# MARKET AND PRODUCTION OUTLOOK The Battle for Growth

**UBS Conference June 2005** 

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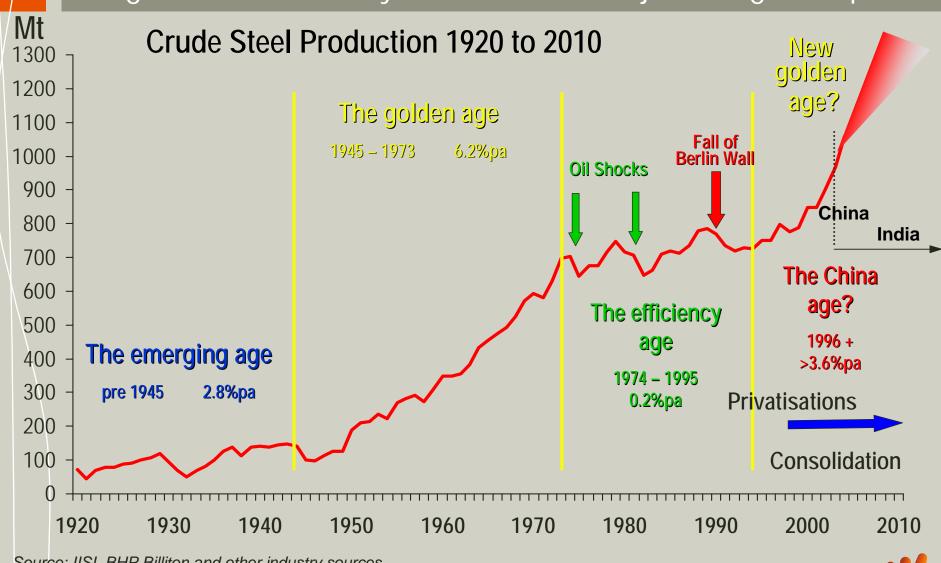


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## The global steel industry has entered a major new growth phase



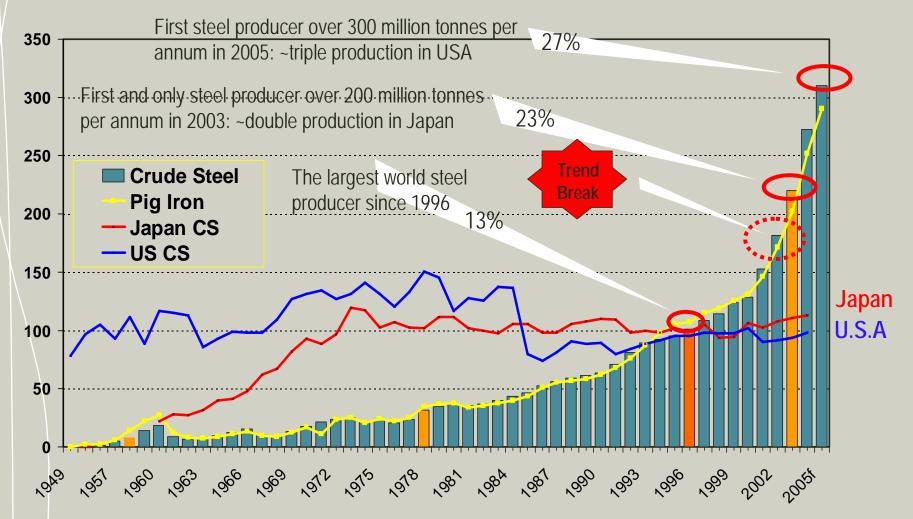
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Source: IISI, BHP Billiton and other industry sources

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## China has been the main driver of this growth phase



