

IRON ORE MARKET DYNAMICS 'REASONS TO BE CHEERFUL?'

Iran – December 2016

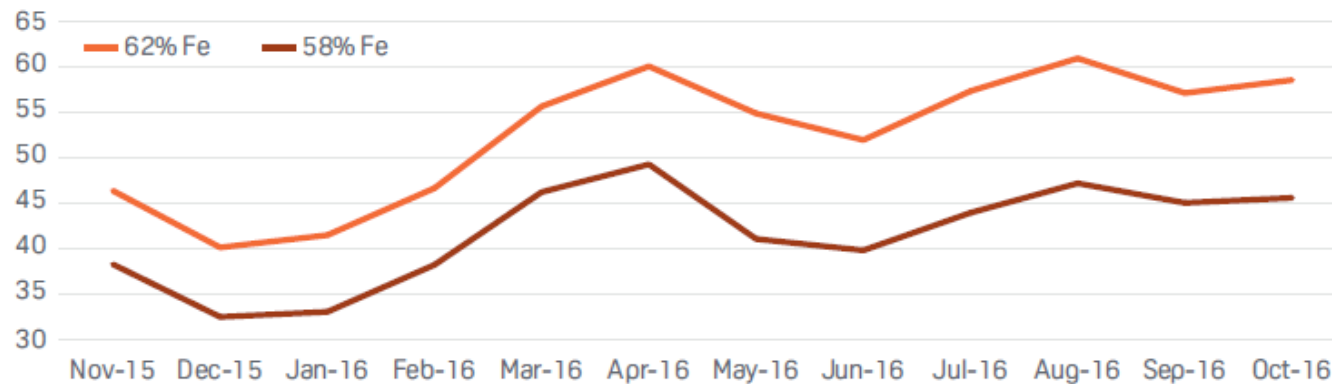
Diana Kinch – Senior Editor, S&P Global
Platts



SEABORNE IRON ORE PRICES HAVE RECOVERED

- Iron ore prices have rebounded on stronger steel prices (as high met coal prices passed through)
- Physical prices influenced by Dalian Commodity Exchange iron ore futures – adds to volatility

PLATTS 62% & 58% Fe IRON ORE MONTHLY AVERAGES CFR CHINA (\$/dmt)



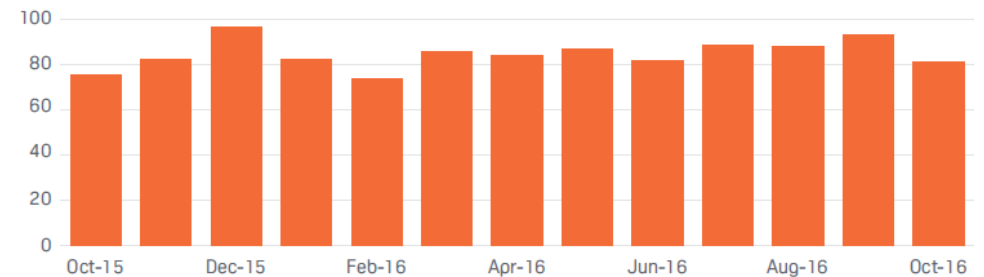
Source: Platts



CHINA'S IMPORTS TO HIT 1 BILLION MT IN 2016

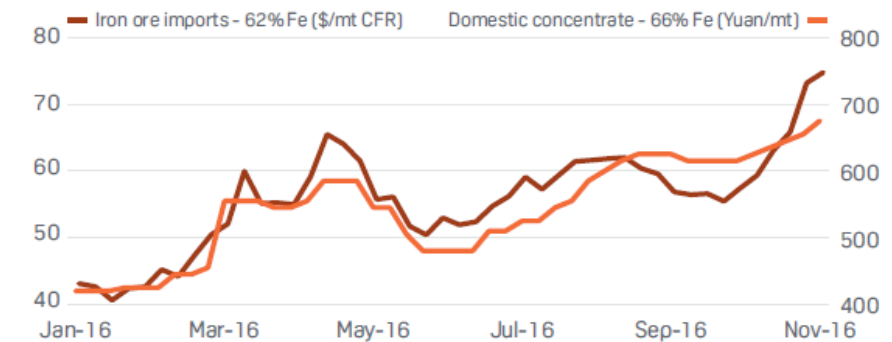
- Ratio of China's imports to domestic usage close to 90:10
- New Chinese supply too expensive, low grade and deep underground
- More efficient captive mines will continue, subsidized by mills and local government
- Chinese mines also subject to environmental inspections

