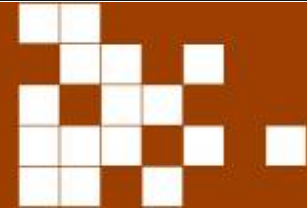




Macquarie Research Commodities



Steel Raw Materials and Relevant Issues

International Manganese Institute

34th Annual Conference

Taj Mahal Hotel, New Delhi

Aug 30th – Sept 2nd, 2008

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In preparing this research, we did not take into account the investment objectives, financial situation and particular needs of the reader. Before making an investment decision on the basis of this research, the reader needs to consider, with or without the assistance of an adviser, whether the advice is appropriate in light of their particular investment needs, objectives and financial circumstances. Please see disclaimer.

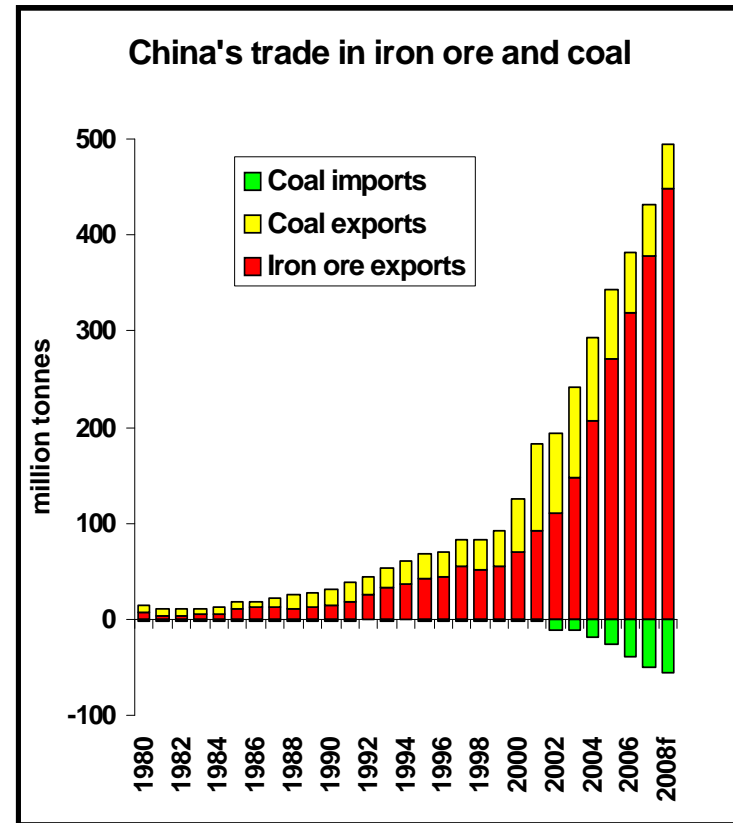
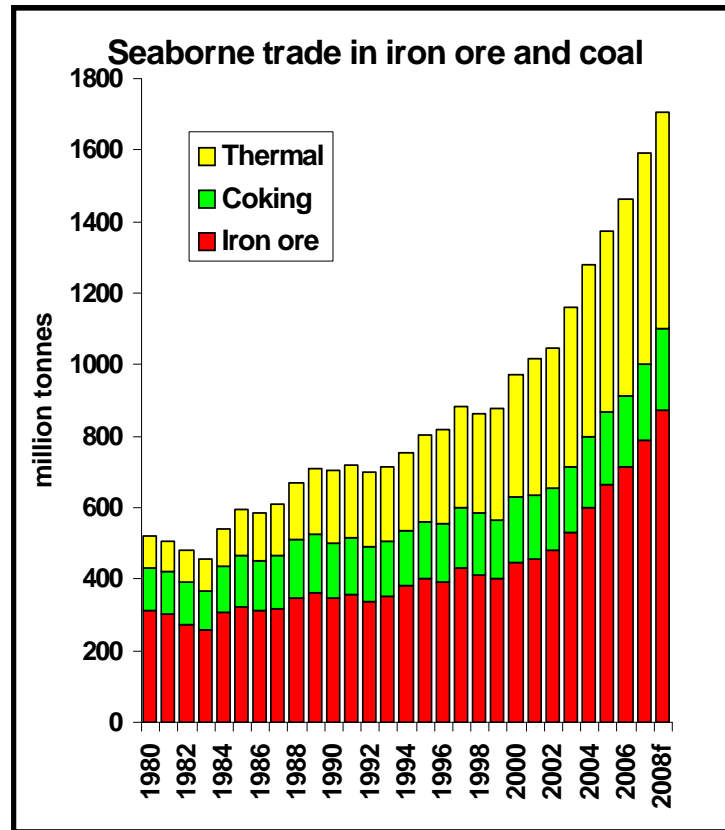


Overview of my presentation

- I am leaving manganese to the experts!
- Outlook for steel supply/demand – why we remain bullish longer term
- Trends in main raw materials – iron ore and coal: coal now a potential constraint on steel output



Recent trends in bulk trade...mainly China and mainly iron ore

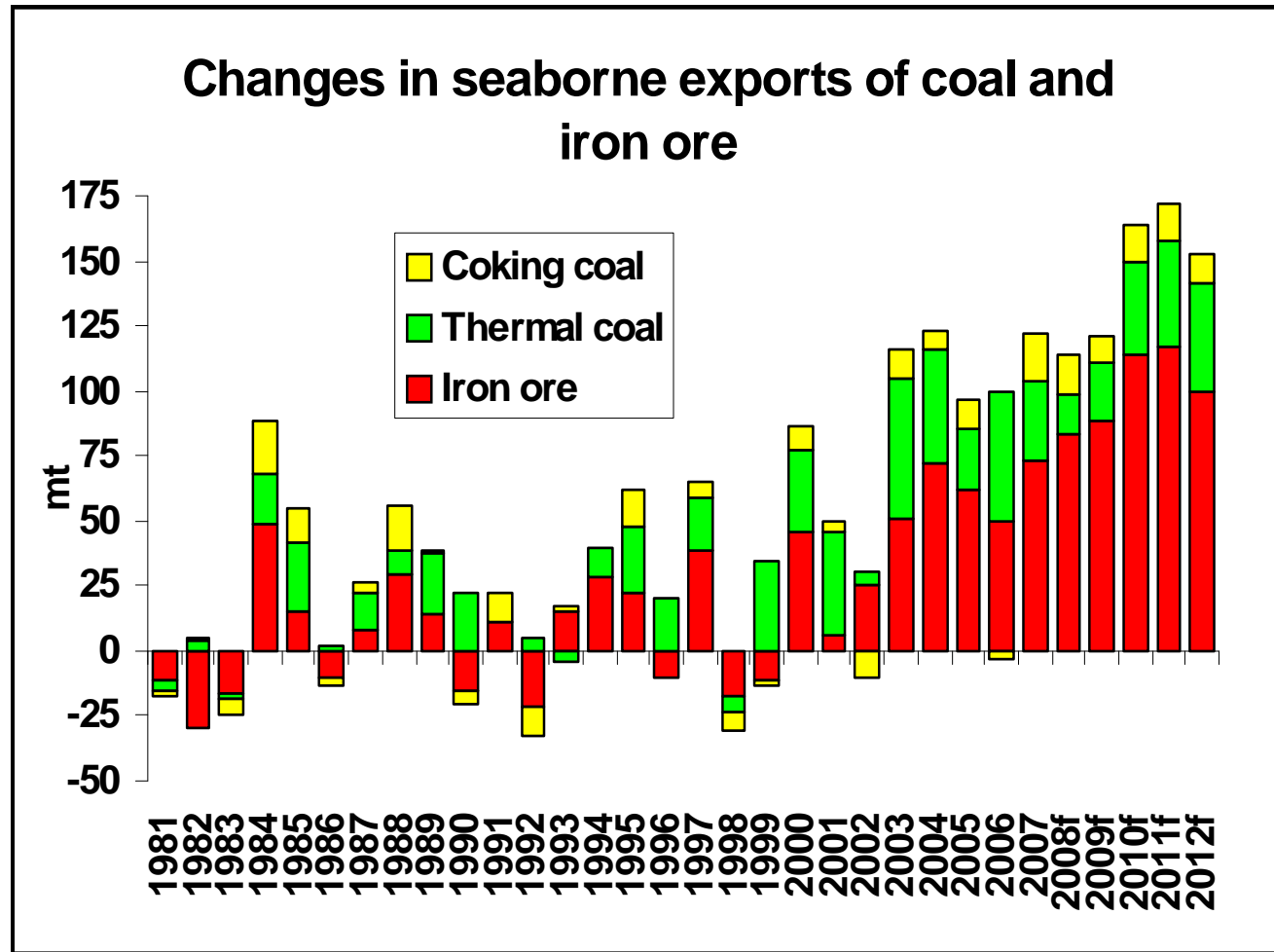


Source: Clarksons, Macquarie Research, September 2008

mt	Iron ore	Coking coal	Thermal coal	Total
1980-90	33	36	116	185
1990-00	101	25	140	266
2000-08	427	46	261	734



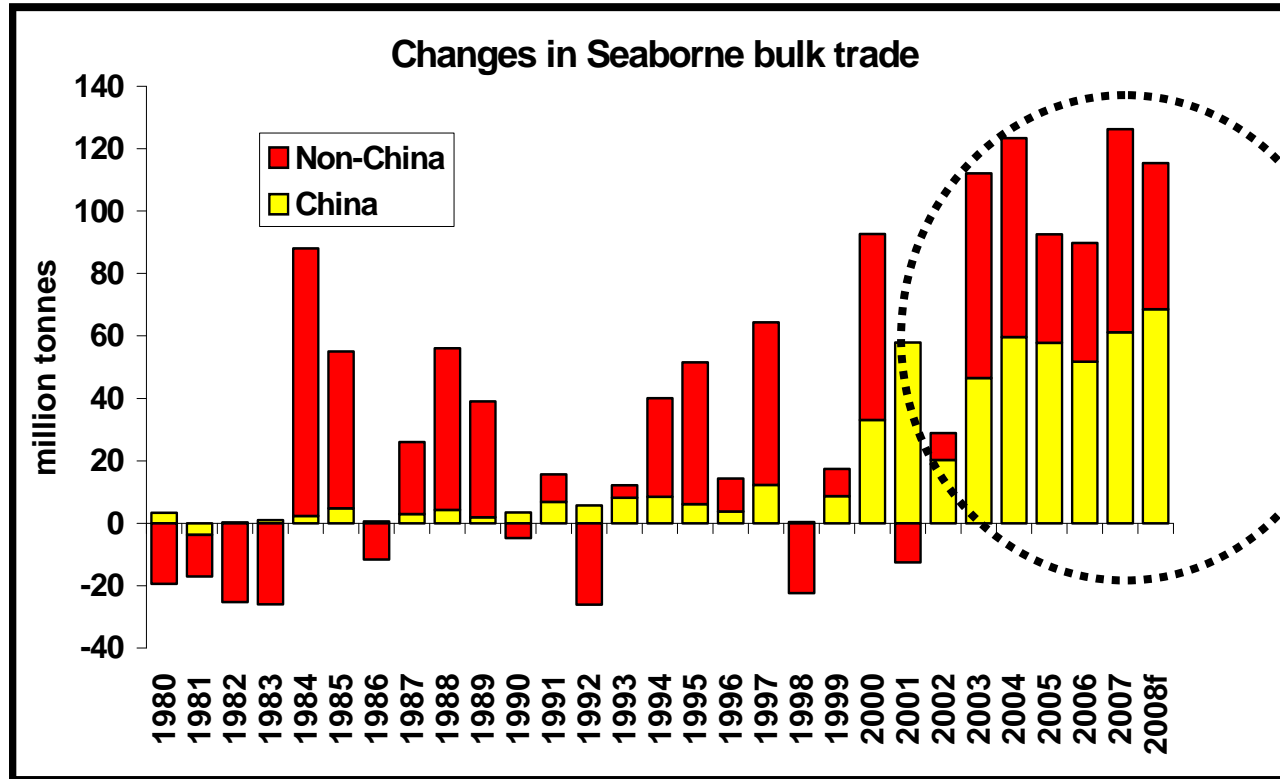
More ships and capacity will allow more exports!



Source: Clarksons, Customs data, Macquarie Research, September 2008



Consistency of iron ore growth now a feature

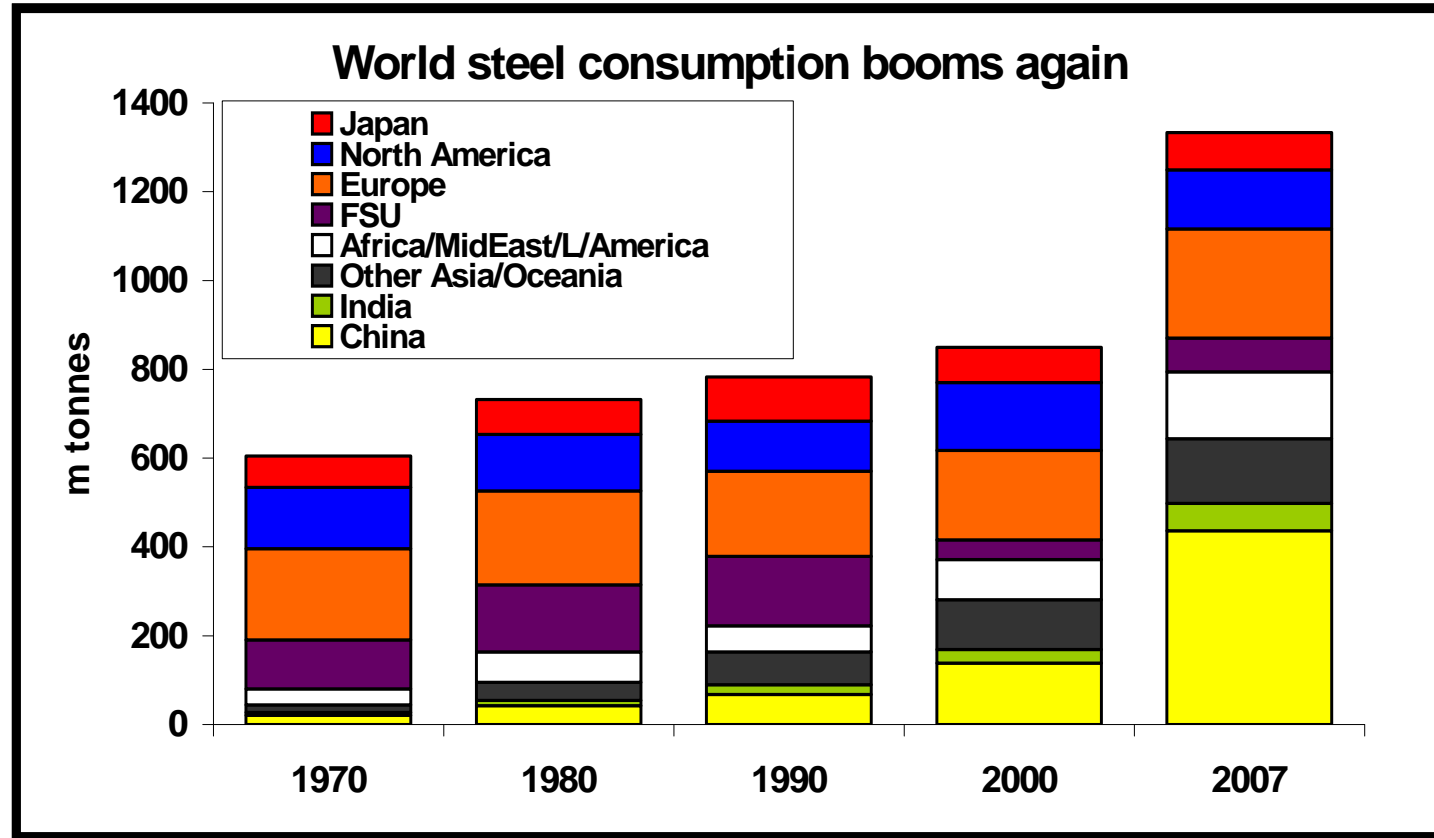


Source: Clarksons, Macquarie Research, September 2008

Non-Chinese growth in coal not insignificant – mainly Asia in thermal and India and Brazil in coking



Impact of Chinese steel growth enormous...



Source: IISI, Macquarie Research, September 2008

From being a no-growth industry, steel demand is growing strongly again...and it's not over!

