

SG Thermal Coal Outlook

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Reviewing the fundamentals

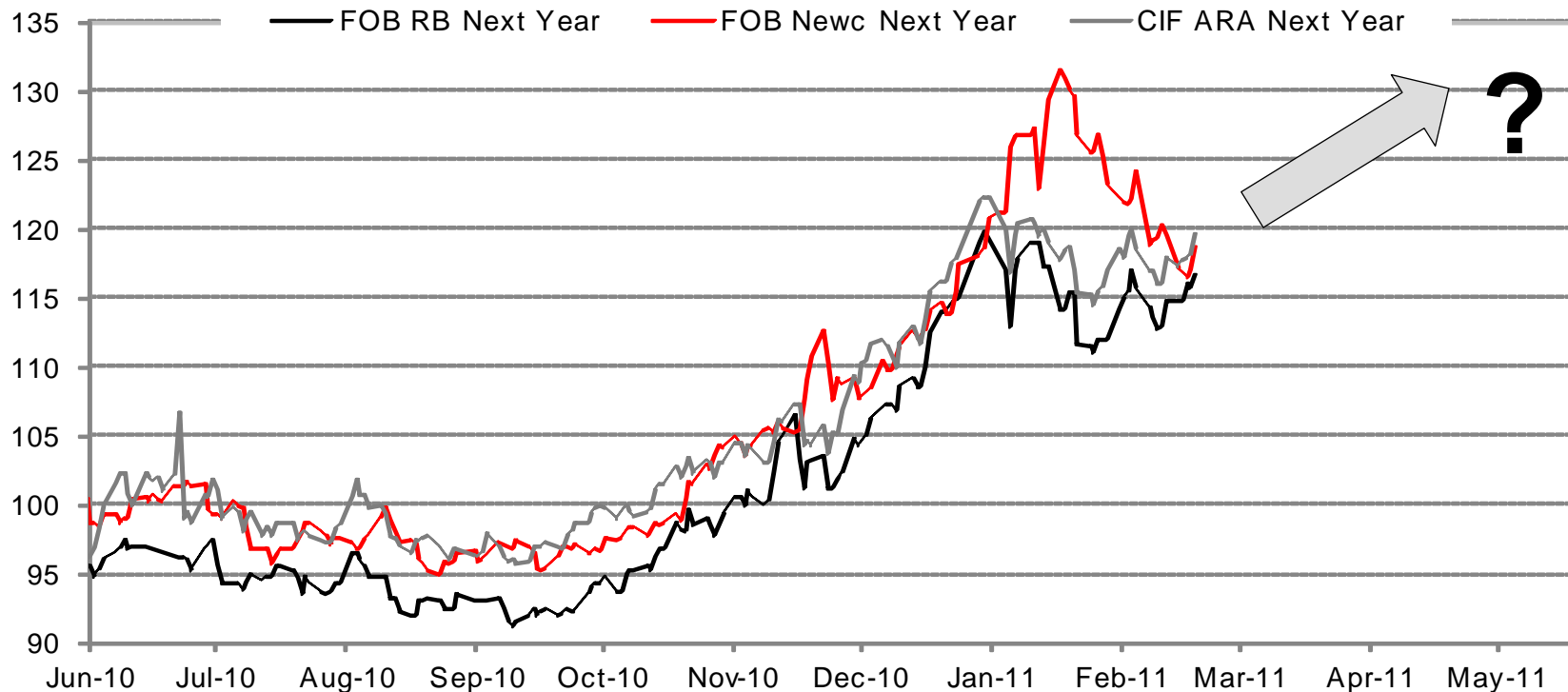
Price and volume outlook

Hedging recommendations

Thermal coal prices: where are we going from here?

- All prices up since mid-September: from \$92-97 /t to \$127 /t for FOB Newc (Australia), \$122 /t for CIF ARA (coal delivered to Europe) and \$120 /t for FOB Richards Bay (South Africa)
- Asian reference FOB Newc overtook both European references