1985~2000, CAGR: 7%

Source: CISA and other industry sources

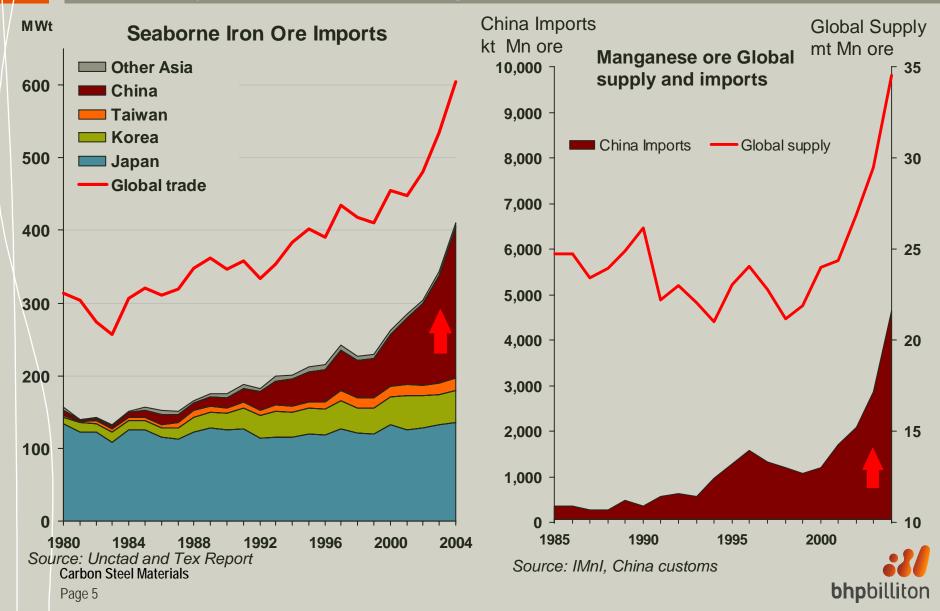
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2000~2004, CAGR: 23%



# Leading to rapid growth in demand for seaborne raw materials especially iron ore and manganese ore volumes



## Steel outlook is for continued growth led by China



## With growing share of BF/BOF steelmaking

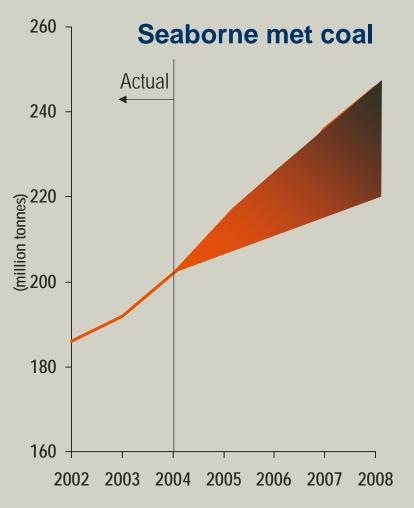


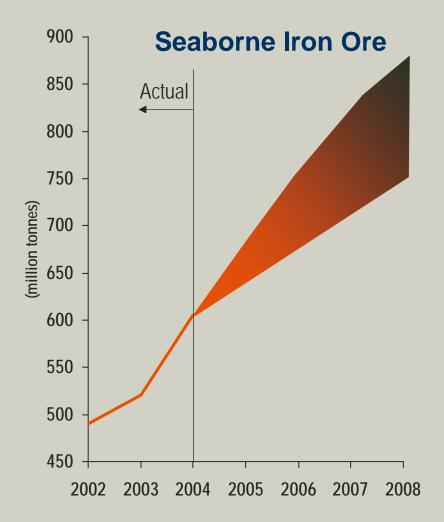
- Blast furnace major source of steel production in growing producer countries BRICS
- Blast furnace productivity has risen strongly to meet strong steel demand
- Continued technological improvements to the BF has increased competitiveness

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Scrap shortages, high prices impacting EAF production, favour BF/BOF route