CHINESE MONTHLY IRON ORE IMPORTS (million mt)



Source: China Customs

CHINA DOMESTIC VS IMPORT IRON ORE PRICES

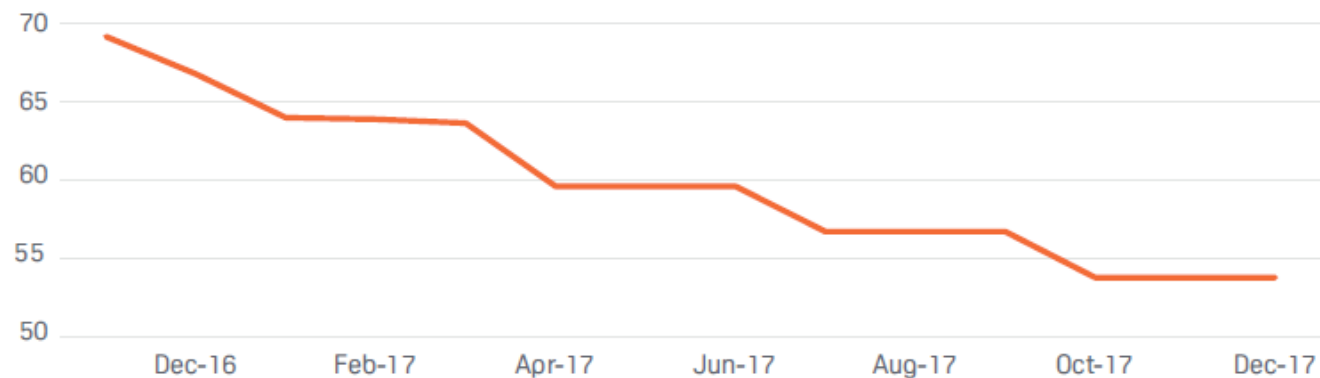


Source: Platts

MEDIUM-TERM PRICE OUTLOOK BEARISH

- Prices recover after 44% slump in 2015
- Two-year high of \$80/mt cfr China in late Nov
- Restocking in China, government stimulus support, more credit availability
- But futures market has priced in supply overhang next year
- Most forecasts around \$50/mt CFR in 2017 – but Q1 could be stronger

62% Fe IRON ORE FORWARD CURVE (\$/mt CFR)

