# The Future Outlook

Global Economic, Steel, Met Coal and Coke Outlook



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### **Presentation Structure**

- The year in review
- China in 2006
- Global economic situation and outlook
- Outlook for Steel
- Outlook Met Coal and Coke
- Summary

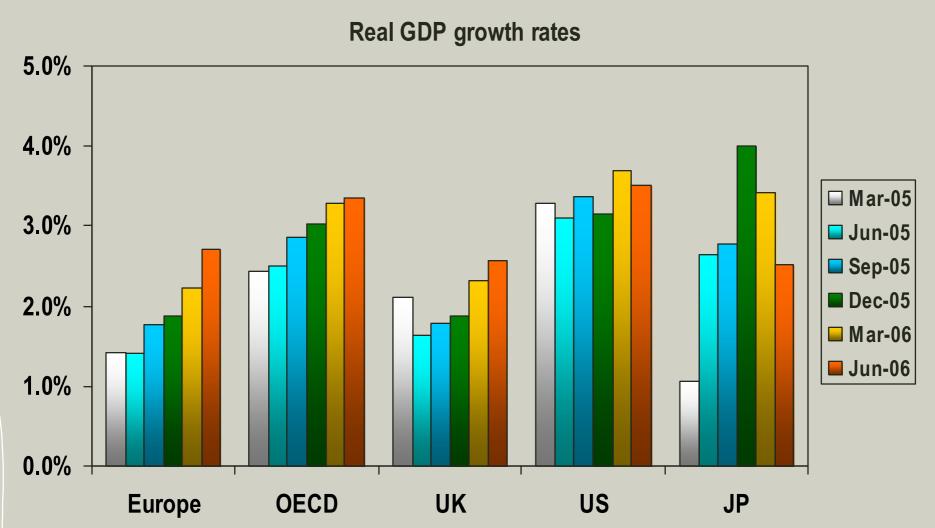


# The year in Review

- 2006.... Sunny early becoming more cloudy



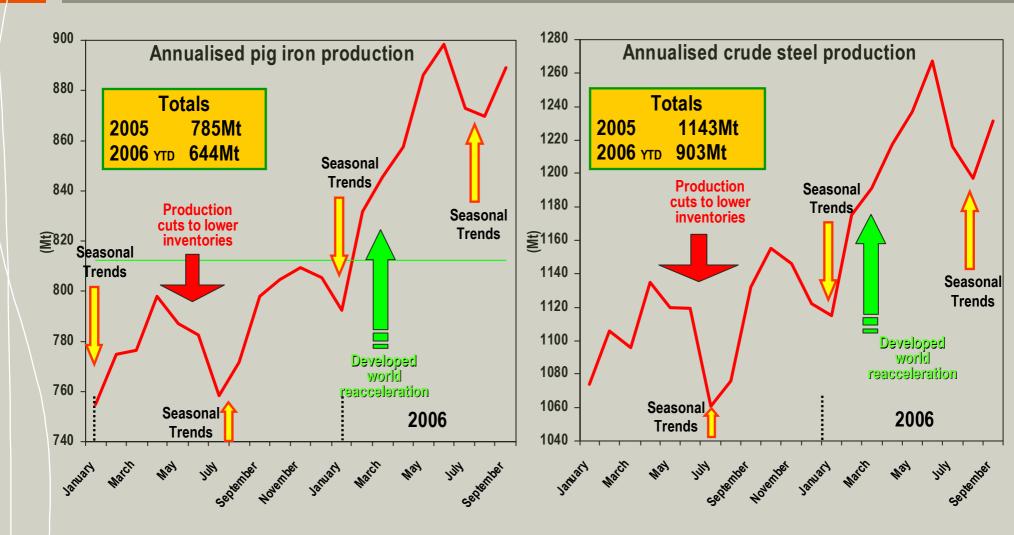
# **GDP** growth rate trends in 2006





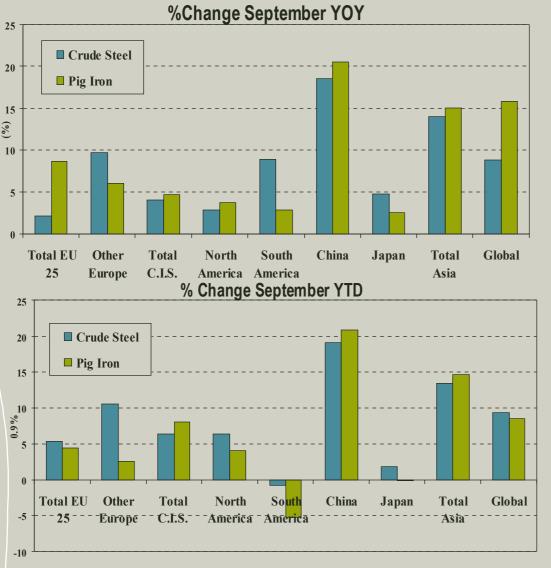
Source: Datastream

# Annualised steel and pig iron production trends





# Changes in Steel and Pig Iron Production in 2006



- Global production increasing in all regions during 2006 – China dominant
- Global Steel & pig iron production continues at record rates
  - ⇒ ~1220Mtpa & 880Mtpa annualised respectively
  - ⇒ Developing world up strongly
  - ⇒ Global steel +77Mt China 48Mt
  - ⇒ China share 62% (05 global ex China –ve)
- China dominates production
  - ⇒ China share of global steel est ~35% and ~48% of global pig iron