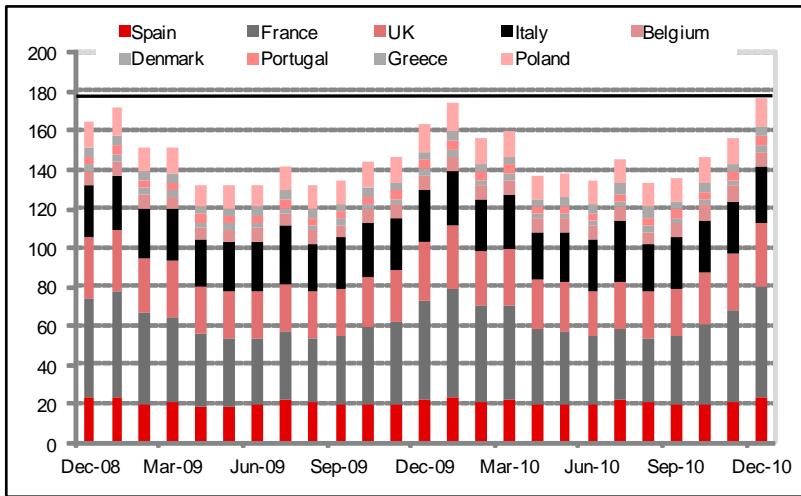
Thermal coal prices (\$/t)



Source: Reuters, SG Cross Asset Research

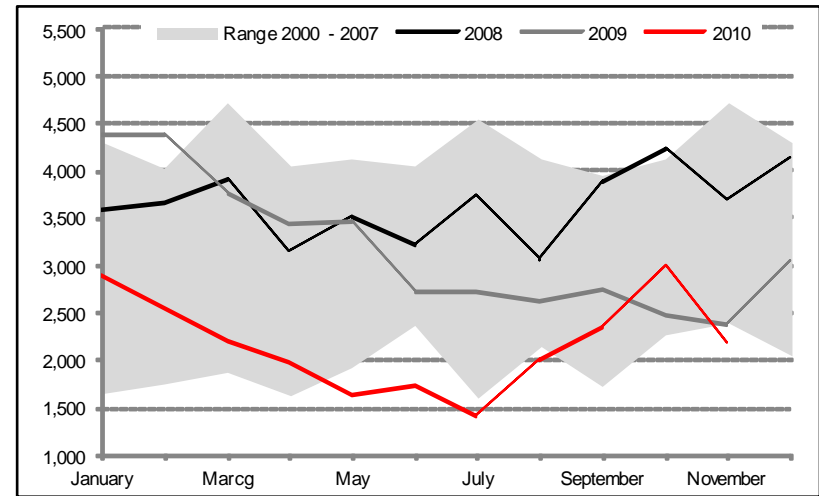
European demand - poor power demand, coal competitiveness: low imports

Key European countries power demand (TWh)



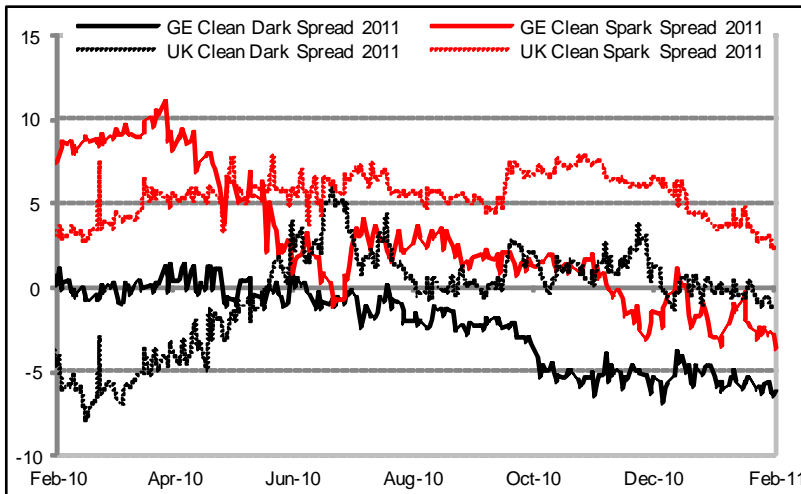
Source: SG Cross Asset Research

UK imports (000 tons)