## Leading to strong demand growth for met coal and iron ore

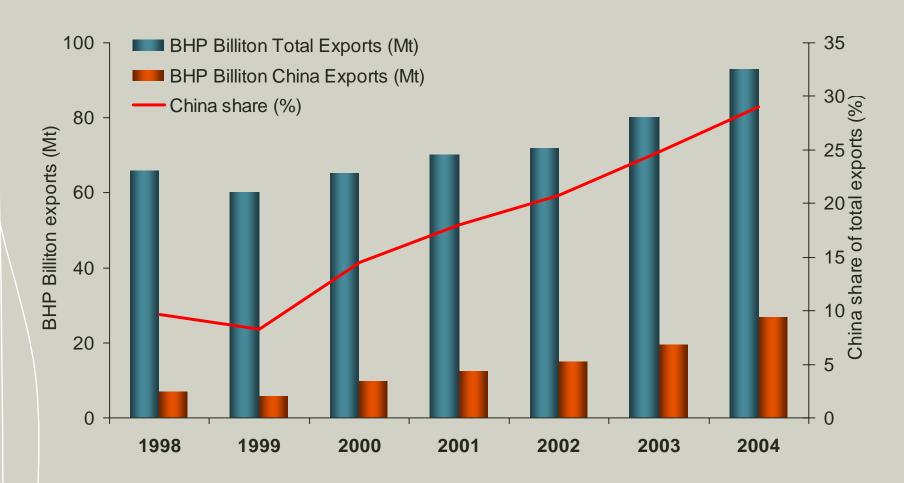




Source: IISI, Tex and BHP Billiton

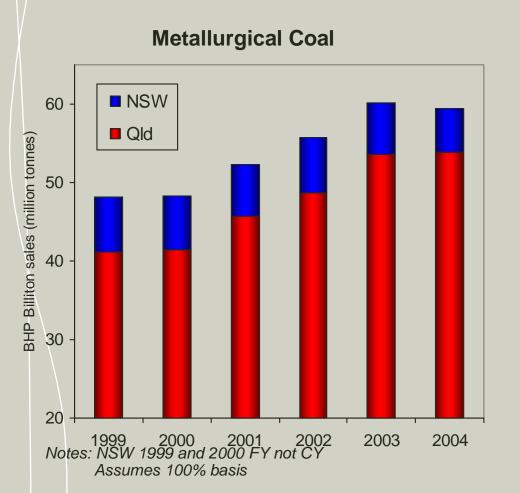


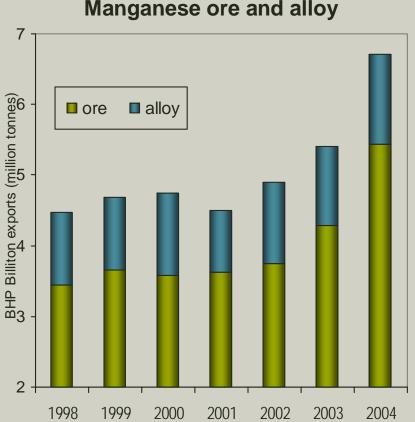
# BHP Billiton has already expanded significantly to meet the strong global demand for iron ore





# BHP Billiton has already expanded significantly to meet the strong global demand for met coal and manganese products



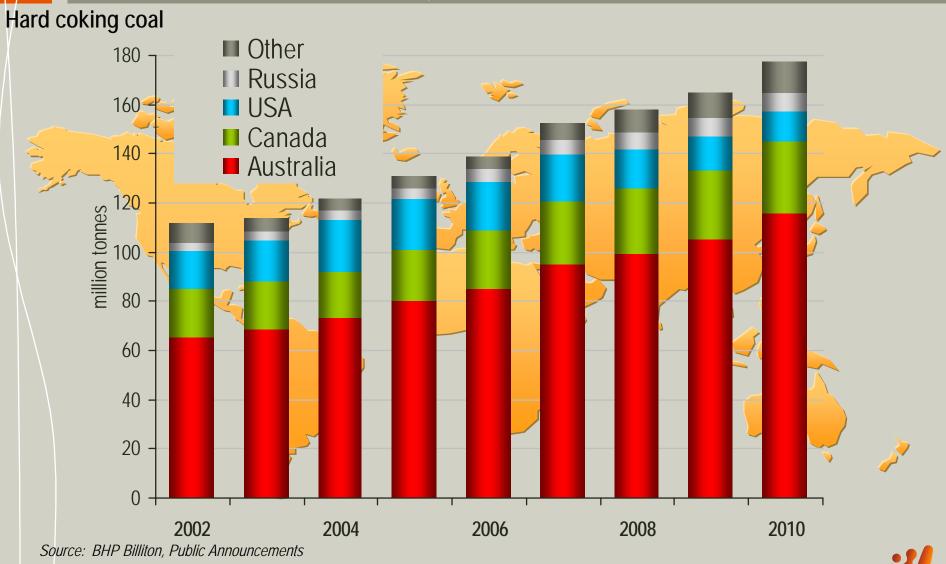




## Announced future capacity increases for HCC

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## Global supply will not be sufficient to meet increased demand

#### SEABORNE SUPPLY GROWTH

- Queensland
- Canada
- New Zealand
- New South Wales
- Indonesia/Venezuela/Vietnam (weak coking coal and PCI)
- Potentially Russia, Mongolia, Mozambique
- China flat potential decline
- USA declining