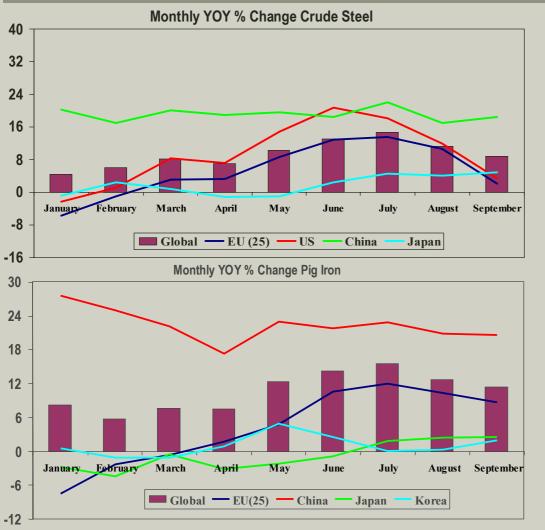
Source: IISI

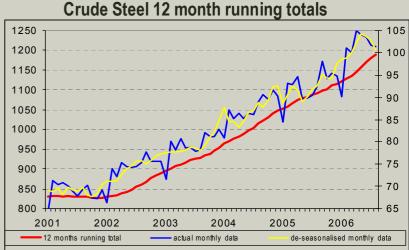
# Finished Steel Inventories 2005-2006

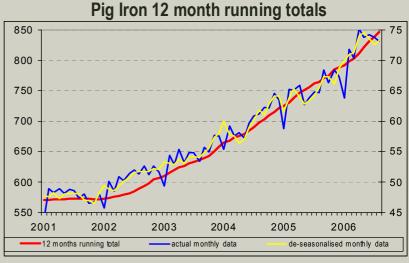




# Changing trends emerged during the year

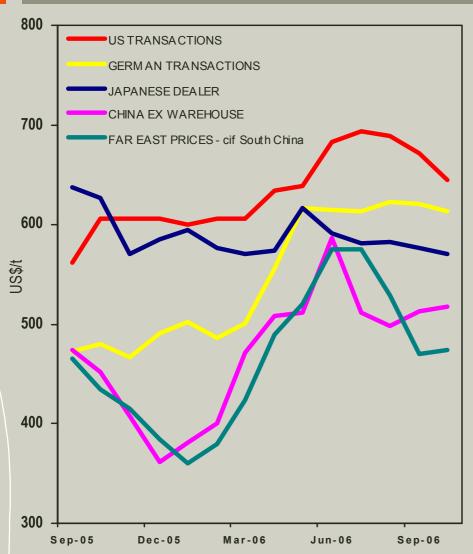








# HRC steel prices in 2006

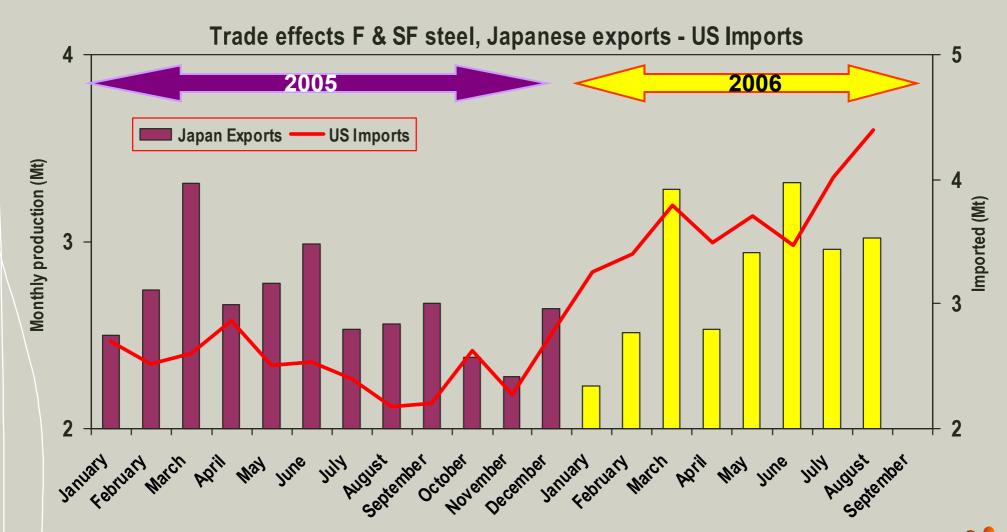


- Strengthening prices Europe/US peaking now in decline
- Asian prices ex Japan bottoming around Chinese New Year
- Strong imports into US affecting prices = rising inventories and declining prices
- Pricing converging
  - US declining
  - Asian inc China rising
  - Europe ~flat
- Steel pricing mixed: high value products holding price better than commodity steel
- 2006 prices well above long term trend