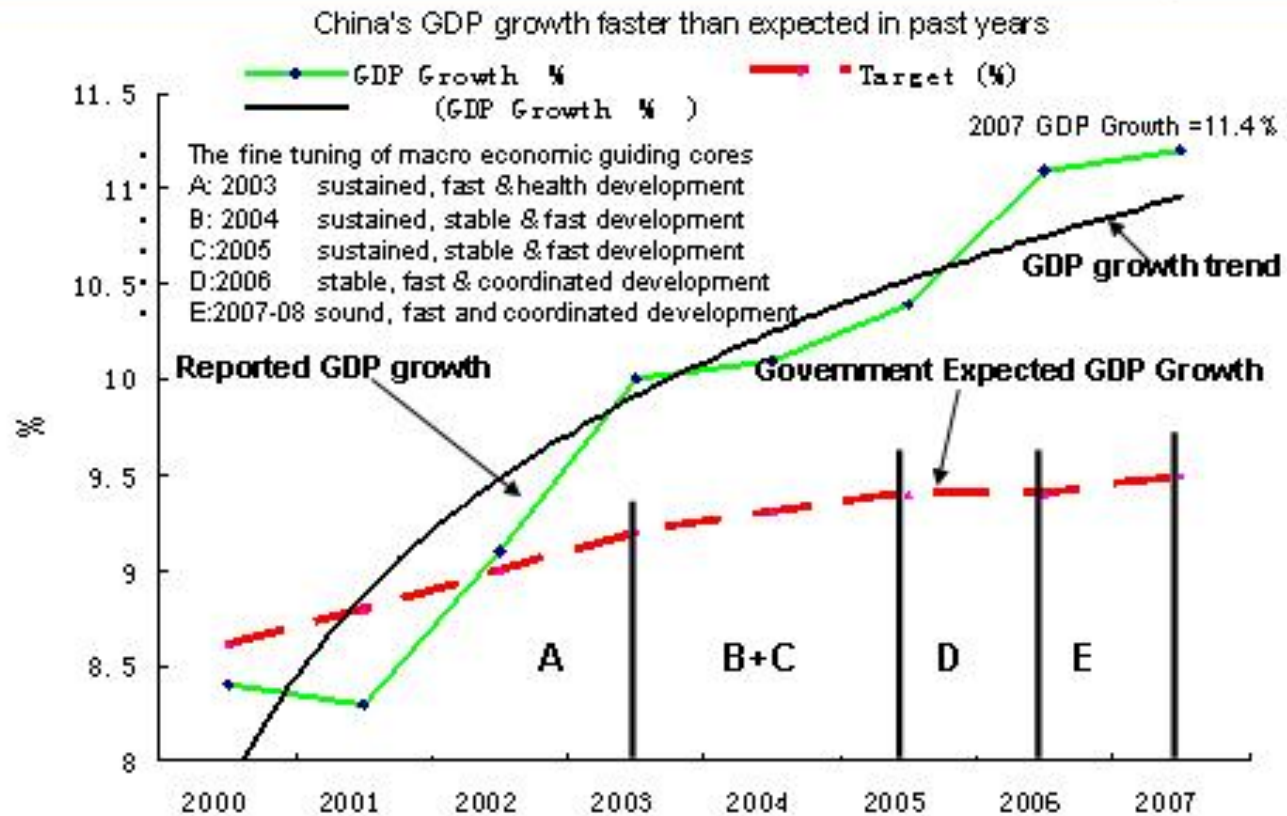


Why are we so bullish on China?

1. **Performance** – China has demonstrated a resilience in growth over the past seven years defying all the doomsayers including the government!
2. **Scale** – The massive size of China's population makes it the largest country ever to industrialise and urbanise.
3. **Still a long way to go** – Most measures suggest that even after the massive growth this decade, China still has a long way to go before reaching Western levels.
4. **Over-coming challenges/threats** – There are severe environmental and resource challenges to be over-come. These will slow growth rates from recent levels but will not stop growth (we assume 50% lower demand growth in 2007-2017 vs. 2000-07!).



The Chinese government (not just bankers) has consistently under-estimated Chinese growth...

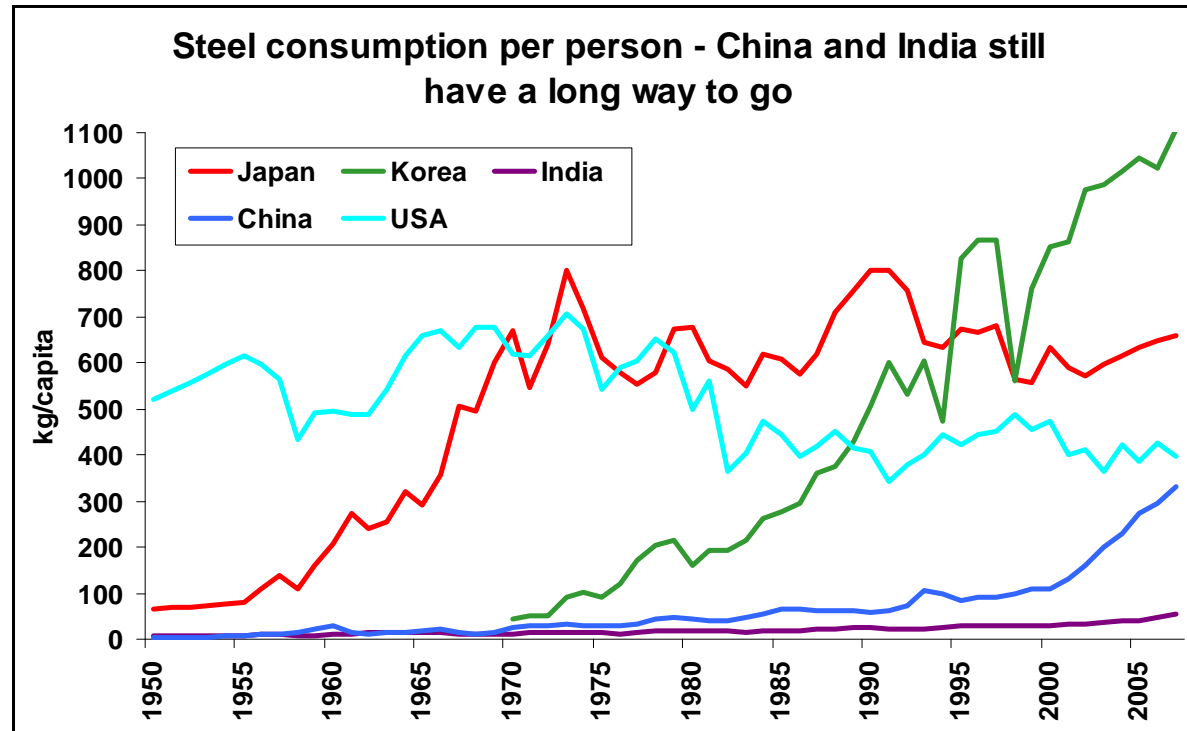


Source : NBSCISA, MRI, mysteel database





Chinese and India per capita consumption – still some way to go...



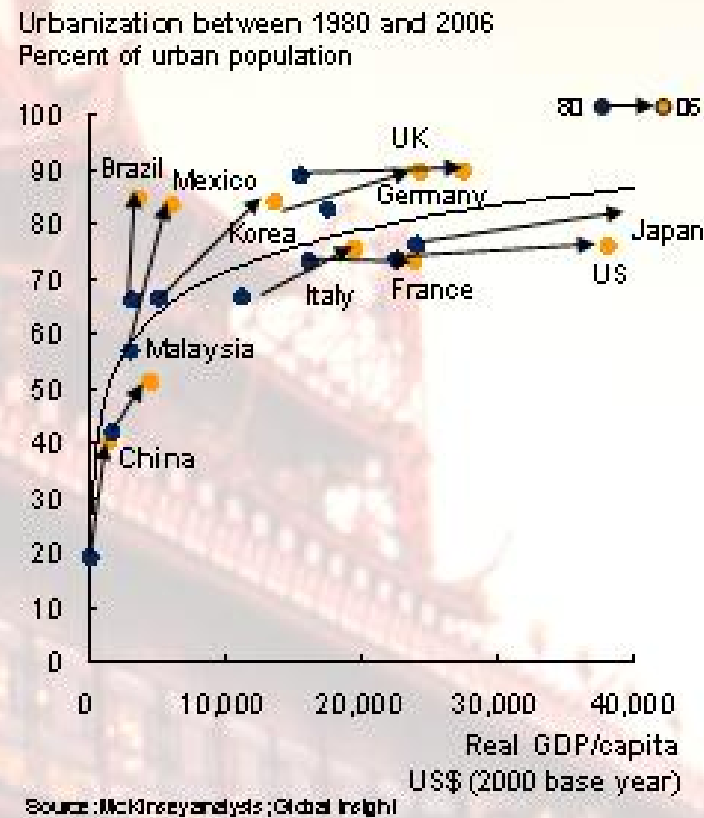
Source: IISI, World Bank, Macquarie Research, September 2008

- ➔ China's per capita consumption has grown dramatically over the past ten years – 330kg/person (crude basis) in 2007 vs. 92kg in 1997.
- ➔ Experience of Japan and Korea suggests that if current growth momentum continues there is still at least another ten years of rapid growth to go...China target is 500kg by 2012?
- ➔ India hasn't really started yet...60kg per person.

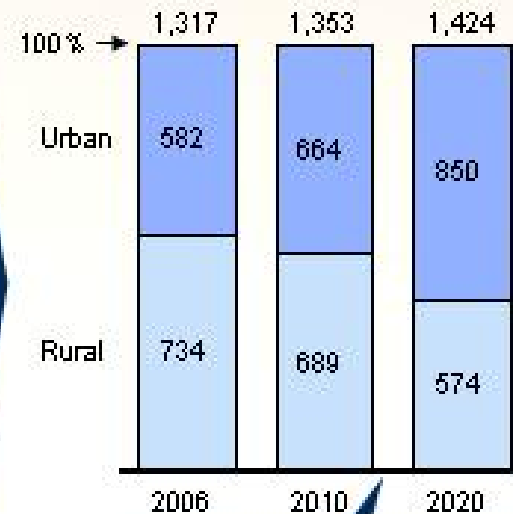


Rising developing country incomes and urbanisation drive metals' growth

Urbanization – central to China’s macro-economic development – is a key driver of China’s strong commodity demand ESTIMATE



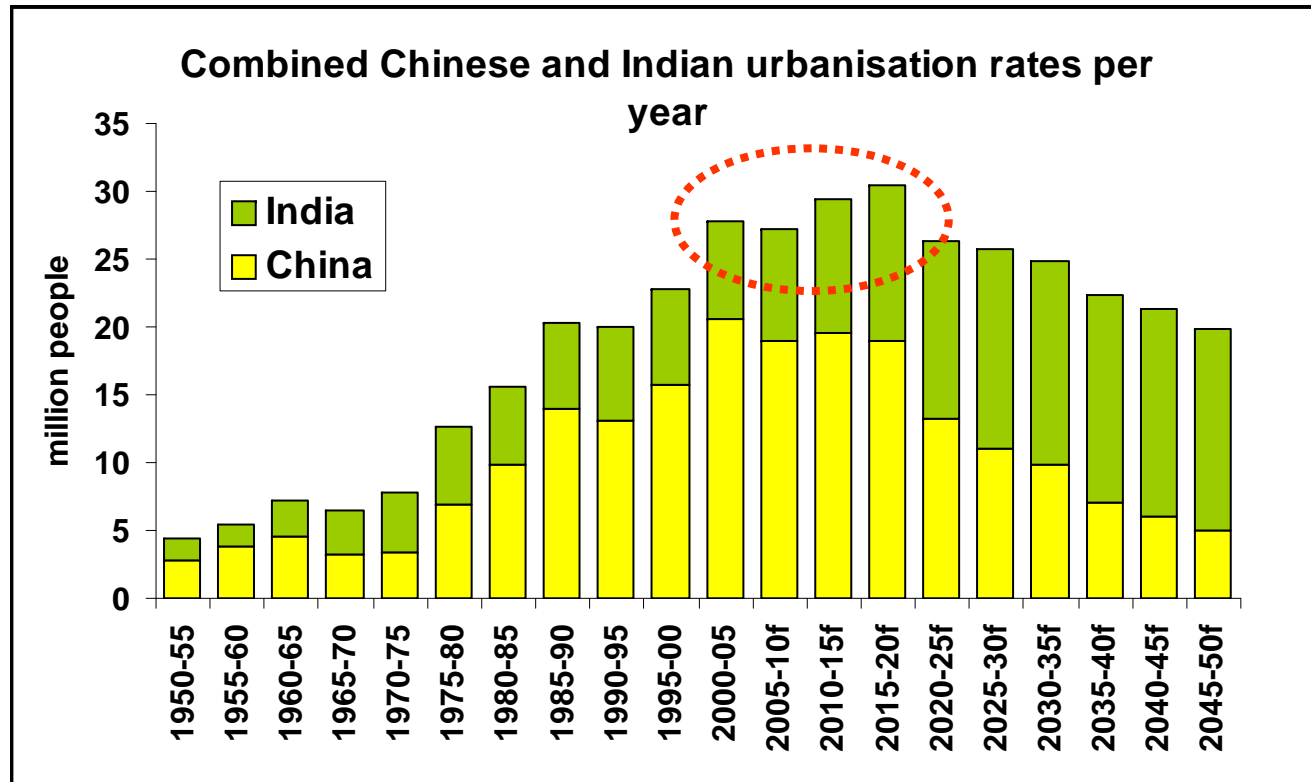
Expected China urbanization, People Millions



Between now and 2020 the equivalent to the US population will urbanize in China



25-30m people a year urbanising in India and China from 2000-2020



Source: United Nations, McKinsey, Macquarie Research , September 2008

This is one of the main drivers of metals demand growth acceleration



China is redefining urbanization scale

- From 2005-25, Chinese cities will add more than 350 million people ...
- There will be more than 200 Chinese cities with more than 1m inhabitants
- There will be up to 50,000 new skyscrapers...
- There could be up to 170 new mass transit systems...
- ... the population of the entire United States
- ... in Europe today there are only 35 cities of that size
- ... the equivalent of building ten New Yorks
- ... in Europe today there are about 70
- By 2025, two-thirds of China's citizens will live in cities ...
- ... **that's nearly 1 billion people**



Source: McKinsey, September 2008



Developing countries now the engine of growth for steel

Share of world demand %				Change	Change
	1980	2000	2007	1980-2000	2000-2007
W.Europe	20.9%	21.3%	15.9%	0.5%	-5.4%
North America	17.4%	18.0%	10.0%	0.6%	-8.0%
Japan	10.8%	9.4%	6.3%	-1.4%	-3.1%
E.Europe/CIS	28.6%	7.6%	8.3%	-21.0%	0.7%
China	5.8%	16.3%	32.8%	10.5%	16.5%
India	1.6%	3.6%	4.6%	2.0%	1.1%
Rest of world	14.0%	23.0%	21.4%	9.0%	-1.6%
"Developed" world	49.0%	48.7%	32.1%	-0.3%	-16.5%
"Developing" world	51.0%	51.3%	67.9%	0.3%	16.5%
<i>"Developing" world (Ex-E.Eur/CIS)</i>	<i>22.4%</i>	<i>43.8%</i>	<i>59.6%</i>	<i>21.4%</i>	<i>15.8%</i>
Total world	100%	100%	100%	-	
Total world Ex-China	94.2%	83.7%	67.2%	-10.5%	-16.5%

Source: Macquarie Research, September 2008



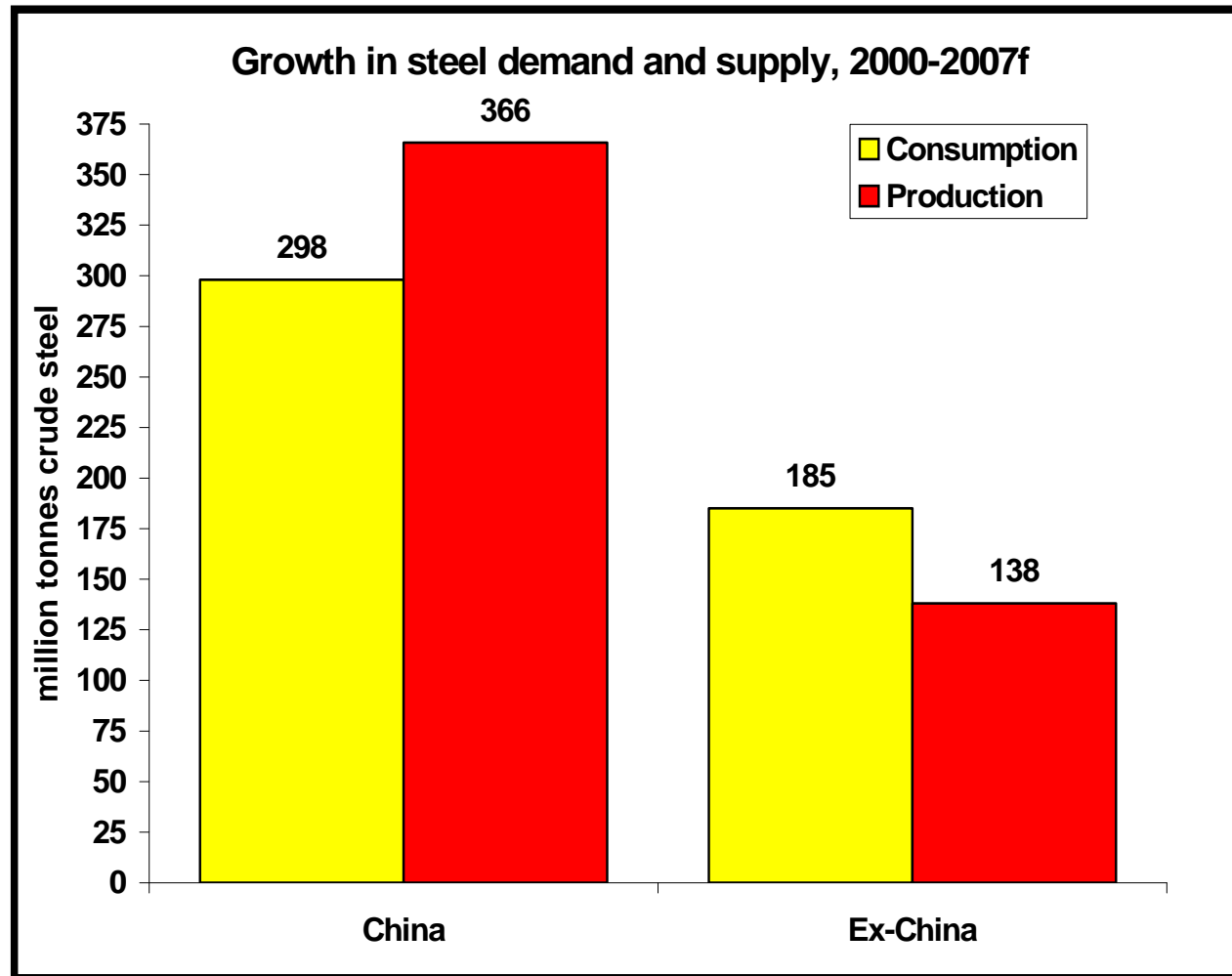
World steel demand growth accelerates...due mainly to China

	million tonnes crude steel			(% per annum (CAAGR))		Change mt 2000-2007
	1980	2000	2007	1980-2000	2000-2007	
W.Europe	153	181	211	0.9%	2.2%	30
North America	127	153	133	0.9%	-2.0%	-20
Japan	79	80	84	0.0%	0.8%	4
E.Europe/FSU	209	41	110	-7.8%	15.2%	69
China	43	138	437	6.1%	17.8%	298
India	12	30	61	4.9%	10.7%	31
Other Asia	34	105	135	5.8%	3.7%	30
Africa	21	16	32	-1.2%	9.8%	15
Middle East	12	21	45	3.0%	11.4%	24
South America	13	53	74	7.2%	4.7%	20
"Developed" world	359	414	428	0.7%	0.5%	15
"Developing" world	373	436	904	0.8%	11.0%	468
"Developing" world (Ex-E.Eur/CIS)	164	395	794	4.5%	10.5%	399
Total world	732	850	1333	0.7%	6.6%	483
Total world Ex-China	689	711	896	0.2%	3.4%	185

