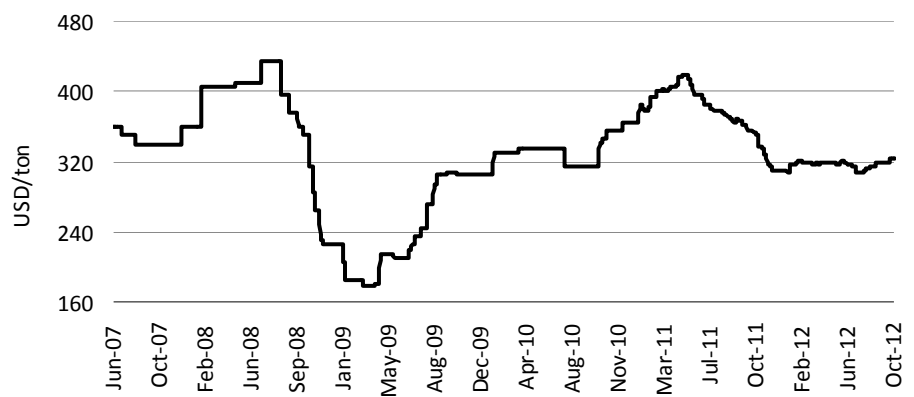
Aluminum raw material and power cost for marginal producer in US



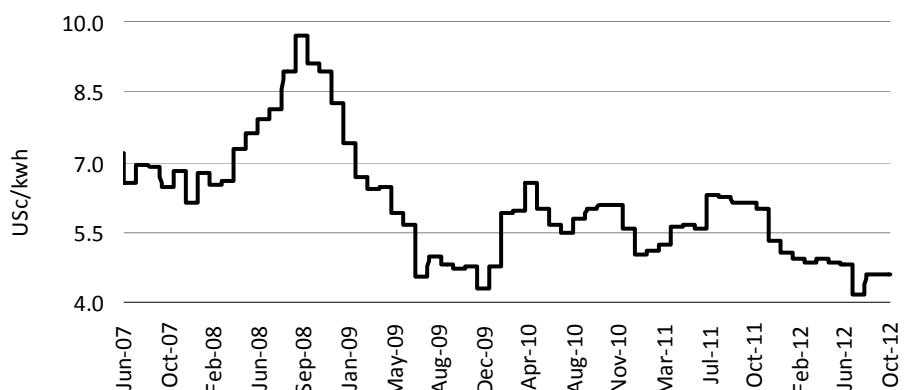
### CPC US



### Alumina



### Industrial power US (Louisiana)



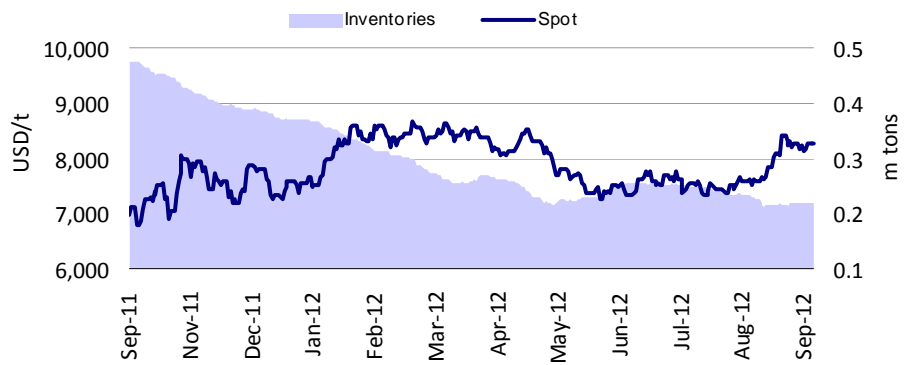
Source: Metal Bulletin/Bloomberg/Industry/MOSL

# Non-ferrous

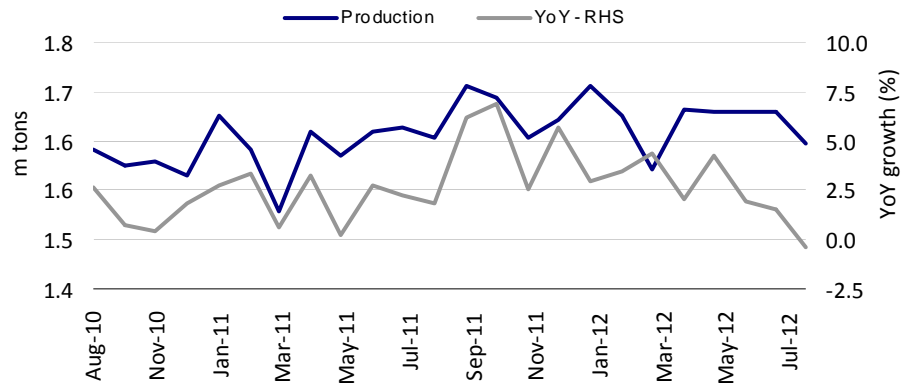
## Copper

Copper spot prices increased 1% WoW to USD8,267/ton

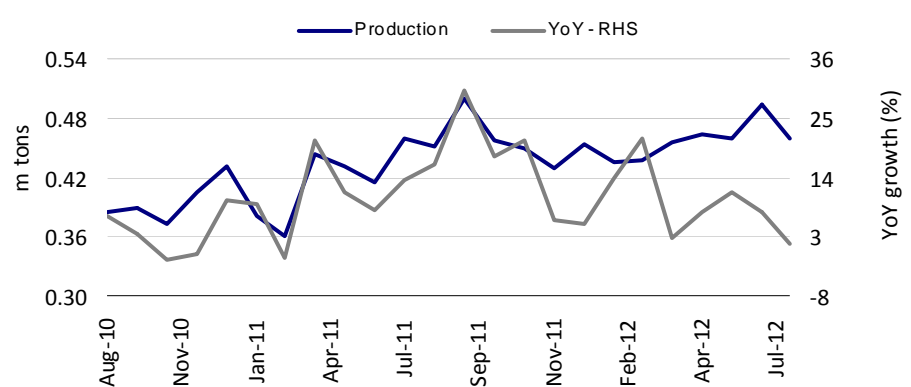
### LME inventories and prices



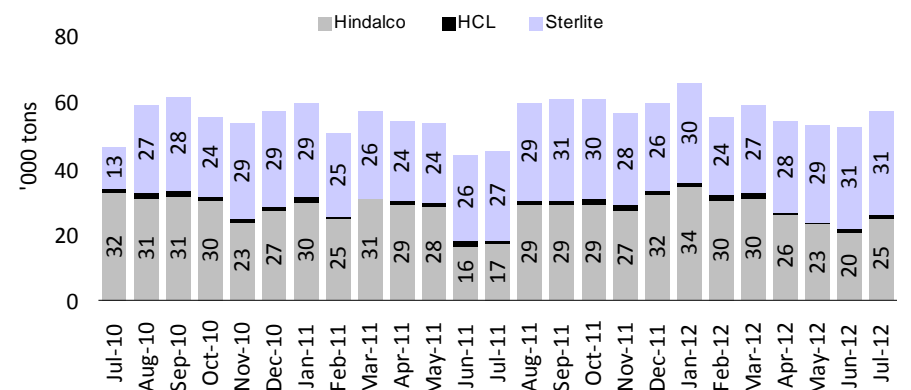
### Global refined copper monthly production and YoY growth