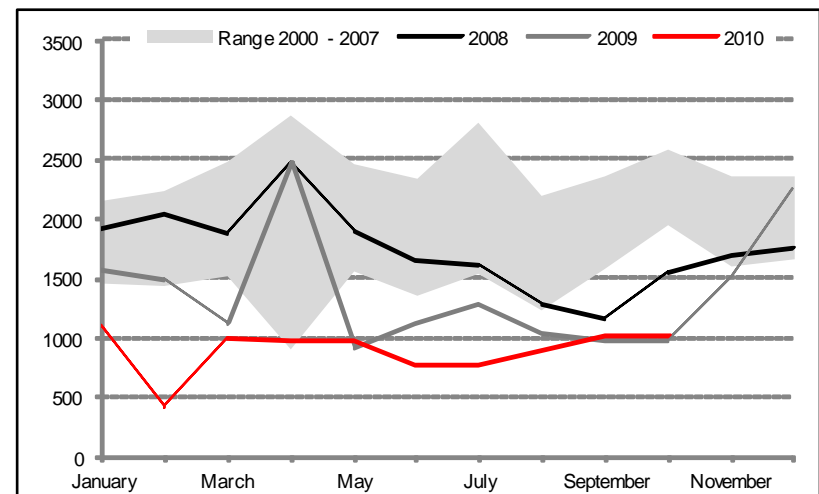
Source: Department of Energy and Climate Change, SG Cross Asset Research

UK and German dark and spark spreads (€/MWh)



Source: Reuters, SG Cross Asset Research

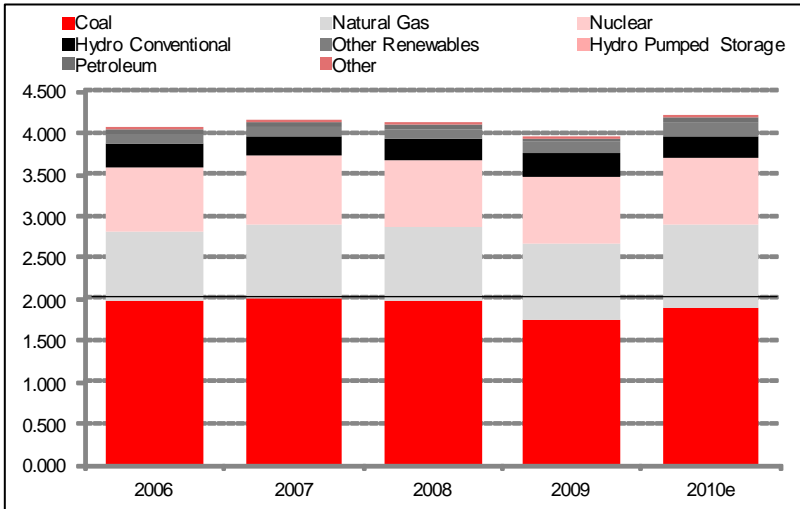
Spanish imports (000 tons)



Source: Eurostat, SG Cross Asset Research

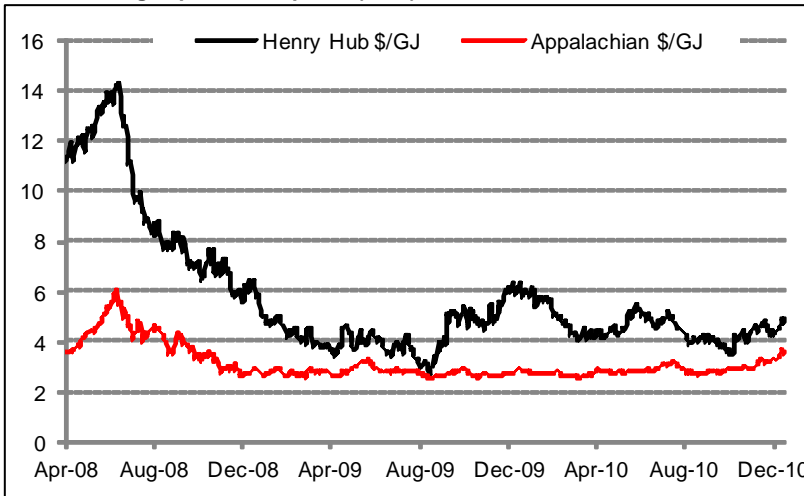
US demand – consumption re-increases but imports continue dropping

Power generation by energy source (TWh)