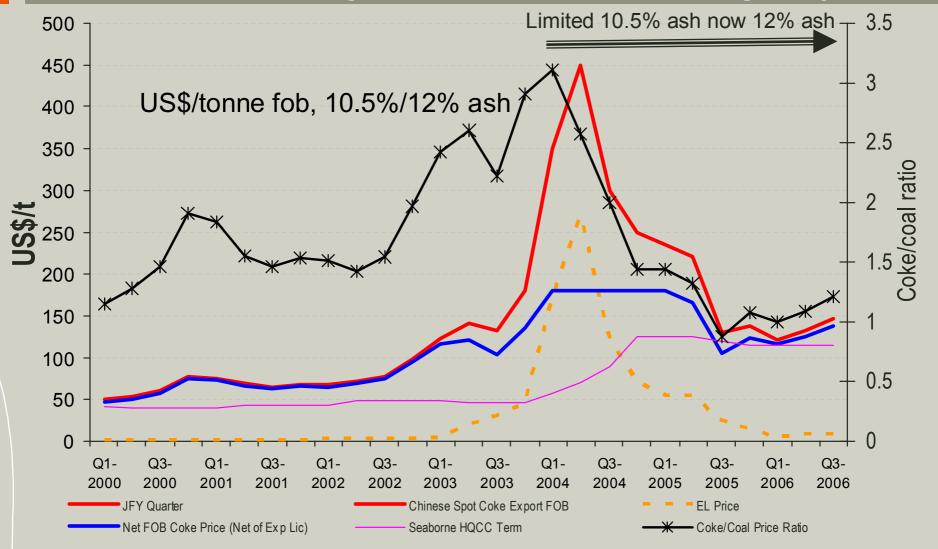
Source: CRU, SBB, industry sources

### 2006 steel trade flows





# Coke prices showed gradual improvement during the year

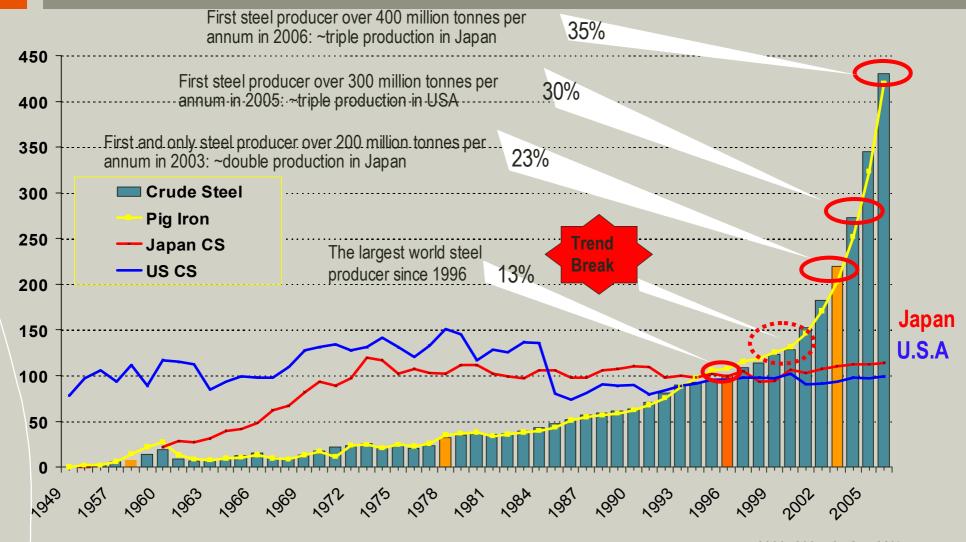




# The Impact of China in 2006



# China continues to drive the growth phase



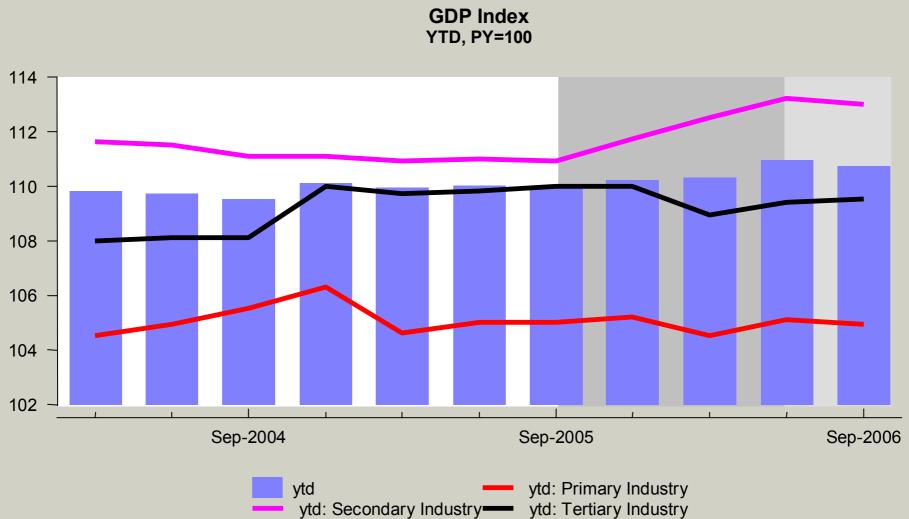
Source: CISA and other industry sources

1985~2000, CAGR: 7%

2000~2005, CAGR: 22%

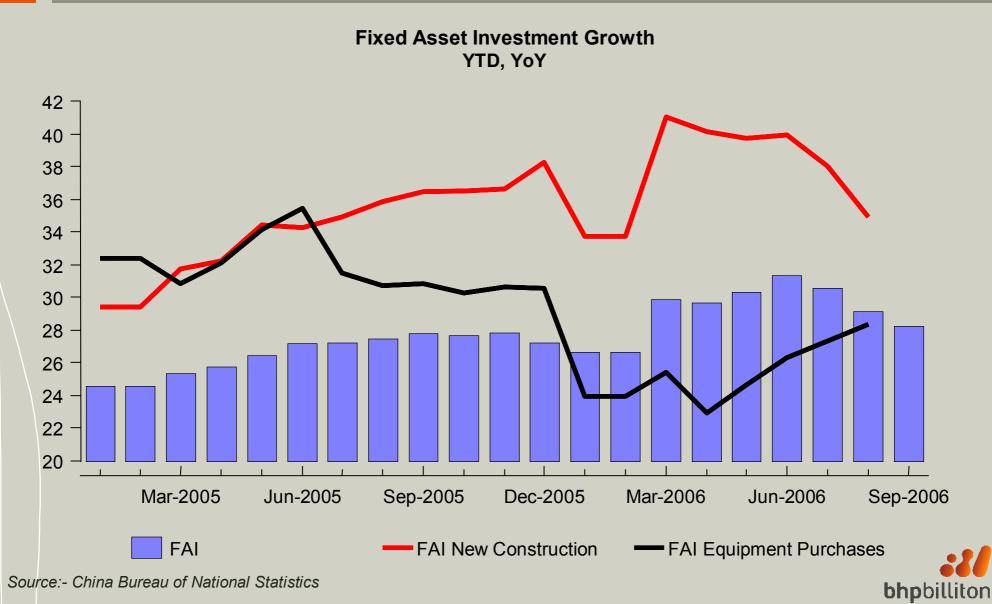


# During the most recent expansion cycle, GDP strengthened due to a surge in industrial activity

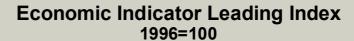


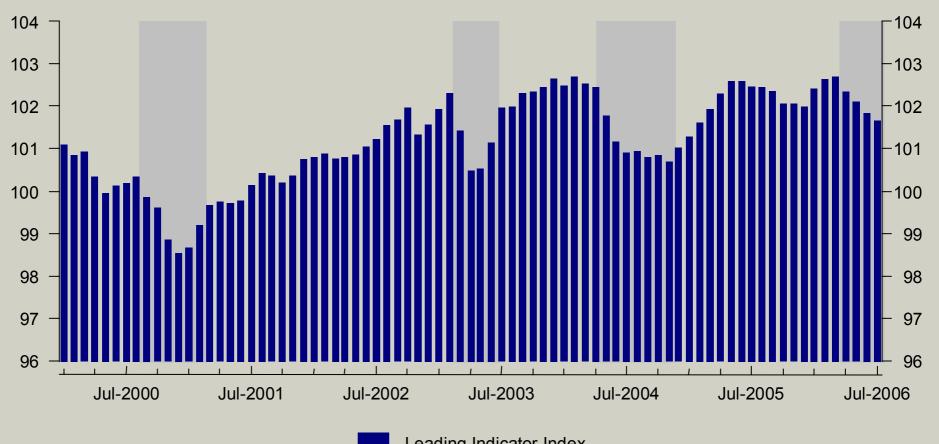


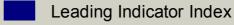
# Which in turn was led by growth in construction activity