### China: Refined copper monthly production and YoY growth



### India: Company-wise refined copper monthly production



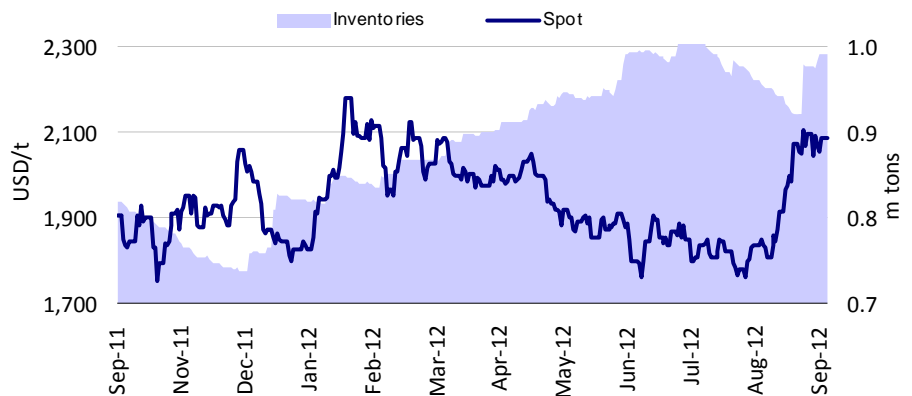
Source: Metal Bulletin/Bloomberg/MOSL

# Non-ferrous

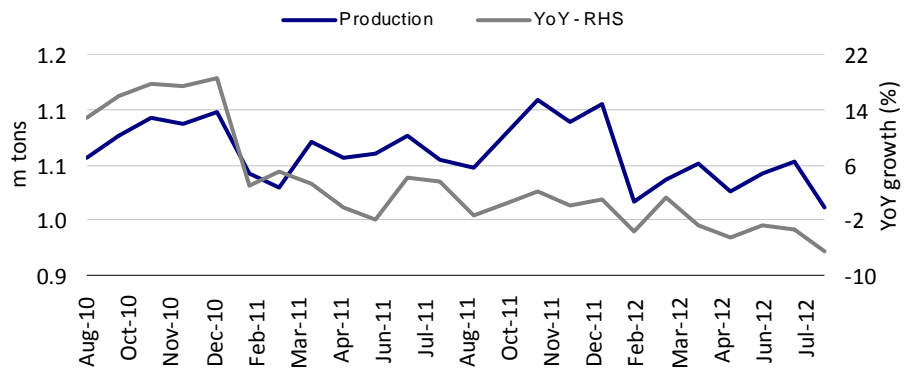
## Zinc

### LME inventories and prices

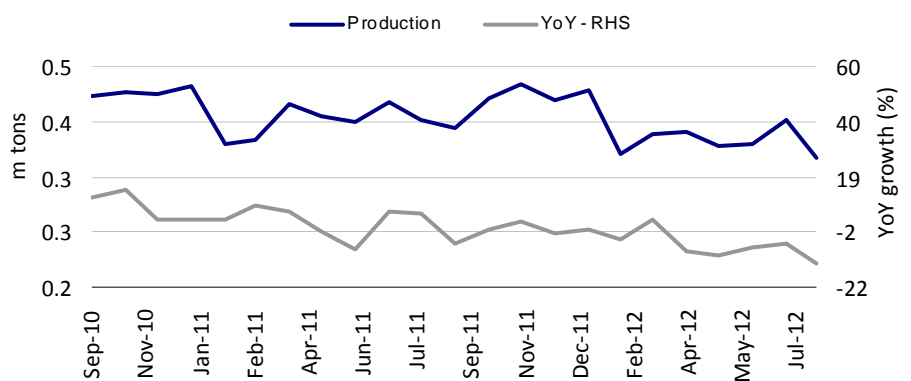
Zinc spot prices increased 2.1% WoW to USD2,088/ton



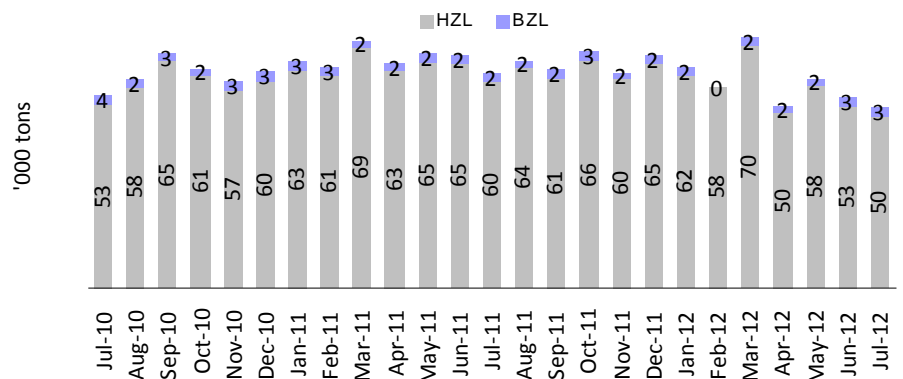
### Global refined zinc monthly production and YoY growth