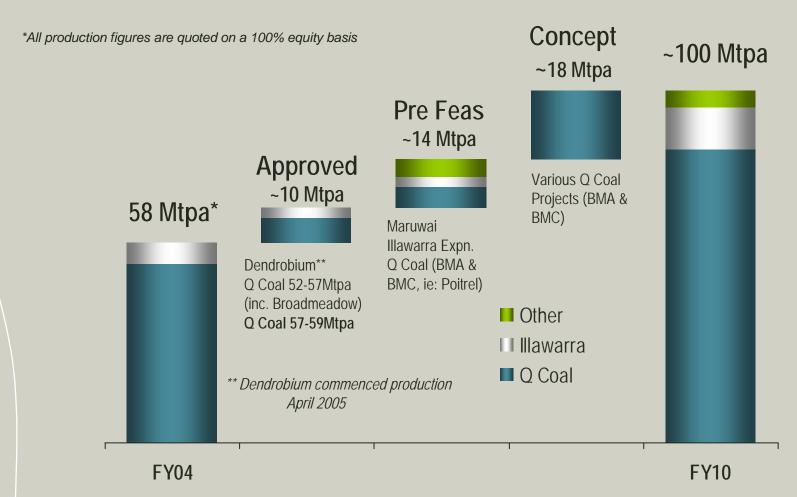
#### SEABORNE DEMAND GROWTH

- Increasing coke production by traditional and new customers
  - Japan, Europe, India,
     Brazil, South Korea, SE
     Asia
- New growth opportunities
  - China, India, Brazil,
     Eastern Europe, Germany,
     USA, Africa

### BHP BILLITON WILL MEET THIS GAP



## Planned growth to ~100Mtpa capacity by 2010





## Progress on 100Mtpa by 2010 expansions- update\*\*\*\*

#### Poitrel

- Signed agreement with Excel Coal for shared infrastructure
- On target for first coal end 2006

#### Maruwai

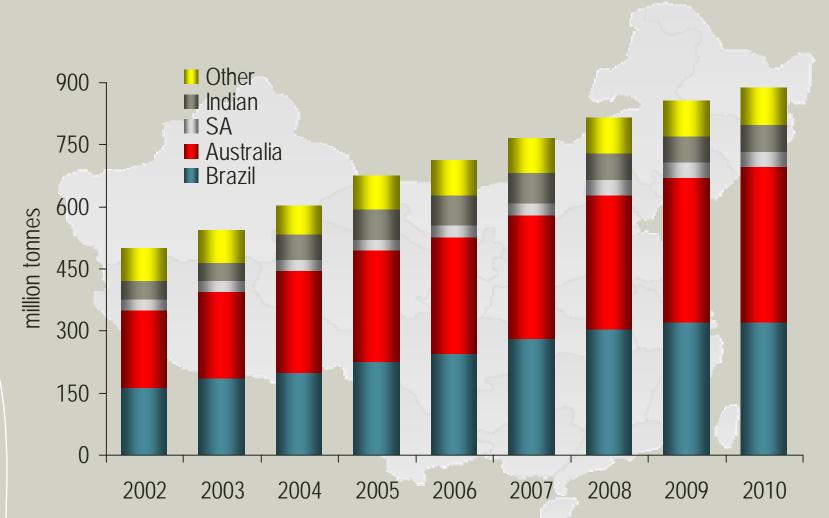
- Pre feasibility completed, current under feasibility
- Large sample testing and evaluation completed
- Total exploration expenditure to date US\$40M

#### Illawarra

- Appin new longwall ordered, start up target FY2006-7
- De-bottlenecking West Cliff and Appin under study
- 3<sup>rd</sup> Bulli seam longwall concept study complete
- Dendrobium Commenced operations April 2005
  - Ahead of target, timing and production 400kt tonnage to year end.
  - FY06 expected 3.9 million tonnes raw coal



## Announced future capacity increases for iron ore



Source: CRU, BHP Billiton, Public Announcements

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## Elements of iron ore expansions