# Composite Leading Indicator Index suggests a cooler 2007

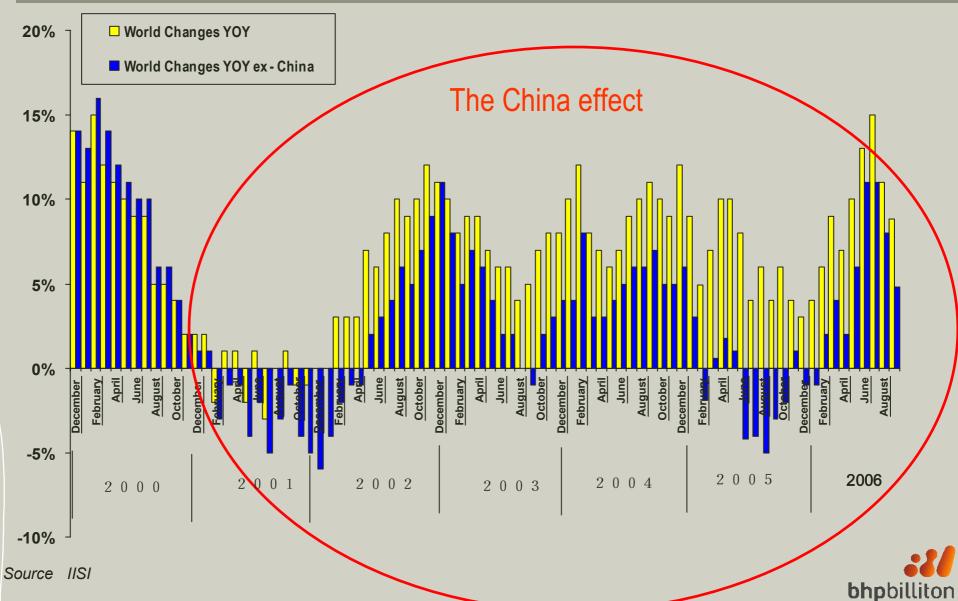




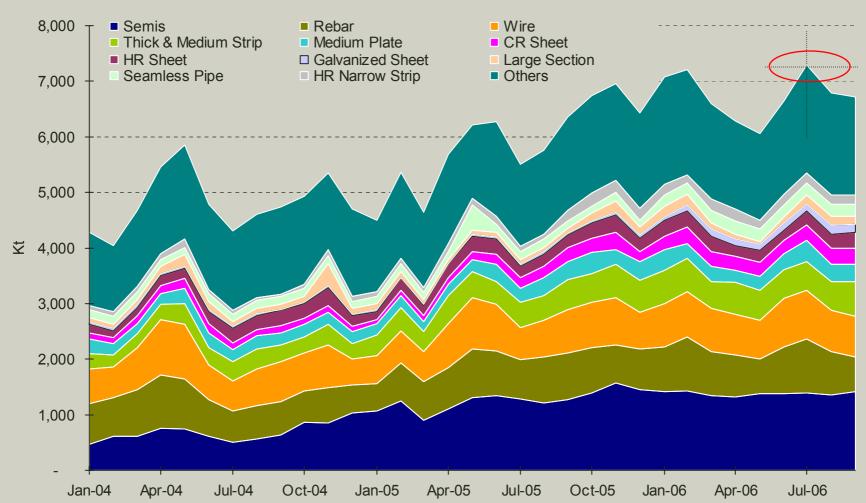




# China's impact on global steel production



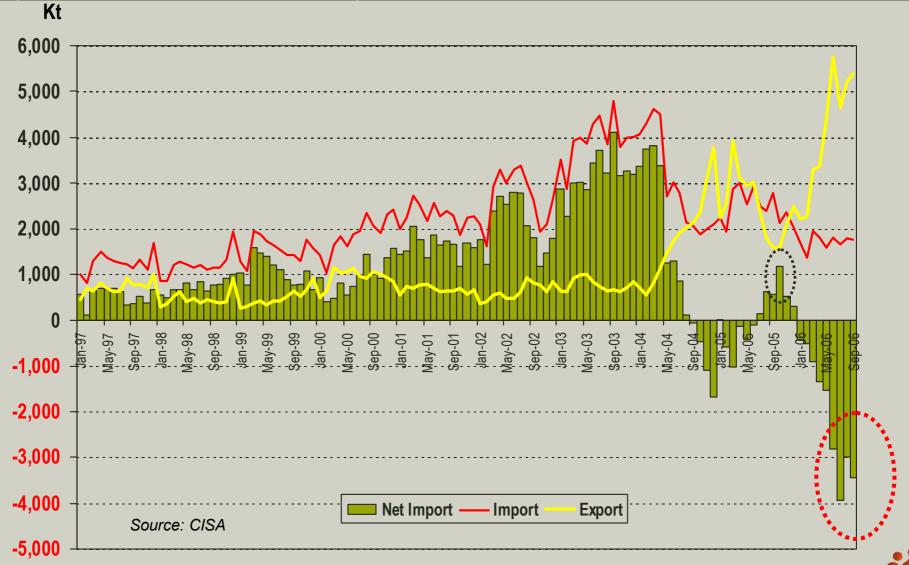
# China finished steel inventory of major steel mills





Source: CISA

# China Monthly Net Import of Steel (Crude Steel Equivalent)



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# China will continue to import high grade steel from Japan, South Korea, and Taiwan



 High growth of exports to EU, USA and India due to big price differentials



- Commodity grade imports suffered
- Only a small decline in high grade steel imports