### China: Refined zinc monthly production and YoY growth



### India: Company-wise refined zinc monthly production



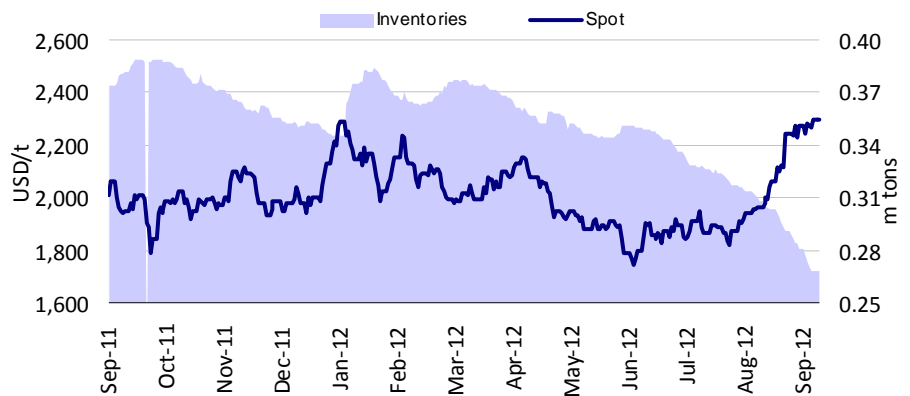
Source: Metal Bulletin/Bloomberg/MOSL

# Non-ferrous

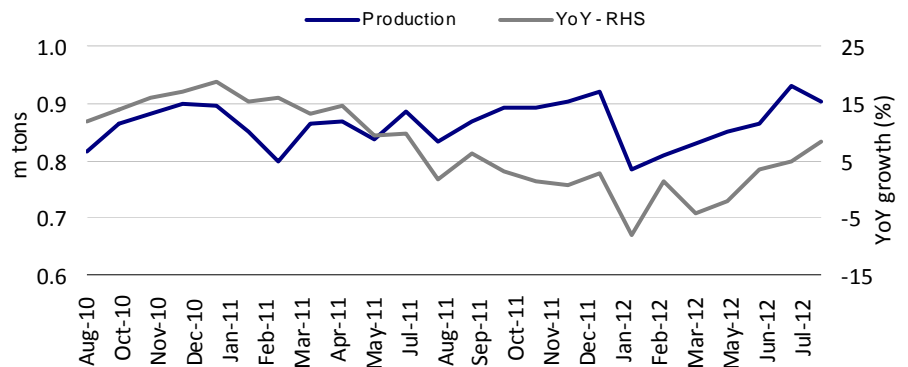
## Lead

Lead spot prices increased 1% WoW to USD2,300/ton

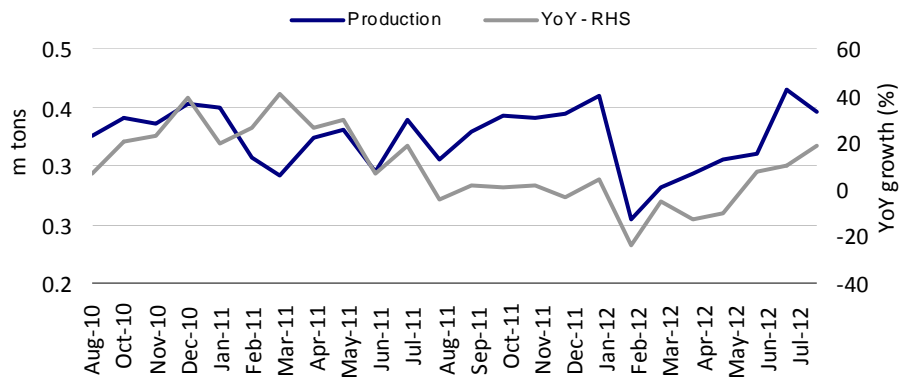
LME inventories and prices



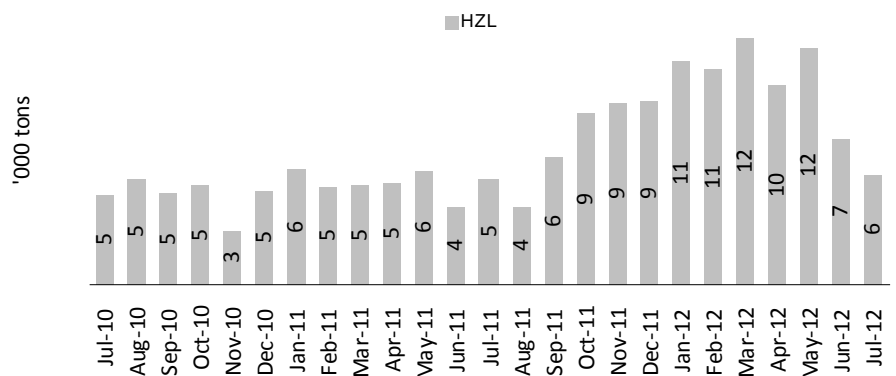
Global refined lead monthly production and YoY growth



China: Refined lead monthly production and YoY growth



India: Company-wise refined lead monthly production

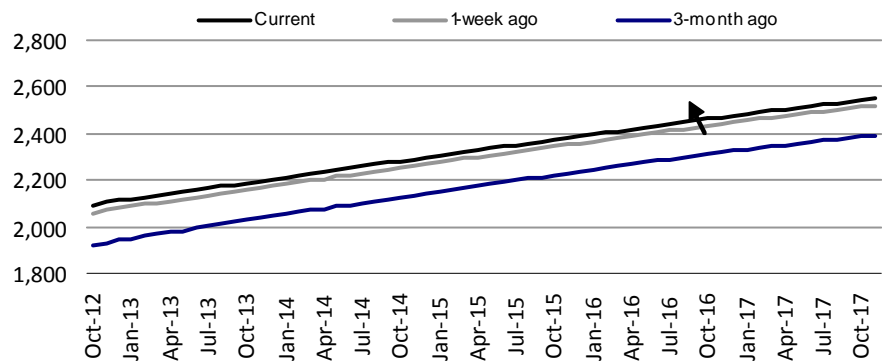


Source: Metal Bulletin/Bloomberg/MOSL

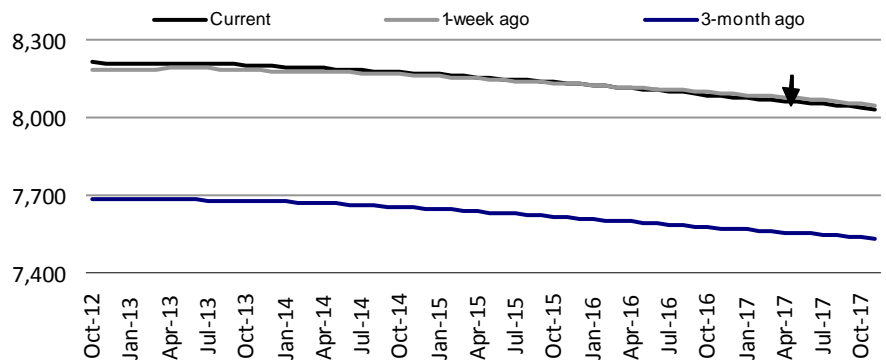


## Commodity forward curves

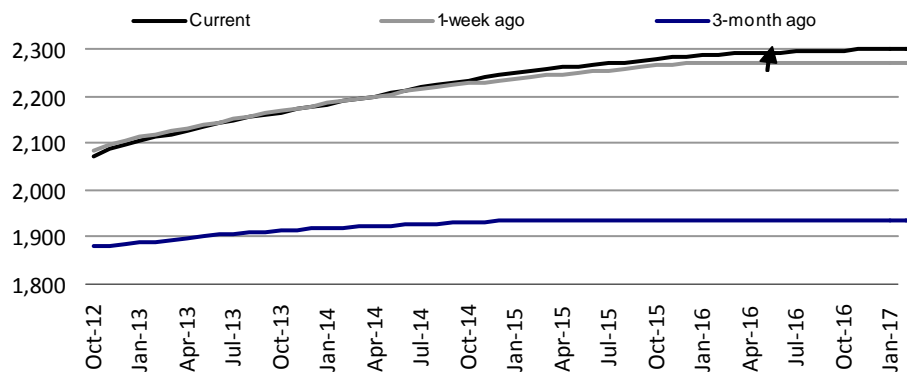
LME aluminum (USD/ton)



