



Fortescue
The New Force in Iron Ore

The BMO Capital Markets 2011 Global Metals & Mining Conference

28 February 2011

The waves shaking the world

- **China, India and Third Wave**

- Almost ¼ of world GDP and growing rapidly
- Half of world population enjoying rising standards of living
 - Wealth will approximately double every 10 years
 - Increased wealth taken initially as calories by poorer people
 - Upward pressure on food prices globally



- **Rising food prices will have repercussions elsewhere**

- In stagnant economies will result in falling living standards
- This will generate political instability



Communications change regimes quicker than bullets

- **Internet and mobile phone communication**
 - Allows dissemination of political discontent

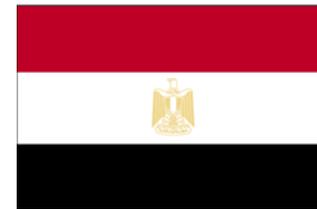
- **Stagnant economies**

- Politically inspired regulation
- Tolerance of corruption
- Rent seeking by political elites



- **Rising food prices + Stagnant economies + Digital Communication**

- Tunisia, Egypt, Libya, etc



The impact of digital communication

Growth of mobile phones

- CISCO predicts 138 million users globally by 2015 without access to electricity grid
- Is underpinning productivity growth in less developed countries
 - No need to wait for electricity
 - No need to wait for fixed lines
- **Phone credits acting as parallel currency/ banking system**
- **Mobile phones communicate market conditions – improving effectiveness of markets**



This will be increasingly important in underpinning and sustaining Indian and Third Wave growth

China and India



China able to maintain growth > 8 per cent growth

- Overheating, property price inflation can cause problems
- Controlled through directives used to keep growth balanced
- Around 13 per cent of world GDP; 1.3 billion people

China and India

Indian growth expected to mirror Chinese performance > 8 per cent growth



- Least affected of all large economies by GFC
- Strong growth underpinned by growing domestic demand
- Around 5 per cent of world GDP; 1.1 billion people