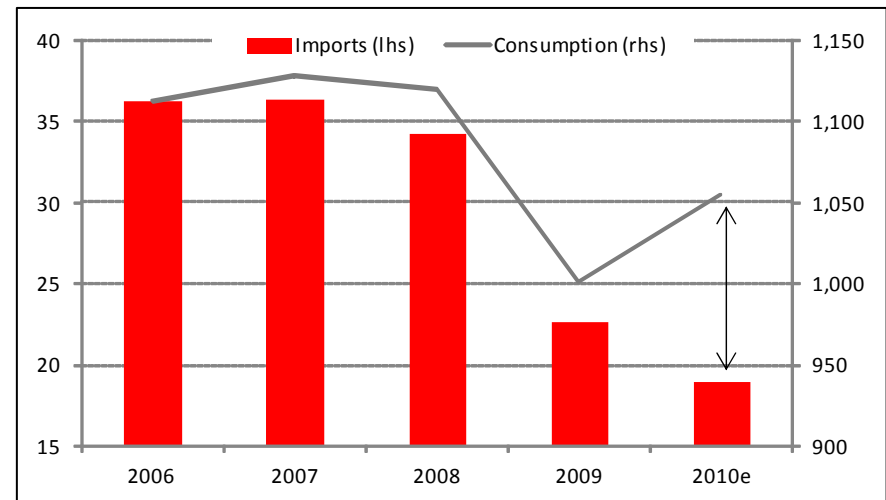
Source: IEA, SG Cross Asset Research

US coal and gas prices compared (\$/GJ)



Source: Reuters, SG Cross Asset Research

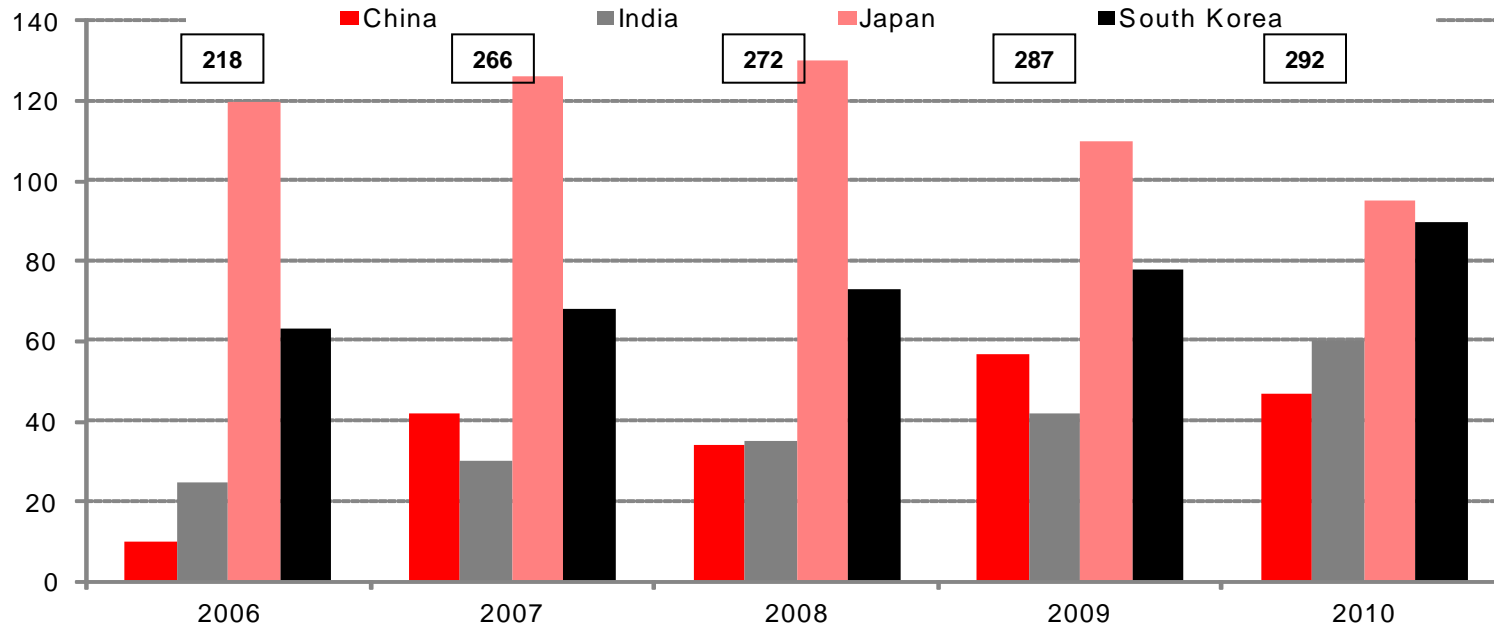
US imports and consumption of coal (Mt)