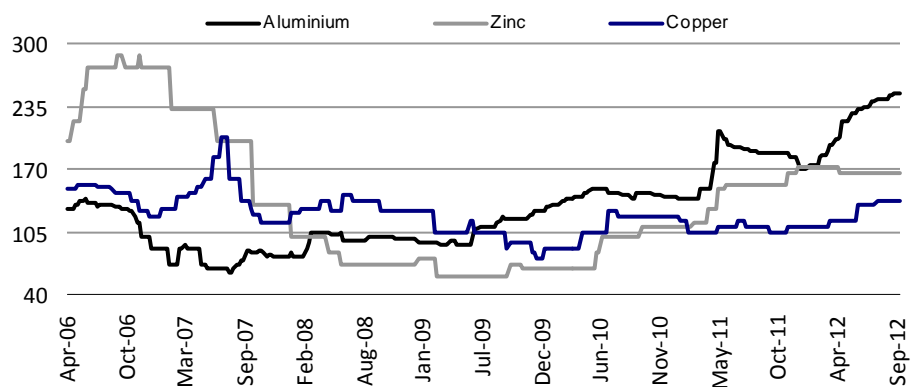
LME copper (USD/ton)



LME zinc futures (USD/ton)



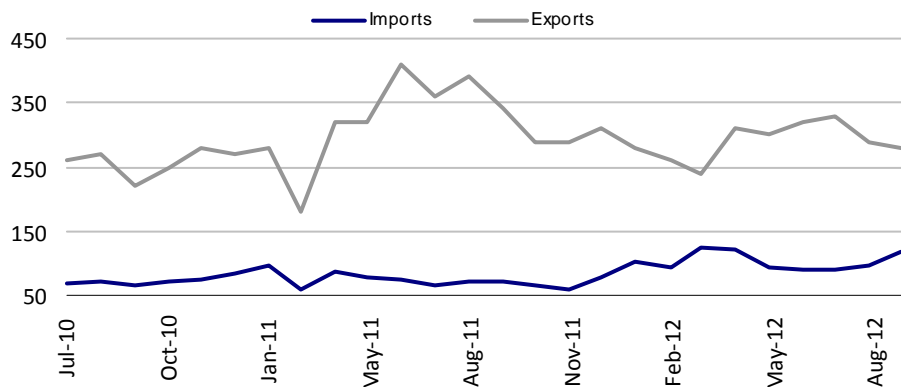
Base metals US spot premium (USD/ton)



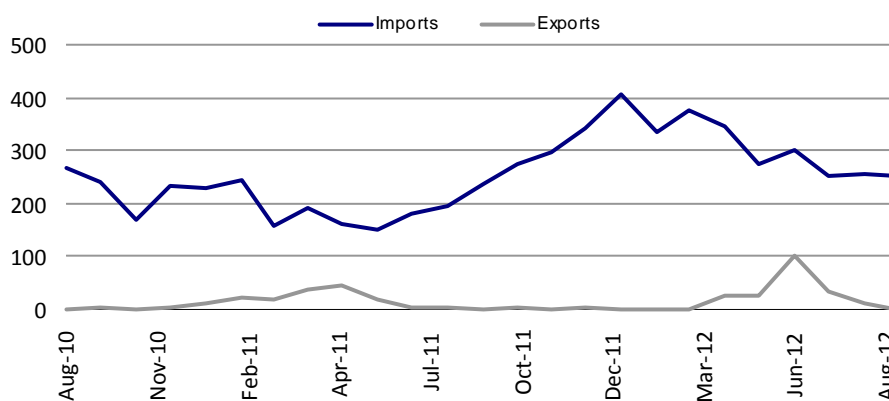
Source: Metal Bulletin/Bloomberg/MOSL

## China non-ferrous trade data

China's aluminum trade ('000 tons)



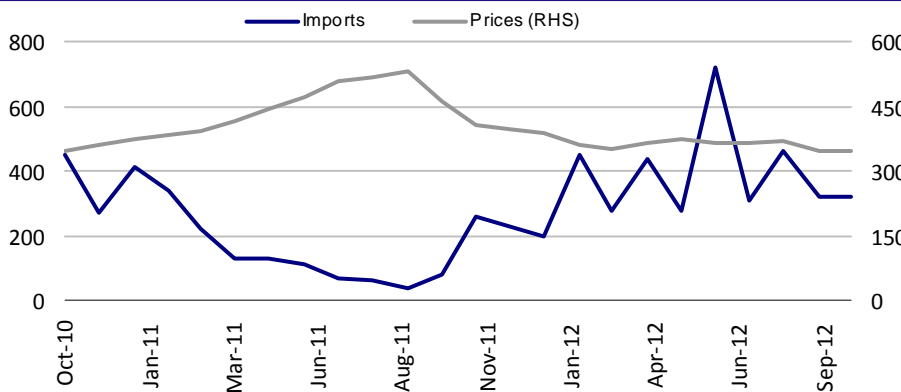
China's refined copper trade ('000 tons)



China's refined zinc trade ('000 tons)



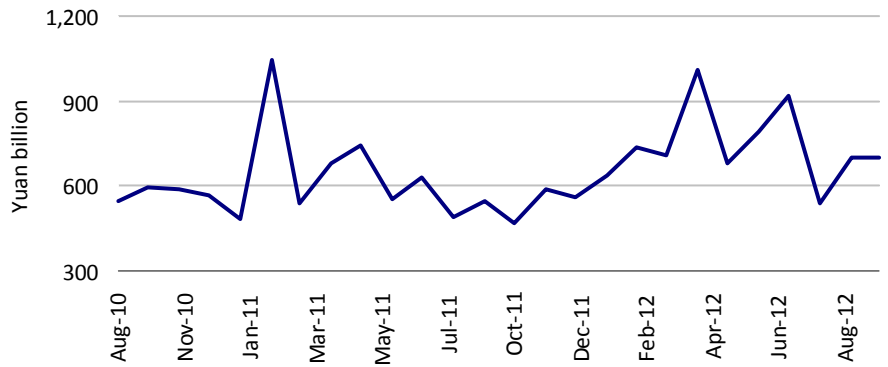
China's alumina imports ('000 tons) and prices (USD/ton)



