Global Trade Outlook for Dry Bulk Commodities

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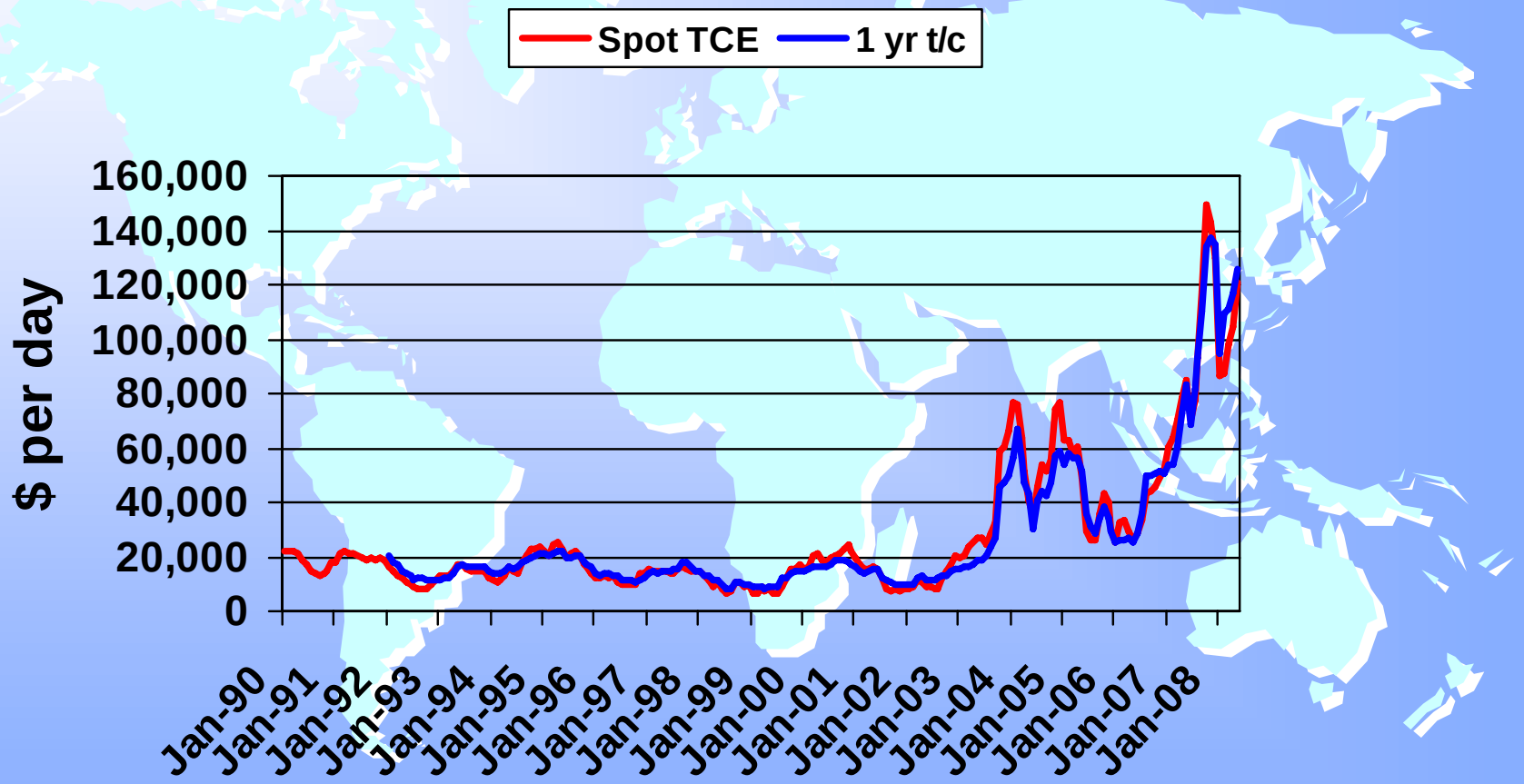
Key Trends

- China, especially Chinese steel industry, key driver of dry bulk market
- China coal export reduction and import increase creating additional dry bulk vessel demand
- High port delays tying up large portion of industry fleet
- High world steel demand resulting in high steel prices and steel trade growth in Asia and Europe
  - Chinese steel exports affecting Middle East and NW Europe
- South America Megatrend and growing agricultural trade supporting Panamax and Handy markets
- Handymax and Handysize demand up from steel, cement, other minor bulks
- Future industry fleet growth at extremely high levels due to high orderbook and low scrapping