Source: IEA, SG Cross Asset Research

Asian demand: where the action is

Thermal coal imports (Mt)



Source: SG Cross Asset Research

- Asia now largest importing zone (65% of total)
- Different types of countries
 - Stable, large import-dependent countries (Japan, HK, Taiwan): strong underlying import base
 - Rapidly growing importers (India, South Korea): forcing supply to keep up
 - China the swing player: making the market nervous

Supply is struggling to keep up: logistics is key

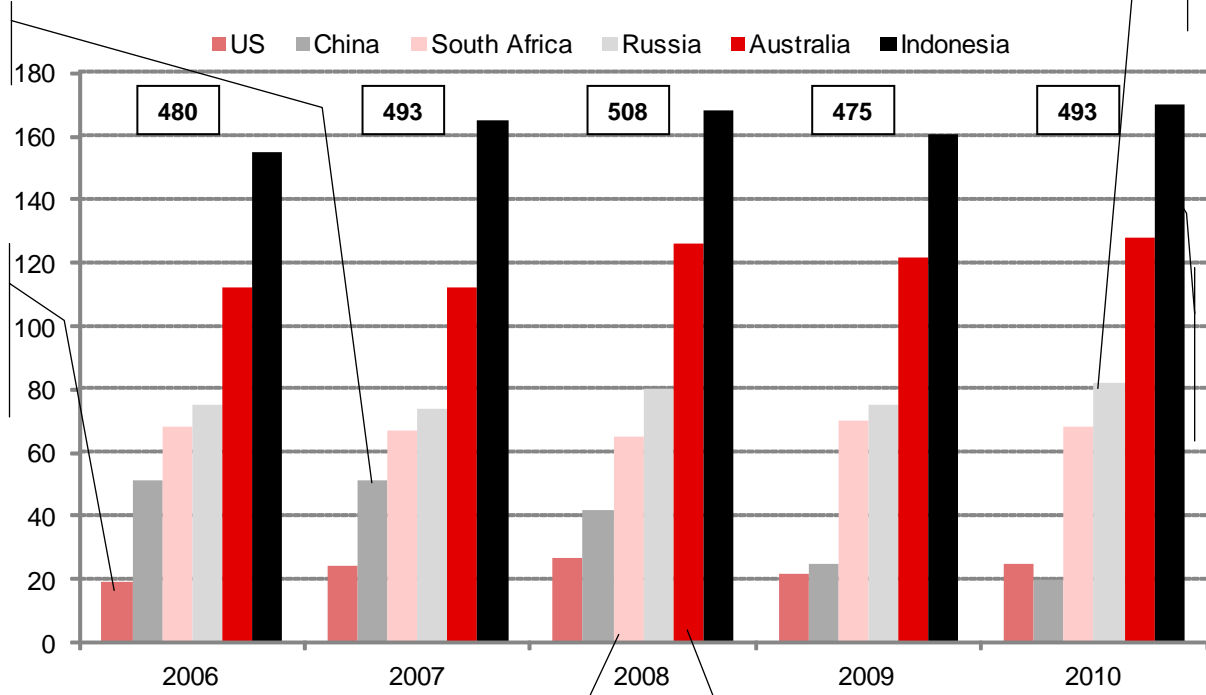
China
 ■ Structurally reducing exports?

US: the wild card
 ■ Large potential supply
 ■ Need high, sustained international prices
 ■ Could dampen expected price rise

Russia: huge potential, in theory
 ■ Crippling distance to export borders
 ■ High costs
 ■ Bad state of railcars
 ■ Unreliable in winter

Indonesia: in doubts over exports
 ■ Rapidly growing needs becoming priority
 ■ Low quality coal
 ■ Seasonal infrastructure

Thermal coal exports (Mt)



Source: SG Cross Asset Research

South Africa: maxing out?
 ■ Ports bottlenecks solved
 ■ Rail bottleneck remaining

Australia: the fragile giant
 ■ New basins to be linked: long and costly
 ■ Ports remaining an issue despite expansions