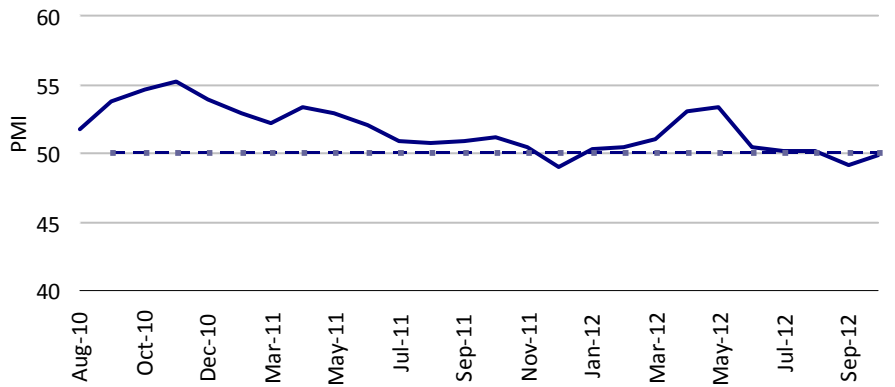
Source: Metal Bulletin/Bloomberg/MOSL

## Key indicators

### China new loan growth

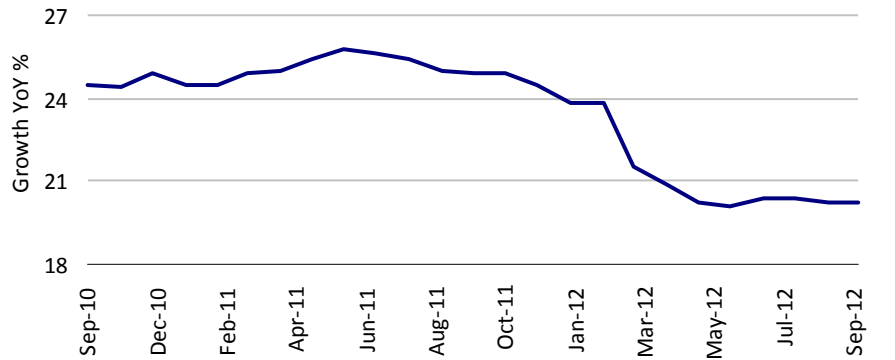


### China PMI

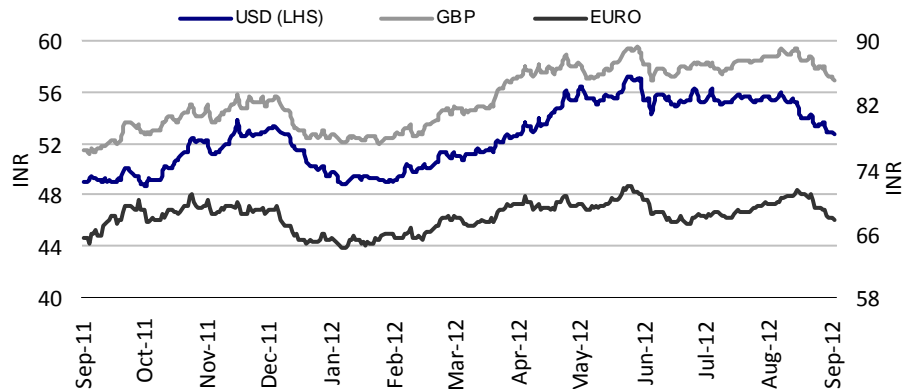


China PMI improved MoM from 49.2 in August to 49.8 in September

### China: Fixed asset investment



### Currency movement with respect to the rupee

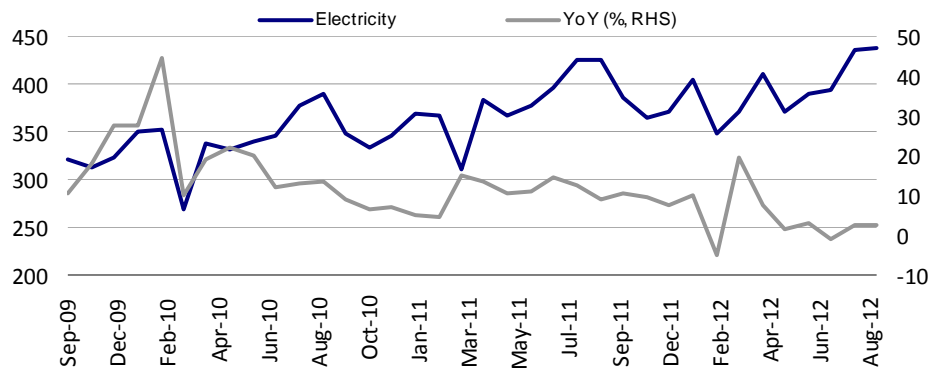


The rupee appreciated 1% WoW against the US dollar and was trading at INR52.8/USD

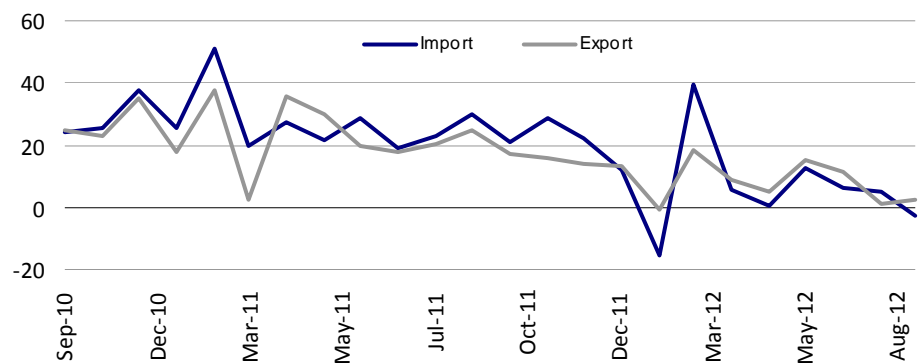
Source: Bloomberg/MOSL

### Key indicators (Contd..)

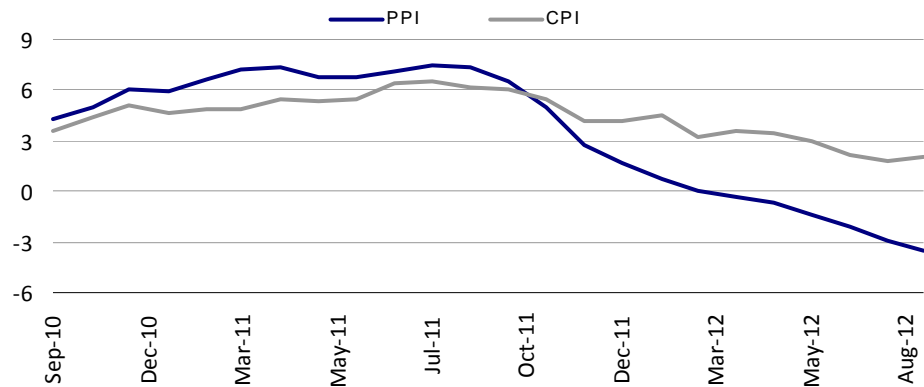
China Energy Production Electricity (b kwh)