Capesize spot TCE earnings (early 90s type)

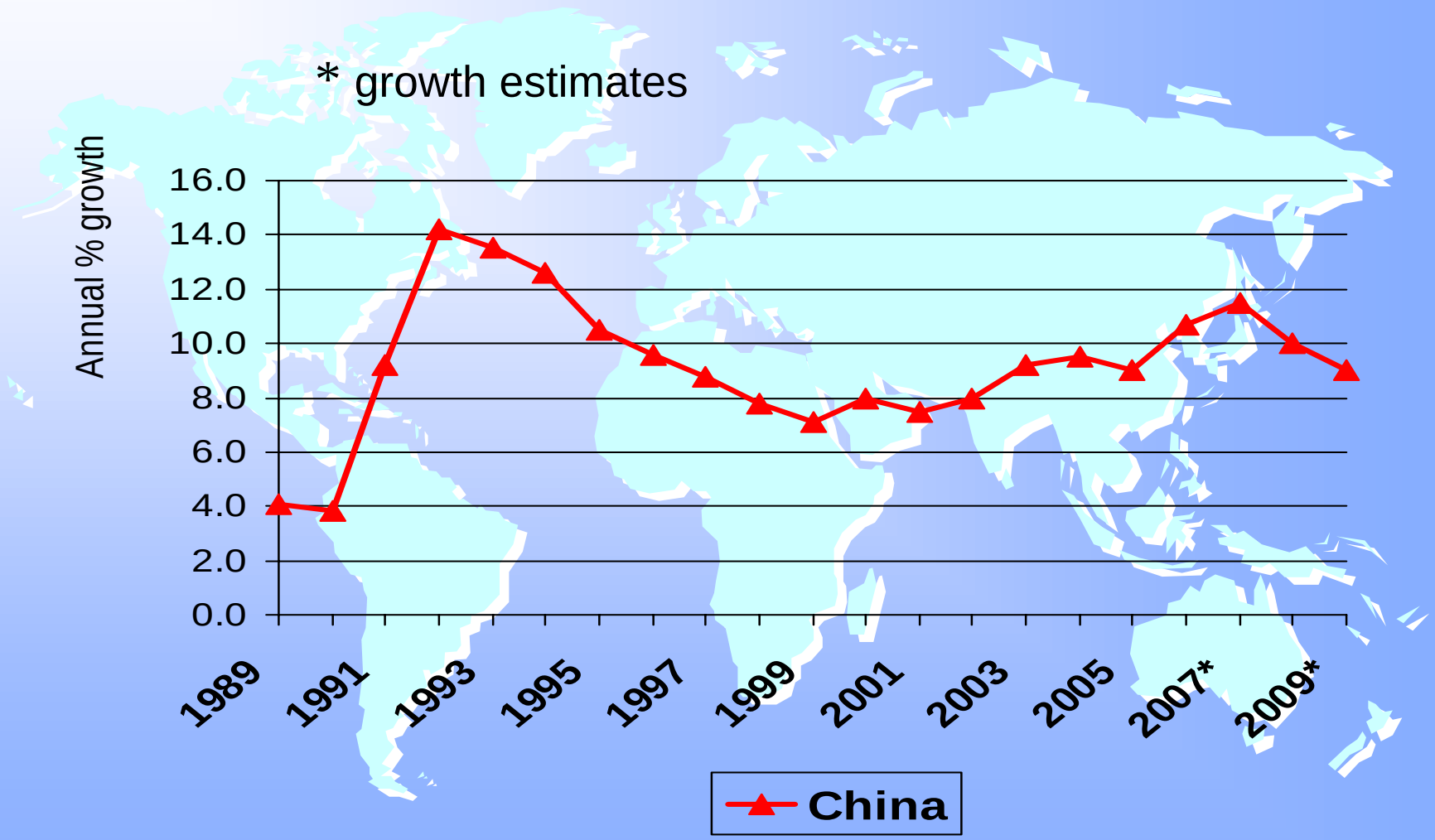


Source: Clarkson Research Studies

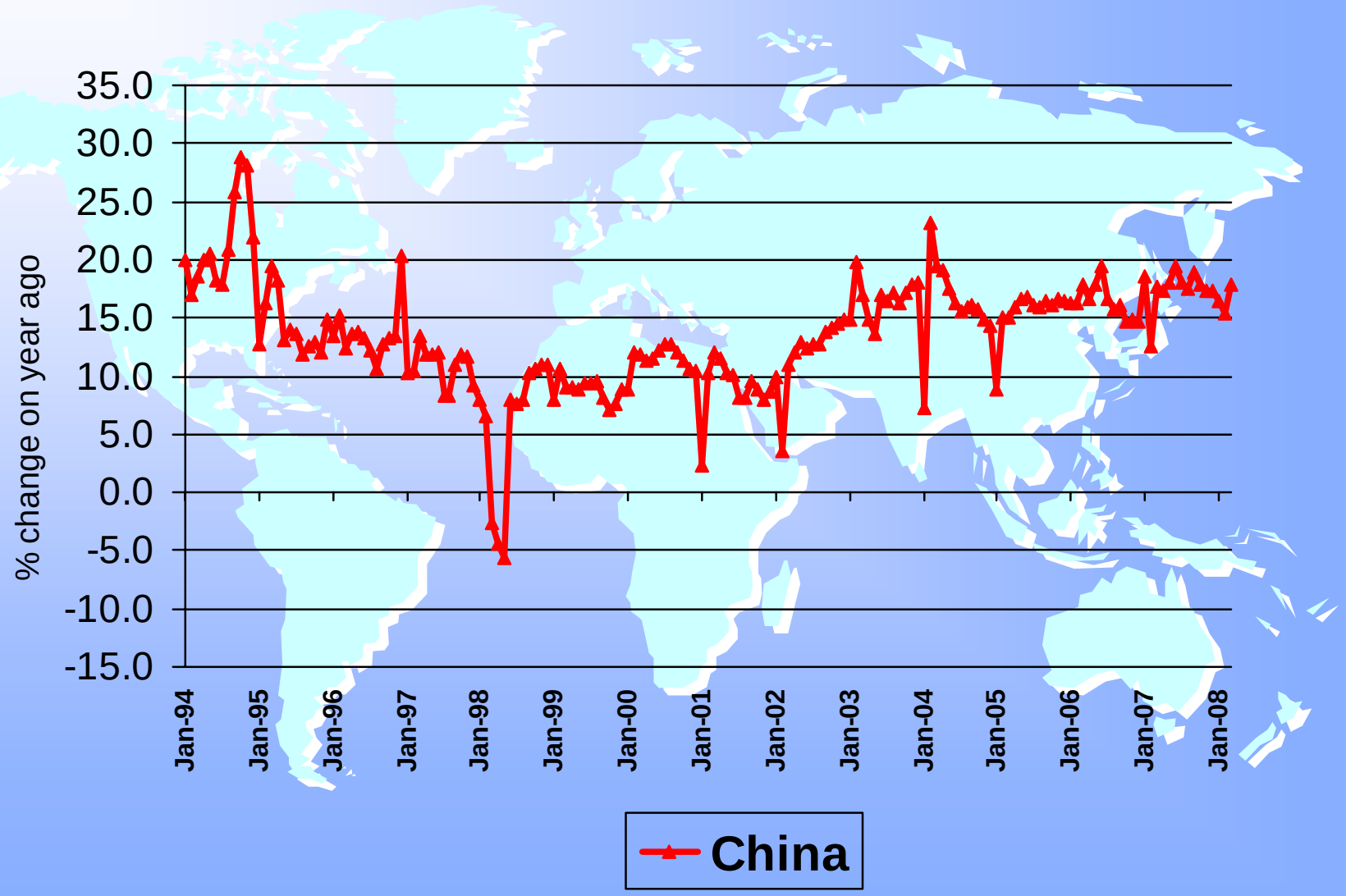
Economies

- Economic performance and industrial production key drivers of demand for dry bulk economies
- China, particularly Chinese steel industry, key driver of dry bulk market
- High Chinese steel production growth but Chinese steel exports down after export taxes implemented
  - High 2Q08 iron ore imports due to negotiations
- High industrial production growth resulting in high coal demand for power generation
  - China coal import demand growing
  - Chinese coal exports decreasing
  - Indonesia and Australia exports supplying deficit and adding to tonnage demand