Source: Macquarie Research, September 2008

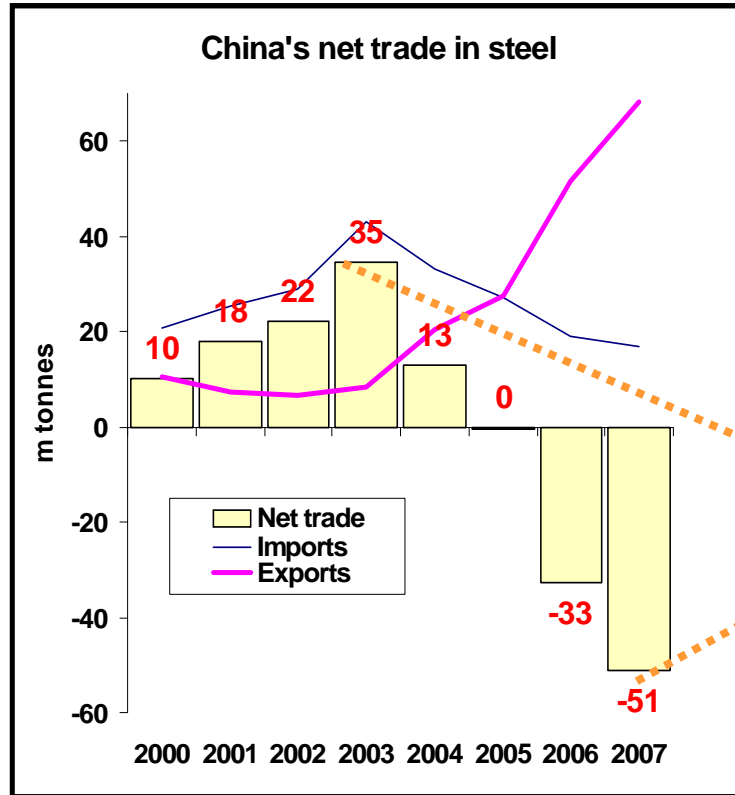


The world has needed more Chinese steel!

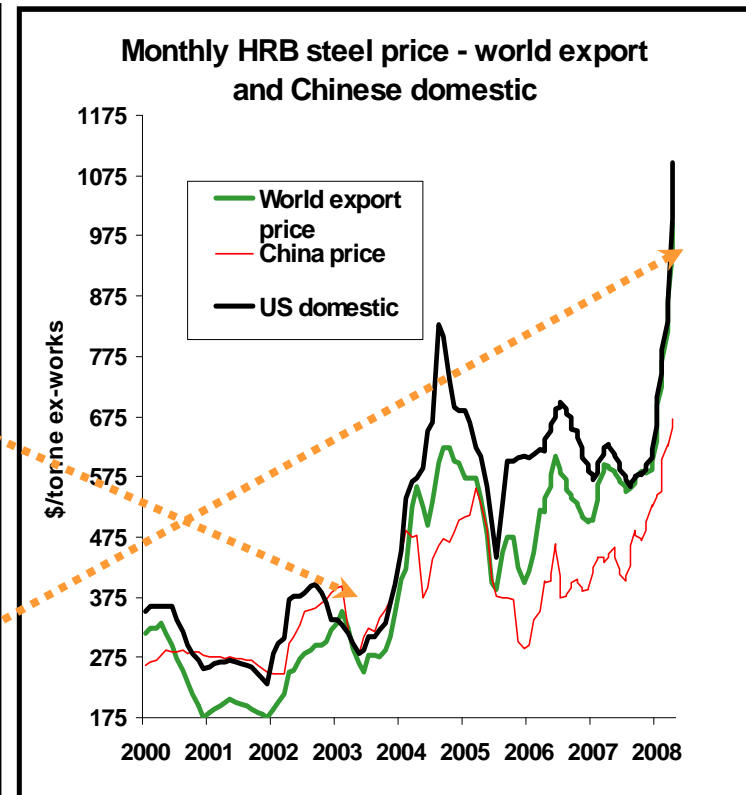




Swing in Chinese net trade did **not** hit steel prices!



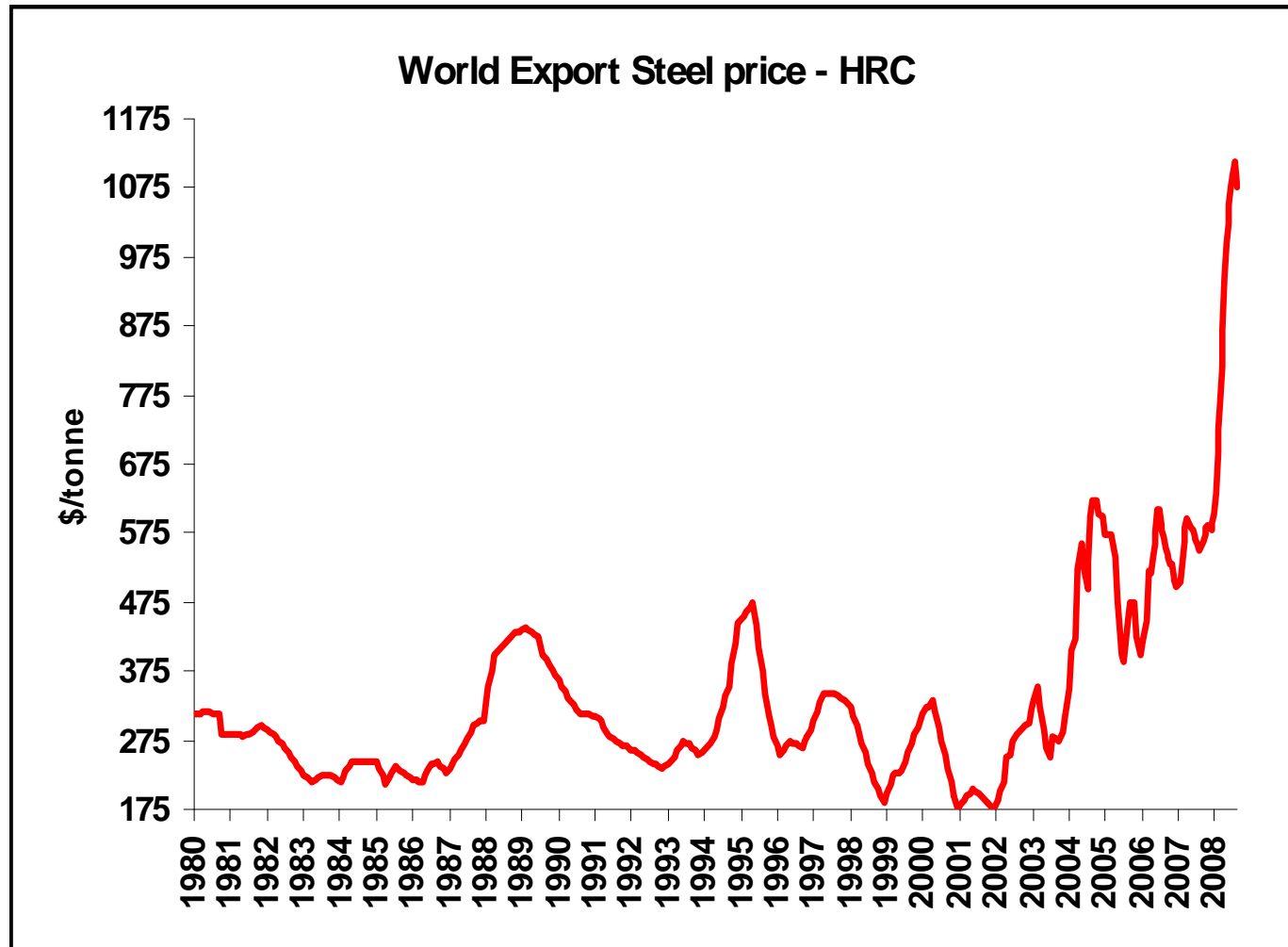
Source: Customs Statistics, Macquarie Research, September 2008



Source: WSD, Macquarie Research, September 2008



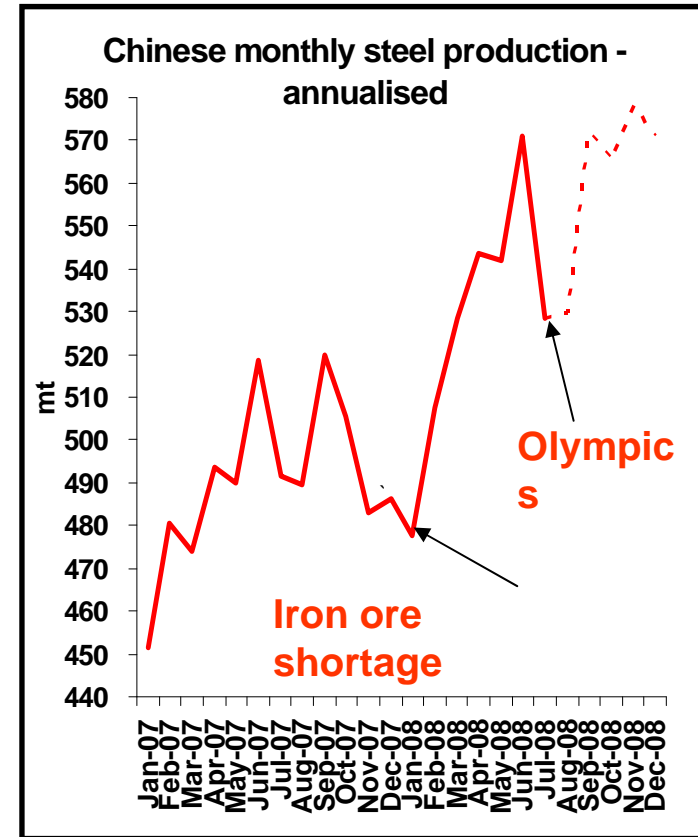
Amazing explosion in global steel prices



Source: WSD, Macquarie Research, September 2008



One reason for H1 2008 steel price take-off – withdraw of Chinese exports from global market as iron ore shortages cut Chinese steel production



Source: Customs Statistics, Macquarie Research, September 2008



Slowdown in steel demand – but still a strong 5% growth in 2009

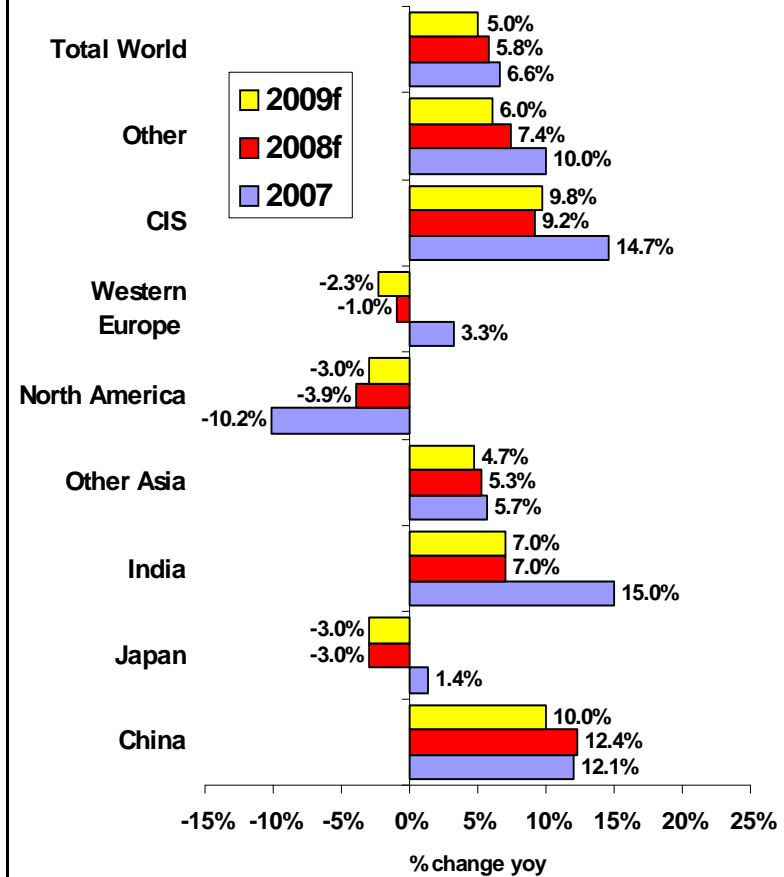
Steel Consumption - Crude Steel Basis (million tonnes)

	2006	2007	2008f	2009f
China	389.5	436.5	490.5	539.4
Japan	82.8	83.9	81.4	79.0
India	53.4	61.4	65.7	70.3
Other Asia	127.6	134.9	142.0	148.7
North America	148.0	133.0	127.8	124.0
Western Europe	204.8	211.5	209.5	204.7
CIS	66.3	76.1	83.1	91.2
Other	177.8	195.5	210.1	222.8
Total World	1250.1	1332.8	1410.0	1480.0
Total World, Ex-China	860.7	896.3	919.6	940.6

% Change Y-o-Y

China	9.4%	12.1%	12.4%	10.0%
Japan	1.3%	1.4%	-3.0%	-3.0%
India	14.3%	15.0%	7.0%	7.0%
Other Asia	0.4%	5.7%	5.3%	4.7%
North America	11.2%	-10.2%	-3.9%	-3.0%
Western Europe	12.2%	3.3%	-1.0%	-2.3%
CIS	16.5%	14.7%	9.2%	9.8%
Other	11.8%	10.0%	7.4%	6.0%
Total World	9.3%	6.6%	5.8%	5.0%
Total World Ex-China	9.3%	4.1%	2.6%	2.3%

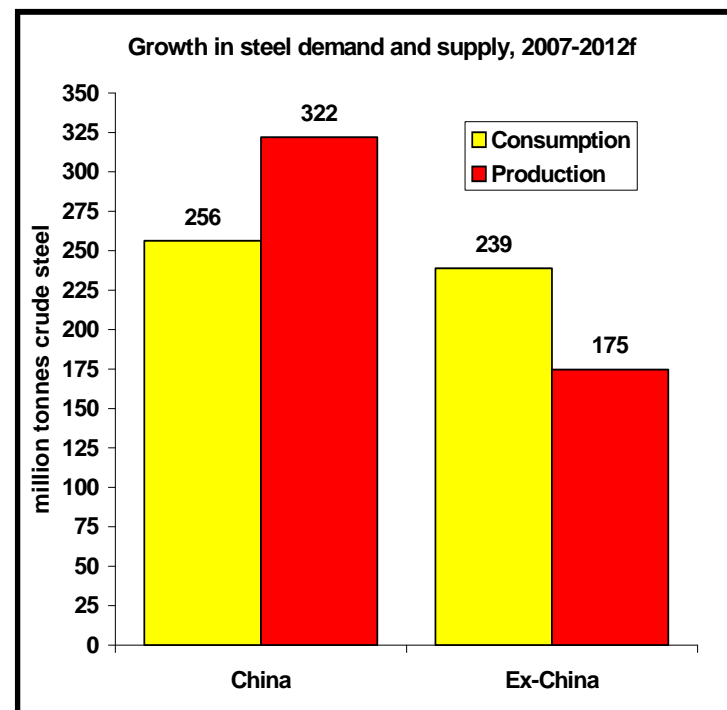
Changes in steel demand by region





In the medium term, the world will need even more Chinese steel!