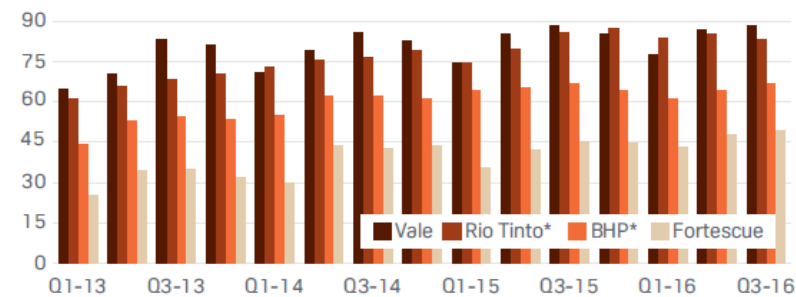


Source: TSI, SGX



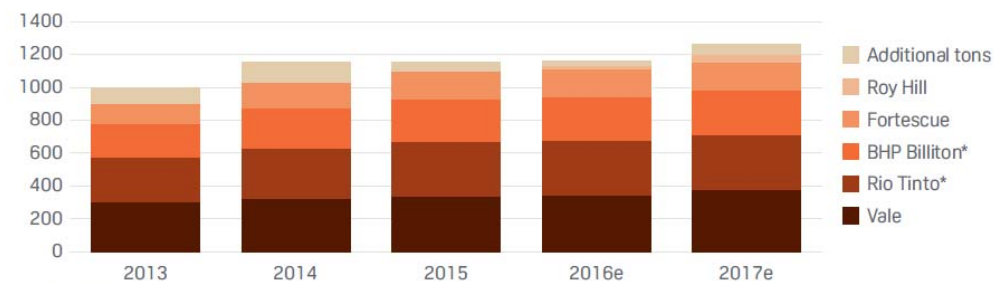
IRON ORE EXPANSION – A CHANGE OF STRATEGY?

BIG 4 - QUARTERLY IRON ORE PRODUCTION (million wmt)



*BHP and Rio 100% basis
Source: Company reports

IRON ORE PRODUCTION BY COMPANY 2013-2017 (mt)



*100% basis
Source: Company reports, Analyst reports, Platts

- Majors moving to “volume over value” approach, slowing expansions
- Platts sees +35-38 mil mt of new tons in 2016 ; +60-65 mil mt in 2017?
- New tons from Vale S11D (+ net 75 mil mt and Roy Hill (55 mil mt/year)
- FMG has hit 165 mil mt/year capacity
- Cost reduction getting tougher for juniors and swing suppliers
- **Iron ore price outlook in 2017 (stronger for longer?)**

RIO TINTO HAS WALKED AWAY FROM SIMANDOU

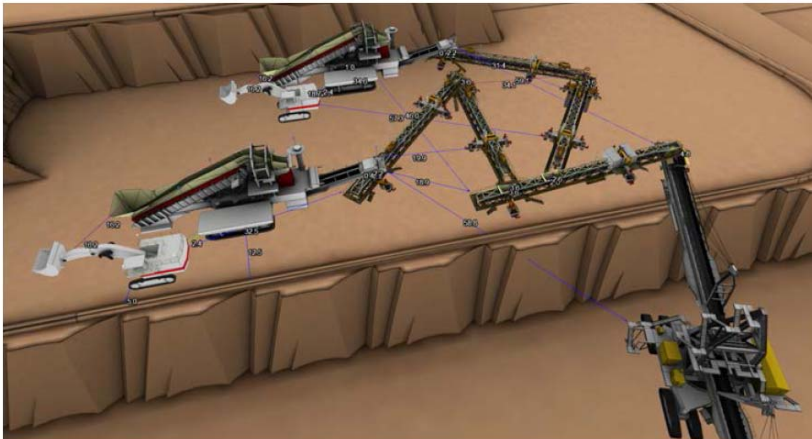
- Rio (under new CEO J-S Jacques) has become bearish on China steel growth
- So where is long-term iron ore supply coming from?



Source: Rio Tinto

THE WAY FORWARD: INNOVATION AND COST-SAVINGS

- Miners decreasing cash cost by raising throughput
- Vale's S11D cash cost around \$10/mt at port
- Automation: driverless trucks/trains
- Environmental factors increasingly important: safety of tailings dams
- Dry processing: innovations at New Steel