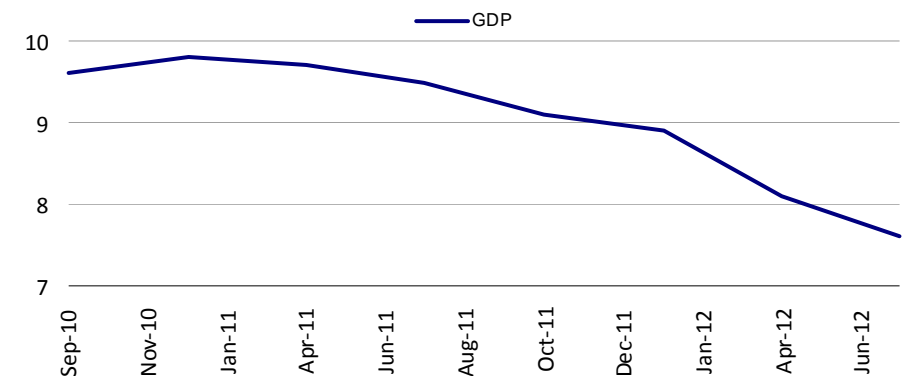
China Monthly Trade YoY (%)



China Price Index YoY (%)



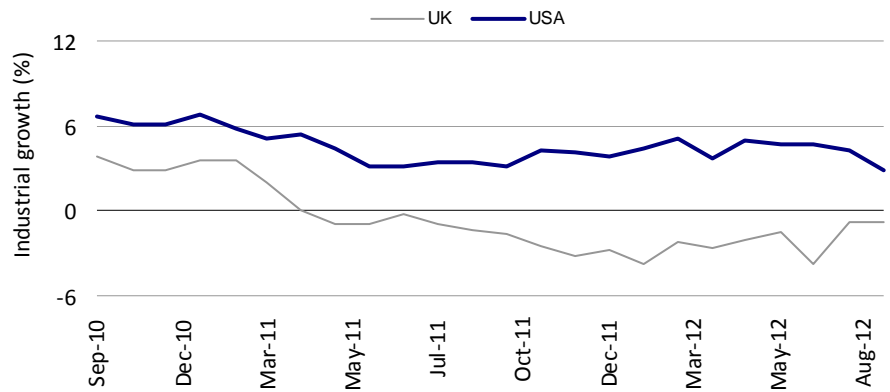
China GDP YoY (%)



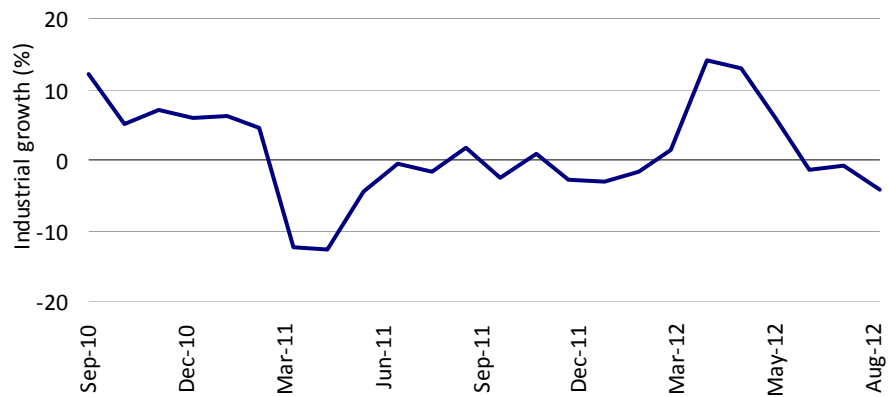
Source: Bloomberg/MOSL

## Industrial production growth

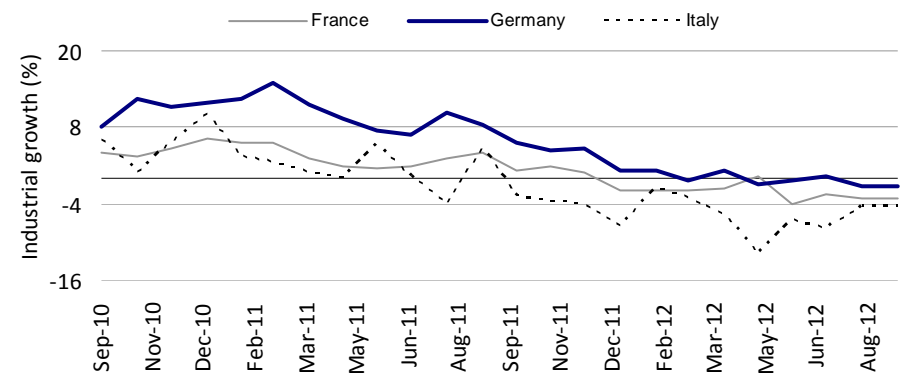
### The UK and the US



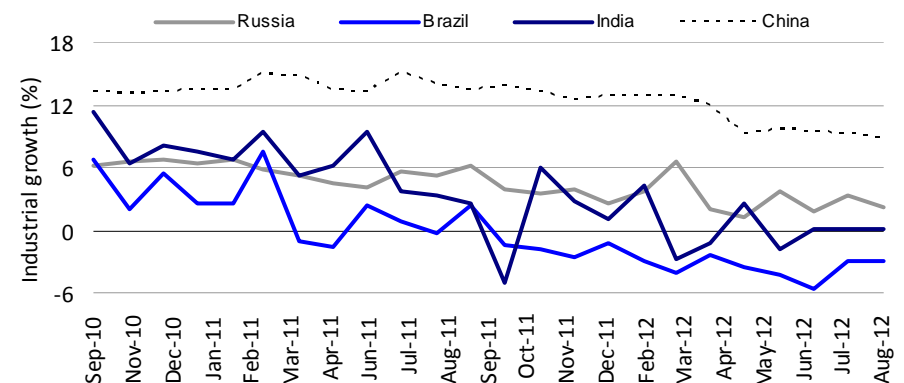
### Japan



### European Union



### BRIC



Source: Bloomberg/MOSL

## Stock Exchange announcements

- Ms Gauri Kumar, Additional Secretary, Ministry of Mines has been appointed as part-time Official Director of **NALCO**.
- **Jindal Steel & Power** has appointed Mr Ravi Uppal, as its MD & CEO. It has also clarified on adverse newspaper reports regarding the allotment of coal mines and other related matters of the company and its other group /associate companies. Its coal block mentioned in news item for Coal to Liquid (CTL) was applied in consortium with 3 other group companies having aggregate net worth of INR53.9b as per guidelines. It further added that while seeking allotment of coal blocks between 2006 and 2010, all the address mentioned were correct.