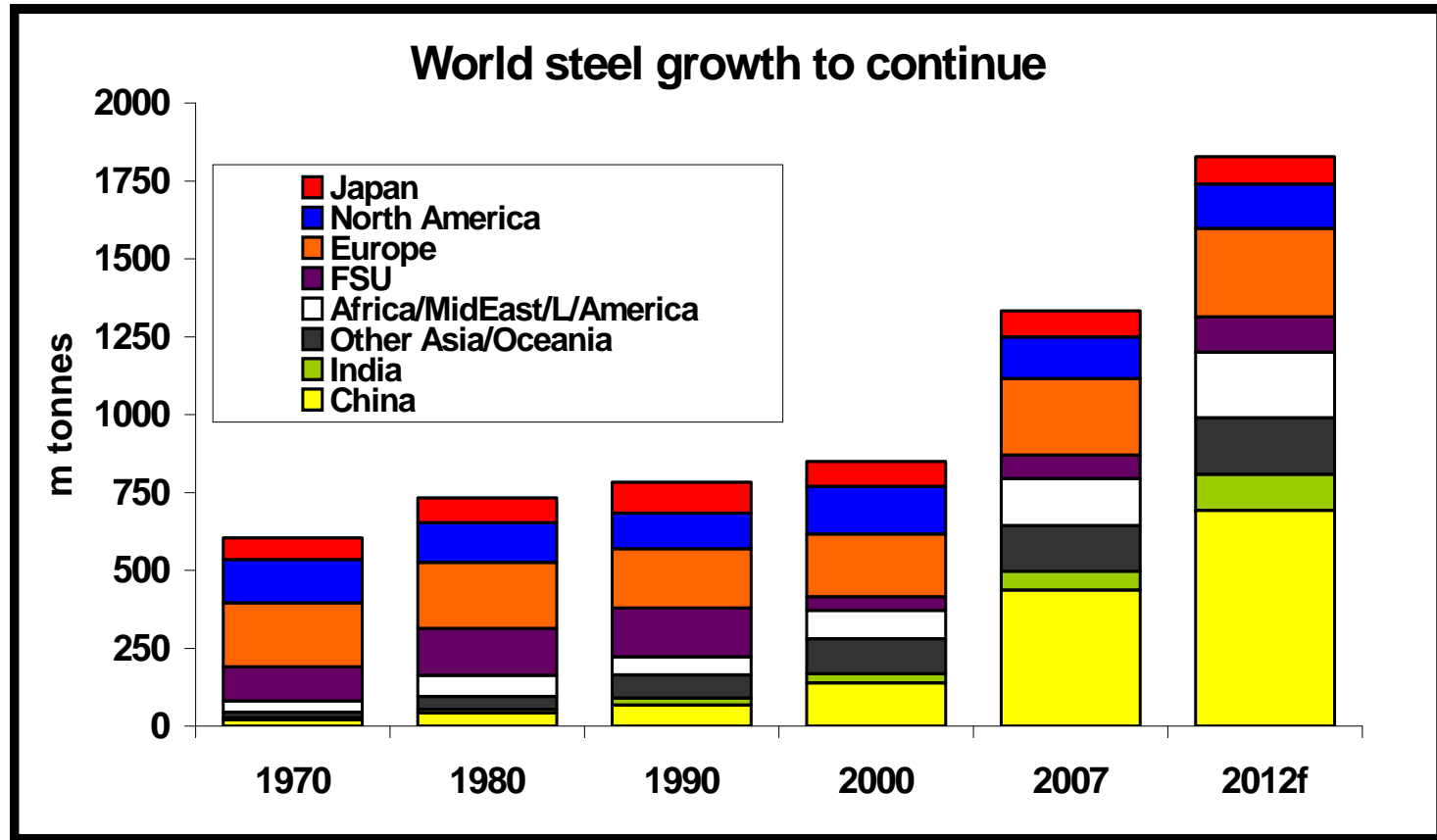
	World crude steel consumption		Change mt	
	2007	2012f	2007-12f	2007-12f
W.Europe	211	232	1.9%	21
North America	133	142	1.4%	9
Japan	84	88	0.9%	4
E.Europe/FSU	110	165	8.4%	55
China	437	693	9.7%	256
India	61	116	13.5%	54
Other Asia	135	170	4.7%	35
Africa	32	47	8.2%	15
Middle East	45	70	9.0%	24
South America	74	94	5.0%	20
"Developed" world	428	462	1.5%	34
"Developing" world	904	1366	8.6%	461
"Developing" world (Ex-E.Eur/CIS)	794	1200	8.6%	406
Total world	1333	1828	6.5%	495
Total world Ex-China	896	1135	4.8%	239



Source: Macquarie Research, September 2008



Steel demand in 2012 – developing domination



Source: Macquarie Research, September 2008

Share of demand	1980	1990	2000	2007	2012f
"Developed" world	49.0%	46.4%	48.7%	32.1%	25.3%
"Developing" world	51.0%	53.6%	51.3%	67.9%	74.7%



China will not destroy global steel market – export rise is needed

Chinese Steel Industry Summary (million metric tons)

	<u>2007</u>	<u>2008f</u>	<u>2009f</u>	<u>2010f</u>	<u>2011f</u>	<u>2012f</u>
Crude steel production	493	545	595	660	730	800
Imports	17	10	7	5	5	5
Exports	<u>69</u>	<u>59</u>	<u>57</u>	<u>75</u>	<u>85</u>	<u>95</u>
Net trade - total	-51	-49	-50	-70	-80	-90
Apparent demand (crude basis)	437	490	539	582	641	700
Apparent demand (product basis)	389	442	485	525	579	632
Users/producers stock change	<u>-6</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>
Real consumption (product)	395	437	480	520	574	627
Real consumption (crude)	443	485	534	576	635	694
% change y-o-y	<u>2007/6</u>	<u>2008/7</u>	<u>2009/8</u>	<u>2010/9</u>	<u>2011/10</u>	<u>2011/11</u>
Crude steel production	16.0%	10.5%	9.2%	10.9%	10.6%	9.6%
Imports	-8.5%	-42.6%	-30.0%	-28.6%	0.0%	0.0%
Exports	32.6%	-14.1%	-3.3%	31.6%	13.3%	11.8%
Apparent consumption	12.5%	13.6%	9.9%	8.1%	10.3%	9.2%
Real consumption	11.9%	10.6%	10.0%	8.2%	10.4%	9.3%
Consumption % of world demand	33.8%	34.7%	36.0%	37.0%	38.0%	37.7%
Exports as % of Chinese output	15.1%	11.8%	10.4%	12.4%	12.7%	12.9%
Exports as % of world demand	5.8%	4.8%	4.3%	5.4%	5.7%	5.9%

Source: IISI, Macquarie Research, September 2008

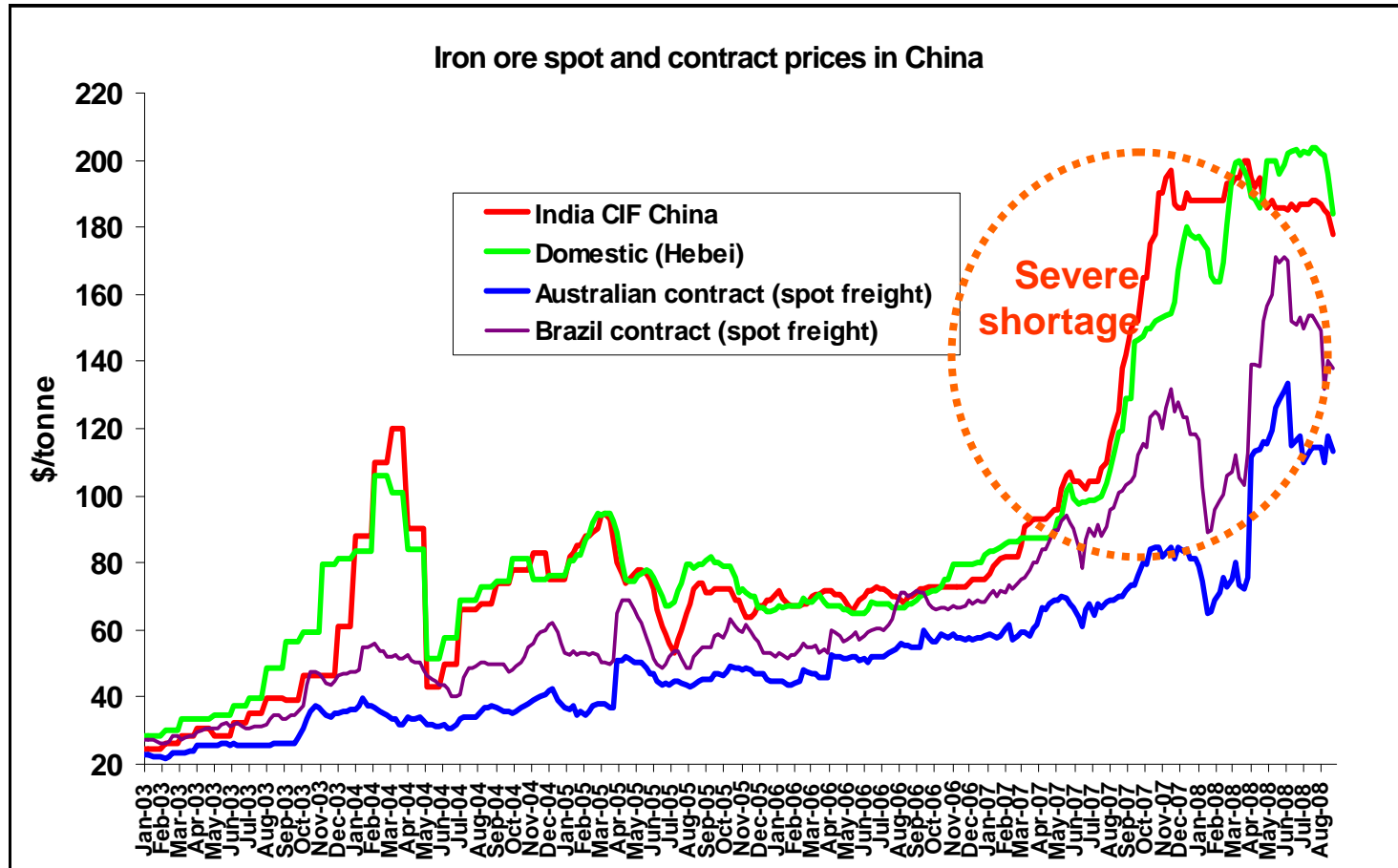


So what does this mean for raw materials?

- Massive rises in all steelmaking raw material prices in recent years
- Some substitution where possible (e.g., high grade coal to lower grade coals, nickel to manganese, zinc to aluminium, etc).
- Mobilisation of new, high-cost/low quality supply sources: low-grade iron ores from China, India, etc; low grade US coal exports...



Spot and contract iron ore on a delivered basis to China – after 71% Brazilian and 80% Australian contract rises, using spot freight



Source: Mysteel, Clarksons, Macquarie Research, September 2008

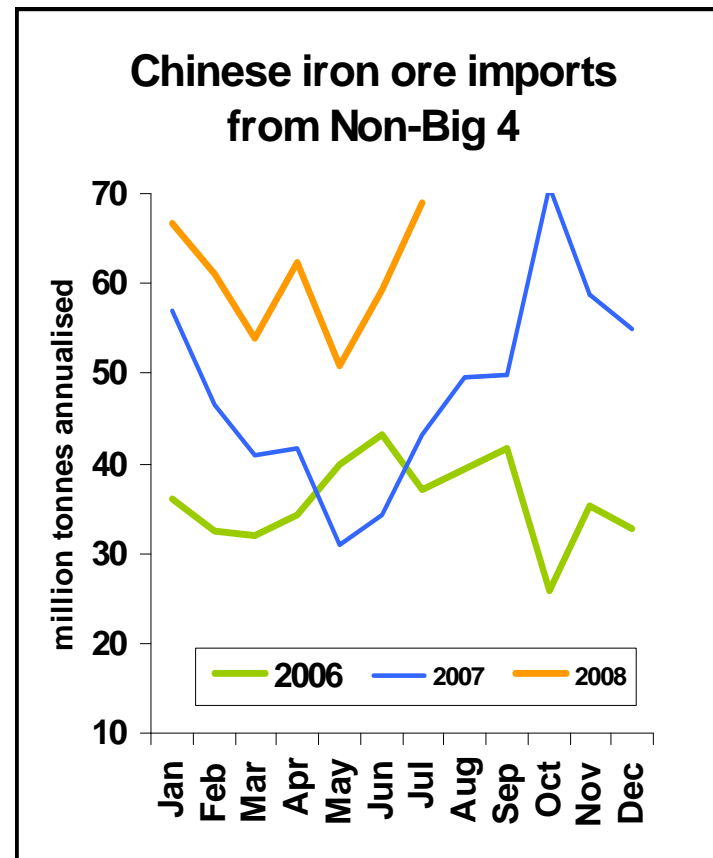
Spot the cheapest supplier!



The supply response – smaller players

	Jan-Jul	Jan-Jul	YoY	% chge
	2008	2007	Chge (mt)	YoY
Australia	103.22	83.77	19.45	23.2%
India	63.00	51.74	11.26	21.8%
Brazil	59.20	54.29	4.91	9.0%
South Africa	9.16	7.50	1.66	22.2%
Indonesia	4.78	2.24	2.53	112.8%
Ukraine	3.48	0.88	2.60	296.5%
Mauritania	1.43	0.88	0.55	0.1%
Venezuela	2.00	1.54	0.46	0.0%
Thailand	1.29	0.60	0.69	115.5%
Russia	3.72	2.90	0.82	28.2%
Mexico	0.90	0.38	0.52	136.8%
Iran	3.64	2.91	0.73	25.1%
Other	14.05	12.08	1.97	16.3%
Total	269.86	221.71	48.16	21.7%
Total Ex-Big 4	35.29	24.41	10.87	44.5%

Source: Chinese Customs, September 2008

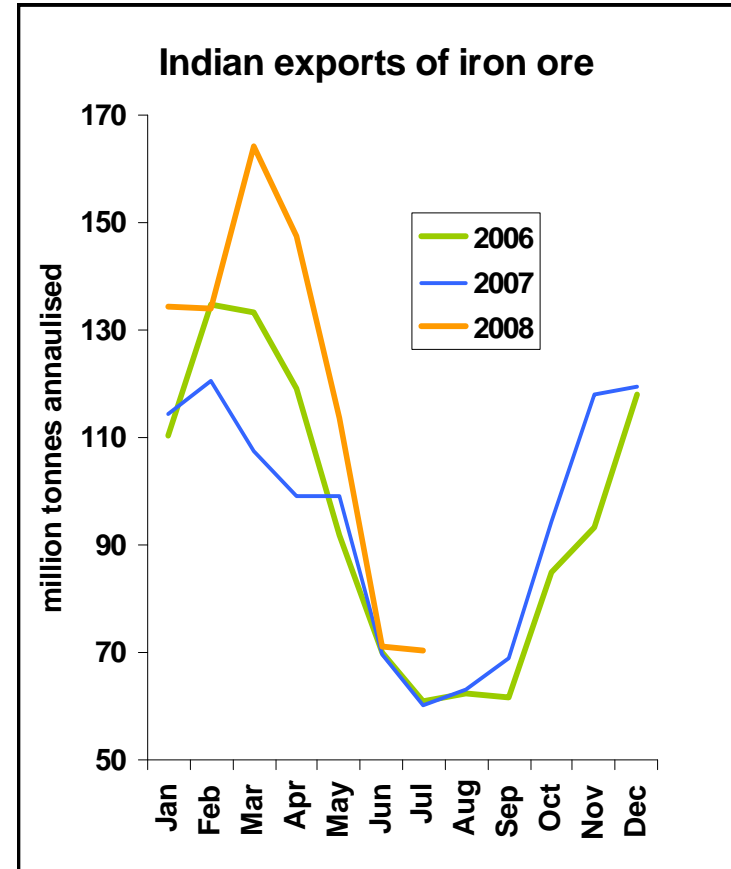


Source: Chinese Customs, September 2008



The market response - India

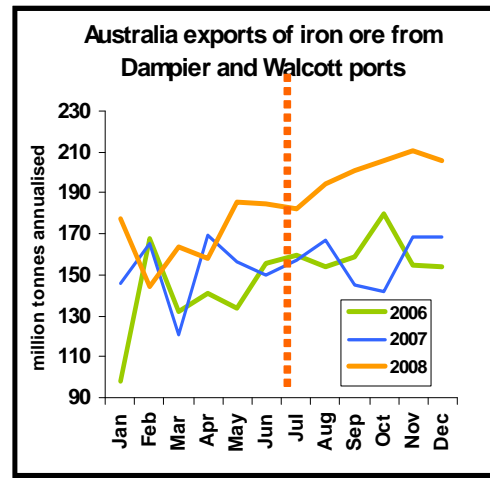
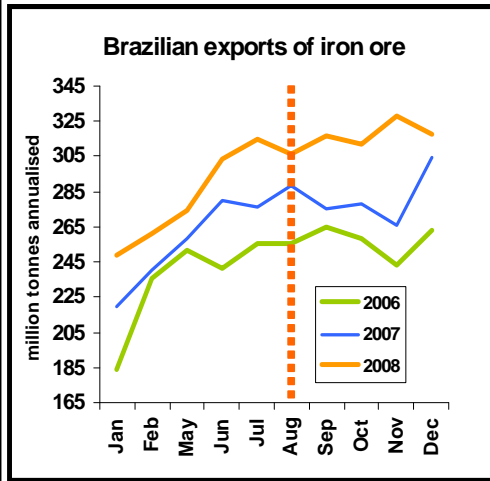
Indian iron ore exports (mt)				
	2006	2007	2008	2008 - 2007
Jan	9.4	9.7	11.4	1.7
Feb	10.3	9.2	10.6	1.4
Mar	11.3	9.1	14.0	4.8
Apr	9.8	8.2	12.1	4.0
May	7.8	8.4	9.7	1.2
Jun	5.8	5.7	5.8	0.1
Jul	5.2	5.1	6.0	0.9
Aug	5.3	5.4		
Sep	5.1	5.7		
Oct	7.2	8.0		
Nov	7.7	9.7		
Dec	10.0	10.2		
Jan-Jul	59.6	55.5	69.6	14.1
Year	94.8	94.4	110.0	15.6



Source: Indian port statistics, September 2008

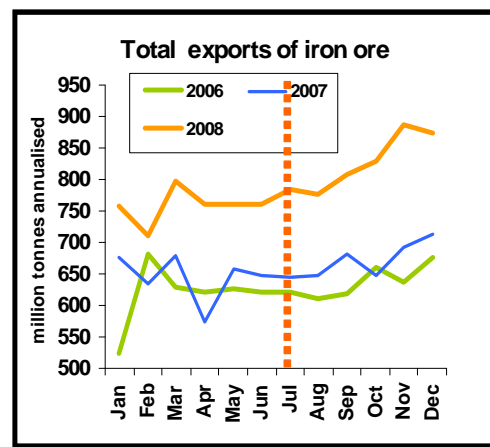
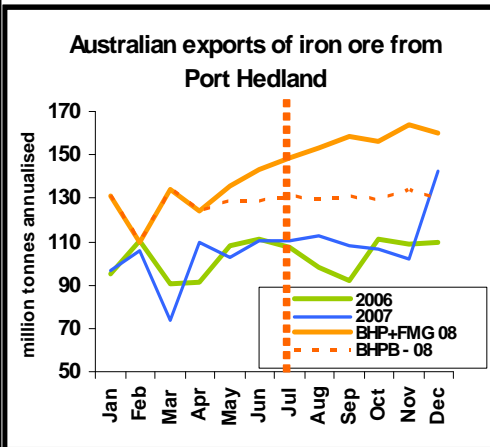