GDP growth: China



Industrial Production



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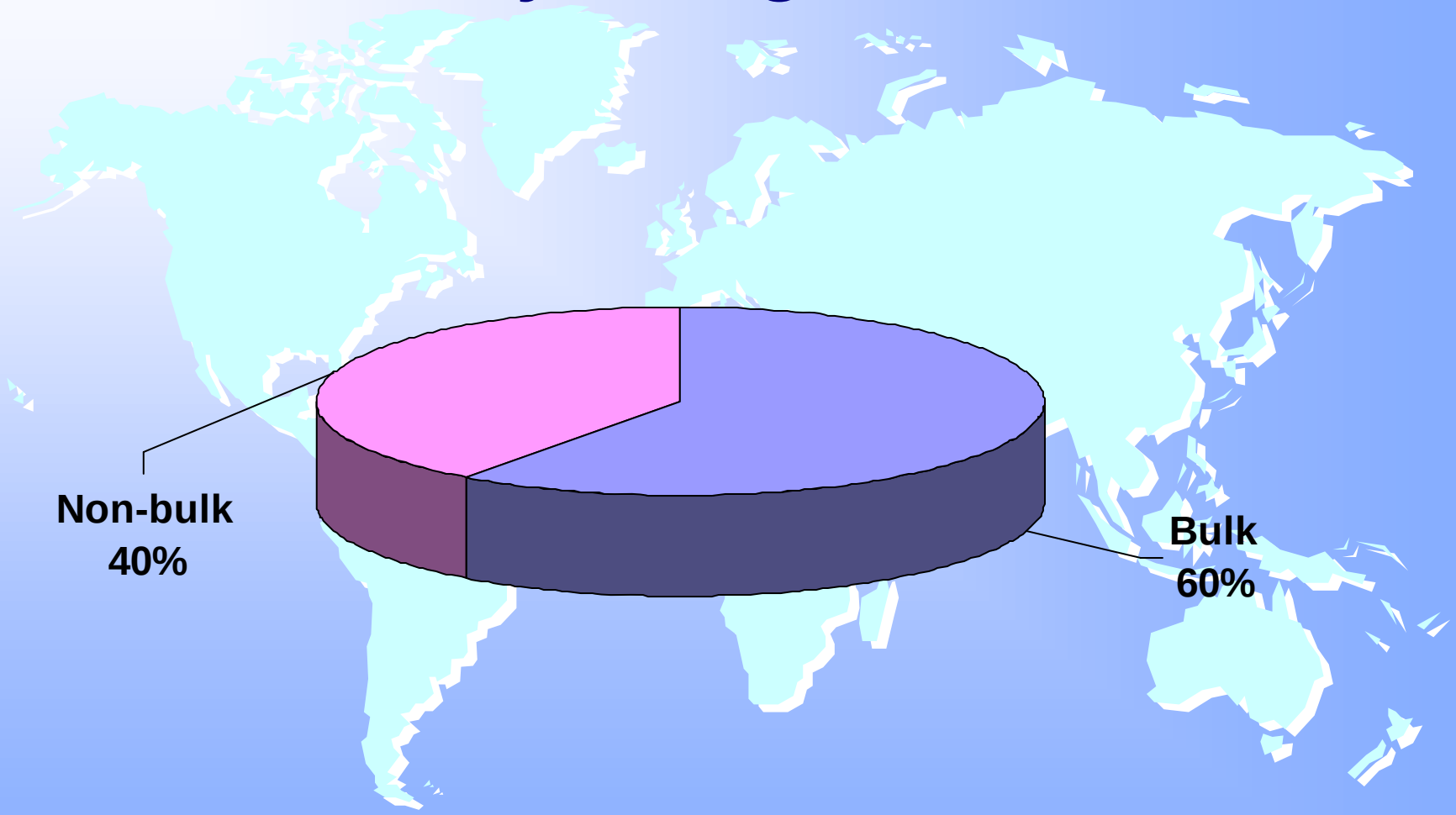
China: Still Leading the World