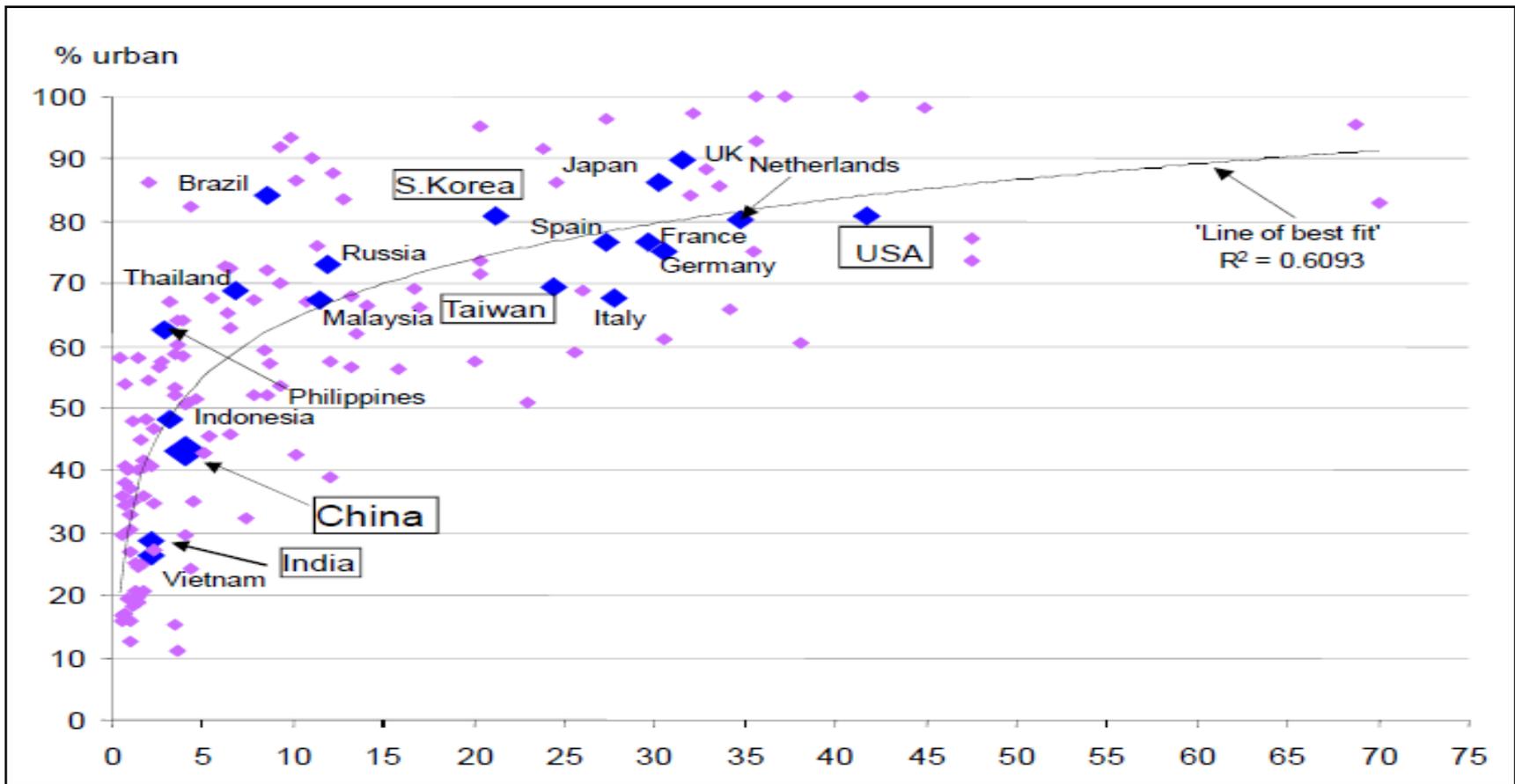
China and India shielded from the GFC



- In the depression, incomes collapsed in Ireland
- The price of potatoes actually increased
- People could not afford anything else. It was called a “Giffen Good”
- When the world really needed value for goods and services; it turned to China and India, shielding them through the GFC
- Their internal consumption growth coupled with cheaper goods and services made their economics more competitive

China and India

Urbanisation in China and India has a way to go



Source: CRU

This will be typical of dozens of future
Chinese cities



World's biggest economies

US economy has a faltering recovery > 2% growth

- But it is underway – US auto sales up 17% y-o-y
- Housing market problems, remains very sensitive to interest rates



European recovery more muted with peripheral economies struggling with levels of government debt ~ 1.5% growth over medium term

- European Central Bank won't allow government defaults
- Maastricht requirements dictate austere budgets depressing growth
- Pockets of growth (Germany); but overall pretty stagnant



World's biggest economies – cont.



Japan – continuing massive government debt problems < 1% growth

- Sclerotic growth will continue
- Around 6% of world GDP; 130 million people



Major Advanced Economies - USA, Europe and Japan

- 46% of world GDP but declining
- 930 million people
- 1.5% < GDP growth < 2%



Collectively - China and India

- 18% of world GDP now; but reaching 22% within 5 years
- 2.4 billion people
- Growth above 8%

Others

Big economies underpinned by resources

~ 4% growth

- Canada; Russia; Australia; Brazil; and South Africa - “CRABS”
- Will continue to do well whilst commodity markets remain strong
- Collectively around 10% of world GDP; 440 million people



“Third wave” of South and South East Asian economies ~ 6% growth

- “First wave” – China; “Second wave” - India
- Diverse bunch ranging from Malaysia to Indonesia and Sri Lanka
- Collectively around 5% of world GDP; 1 billion people



CRABS + Third Wave

- Currently 15% of world GDP – bigger than Chinese economy
- Currently 1.4 billion people – bigger than China’s population

China, India and Third Wave ridden by the CRABS

USA Europe Japan	Slow growth Remaining below trend	GFC related impacts endure	Significance to world GDP declining
China	GDP expected to increase by <u>over 50%</u> over 5 years	Performance de-linked from USA Europe and Japan	Share of world GDP increasing The biggest impetus to world growth
India	GDP expected to increase by <u>almost 50%</u> over 5 years	Now achieving China rates of growth Balanced growth	Following in China's footsteps – the second wave
Third Wave	GDP expected to increase by <u>over 33%</u> over 5 years	Contagious effect from China and India	Coming up behind China and India
CRABS	GDP expected to increase by <u>around 25%</u> over 5 years	Riding the waves	Robust growth whilst commodity demand remains strong