Iron ore exports growing strongly in 2008



→ **Brazilian exports set to rise strongly in H2 2008 after disappointing first half**

→ **Exports from Dampier/Port Walcott (Rio Tinto) to pick up as new capacity is expanded**



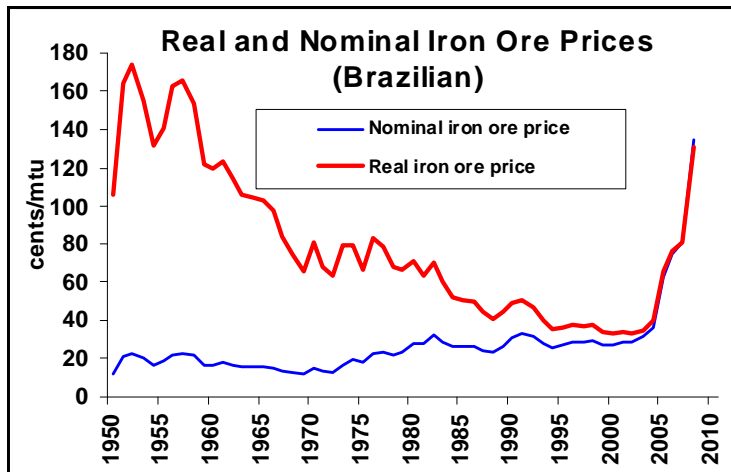
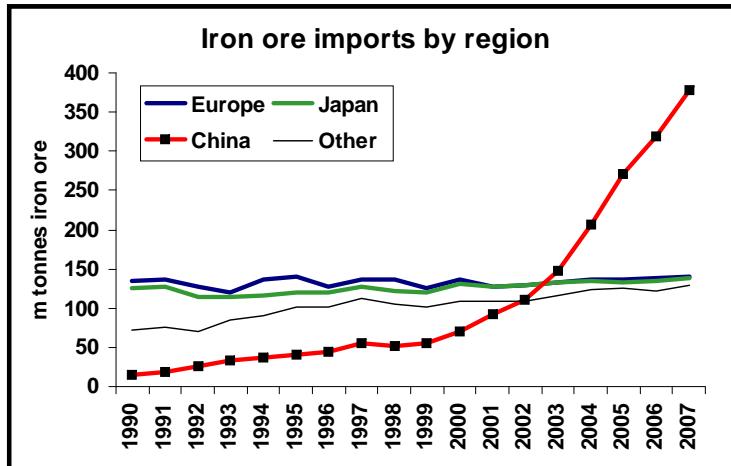
→ **FMG should ship 15-20mt in 2008, mostly in second half**

→ **Including other countries, strong rise in iron ore exports likely between now and end of 2008**

Source: Port statistics, Macquarie Research, September 2008



Iron ore: – China, China, China!



➔ Massive rise in Chinese demand for imported iron ore since 2000. China accounted for 48% of iron ore seaborne imports in 2007, compared with 16% in 2000 and 11% ten years ago.

➔ Vale negotiates 65/71% YoY fines rise for 2008 – Australians get 80%

➔ In real terms, 2008 iron ore prices are highest since 1958.

Source: Macquarie Research, September 2008



Key factors in iron ore outlook – over-supply threat?

→ Growth in supply starting to accelerate – threat of over-supply?

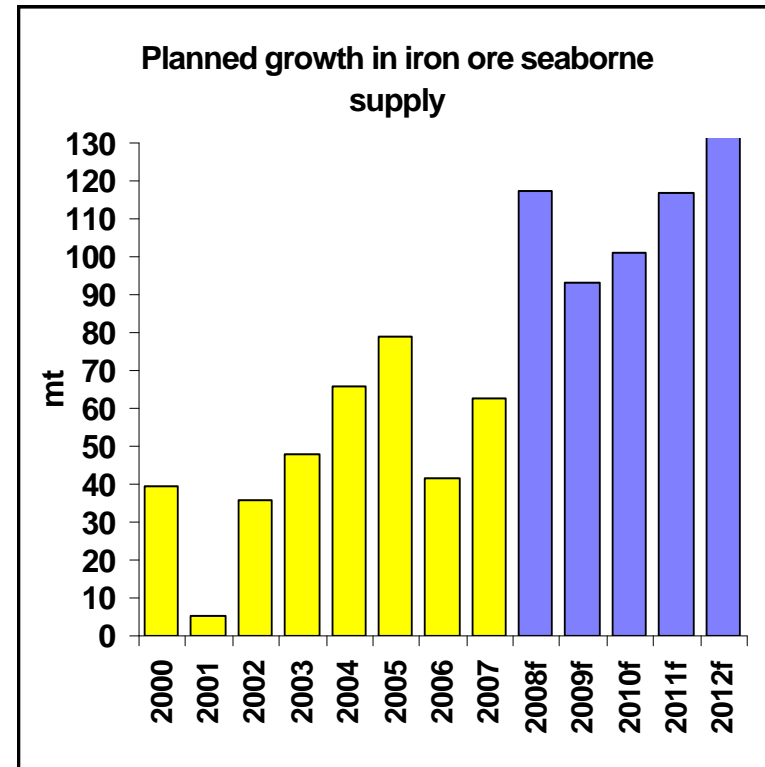
No...because:

→ Shortage on non-Chinese steel capacity to get worse – suggests even higher Chinese steel exports and production are needed in the coming years

→ Chinese domestic iron ore production will eventually start to decline, boosting import demand further

→ Iron ore seaborne exports to China should soar, once the capacity to export (mining plus shipping) becomes available

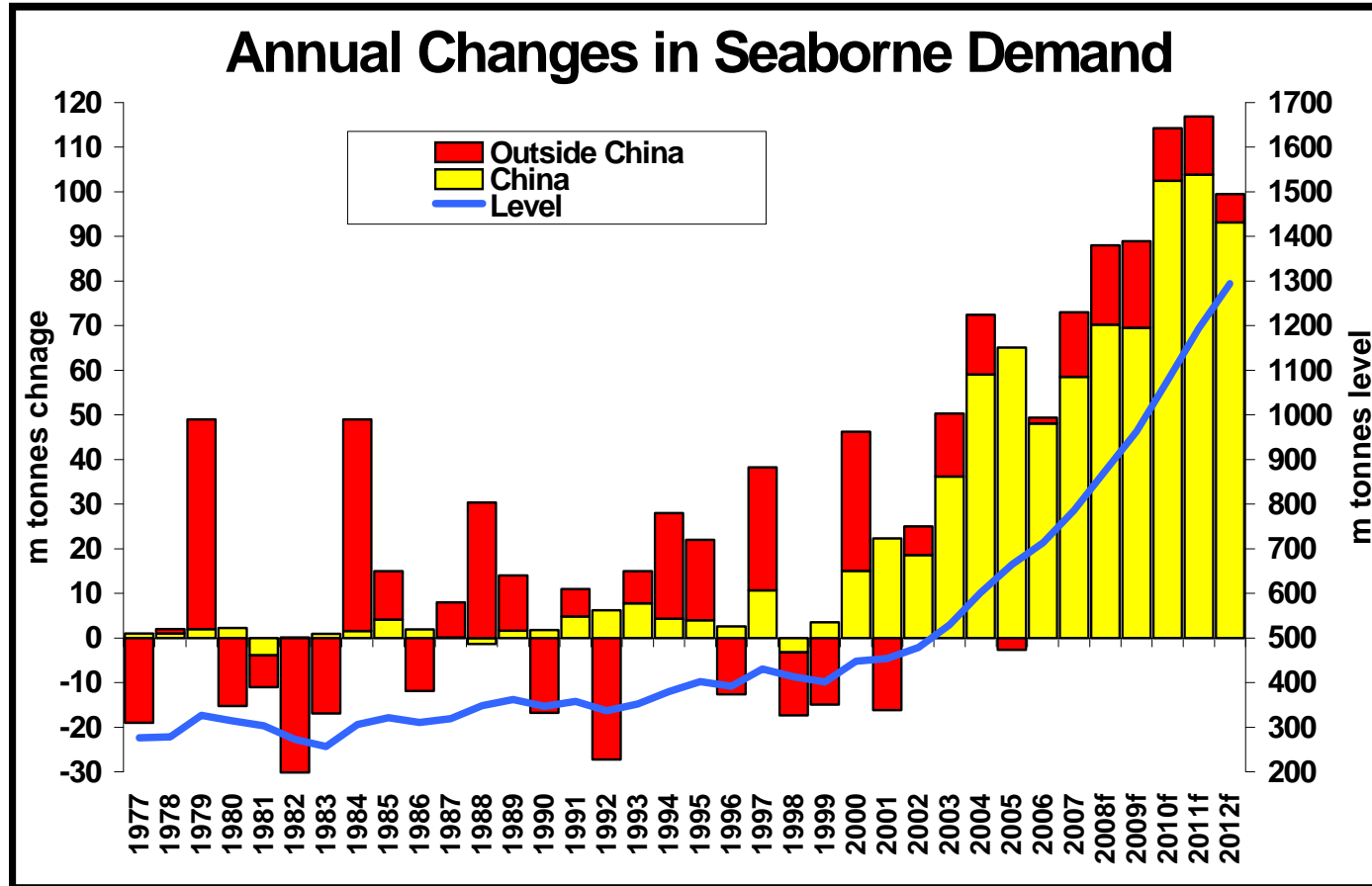
However, the recent shortages are easing...



Source: Macquarie Research, September 2008



China's future role: even bigger!

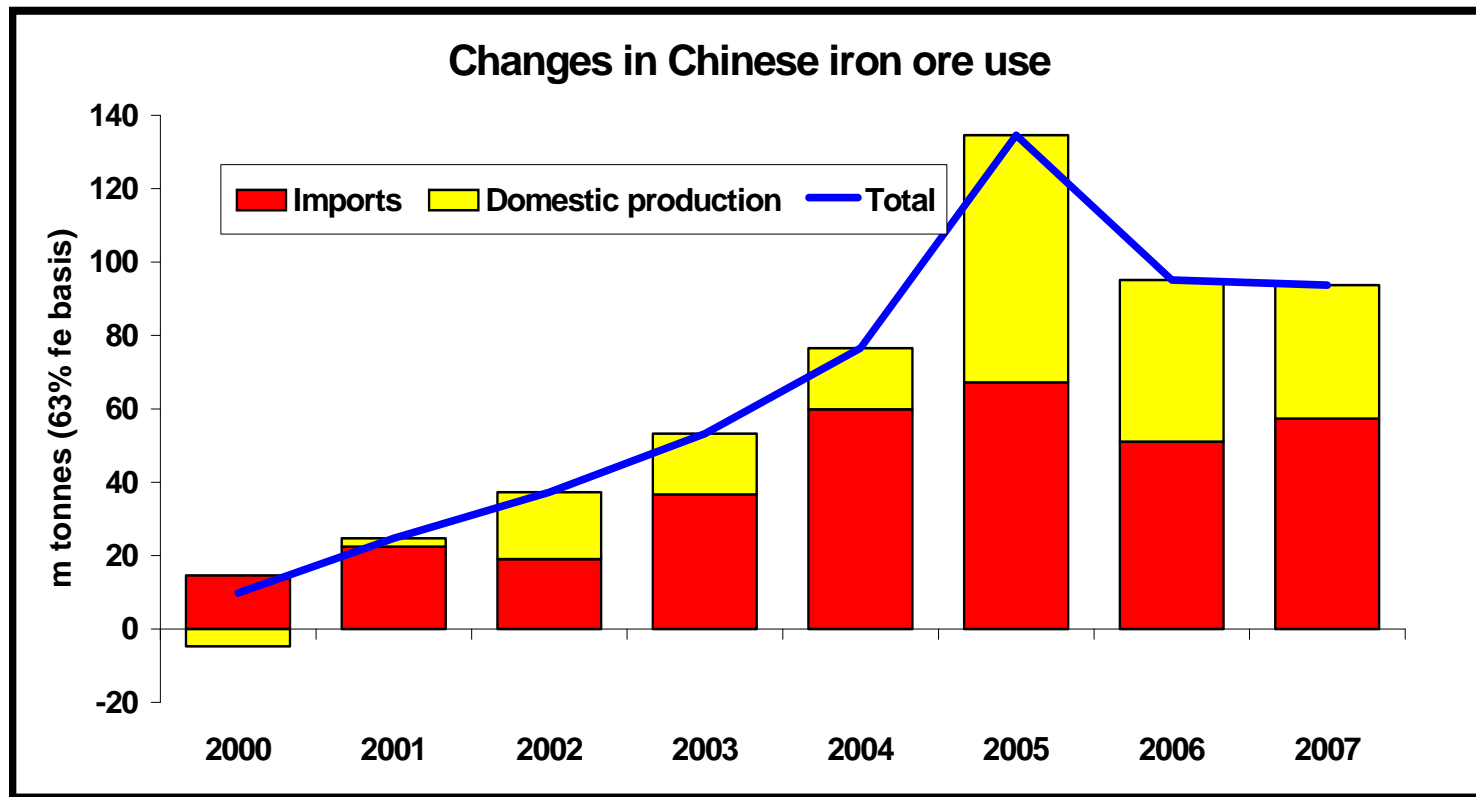


Source: Macquarie Research, September 2008



What do our Chinese steel forecasts mean for imported iron ore demand?

→ Critical element is the mix between domestic and imported iron ore – shortage of imported stimulated domestic supply response:



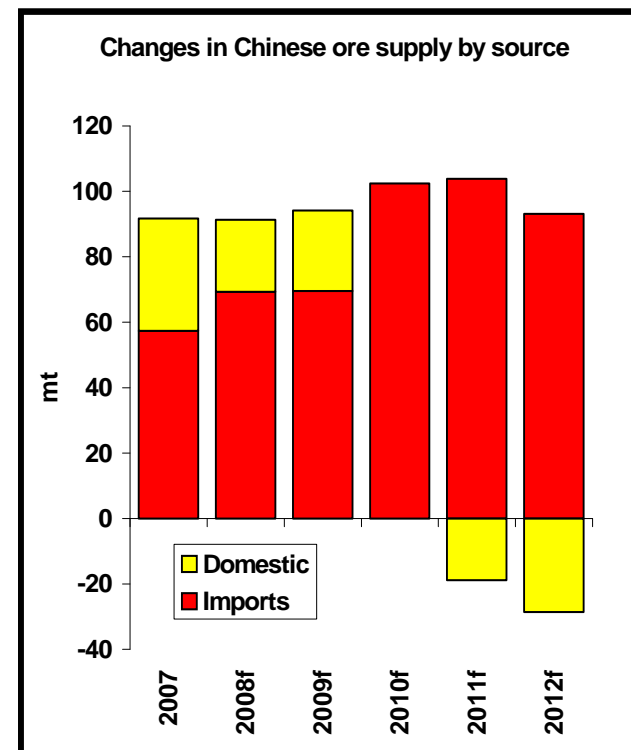
Source: Macquarie Research, September 2008



How we see the Chinese market evolving out to 2012

million tonnes	2007	2008f	2009f	2010f	2011f	2012f
Total imports	384	449	518	620	724	818
of which:						
Australia	146					
Brazil	98					
India	80					
South Africa	12					
Other - seaborne	42					
Other - landborne	6					
Domestic production (63.5% fe gross wt. basis)	330	356	381	381	362	333
Total Chinese supply	713	805	899	1001	1086	1151
Domestic share	46.2%	44.2%	42.4%	38.1%	33.3%	28.9%
Y-o-Y changes (mt)						
Imports	57.4	65	69	102	104	94
Domestic	34.4	26	25	0	-19	-29
Total	91.8	91	94	102	85	65

Source: Macquarie Research, September 2008



Source: Macquarie Research, September 2008

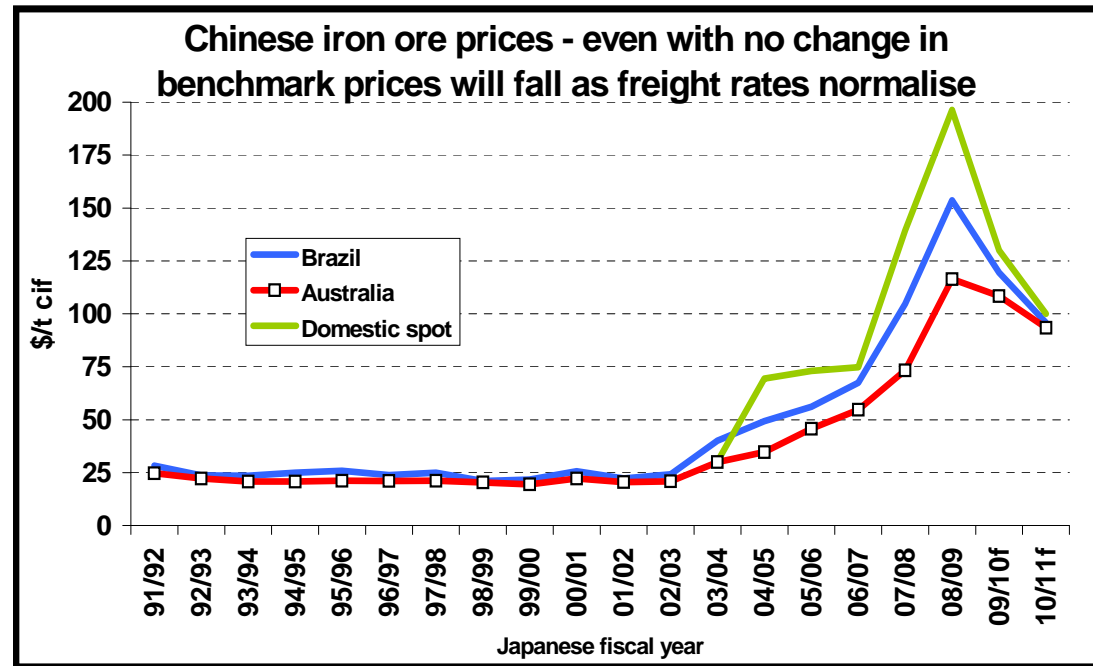


Lower freight rates will reduce iron ore prices

Bulk carrier newbuildings

	2005	2006	2007	2008	2009	2010
Cape (incl VLOC)	47	60	53	43	140	256
minicape (110-120k)					3	28
Pmax	92	109	84	95	131	223
Hmax	101	93	99	154	260	247
Hsize	56	40	60	112	206	206
Total, Dwt m	23.2	26.0	24.4	28.1	59.5	92.0

Source: Clarksons Apr 2008



Source: Macquarie Research, September 2008



Iron ore seaborne supply/demand

million tonnes	2007f	2008f	2009f	2010f	2011f	2012f
Iron Ore Summary						
million tonnes	2007	2008f	2009f	2010f	2011f	2012f
Demand						
Europe	140	142	143	145	146	150
Asia	586	670	730	832	952	1066
of which:						
Japan	139	142	142	143	143	144
Korea	46	49	52	56	60	62
Taiwan	17	18	18	19	20	21
China	378	454	509	605	720	829
Rest of World	60	69	78	85	92	92
Total Seaborne Demand	786	882	950	1062	1190	1308
Yoy change (mt)	73	95	69	112	128	118
% Change y-o-y	10.2%	12.1%	7.8%	11.8%	12.0%	9.9%
Supply						
Australia	282	355	399	452	520	630
Brazil	267	298	339	397	446	499
Canada	20	22	23	23	23	23
India	94	110	105	90	85	80
S.Africa	30	36	42	46	52	51
Sweden	19	21	22	23	24	24
Others (inc disruption)	69	69	57	62	70	51
Total Seaborne Supply	781	911	987	1093	1220	1359
Implied balance	-6	29	37	30	30	50

Source: Macquarie Research, September 2008



Supply by main producer (mt)...