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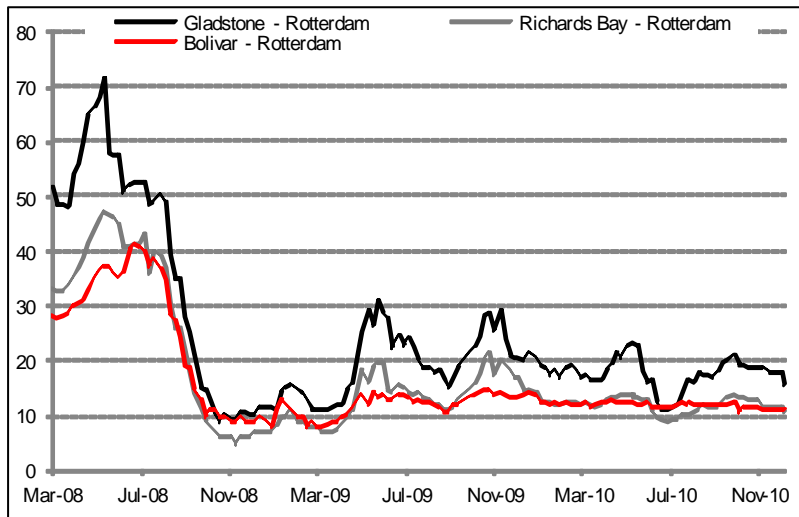
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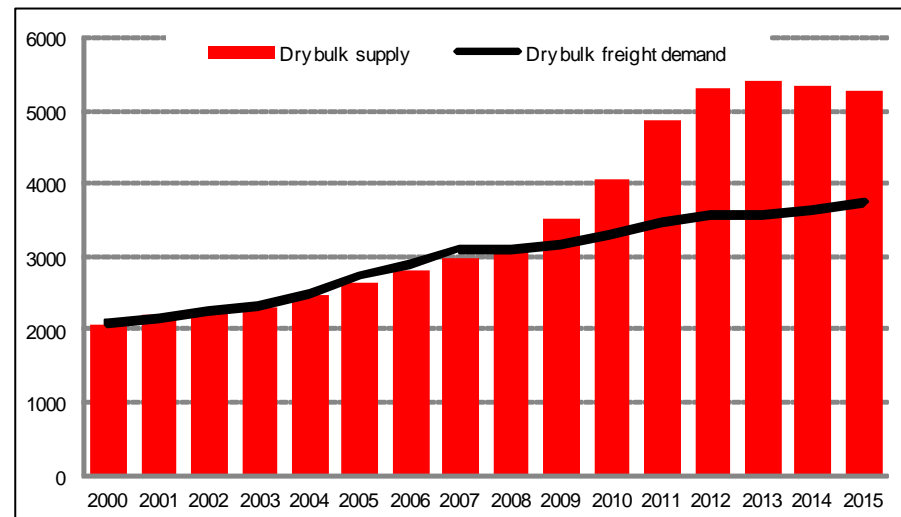
Freight rates are indeed low and bound to remain low as oversupply is increasing: the market will remain global

Main routes to Rotterdam (US\$/t)



Source: Reuters, SG Cross Asset Research

Dry bulk supply-demand balance outlook to 2015 (Mt)



Source: SSY, SG Cross Asset Research

The impact of Australian floods: ahead of us, actually

Facts

Impact

Analysis

Short term

- 75% of mines halted in the State producing more than 50% of Australian coal
- 35% of Australia's exports capacity (90Mt) out
- Some ports re-opening now

- 8% of world export capacity cut

- "Buy the rumour, sell the fact": first price rise over in the short term
- Market not so tight as China has high stocks and cargoes can be re-directed to South Korea; Australian ports holding on own stocks

Medium term

- Might take 3 to 6 months to restore fully normal operations
- Coking coal will be prioritized

- Market will keep tight with low supply buffer
- Operators to remain nervous

- Good conditions for structural rise in prices once winter / flood sentiment effect is over
- High volatility on incidents: other supply shocks, demand shocks

2011 balance forecast: the market will probably tighten

	2006	2007	2008	2009	2010	2011 f
Atlantic Basin Demand (M t)						
Europe and Russia	178	167	170	140	138	145
Middle East and Africa	29	31	34	34	35	37
North America (incl. Mexico)	41	42	38	34	30	34
Latin America	9	10	12	13	14	14
TOTAL	257	250	254	221	217	230

Higher imports but probably will never be back to 2006-2008 levels

Pacific Basin Demand (M t)						
Main Asia	273	325	329	342	349	379
Other Asia and Oceania	53	57	53	55	57	59
TOTAL	326	382	382	397	406	438

Re-increasing fast

World seaborne imports	583	632	636	618	623	668
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Demand will set new highs