- China leading the world since 2004
- China led by boom in fixed investment in steel, other industrial sectors, and construction
  - Chinese fixed urban investment up 25.9% in 1Q08 versus 25.3% in 1Q07 and 25.8% in CY2007
  - Concerns remain about sustainability of fixed investment
  - However, consumer spending reportedly growing
  - Would explain continued growth with US slowdown
- 2008 Economist consensus forecast 9.6% GDP growth
  - However,, 1Q08 GDP growth 10.6% (vs. 11.7% 1Q07)
- Year on year industrial production growth about 17% most months, Jan 16.4%, Feb 15.4%, Mar 17.8%
- Chinese growth, intra-Asian trade and European exports fueling Asian growth
- Sources of economic bases: IMF, OECD, Economist, others

2007 Dry Cargo 5,000 mt



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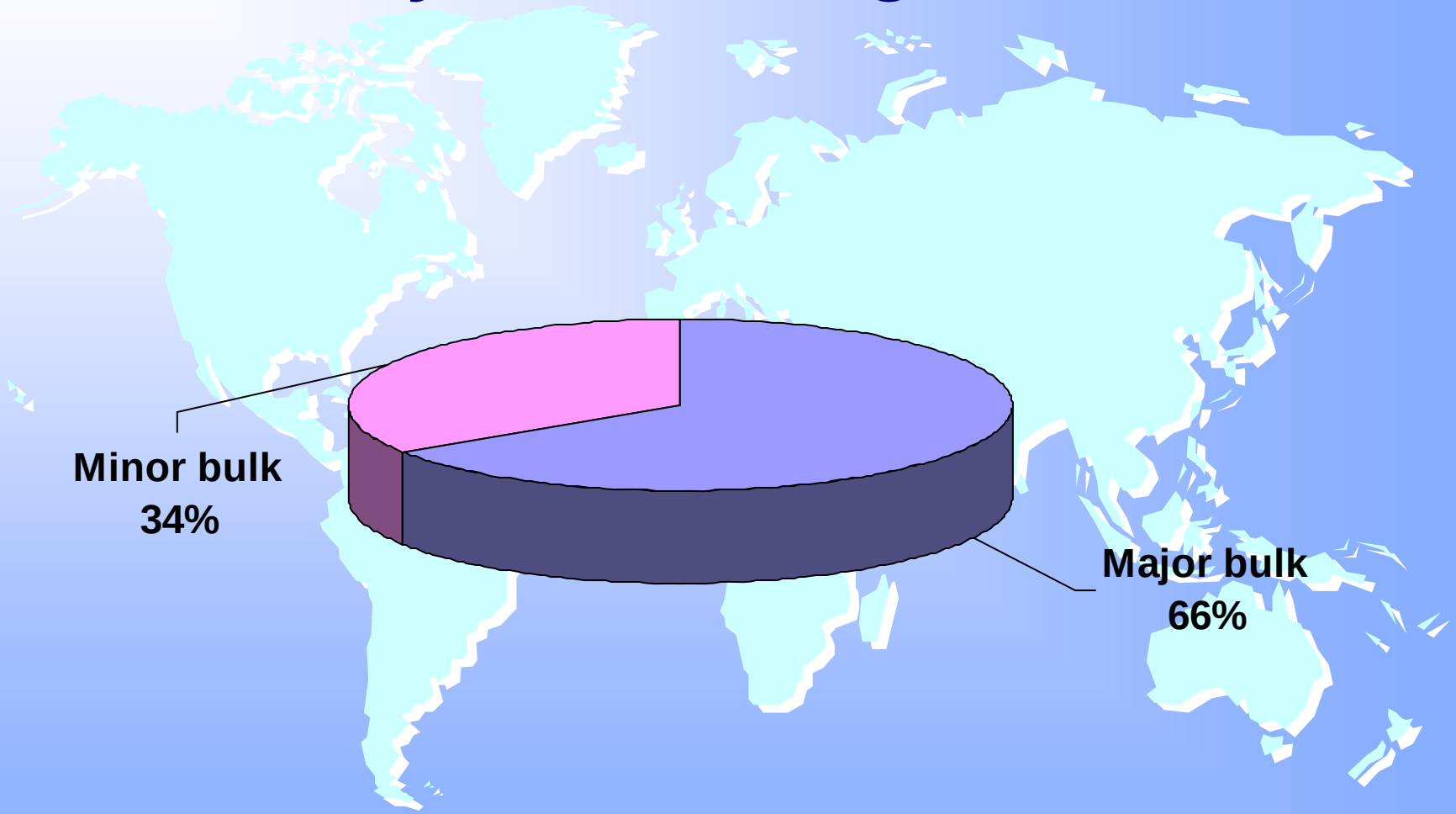
2007 Dry Bulk Cargo 3,006 mt