	<u>2006</u>	<u>2007</u>	<u>2008f</u>	<u>2009f</u>	<u>2010f</u>	<u>2011f</u>	<u>2012f</u>
Big Three (100%)							
Vale - Brazil	235	250	267	286	313	328	360
Rio Tinto - Aust/Brazil/Canada/Guinea	163	171	210	223	237	246	276
BHP Billiton - Aust/Brazil	<u>114</u>	<u>119</u>	<u>137</u>	<u>141</u>	<u>152</u>	<u>192</u>	<u>231</u>
Sub total	513	540	615	649	701	766	867
Share %	71%	69%	67%	66%	64%	63%	64%
Selected others							
India	87	94	110	105	90	85	80
LKAB - Sweden	19	19	21	22	23	24	24
SNM - Mauritania	11	12	13	12	14	16	18
CSN-Brazil	0	5	15	25	40	60	77
MMX - Brazil	0	2	4	15	30	33	35
FMG - Australia	0	0	18	35	55	70	80
Other Australia	13	17	22	31	39	43	74
South Africa (Kumba/Assmang)	27	30	36	42	46	52	51
Chile	5	5	7	8	10	10	10
Peru	7	7	7	7	7	7	7
Venezuela	7	8	8	8	8	8	8
Total seaborne supply	718	781	911	987	1093	1220	1359
Year-on-year change (mt)	42	62	130	76	106	127	139
Year-on-year change (%)	6%	9%	17%	8%	11%	12%	11%

Source: Macquarie Research, September 2008



Making (non)sense of Chinese steel numbers in 2008!

	2008	2007	Y-o-Y	Chge
	<u>Jan-Jul</u>	<u>Jan-Jul</u>	<u>% Chge</u>	<u>Fe units</u>
Crude steel production	308.3	282.0	9.3%	26.3
Pig iron production	288.9	268.4	7.6%	
Fe content	277.4	257.7		19.7
Steel imports	4.3	4.5	-3.6%	-0.2
Steel exports	<u>26.8</u>	<u>37.9</u>	<u>-29.4%</u>	<u>-11.2</u>
Net steel imports	-22.5	-33.5	-32.9%	11.0
Apparent steel cons. (crude basis)	281.6	244.4	15.2%	37.2
Minus stock change	3	-4		
Real consumption?	278.6	248.4	12.2%	30.2
Iron ore imports	230.2	188.1	22.4%	26.5
minus: port stock chges	<u>18.0</u>	<u>6.2</u>		
Apparent use of imports	212.3	181.9	16.7%	19.1
Fe content	133.7	114.6		19.1
Required domestic (fe)	143.6	143.1	0.4%	0.6
Iron ore production (gross)	392.2	310.8	26.2%	16.3

→ There seems to be too much iron supply in China this year, from domestic production and imports?

→ However:

→ Can we trust the pig iron numbers? (under-reported)

→ Can we trust the domestic iron ore production numbers? Is the under-reporting ratio getting smaller? Is the iron content falling?

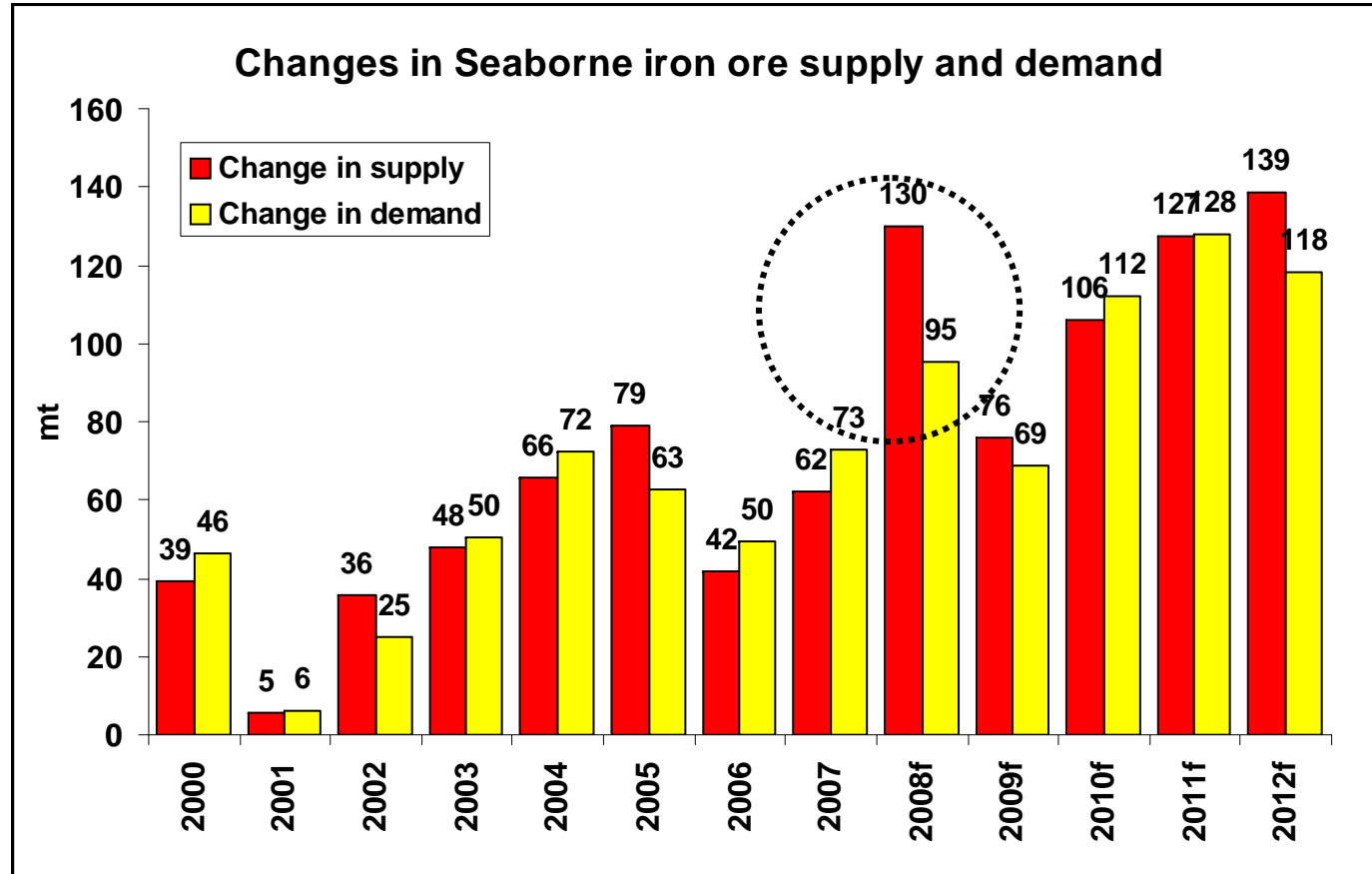
→ Domestic iron ore prices haven't collapsed which implies no over-supply...yet

→ There does appear to be a small surplus developing in H2 2008...if producers production plans are achieved

Source: CISA, Macquarie Research, September 2008



Our year-by-year changes in Chinese supply and demand...an easing of the shortage



Source: Macquarie Research, September 2008

Some over-supply (stock rebuilding in H2 2008/early 2009)



Iron ore - in summary

- In short term iron ore supply catching up with demand
- Medium term market still looks very tight as Chinese steel production and exports continue to grow strongly and Chinese domestic iron ore growth ends

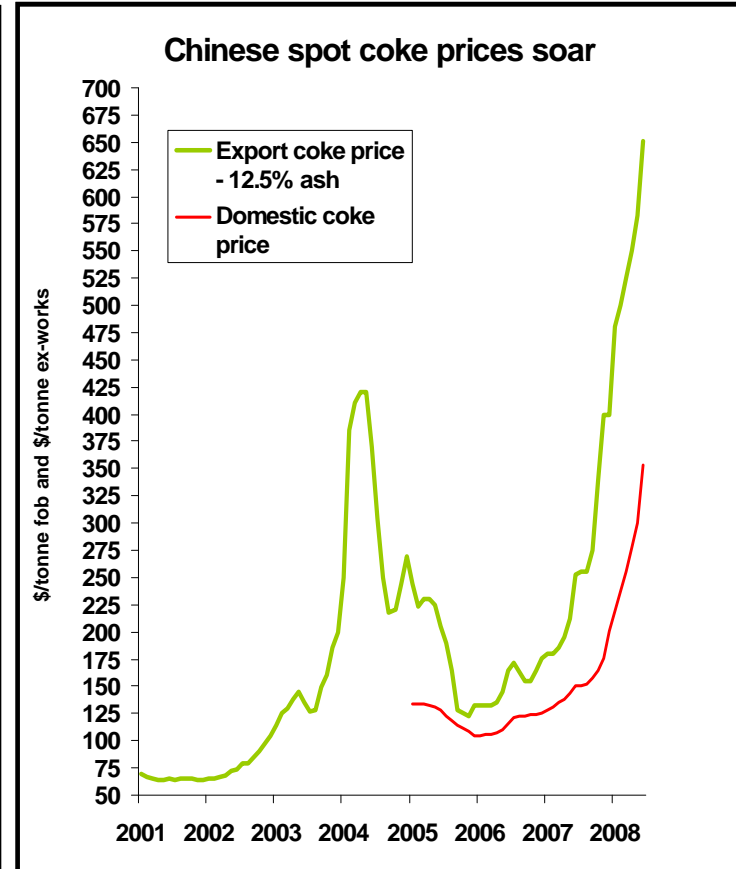
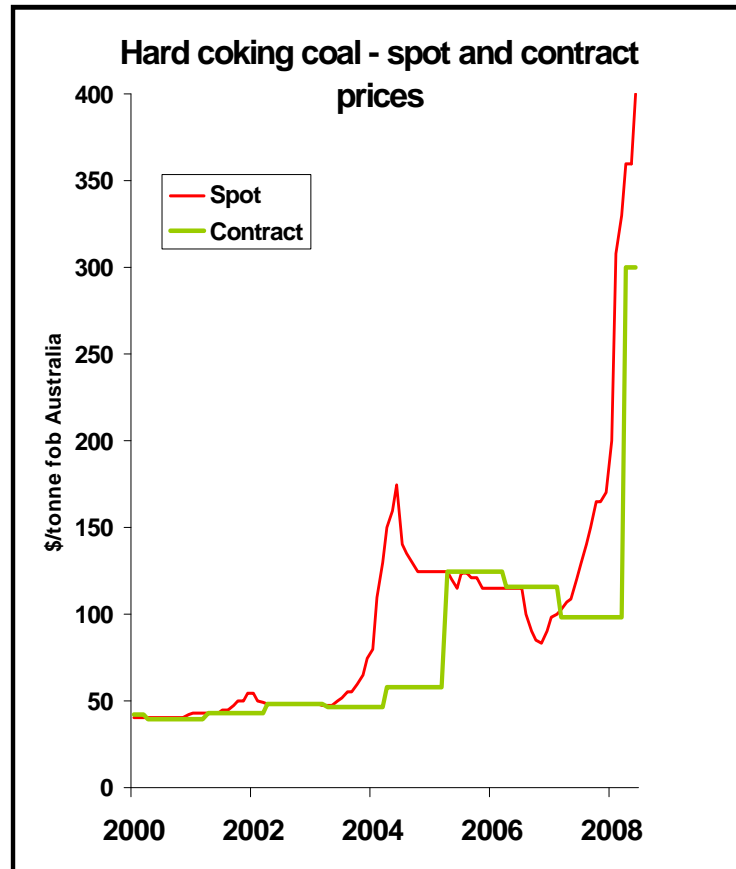


The outlook for coal and coke in 2008 and 2009

- **Still strong growth in global demand for coal and coke in 2008 limited by availability**
- **Seaborne growth supported by new coke capacity in India, Brazil and Japan as well as Ukraine/Russian coal production issues**
- **Supply bottlenecks in Australia and Canada with US plugging the supply gap (Queensland floods were disastrous for the market in H1 2008)**
- **Wild card remains Chinese coke exports and also coking coal supply/demand**
- **All in all – another two years of extremely tight supply**



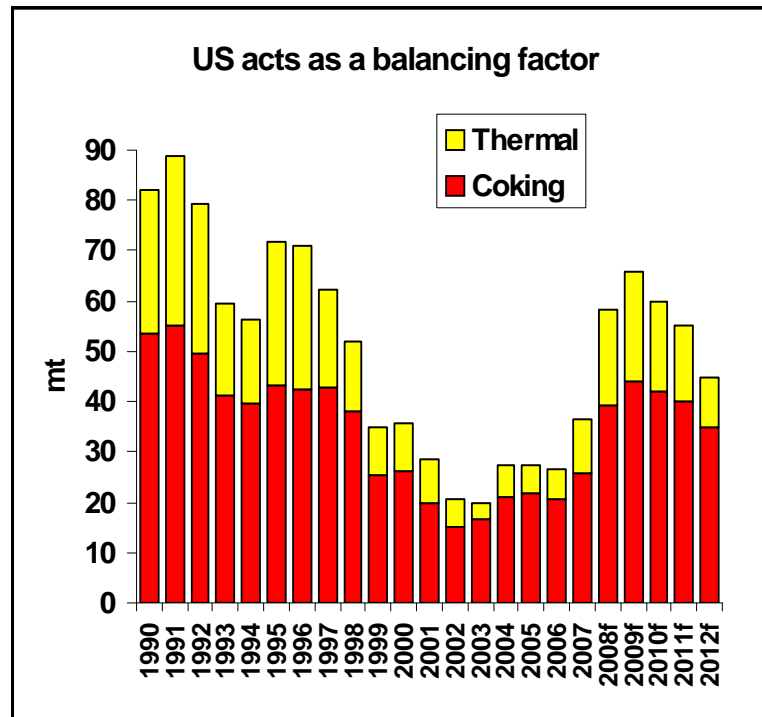
Will coal be the next bottleneck?