	2006	2007	2008	2009	2010 f	2011
Atlantic Basin Supply (M t)						
Eastern Europe and Russia	89	83	85	78	83	86
South Africa	68	67	65	70	68	75
North America	21	26	31	25	29	32
South America	76	74	75	72	79	83
Other	6	6	8	6	6	6
TOTAL	260	256	264	251	265	282

On the rise, partly supplying Asia now

Pacific Basin Supply (M t)						
Australia	112	112	126	122	128	135
China	51	51	42	25	20	25
Indonesia	155	165	168	161	170	170
Vietnam	12	15	17	15	15	17
Other	8	5	7	5	5	5
TOTAL	338	348	360	328	338	352

Maxing out? Dependent on Atlantic suppliers for help now

World seaborne supply capacity	598	604	624	579	603	634
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Supply will also set new highs, but lags – very tight market

Trade imbalance	15	-28	-12	-39	-20	-34
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Medium-term key unknowns for supply-demand are numerous

Demand

- Will China import ever more or rely more on its massive production capacity?
- Can India grow as fast as announced – economy off for good?
- Which maximum price are emerging importers able to stand before demand start being destroyed?

Supply

- Can Australia step up exports from 140 Mt to 200 Mt+? By when?
- How much more could the US export?
- Can Indonesia reverse its stance and go forward with more exports?



For us, US exporters decisions will be key in order to anticipate price behaviour above \$130 /t

Price outlook

NEW FORECAST

- World prices now entirely driven by Asian action: Newc index moves first
- For the coming months, we think the market will remain tight, owing to the medium-term effect of the Australian and Colombian floods
- However we think the market should first go through a correction period once the winter is over

\$/t first nearby	2009	Q1 10	Q2 10	Q3 10	Q4 10	2010	Q1 11f	Q2 11f	Q3 11f	Q4 11f	2011f
CIF Rotterdam	69.9	78.1	88.2	92.8	103.0	90.5	125.0	115.0	120.0	130.0	122.5
FOB Richards Bay	64.3	83.3	91.2	88.9	99.0	90.6	123.0	113.0	118.0	128.0	120.5
FOB Newcastle	N/A	93.0	100.2	93.4	105.0	97.9	130.0	125.0	130.0	140.0	131.3
C4 route freight rates	12.9	13.0	13.0	10.4	14.0	12.6	15.0	16.0	17.0	18.0	16.5

Source: SG Cross Asset Research

\$/t first nearby	2009	2010	2011f	2012f	2013f	2014f	2015f
CIF Rotterdam	69.9	90.5	122.5	115.0	125.0	130.0	140.0
FOB Richards Bay	64.3	90.6	120.5	110.0	120.0	123.0	130.0
FOB Newcastle	N/A	97.9	131.3	120.0	130.0	140.0	160.0
C4 route freight rates	12.9	12.6	16.5	20.0	22.0	25.0	30.0

Source: SG Cross Asset Research

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Trading recommendations: go for relative hedging as prices are already high

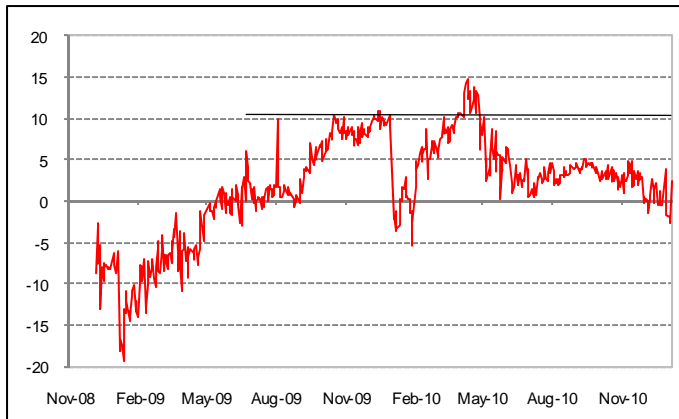
Buy Newc, Sell CIF ARA

- Rationale: due to the increasing difference in regional dynamics, the spread between Australian and European references will widen
- Buy Newcastle 2012 calendar and sell CIF ARA calendar as long as the spread is below \$2 /t
- Take profit at \$10 /t
- Stop loss at \$-2.7 /t