Source: China Customs, BHPBilliton

- 1. Top 5 destinations of China finished steel absorb~ 70% of China total finished steel exports during Jan ~ Aug
- 2. China finished steel Imports from top 4 sources accounts for 78% of China total finished steel imports during Jan ~ Aug



# **Summary of Past Year**

- Stronger than expected economic environment led to higher steel demand
- Closer alignment between steel demand and production led to rising prices
- Chinese steel production very strong, leading to oversupply and rising exports
- Steel company profitability remained strong during the year

### **Takeaways**

- 2006 much stronger more positive year than predicted, fundamentals +ve
- Industry has been successful sustaining prices by aligning production with demand
- China continues to power ahead consensus view for continued strength



# Global Economic Situation and Outlook



# OECD Leading Indicator turns down, has IP followed??

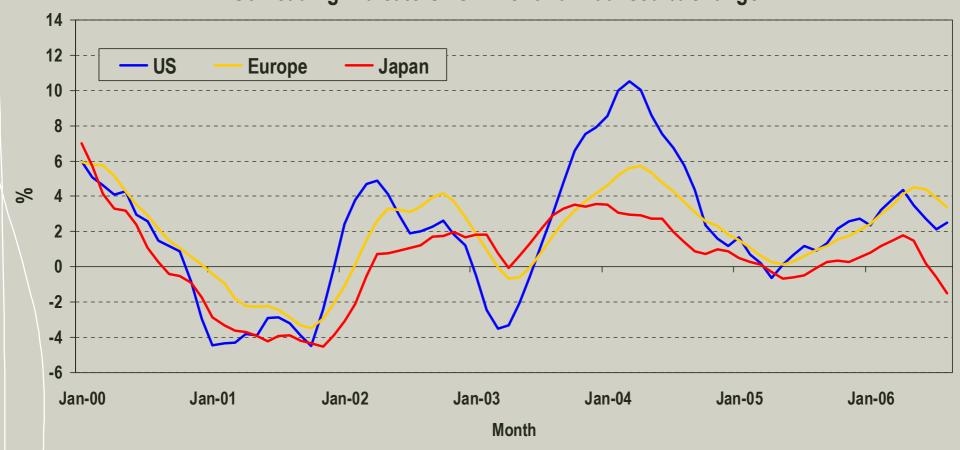




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# Leading indicator has turned down