Source: Macquarie Research, September 2008



US comes to the rescue...of Europe



Source: GTIS, Macquarie Research, September 2008

US seaborne coking coal exports (mt)

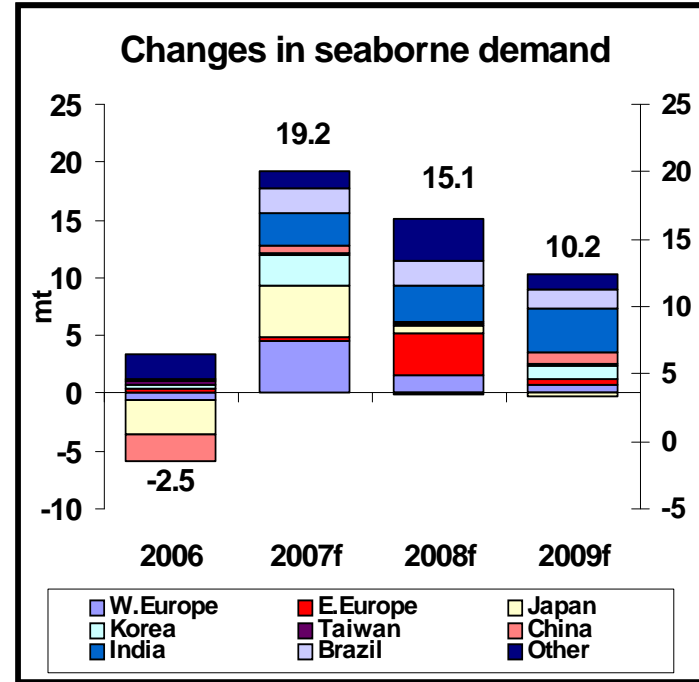
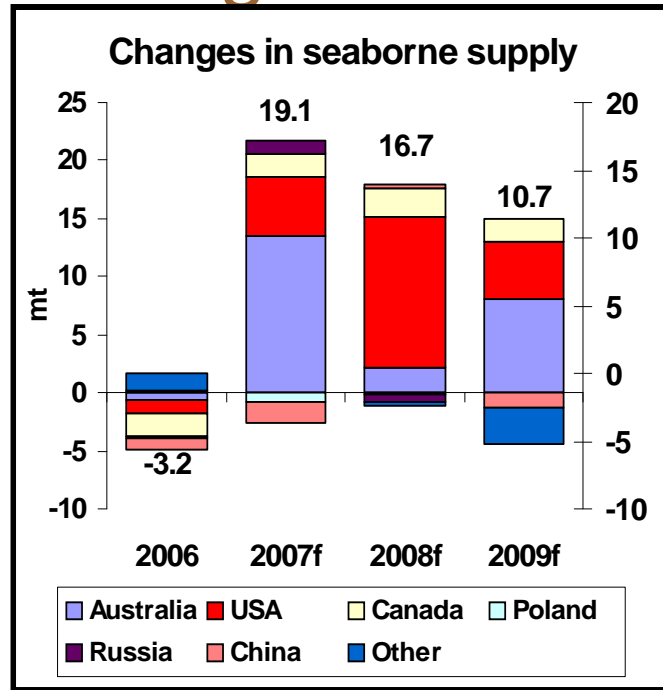
	Jan-Jun 2008	Jan-Jun 2007	% change yoy	Change mt
Europe	12.22	7.46	63.8%	4.76
Japan	0.80	-	-	0.73
India	0.61	0.49	24.5%	0.12
Other Asia	1.52	0.99	54.1%	0.53
L.America	3.02	2.58	17.0%	0.44
Other	0.31	0.18	76.7%	0.13
Total	18.47	11.69	58.0%	6.78

US seaborne thermal coal exports (mt)

	Jan-Jun 2008	Jan-Jun 2007	% change yoy	Change mt
Europe	5.55	2.61	113.0%	2.94
Japan	0.15	-	-	0.10
India	0.07	-	-	0.07
Other Asia	0.99	1.06	-6.9%	-0.07
L.America	0.81	0.25	219.1%	0.55
Total	7.57	3.92	92.8%	3.64



Where is the demand and supply coming from?

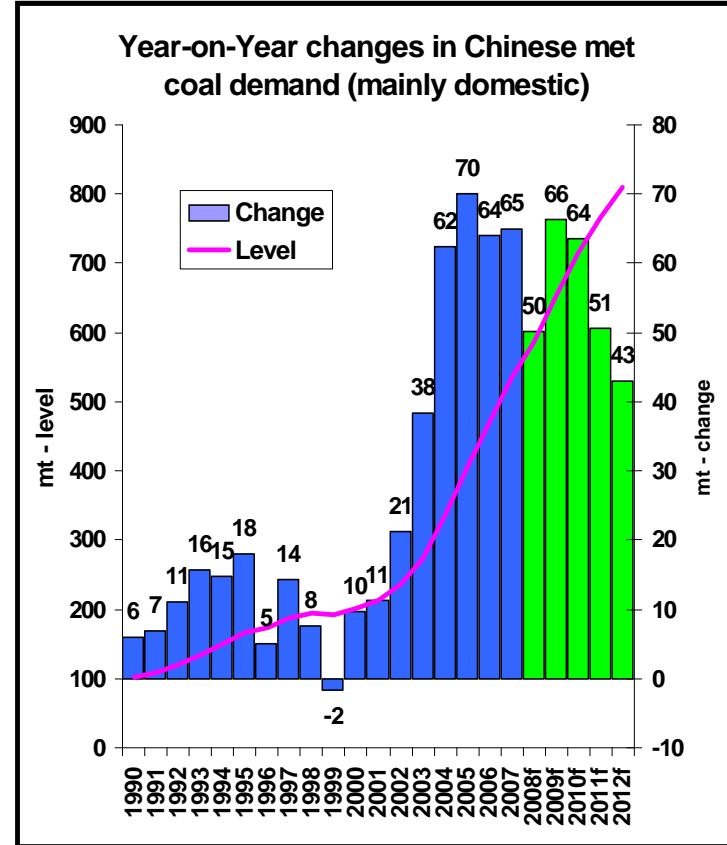
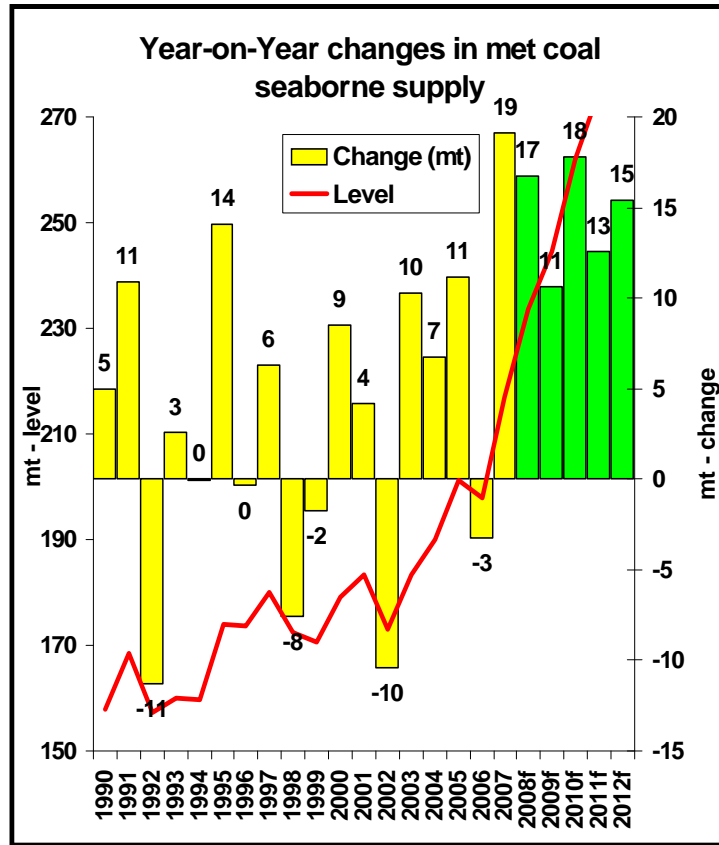


Source: Macquarie Research, September 2008

- ➔ Still strong growth in 2008, especially from India and Brazil and as new coke ovens come on stream.
- ➔ Ukraine and other East Bloc countries forced onto the import market to replace lower Russian/Ukrainian supply
- ➔ Australian losses lead to US supplies rushing to fill



Projected growth in met coal demand

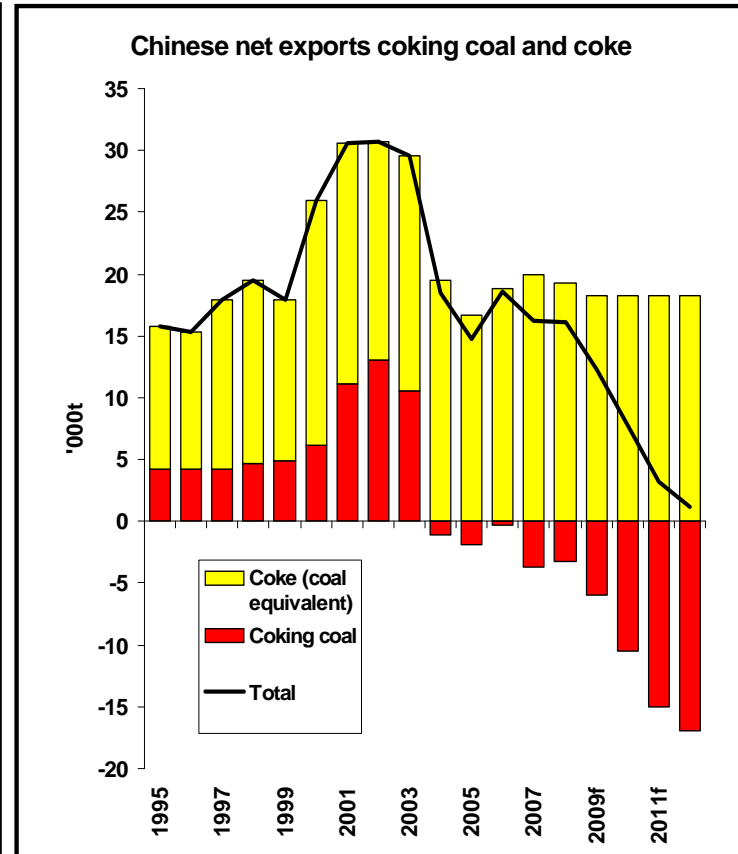
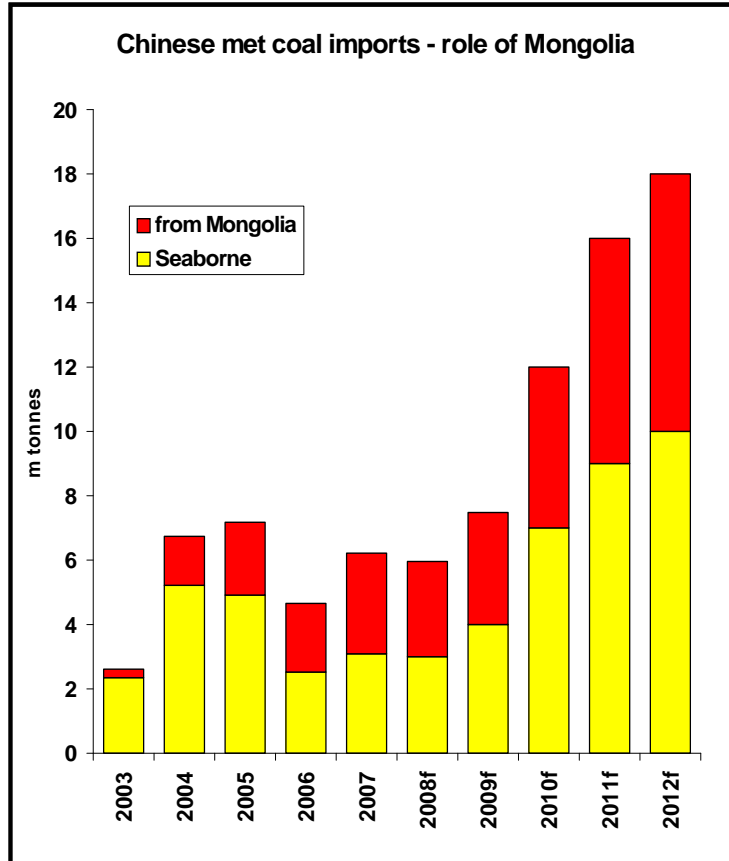


Source: CISA, Macquarie Research, September 2008

Large requirement for new supply in China and elsewhere: can it be met? What if the Chinese start looking to seaborne imports??



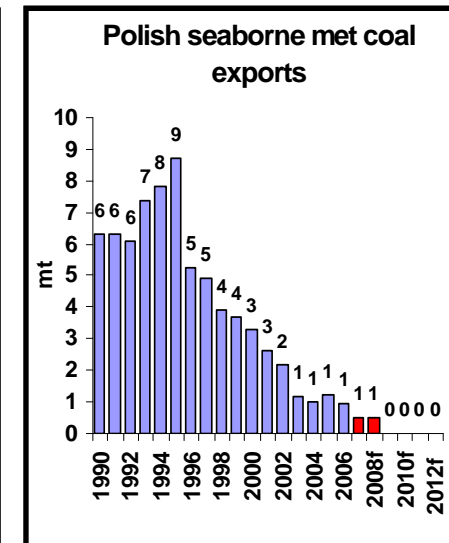
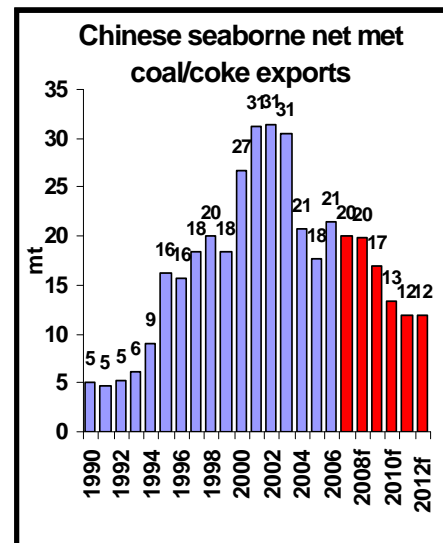
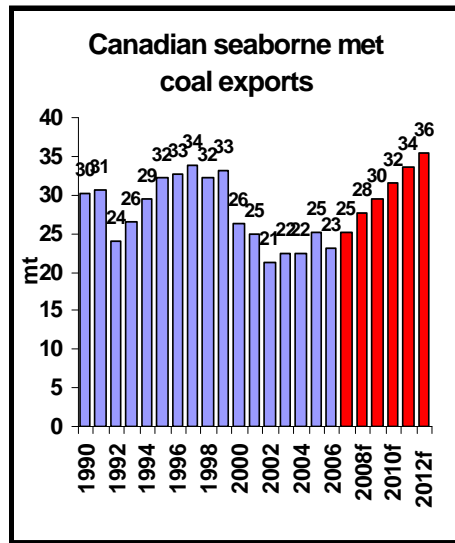
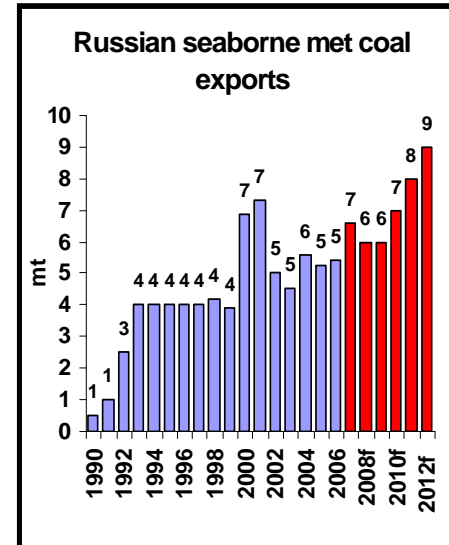
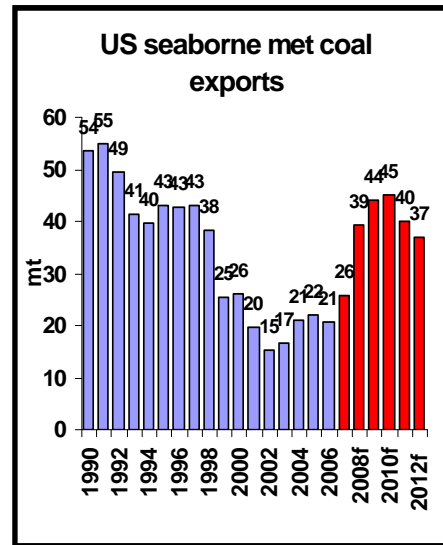
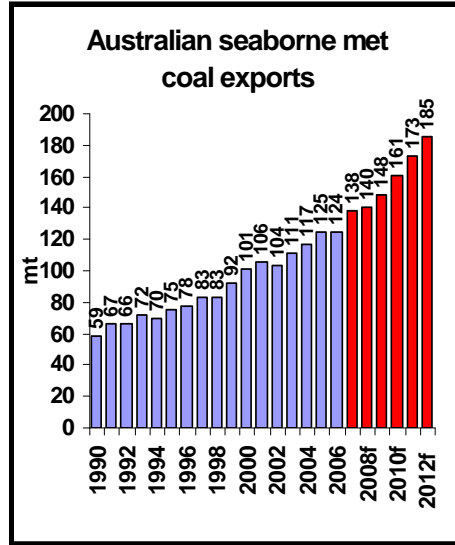
We assume Chinese coke exports will remain and imports will come from Mongolia