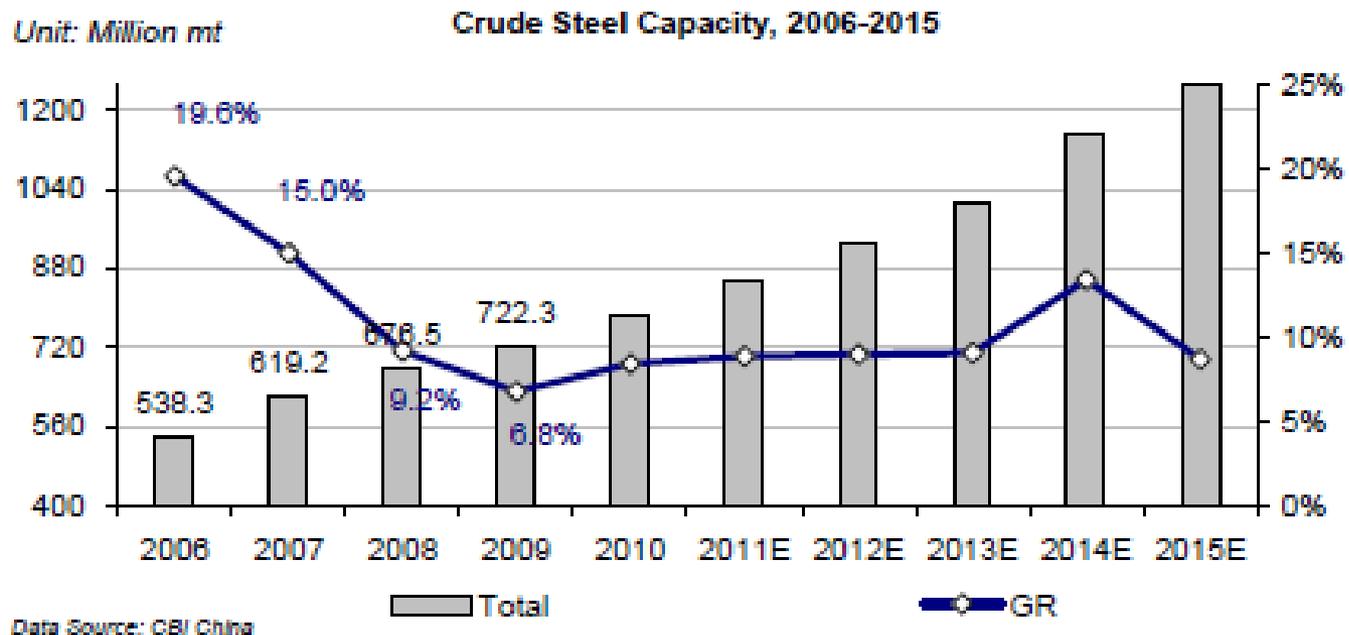
Iron ore industry overview

- Over the last decade, growth in demand for iron ore has been underpinned by significant demand from China and other emerging economies
- Primary driver has been the industrialization and urbanization of these regions
- The major iron ore producing countries are Australia, Brazil and China
- Export iron ore production has very high barriers to entry
- Iron ore producers have been challenged to expand rapidly enough to keep pace with global demand