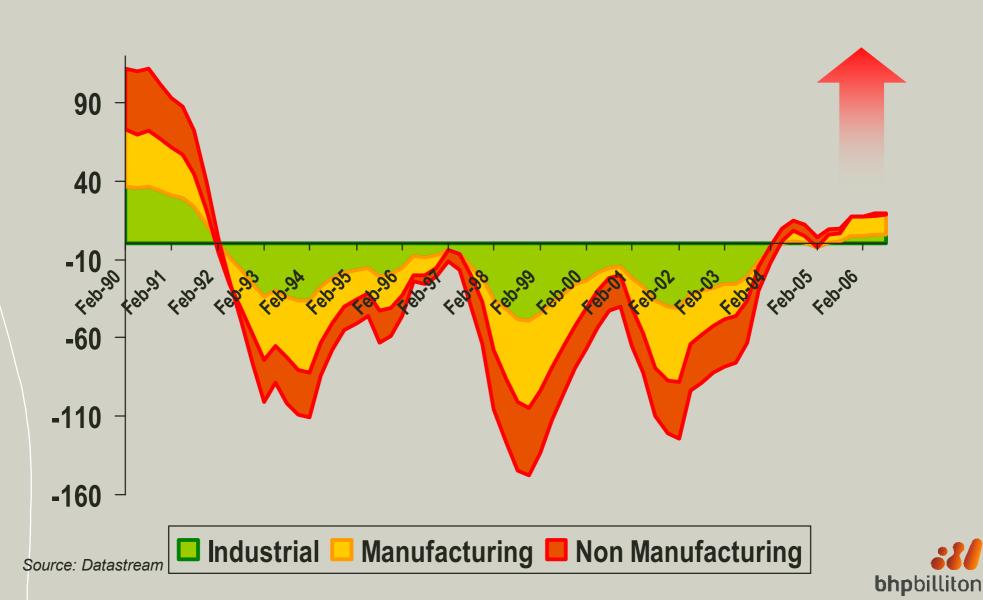




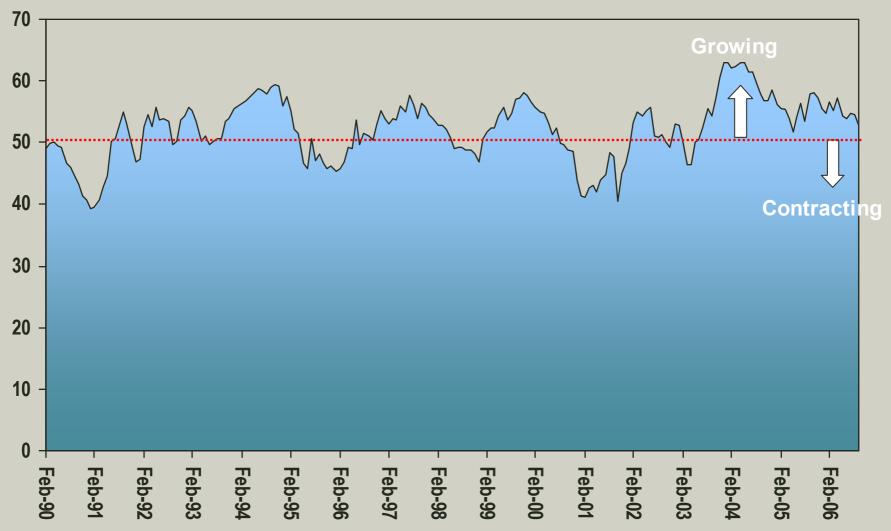
Source: Datastream/OECD



# Tankan Survey indicates upturn in the Japanese Economy



# Slowdown in the US economy expected...

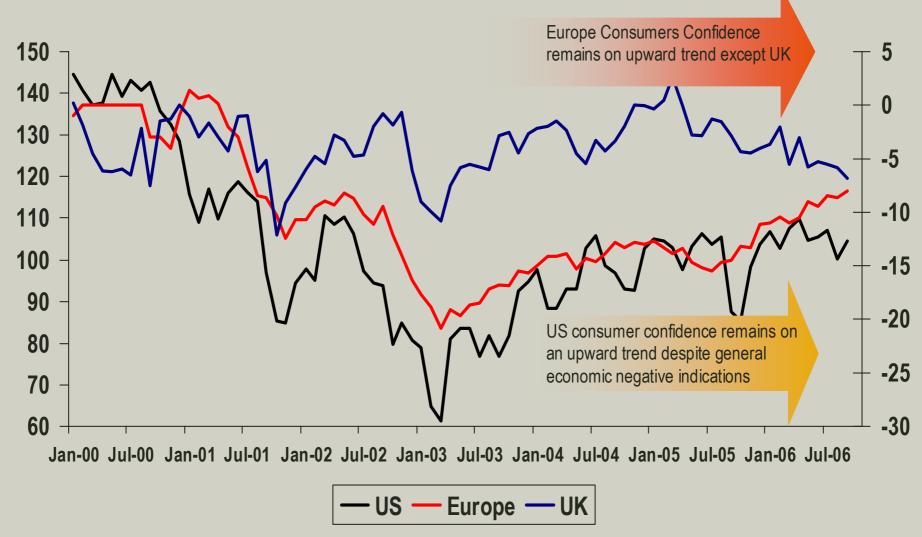


Source: Datastream

□ US Purchasing Managers Index



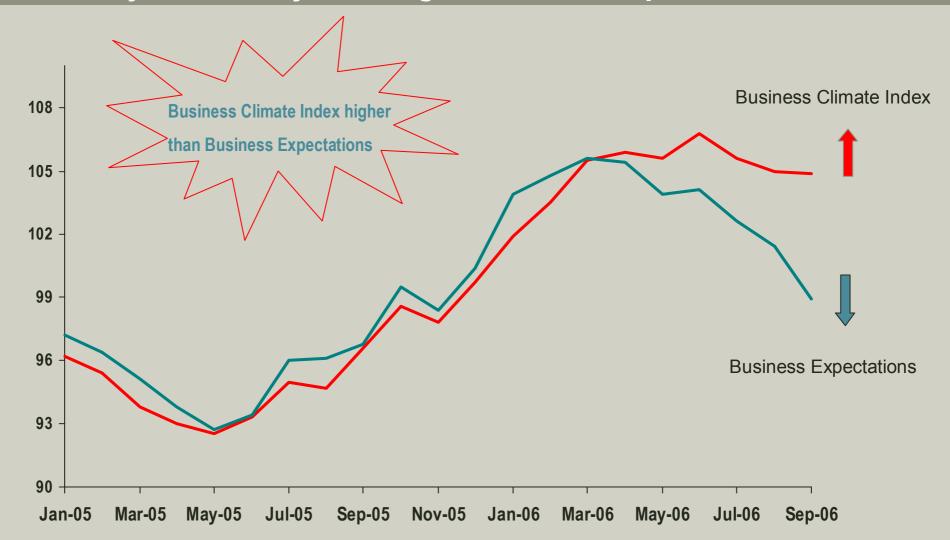
### However, Consumer confidence remains robust





Source: Datastream

# Germany - Economy is doing better than expected



Source: Datastream



# Summary - Economic Outlook 2007

- Signals generally consistent with early signs of improving conditions late in 2006 and into 2007
- Possible cause for concern on growth (consumers continued ability to spend) if interest rates rise much further
- Specifically,
  - US economy showing signs of downturn
  - China outlook for continued very strong growth
  - Japan returning to growth, sustained economic improvements
  - Europe continues to enjoy a sustained period of robust growth

The *Global economy* continues to record impressive growth and is expected to continue to grow in 2007 albeit at more subdued rate



# Steel Outlook and Forecasts



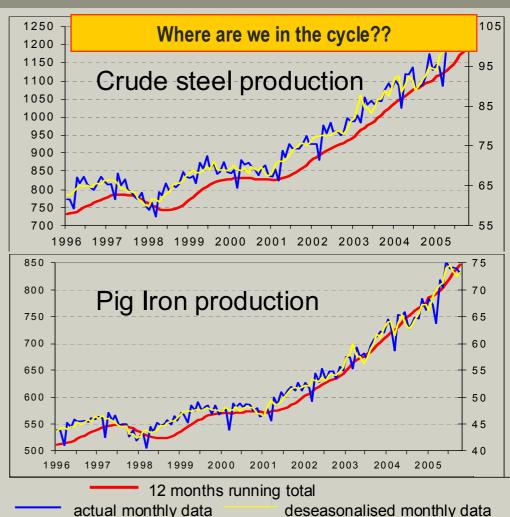
# **Steel Industry Snapshot – 4th Qtr 2006**

#### November 2006

- Global demand growth trends mixed
- China demand growth remains strong
- Steel prices well above historic trends
- Price trends mixed: US falling, EU flat, Asia up
- Inventories concern US, OK EU/Japan, Asia
- Production cuts recently announced early
- China major steel exporter
- Asian production dominant due to China
- Profitability steel company strong profitability
- More rational behaviour seen will continue
- Global mood turning more positive long term

### Signs?

- Production cuts to balance inventories
- Chinese government seeking to curb exports
- Steel orders robust,
- More sustainable profitability, building on 2005
- 2007 tougher but another good year for steel industry