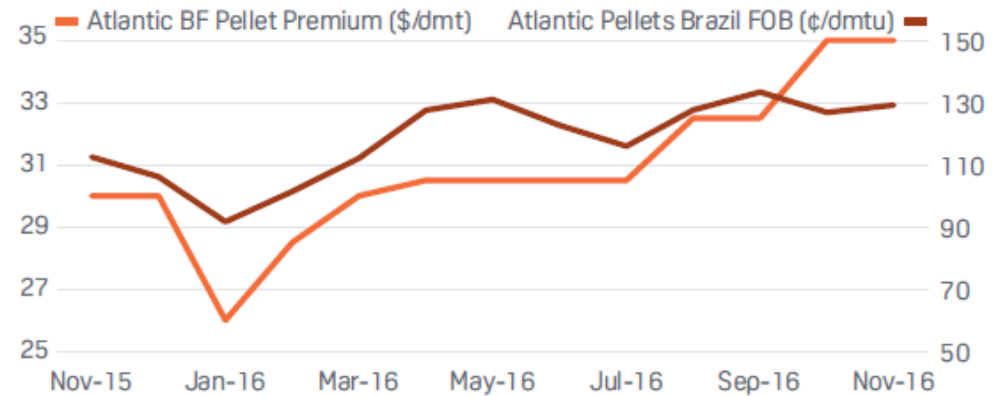
Vale S11D 3-D spatial processor validation image. Source: GPSat Systems



ARE THERE OPPORTUNITIES FOR IRAN IN THE PELLETT MARKET?

- Global supply shortage after Samarco closure
- Mills looking for higher-quality inputs, both now – to reduce met coal usage; and in the future – for environmental reasons

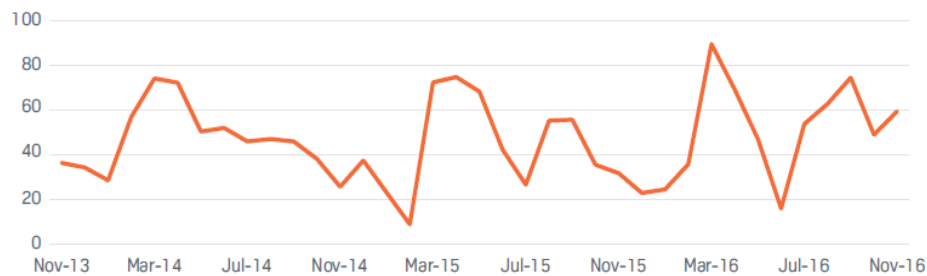
ATLANTIC PELLETS PRICE AND PREMIUM



Source: Platts

2016 WAS A BIG SURPRISE FOR STEEL

PLATTS CHINA STEEL SENTIMENT INDEX HISTORY (points out of 100)



Source: Platts

DOMESTIC MARKET DRIVES UP CHINESE EXPORT PRICE (\$/mt)

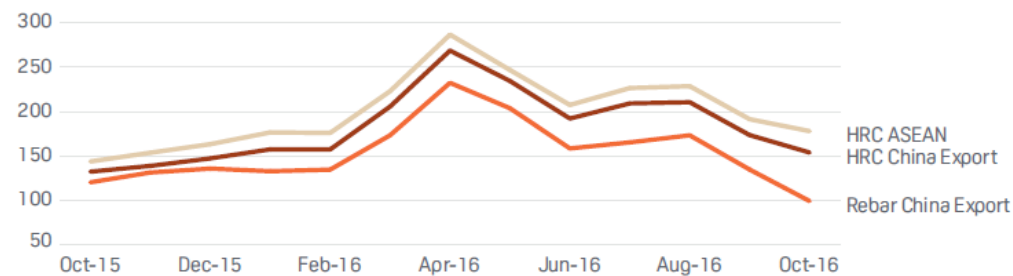


Source: Platts

- Sentiment has rebounded
- Huge restocking seen this year
- Domestic rebar and HRC prices up 60% from January
- Latest price surge driven by met coal
- Export prices have risen, supported by low inventories in export markets
- Steel and iron ore futures influence physical prices
- Series of output cuts in Tangshan, flower show, G20 etc
- Lower inventories across steel supply chain