Current and future growth – sum of parts

- •RGP2 approved Oct 04
- •RGP3 approvals late 05
- •Further options under study

Tonnage Targets

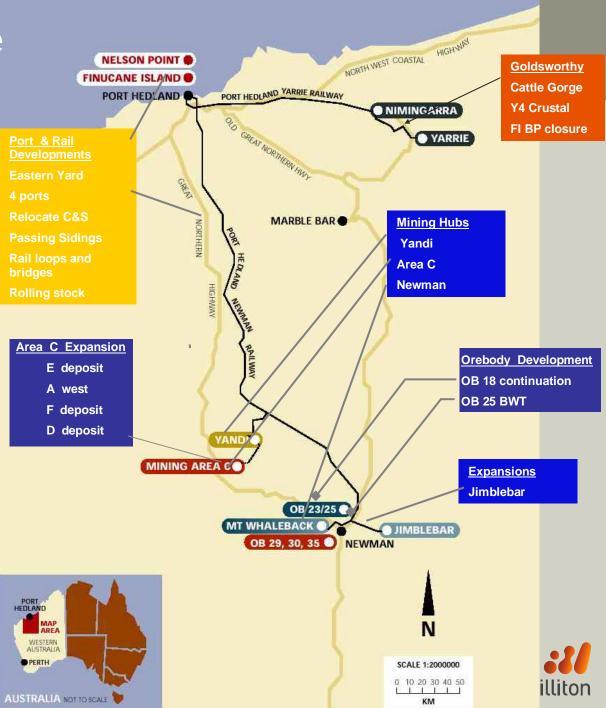
Yandi 47Mtpa

Area C 42Mtpa

Newman 58Mtpa

OB 25 5Mtpa

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## BHP Billiton Manganese – Expansion plans



- Gemco expansions
  - Major capacity uplift to >5million tonnes per annum under pre-feasibility
  - To include additional mining equipment, new haul road, expanded port and new stockpile, upgrade ship loading
  - Indicative investment cost <US\$200M (100% terms)</li>

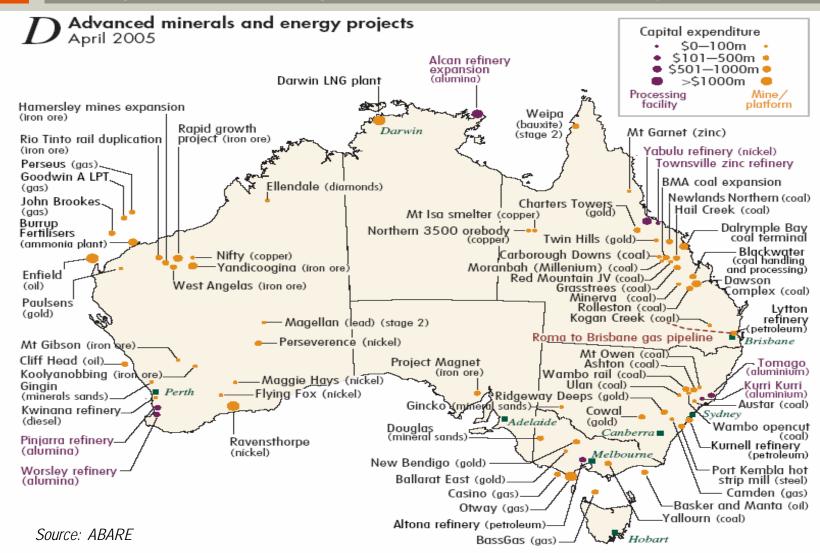


- South African expansions ore
  - Concept study underway to expand Hotazel mines
  - Logistics improvements under planning



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## The growth challenge – there are a lot of projects!!!



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### 74 committed projects with total cost of A\$22.6 billion

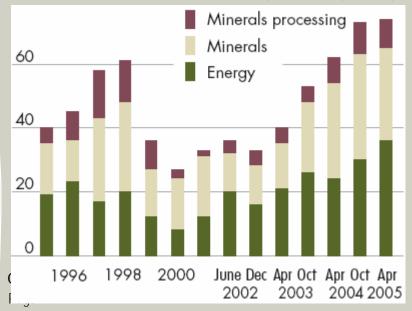
Number and estimated capital cost, by state

	Energy projects		Mining projects		Minerals processing		Total	
Ī	Number	Cost	Number	Cost	Number	Cost	Number	Cost
	no.	\$m	no.	\$m	no.	\$m	no.	\$m
New South Wale	s 8	1 030	3	548	3	348	14	1 926
Victoria	5	1 887	3	680	0	0	8	2 567
Queensland	15	3 417	5	390	3	548	23	4 355
Western Australi	a 6	1 987	17	5 527	2	696	25	8 2 1 0
South Australia	0	0	1	250	0	0	1	250
Tasmania	1	450	0	0	0	0	1	450
Northern Territor	ry 1	3 000	0	0	1	1 860	2	4 860
Australia	36	11 771	29	7 395	9	3 452	74	22 618