# Short Term Outlook Increase in IISI short term steel demand forecast

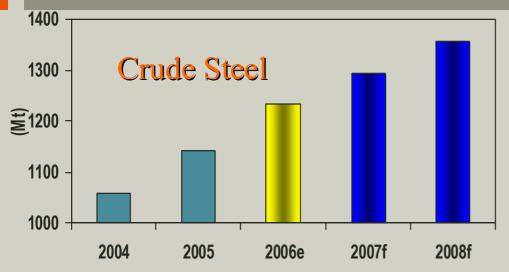
Table 1: Apparent Steel Use 2005 - 2007

	Million metric tonnes of finished st		steel Change % per year		
	2005	2006e	2007f	05 – 06	06 - 07
EU (15)	139.4	150.0	147.7	7.6	-1.5
EU (25)	158.8	171.5	8 169.6	8.0	-1.1
Other Europe	29.3	32.1	34.0	9.5	6.0
CIS	43.5	46.5	50.9	7.0	9.4
NAFTA	139.7	151.8 <b>14</b>	9 150.8	8.7	-0.7
South America	32.3	36.0	38.6	11.6	7.1
Africa	22.4	24.6	25.7	10.0	4.4
Middle East	34.0	37.3	40.6	9.6	8.9
Japan	78.0	78.6	80.8	8.0	2.8
India	38.1	41.9	45.7	10.0	9.1
Rest of Asia (exc. China)	117.8	118.5	121.8	0.6	2.8
Australia + NZ	7.9	7.8	7.9	-1.6	1.3
World (exc. China)	701.8	746.7	766.4	6.4	2.6
China	327.0	374.0 <b>32</b>	5 413.0	14.4	10.4
World	1028.8	1120.7	1179.4	8.9	5.2

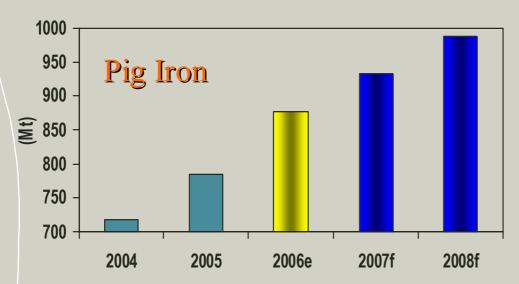
Source: IISI,

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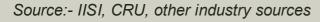
### **Steel Forecasts to 2008**



- Crude Steel Growth
  - 2005-6 = 7.8%
  - 2006-7 = 5.0%
- Major driver Asia, ROW slower growth
- China key driver for steel production
- Assumes productivity gains continue
- 2007 BOF production + 6.3%pa; EAF + 3.1%pa

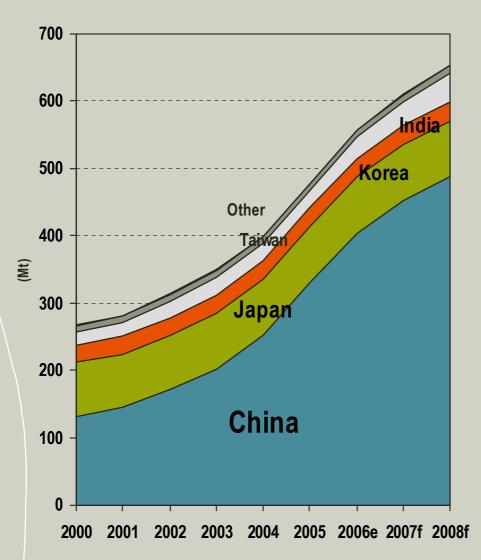


- Pig Iron growth
  - 2005-6 = 6.4%
  - 2006-7 = 5.8%
- Major driver Asia China
- Assumes increased MPI used in EAF
- New BF capacity proposed in China, India, Brazil, and BF enlargements





# Regional Pig Iron Growth – Asian Domination



### **Comments**

- Strong growth into 2007
- China the key,
  - Domestic production growth strong
  - Pig iron growing faster than crude steel
  - Improving yields and quality
- India pig iron growth pick up??
- Japan planned pig iron increase from larger BFs
- Asia from 62% to 67% of global total in 2008
  - China ~50% of global total by 2008
- Global non Asian growth slowing??
- Many other pig iron growth projects post 2008



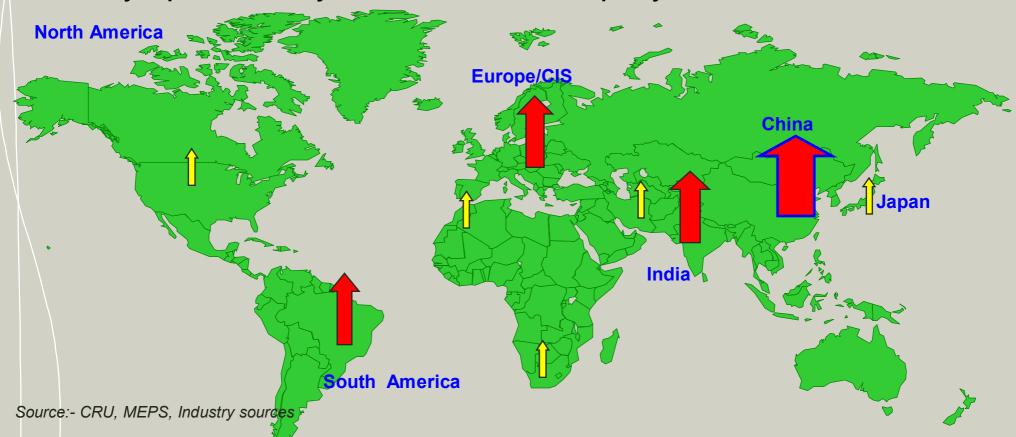
Source:- IISI, CRU, industry sources

# Met Coal and Coke outlook



### Trends in coke demand

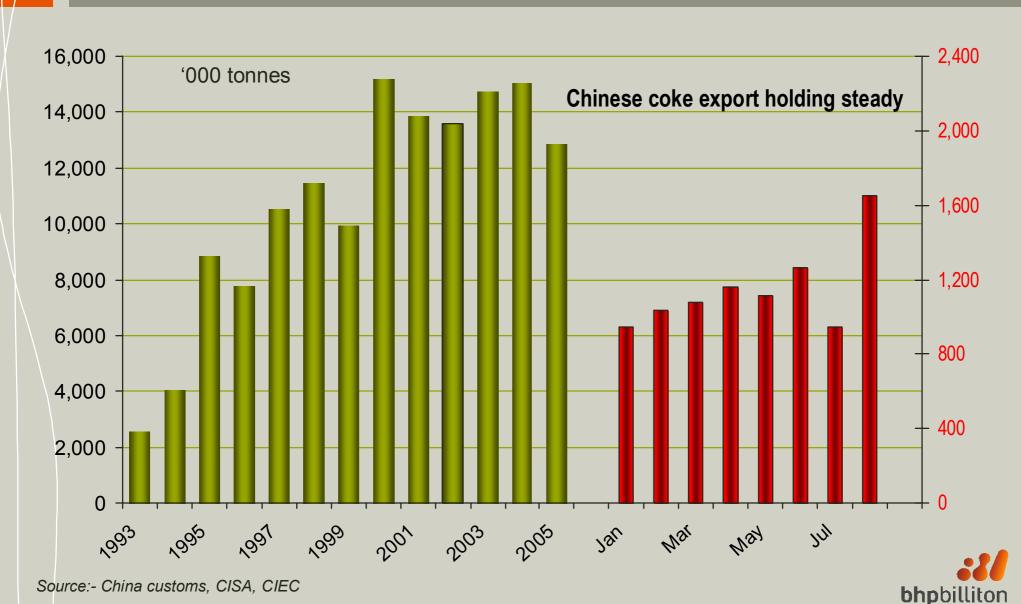
World likely to see increased demand for coke in short to medium term, have to be met by imports or battery restarts as limited new capacity before 2007-8.