Sell Cal 12, Buy Cal 13 CIF ARA

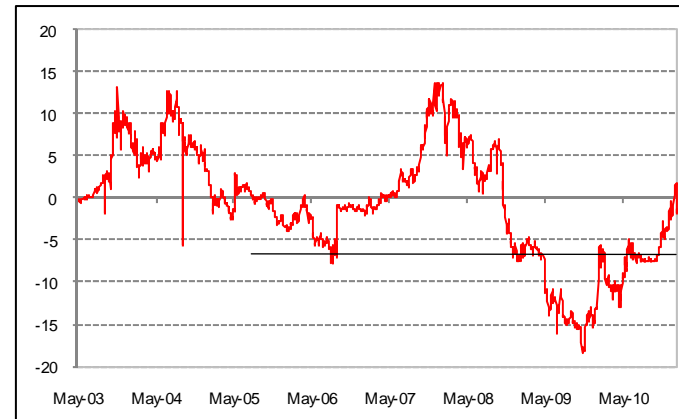
- Rationale: the CIF ARA curve moved into a strong backwardation on winter cold and Australian movements. Structurally, the front-end demand in Europe will soften from present levels
- Buy 2013 CIF ARA calendar and Sell 2012 CIF ARA calendar as long as the spread is above \$1.5 /t
- Take profit at \$-7.7 /t
- Stop loss at \$3.1 /t

Newcastle 2012 – CIF ARA 2012 (\$ /t)



Source: Reuters, SG Cross Asset Research

CIF ARA 2012 – CIF ARA 2013 spreads (\$ /t)



Source: Reuters, SG Cross Asset Research

Back-up to the strategies

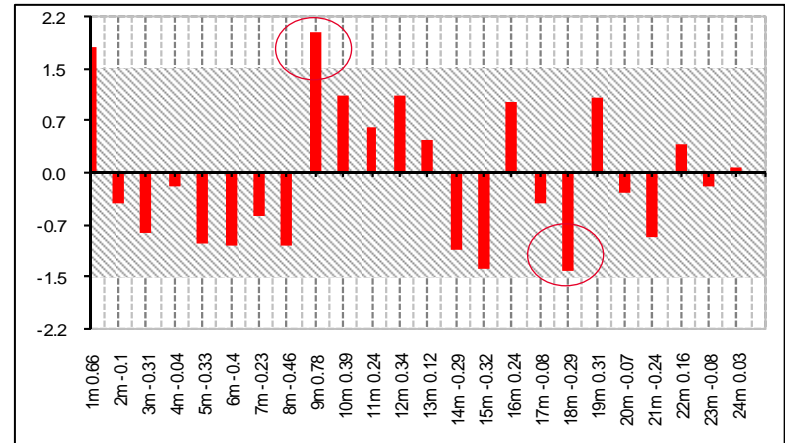
Technical analysis on CIF ARA 2012



Source: CQGS Cross Asset Research

- Technical analysis: we are entering the overbuying zone

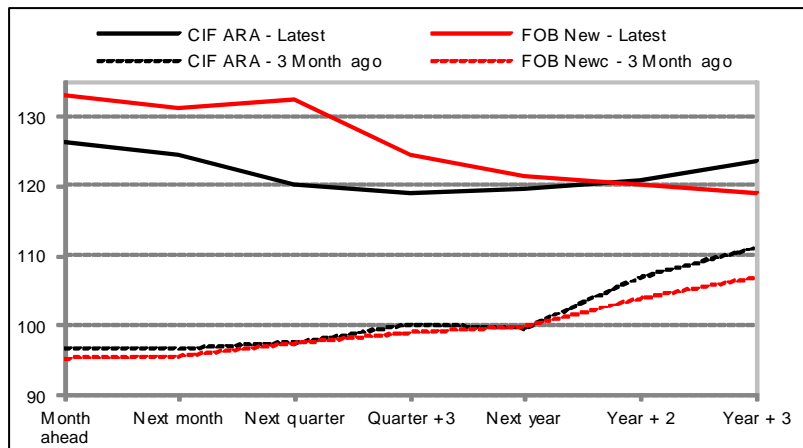
PCA on CIF ARA forward curve



Source: SG Cross Asset Research

- PCA analysis indicates 9 months forward contract too expensive while 18 months cheap.

Forward Curves CIF ARA – FOB Newc



Source: Reuters, Cross Asset Research

- The forward curve has gone into backwardation, from its more usual contango structure

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