## Metals Valuation Matrix

### Valuations: Indian companies

	Rating	Price (INR)	Mkt Cap (USD M)	EPS (INR)			P/E (X)		EV/EBITDA (X)		P/B (X)	
				FY12	FY13E	FY14E	FY13E	FY14E	FY13E	FY14E	FY13E	FY14E
<b>Steel</b>												
Tata Steel	Sell	401	7,386	18.6	31.2	56.6	12.9	7.1	6.8	6.1	1.4	1.2
SAIL	Sell	85	6,696	9.0	6.7	8.6	12.8	10.0	8.9	7.3	0.8	0.8
JSW Steel	Sell	757	3,203	66.5	49.9	73.7	15.2	10.3	6.6	6.0	1.0	0.9
JSPL	Neutral	428	7,582	42.4	39.8	38.5	10.7	11.1	9.5	8.9	2.0	1.8
NMDC	Buy	194	14,577	18.5	20.4	24.9	9.5	7.8	5.4	4.1	2.6	2.1
Sesa Goa	Neutral	171	2,827	31.8	36.1	33.5	4.8	5.1	5.5	4.5	1.0	0.9

### Non-Ferrous

Sterlite Inds.	Buy	99	6,335	16.7	16.3	17.7	6.1	5.6	3.8	3.5	0.7	0.7
Hindustan Zinc	Buy	135	10,858	13.2	14.4	16.7	9.4	8.1	5.6	4.1	1.8	1.5
Nalco	Neutral	51	2,501	3.4	3.5	3.3	14.7	15.6	7.3	6.5	1.1	1.1
Hindalco	Buy	121	4,549	17.1	18.9	20.6	6.4	5.9	7.2	6.3	1.2	1.0

CMP=current market price

Source: MOSL

### Valuations: Global companies

	BBG Code	Currency	Price	Mkt Cap (USD M)	P/E (X)		EV/EBITDA(X)		P/BV
					CY11	CY12	CY11	CY12	CY11
<b>Mining</b>									
BHP-Billiton	BHP AU	AUD	33.0	175,788	12.1	10.4	6.2	5.5	2.8
FMG	FMG AU	AUD	3.5	11,281	7.5	4.6	5.4	3.5	2.5
Rio Tinto	RIO AU	AUD	53.4	89,756	9.7	8.2	5.7	4.7	1.8
Vale	Vale US	USD	17.9	94,900	7.4	6.4	5.0	5.1	1.2
Teck Resources	TCK US	USD	29.5	17,288	10.6	8.9	5.2	4.6	0.9
Xstrata	XTA LN	GBP	957.5	46,401	12.5	10.2	7.2	5.7	1.0
<b>Steel</b>									
Arcelor Mittal	MT NA	EUR	11.2	22,372	15.2	8.3	6.1	5.1	0.4
Posco	005490 KS	k KRW	365.5	28,581	10.6	9.0	5.8	5.0	0.8
US Steel	X US	USD	19.1	2,751	13.1	9.0	5.3	4.3	0.8
Nucor	NUE US	USD	38.3	12,146	21.6	12.2	8.8	6.2	1.6
JFE	5411 JT	JPY	1,030.0	7,921	9.3	6.0	7.6	6.2	0.5
Gerdau	GGBR4 BZ	BRL	19.3	15,394	16.8	13.4	9.0	7.4	1.1
Bao Steel	600019 CH	CNY	4.6	12,759	7.0	10.1	5.5	5.8	0.8
<b>Non-Ferrous</b>									
Alcoa	AA US	USD	8.9	9,447	36.9	12.3	9.2	6.4	0.7
Norsk Hydro	NHY NO	NOK	26.8	9,692	82.6	19.1	9.1	6.0	0.8
Rusal	486 HK	HKD	4.5	8,778	15.2	8.0	16.9	12.6	0.9

Source: Bloomberg

## Metals Stock Performance

Among large-cap companies, JSPL has outperformed and Sesa Goa has underperformed the BSE Sensex over the last one month

Among mid-cap companies, Rain Commodities outperformed and Monnet Ispat has underperformed the BSE Sensex over the last one month

Among global mining companies, Vedanta was the best performer while FMG was the worst performing stock over the last one month

Among global steel majors, Gerdau was the best performer while Arcelor Mittal was the worst performing stock over the last one month

### Metals stock performance on absolute and relative basis (%)

Months	Absolute Perf (%)				Relative Perf to Sensex (%)			
	1	3	6	12	1	3	6	12
<b>Steel</b>								
Tata Steel	9.1	-10.4	-16.0	-4.8	1.3	-18.2	-23.9	-19.0
SAIL	11.7	-3.9	-7.4	-17.2	4.0	-11.6	-15.3	-31.4
JSW Steel	6.2	8.8	2.4	24.9	-1.5	1.1	-5.6	10.8
JSPL	21.1	-9.1	-21.7	-15.5	13.4	-16.9	-29.6	-29.7
NMDC	1.4	4.5	20.8	-14.3	-6.4	-3.3	12.9	-28.4
Sesa Goa	0.2	-10.3	-11.6	-13.9	-7.6	-18.1	-19.5	-28.1
<b>Non-Ferrous</b>								
Sterlite Inds.	2.8	-3.7	-11.0	-13.2	-5.0	-11.5	-18.9	-27.3
Hindustan Zinc	9.9	10.0	2.3	13.7	2.1	2.3	-5.7	-0.5
Nalco	0.6	-15.5	-8.0	-18.3	-7.2	-23.3	-15.9	-32.5
Hindalco	15.5	-0.1	-7.5	-8.8	7.7	-7.8	-15.4	-22.9
<b>Mid Caps</b>								
Monnet Ispat	6.7	-19.4	-34.0	-37.4	-1.1	-27.2	-41.9	-51.5
Godawari	7.2	5.2	16.5	1.4	-0.6	-2.6	8.6	-12.7
Sarda Energy	14.8	4.4	2.2	4.7	7.0	-3.4	-5.7	-9.4
Tata Sponge	7.8	-6.9	5.1	7.0	0.0	-14.7	-2.8	-7.1
Adhunik Metaliks	8.2	-7.3	-32.5	-34.1	0.4	-15.1	-40.4	-48.3
Bhushan Steel	8.7	8.5	21.0	51.0	1.0	0.7	13.1	36.8
Jai Balaji	7.5	11.4	-6.4	-64.3	-0.3	3.6	-14.3	-78.5
Rain Commodities	18.7	25.4	14.3	60.9	10.9	17.6	6.4	46.8
Prakash Industries	14.2	7.8	24.2	10.4	6.4	0.1	16.3	-3.7
<b>SENSEX</b>	<b>7.8</b>	<b>7.8</b>	<b>7.9</b>	<b>14.2</b>	-	-	-	-