## Committed projects

74 total cost A\$22.6b

#### Number of committed projects, by project type



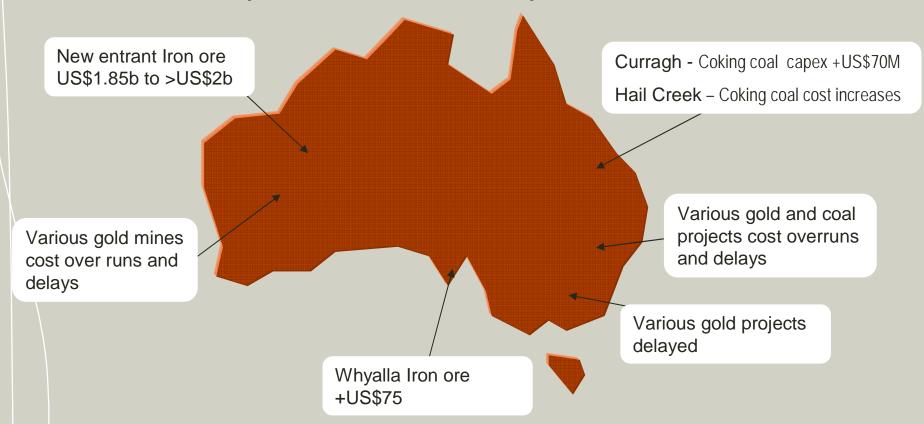
Plus
74 less advanced
projects with total cost
of A\$83.8b

Source: ABARE



## Costs are increasing as input costs rise and projects delayed

### Selected examples of increases to capital cost

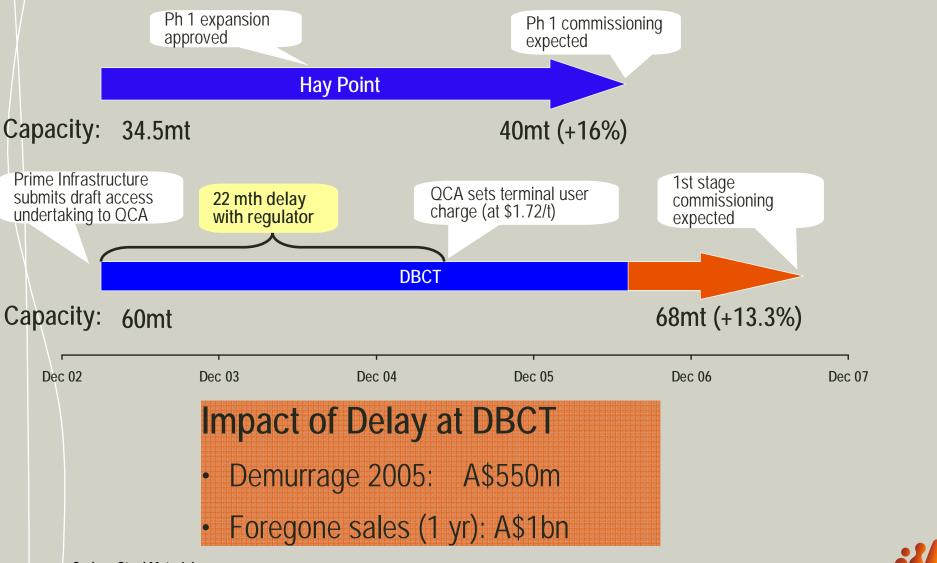


Source: ABARE, Press releases, public announcements

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# Demand response of vertically integrated infrastructure has been timely, effective and efficient



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## Main challenges battling for growth

- Competition due to large number of projects
- Cost increases of components
  - Steel costs have risen over 100% due to higher global steel prices
  - Increased consumable costs, tyres, diesel, explosives
  - Capital items, locomotives, trucks, shovels cost more
  - Shortages of specialist steels e.g. hardened steel
- Shortages of skilled labour
  - For expansion projects (project managers, controllers, engineers etc)
  - Operations (engineers all types, geologists, supply specialists etc)
  - Higher wages to attract and retain skilled staff
  - Aging of key expertise throughout Australian mining industry
- Delivery delays
  - Longer lead and delivery times push out projects
  - Shortages of items for building major items adding delays



### **Final Remarks**

- The strong demand growth driven by China has the global raw materials industry in catch up mode
- Easy expansions have been completed, further capacity growth now requires significantly more investment and longer lead times
- Need ongoing certainty from State Governments' on timely approval processes and regulatory frameworks
- Rising input costs and shortages have driven cost increases and growing lead times
- BHP Billiton expanded rapidly to capture early demand growth, and has in place plans for continued expansions to meet future market demand