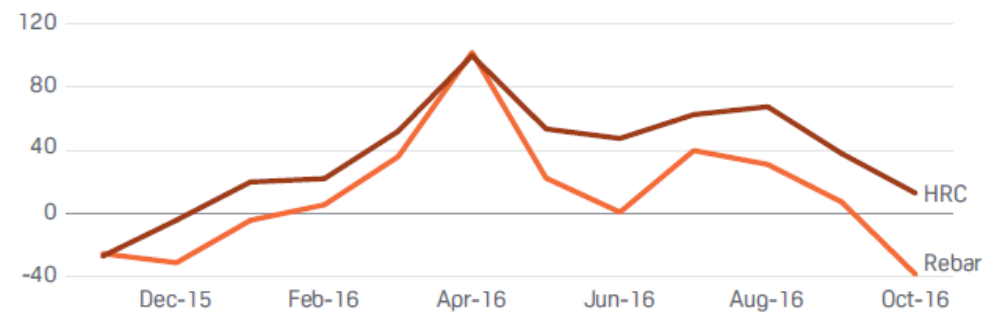
BUT STEEL MARGINS ARE EXTREMELY SLIM

PLATTS TSI ASIA STEEL MILL SPREADS (\$/mt)



Source: Platts

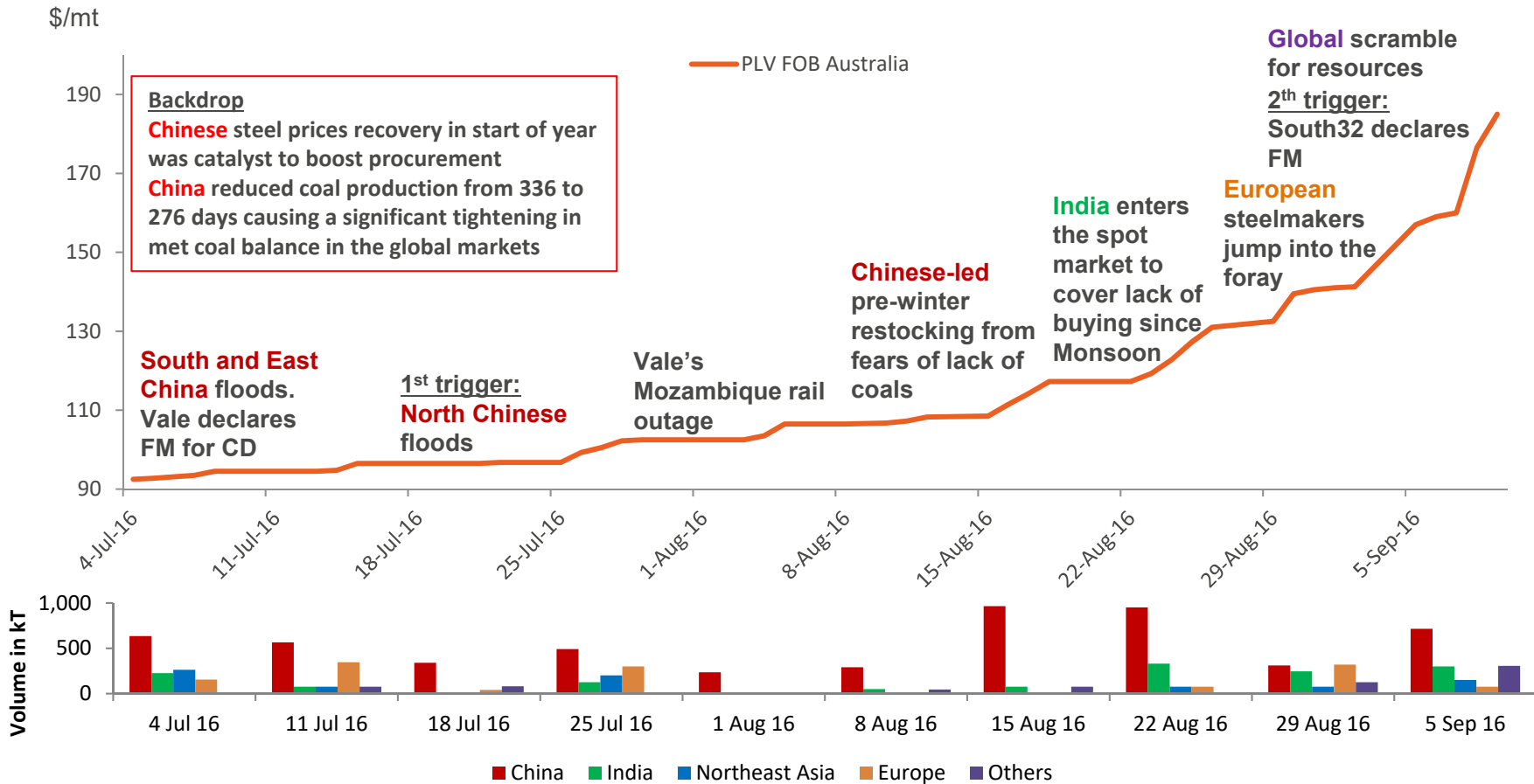
PLATTS MVS CHINA DOMESTIC STEEL MARGINS (\$/mt)