Seaborne iron ore outlook

China's growth will be supported by continued steel capacity expansions

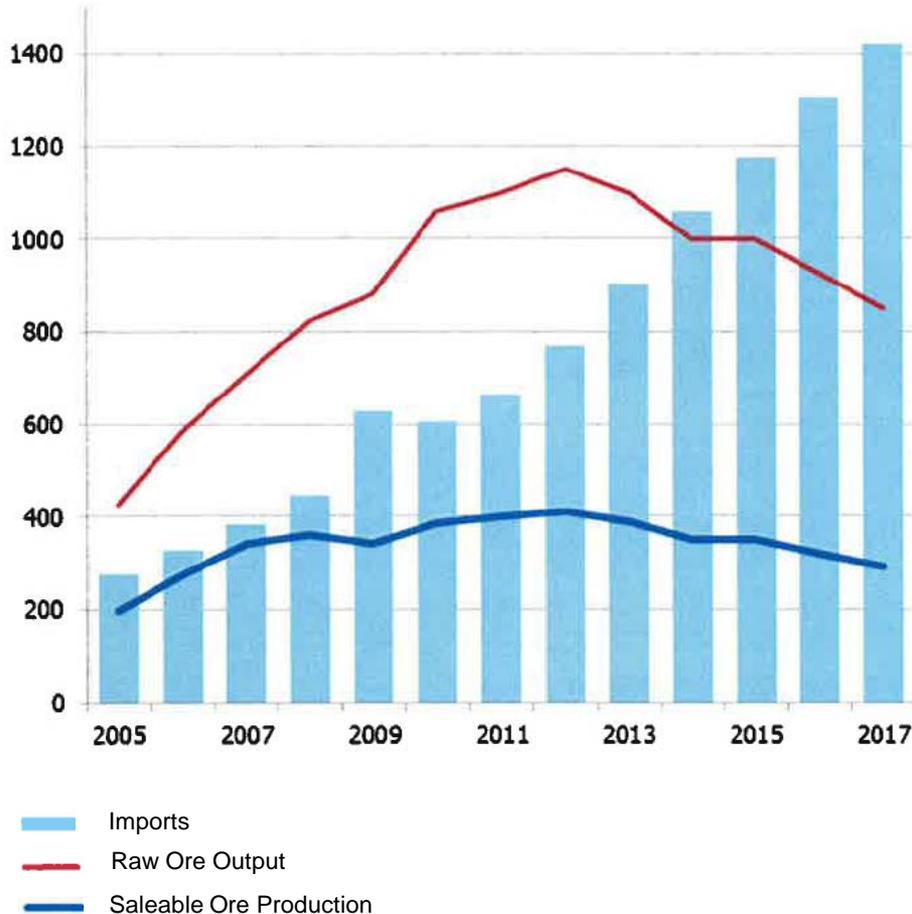
- Crude Steel production capacity
- Approximately 790mt capacity in 2010;
 - To around 1290mt in 2015
- An increase in steel capacity of 500mt in 5 years



Source: CBI China

Seaborne iron ore outlook

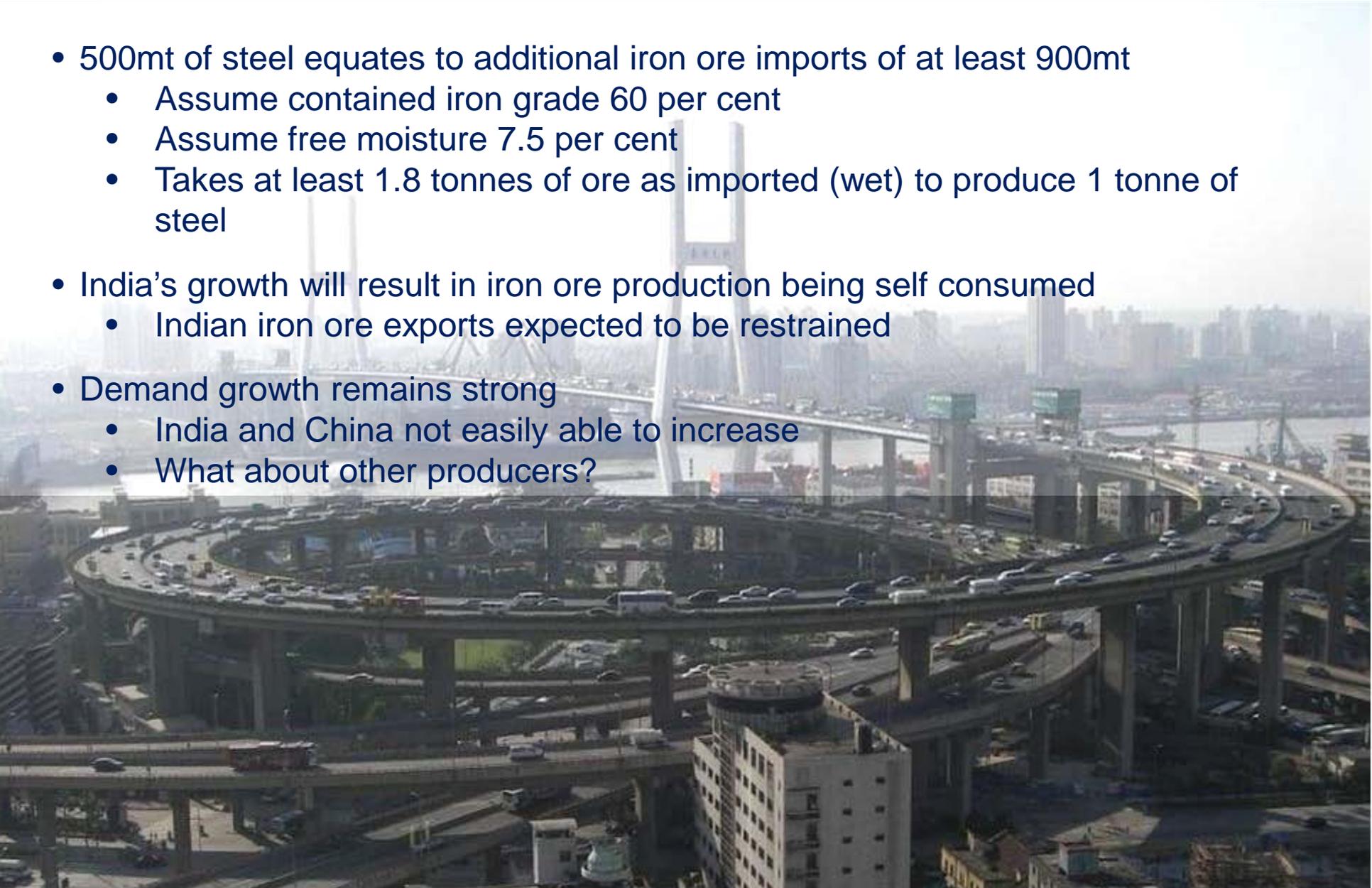
Domestic vs. Imported Ores (Mt)