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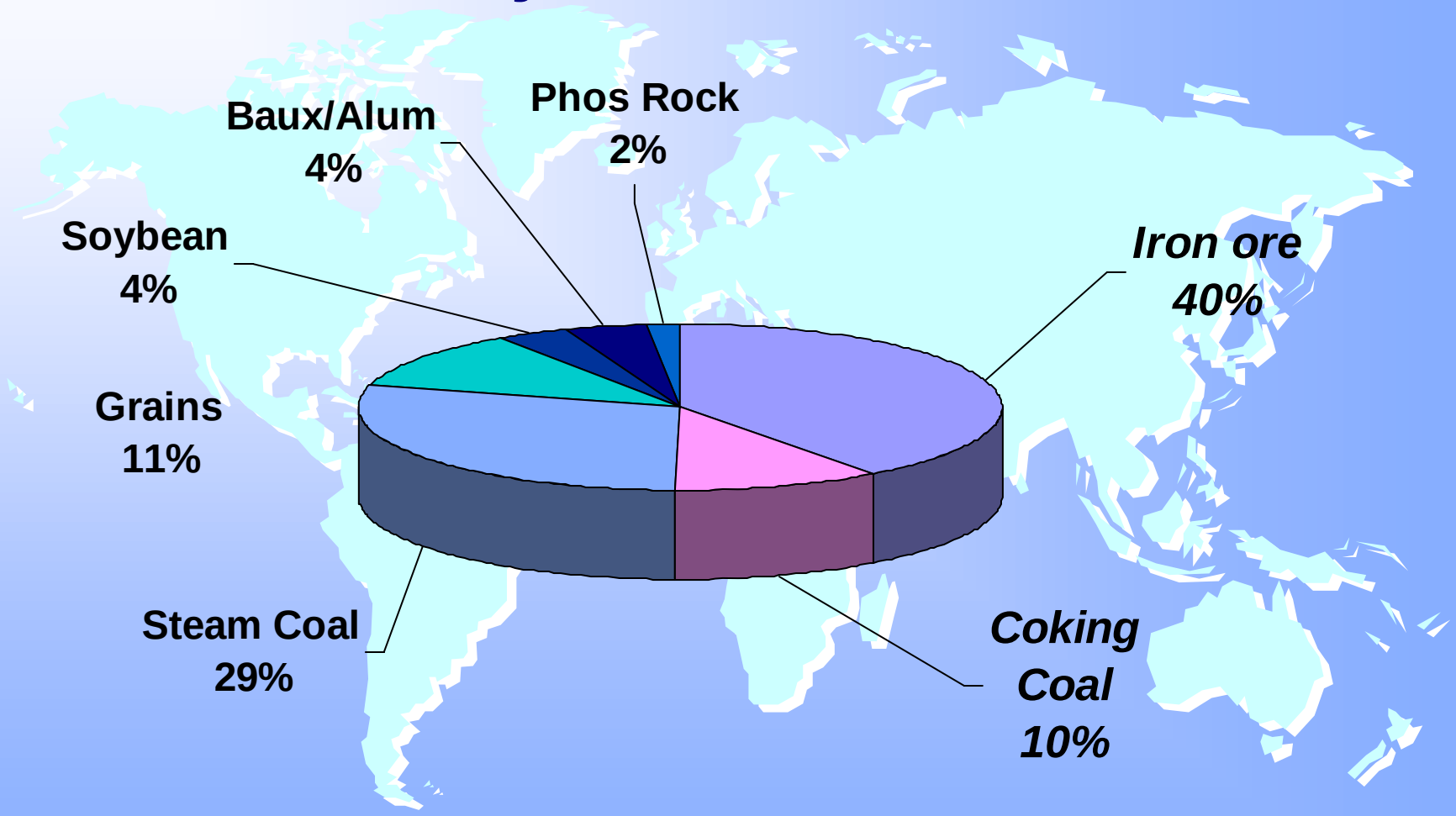
2007 Major Bulks 1,977 mt