Source: Platts

- Despite higher prices, mills struggling to make money
- Spreads have fallen from April's peak
- Rebar mills making a loss
- Mills turning off steelmaking facilities
- Higher prices incentivized steel production to restart
- But coke shortages should stem near-term output

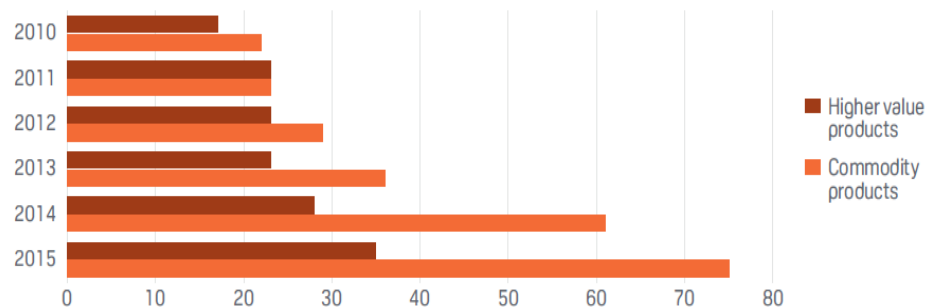
MET COAL PRICE RALLY EXPLAINED



Source: Platts PLV+HCC data

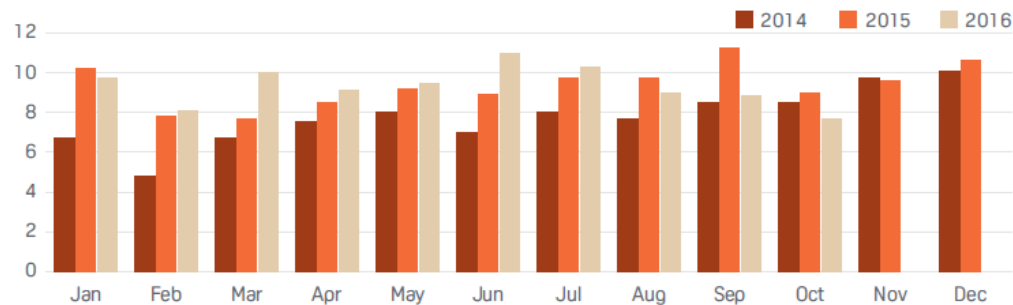
STEEL OVERCAPACITY RIFE IN CHINA, RELIES ON EXPORTS AS DOMESTIC DEMAND SOFT

CHINESE STEEL EXPORTS WORLDWIDE (million mt)



- Exports of 93 mil mt in Jan-Oct, up 1 mil mt y-o-y
- Strong demand in HK, Korea and Vietnam for longs and flats
- Trade case battles heating up
- US the most aggressive
- AD & CVD cases short-term solutions, overcapacity the main issue
- Will China reduce capacity by 100-150 million mt by 2020?

CHINA'S STEEL EXPORTS (million mt)



Source: China Customs





diana.kinch@spglobal.com

THANKS!