Source: Customs data, Macquarie Research, September 2008



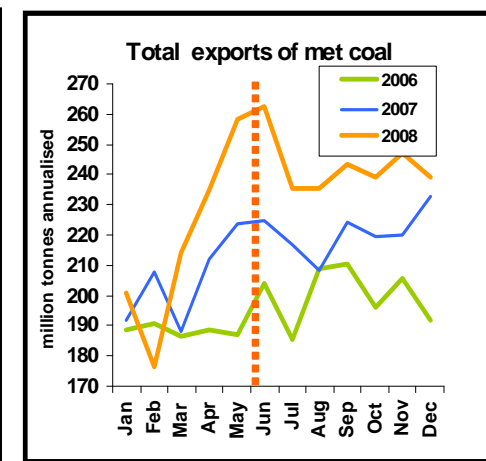
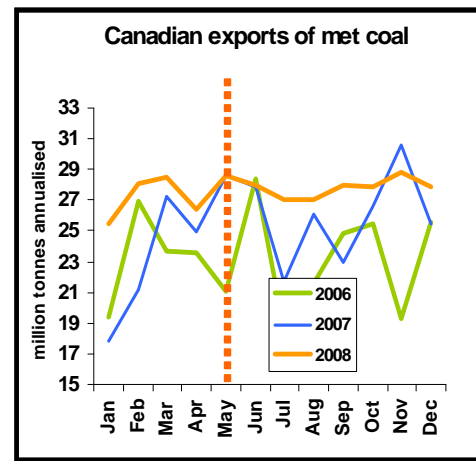
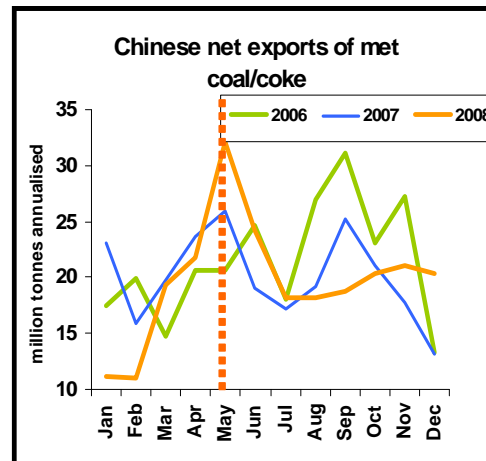
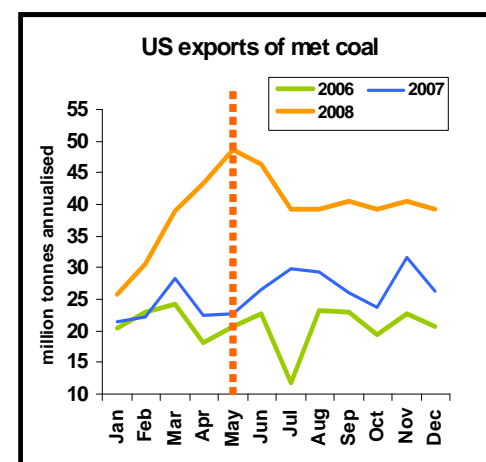
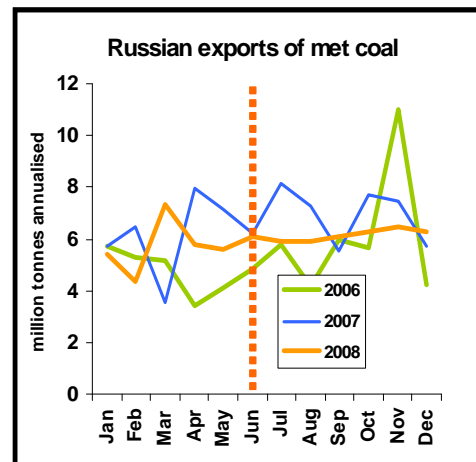
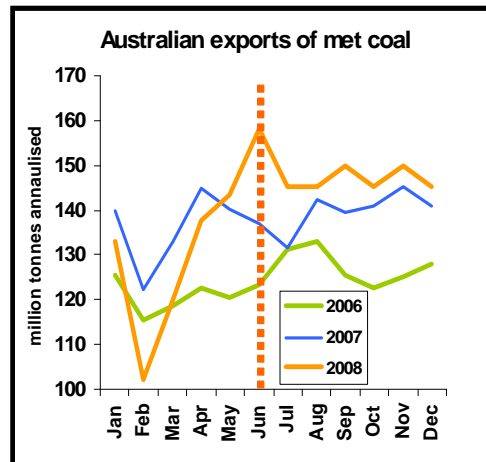
Supply growth in historical context



Source: Customs statistics, Macquarie Research, September 2008



Growth has accelerated in recent months

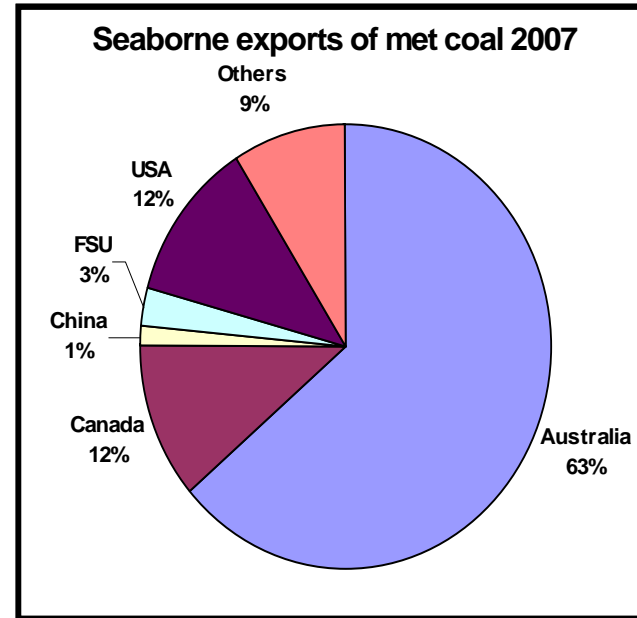
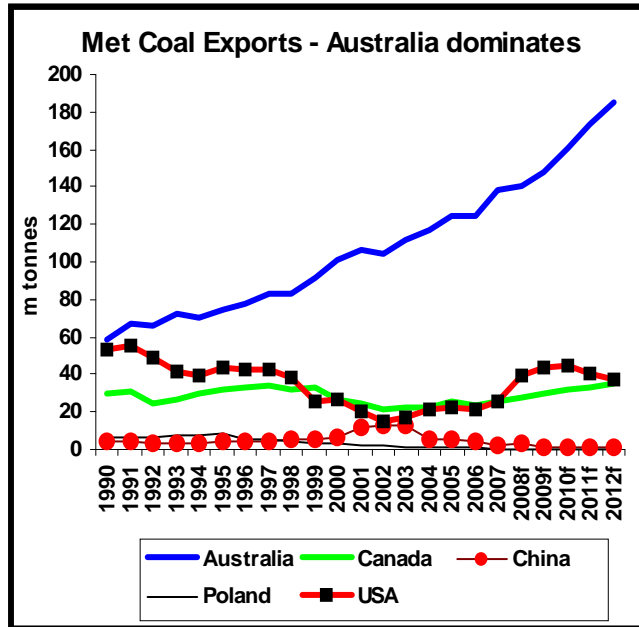


Source: Customs statistics, Macquarie Research, September 2008



Met coal supply summary

Supply million tonnes	2006	2007	2008f	2009f	2010f	2011f	2012f	Change 2000- 2007	Change 2007- 2012
Australia	124	138	140	148	161	173	185	37	47
Canada	23	25	28	30	32	34	36	-1	10
China	4	3	3	2	2	1	1	-4	-2
Poland	1	0	0	0	0	0	0	-3	0
Russia	5	7	6	6	7	8	9	0	2
USA	21	26	39	44	45	40	37	0	11
Indonesia	3	3	4	5	5	6	7	1	5
Mozambique	0	0	0	1	1	2	5	0	5
Others (inc. disruption)	16	16	15	10	10	11	11	9	-6
Total Seaborne Supply	198	217	234	244	262	275	290	38	73

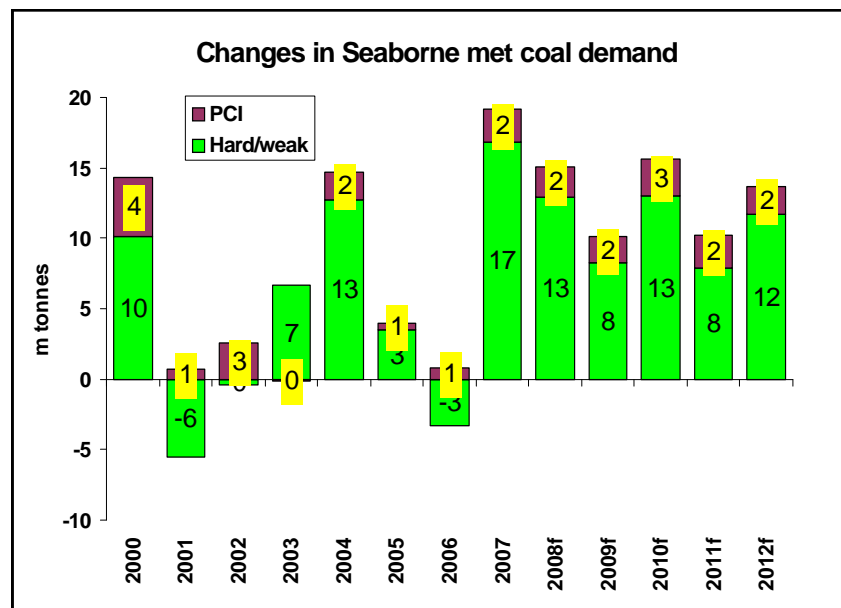


Source: Tex Reports, McCloskey Coal, Macquarie Research, September 2008



Met coal market summary - demand

million tonnes	2006	2007	2008f	2009f	2010f	2011f	2012f	Change 2000- 2007	Change 2007- 2012
Demand									
Europe	53	58	63	64	65	64	64	3	6
Asia	118	129	133	139	150	159	168	24	39
of which:									
Japan	3	3	3	4	7	9	10	-62	7
China	65	69	70	70	71	71	71	69	2
Korea	20	22	23	24	26	28	30	4	8
Taiwan	8	8	8	9	9	9	9	1	1
India	22	25	28	32	36	40	46	14	21
Brazil	16	18	20	22	25	28	31	6	13
Rest of World	14	15	19	20	21	21	22	5	7
Total Seaborne Demand	201	220	235	246	261	271	285	39	65
% Change y-o-y	-1.2%	9.5%	6.8%	4.3%	6.4%	3.9%	5.0%		



Source: McCloskey Coal, Macquarie Research, September 2008



Met Coal supply/demand balance

	2006f	2007	2008f	2009f	2010f	2011f	2012f
Seaborne demand	201	220	235	246	261	271	285
yoy change	-2	19	15	10	16	10	14
Seaborne supply	198	217	234	244	262	275	290
yoy change	-3	19	17	11	18	13	15
Implied market balance	-3	-3	-2	-1	1	3	5
<u>Price Forecast (\$/t fob)</u>							
Japan - Hard Coking	115.0	98.0	300.0	350.0	300.0	275.0	200.0
Japan - Semi-Soft	55.50	63.50	240.0	250.0	225.0	200.0	180.0
Japan - ULV PCI	65.25	66.25	245.0	280.0	240.0	220.0	160.0

Source: Macquarie Research, September 2008

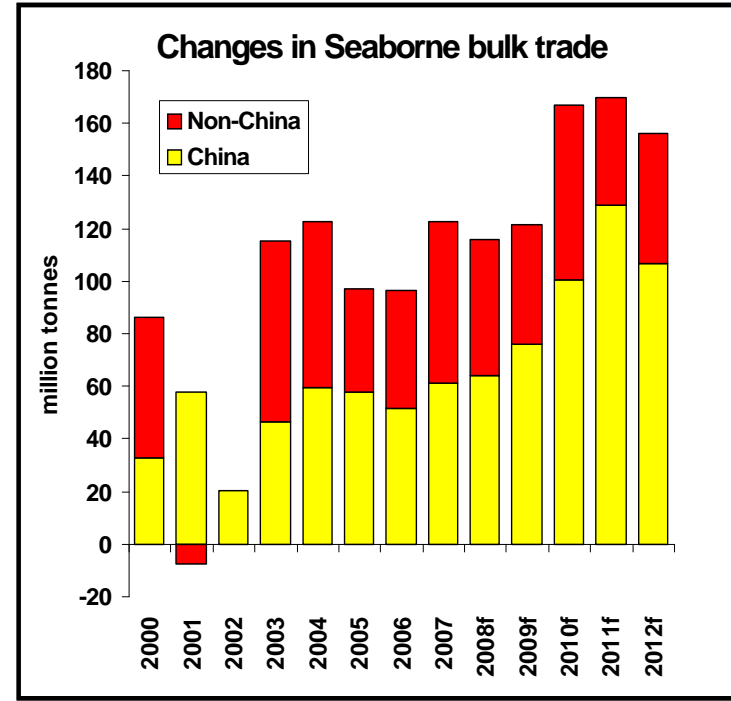
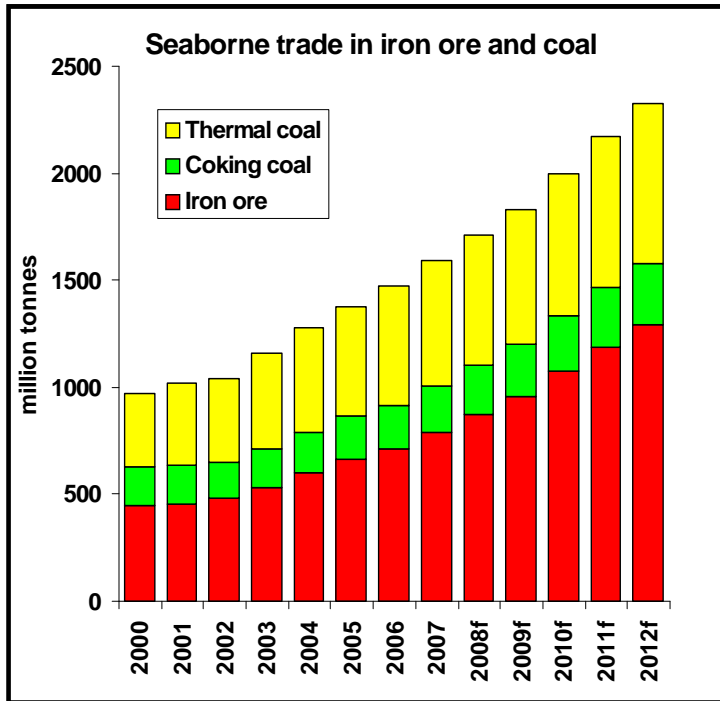


Implications of forecasts

- Strong growth in global steel demand set to continue.
- Some slowdown projected in 2008/9 but not particularly large.
- Ongoing strong growth in seaborne iron ore and coking coal demand expected.
- Supply constraints still real and likely to keep market tight for many years.
- Strong upside to bulk trade...dependent on Chinese and Indian growth and supply availability



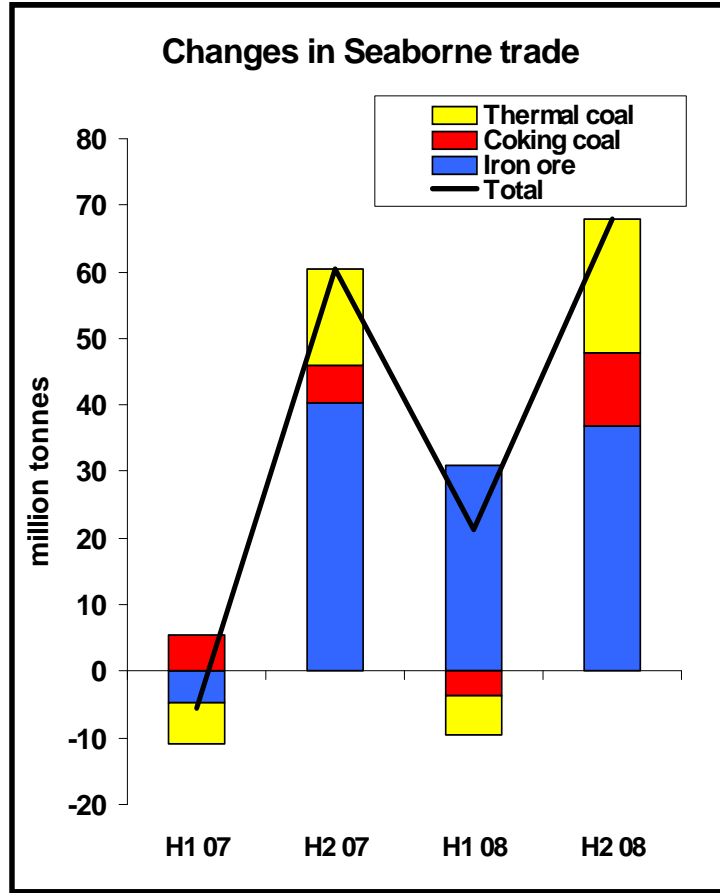
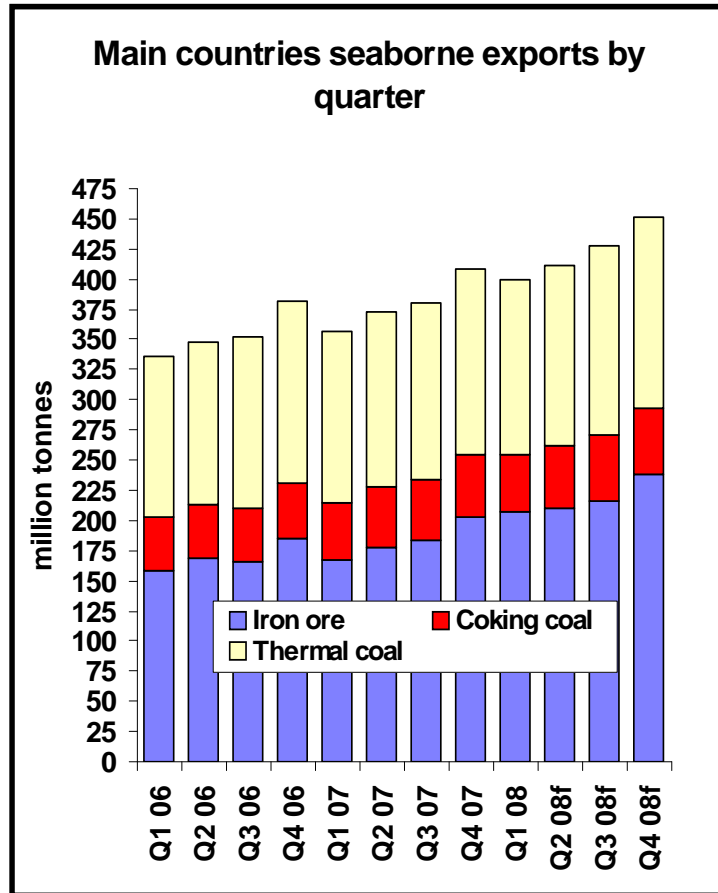
Our forecasts assume even stronger growth, driven by Chinese iron ore



Source: Macquarie Research, September 2008



Short term...much stronger in H2 2008!



Source: Macquarie Research, September 2008



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