■ Best performer ■ Worst performer

Source: MOSL/Bloomberg

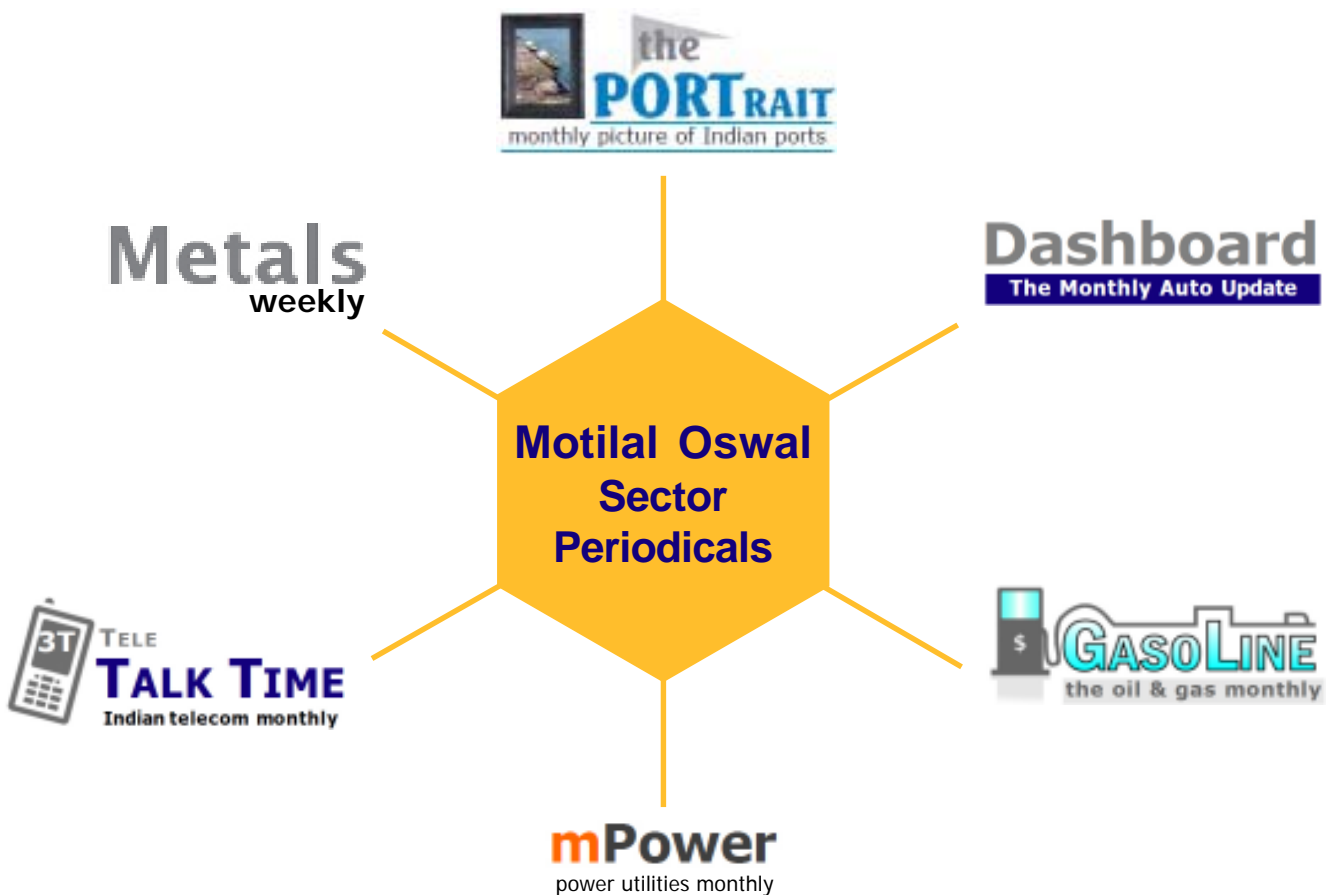
### Global metals stock performance on absolute basis (%)

	Absolute Perf (%)				
	1week	1month	3 months	6 months	12 months
<b>Mining</b>					
Rio Tinto	-3.2	5.5	-4.4	-16.3	-0.1
BHP Billiton	-0.8	4.2	5.4	-4.2	-5.4
Vale	-3.8	9.3	-9.8	-23.3	-21.5
FMG	-2.8	-1.1	-28.6	-39.8	-20.8
Xstrata	-4.2	0.6	19.9	-10.3	16.7
Anglo American	-3.7	3.8	-13.0	-22.3	-18.5
Vedanta	-2.6	18.6	12.8	-16.2	-6.5
<b>Steel</b>					
US Steel	-2.7	-2.0	-7.4	-35.1	-13.4
Nucor	-3.3	1.6	0.9	-10.9	20.9
Arcelor Mittal	-7.7	-5.9	-7.8	-22.1	-7.6
Bao Steel	0.9	5.0	6.0	-4.0	-10.2
Posco	-3.1	-0.9	0.6	-3.8	-1.5
JFE Holdings	-6.2	1.6	-23.8	-43.5	-36.3
Nippon	-2.5	4.6	-11.7	-30.4	-29.5
Thyssen Krupp	-1.3	4.7	29.5	-11.2	-9.8
Voest Alpine	-3.3	2.3	11.7	-7.6	6.1
Gerdau	-5.6	6.5	8.6	-1.2	33.4
<b>Aluminium</b>					
Alcoa	-2.3	3.4	1.2	-11.6	-7.5
Rusal	-1.5	6.7	0.7	-24.7	-34.2
Chalco	-0.6	8.1	-2.7	-14.2	-7.8

■ Best performer ■ Worst performer

Source: MOSL/Bloomberg





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