What will China's response be to the global demand for merchant coke??



# Chinese coke exports slowly increasing from Q1



# **Met Coal Demand Core Assumptions**

- Ongoing move to maximise cost of blends but customer specific
- Continued support for HCC due to large, high productivity BF's, increasing demand for lower fuel rates (Kyoto) but seeking lower cost coals - SHCC
- PCI will be pushed as far as possible, longer trends for high technology users for >200kg/tHM consistently by 2010 cf ~180kg/tHM 2001
- New cokemaking capacity in the future
  - Brazil Sun HRCO 2006/7, new capacity expansions, repairs ongoing
  - New steelmaking capacity in Asia with associated coke ovens Thailand etc
  - New batteries Japan, Korea remove reliance on merchant market
  - Other new and potential batteries, Europe, US, Turkey, Iran
- Limited further ovens to close in next 2 plus years
- Minimal change in regional cokemaking philosophy re coke quality, i.e.
   CSR remains driver in Europe, strength in Asia etc

# **Current Met Coal and Coke Snapshot**

### Met Coal

- Market dynamics very "complex"
- Demand remains strong for high strength LV/MV coals
- Trends toward using more poorer quality coals e.g. SHCC esp India, Japan
- Minor supply concerns with selected producers, Australia/USA
- Potential port capacity utilisation issues aligning expansions with capacity for next 2-3 years

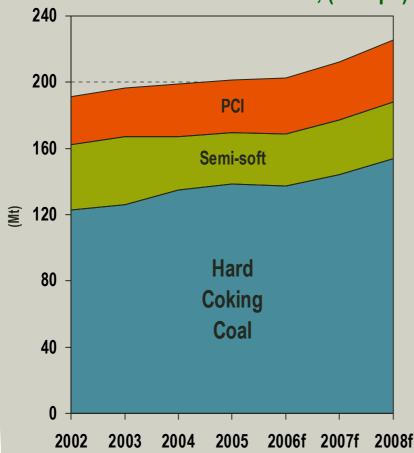
### Coke

- Prices have been stable, excess coke inventory ~1 months shipments
- Some quality concerns re low priced materials
- Some concerns as to where coke will go Licenses, export tariffs????



### Global Increase in Met Coal Demand 2003 – 2008





PCI total increase ~6Mt, (6.0%pa)
Semi-soft total increase ~2Mt, (2%pa)

Hard coking coal total increase ~15Mt, (3.5%pa)

#### Notes,

### 2004 strong demand

- New ovens in India, strong growth in China imports
- Domestic supply problems, US, Ukraine
- Tight Chinese merchant coke supply

#### 2005 adjustment, robust demand

- Rise in demand move to HCC from SSCC
- China strong domestic demand
- Falling coke prices reduce Indian non recovery

#### 2006 Robust demand but strong domestic response

- Delays in new coke capacity, Brazil/India
- Low coke prices curb Indian NRCO ~20% of capacity
- China domestic CC supply response = declining imports

#### Outlook for 2007

- China domestic demand remain strong
- Higher costs for Chinese coke restart Indian NRCO
- Potential blend changes esp Asia higher SHCC??

#### Longer term beyond 2007

- Demand growth, new batteries HRCO ovens Brazil, India
- Continued domestic coal mine closures Europe, US



# **Met Coal Supply Outlook to 2007**

- Australia (about 63% of global total)
  - Exports up strongly but costs increasing
  - Further additional supply from Hail Creek, and brownfield creep/expansions
  - New SHCC capacity
- Canada (about 15% of global total)
  - Exports marginal increasing from 2006
  - New capacity NE British Columbia
  - Issues with tyres re growth/costs
- USA (about 11% of global total)
  - Difficult to predict after 2006
  - Outlook further decline, ~ 3-5Mt by 2007
  - Possible decrease in HV power linked

#### China

- Exports lower HCC tariffs 5%
- Shortage of domestic premium HCC but strong growth in other HCC
- Hard to predict future Shanxi Province key
- Counterbalance high domestic demand with export desires – China first

#### Poland

- Exports trending lower post 2006
- Sustained by current prices
- Unlikely long term player, mine closures???

#### Russia

- Exports higher
- Further potential, but domestic demand rising exports secondary – price sensitive due to steel co. ownership
- Production costs low but very low rail freights vital
- Currency issues

### **Key Takeaways**

- Continued importance of Australia esp in HCC
- Port throughput not mine production the key to export volumes
- Costs rising globally
- Supply potentially becoming more volatile due to production difficulties of LW's



## **Overall Summary**

- Steel market slowing after strong period H1 2006 but still robust growth
- Steel industry profitability running at good levels prices above trends
- China dominating production growth, but has turned to net steel exporter
- Merchant coke prices have risen, and may increase further demand up, tariffs
- Market for high quality, high strength HCC remains tight, no major change seen short term particularly LV
- Near term market dynamics dependent growth in value coals e.g. SHCC likely to be used in Asian blends
- Growth in Chinese domestic HCC has seen exports sharply reduced resulting in some relaxation of market tightness particular for non premium HCC
- Market balance likely to be impacted near term by port constraints