- Domestic ore production measured by contained iron difficult to sustain
 - Though physical tonnes may increase, grade is falling faster
 - Production increases will be possible only at higher prices
- Increased demand for iron ore from China but;
- Domestic production not able to respond further without price rises

Seaborne iron ore outlook

- 500mt of steel equates to additional iron ore imports of at least 900mt
 - Assume contained iron grade 60 per cent
 - Assume free moisture 7.5 per cent
 - Takes at least 1.8 tonnes of ore as imported (wet) to produce 1 tonne of steel
- India's growth will result in iron ore production being self consumed
 - Indian iron ore exports expected to be restrained
- Demand growth remains strong
 - India and China not easily able to increase
 - What about other producers?



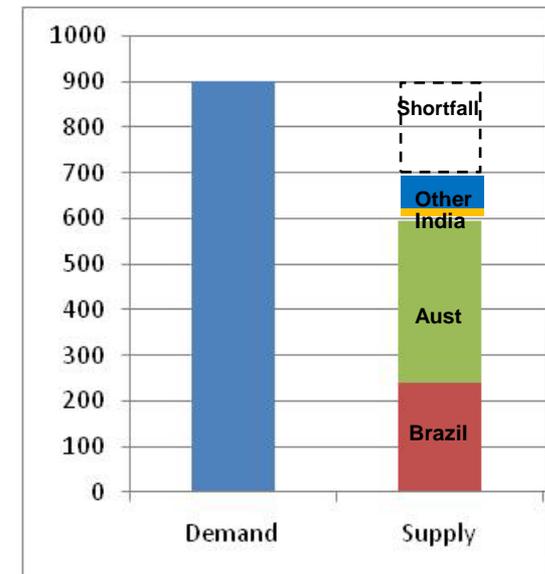
Expected Asian supply by 2015

- Brazilian ~ 240Mtpa (mostly Vale)
- Australian Producers ~ 353mtpa
 - Fortescue ~ 115mtpa increases (to 155mtpa)
 - BHPB ~ 80mtpa increases(to 235mtpa)
 - Rio Tinto ~ 65mtpa increases (to 283mtpa)
 - Citic ~ 23 mtpa (coming on supply)
 - Others hopefuls (eg Atlas, API, Hancock etc) ~ 70mtpa
 - NWIOA ~ no finance
 - Mid-West ~ delays
- Indian ~ 20mtpa (increases in exports restrained)
 - Exports will continue
 - High prices will over-ride political constraints
 - Constraint comes from domestic demand



Expected production increases by 2015

- Others (eg SNIM, Kumba, etc) ~ 75mtpa
 - South Africa ~ 15mtpa (Kumba)
 - West Africa ~ ?
 - Risk precludes conventional finance
 - New infrastructure not built
 - Upgrades to existing possible
 - Delays - Rent seeking by politicians
- 900mtpa increased demand – 688mtpa identified supply



Conclusion:

- Chinese domestic response requires higher prices
- If China builds 500mtpa of additional steel capacity by 2015 there will be a shortfall in supply



www.fmgl.com.au



Fortescue
The New Force in Iron Ore