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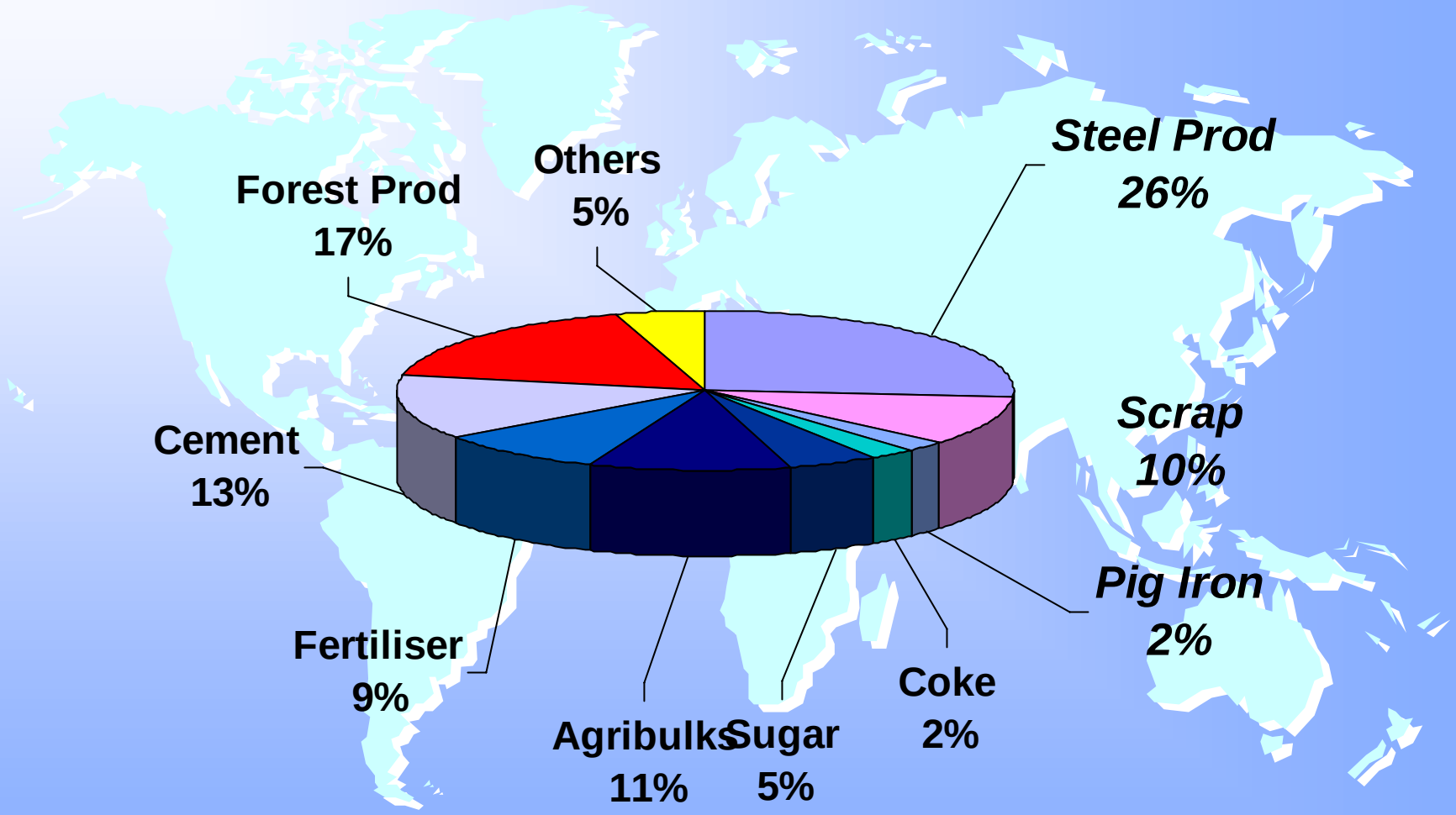
2007 Minor Bulks 1,029 mt



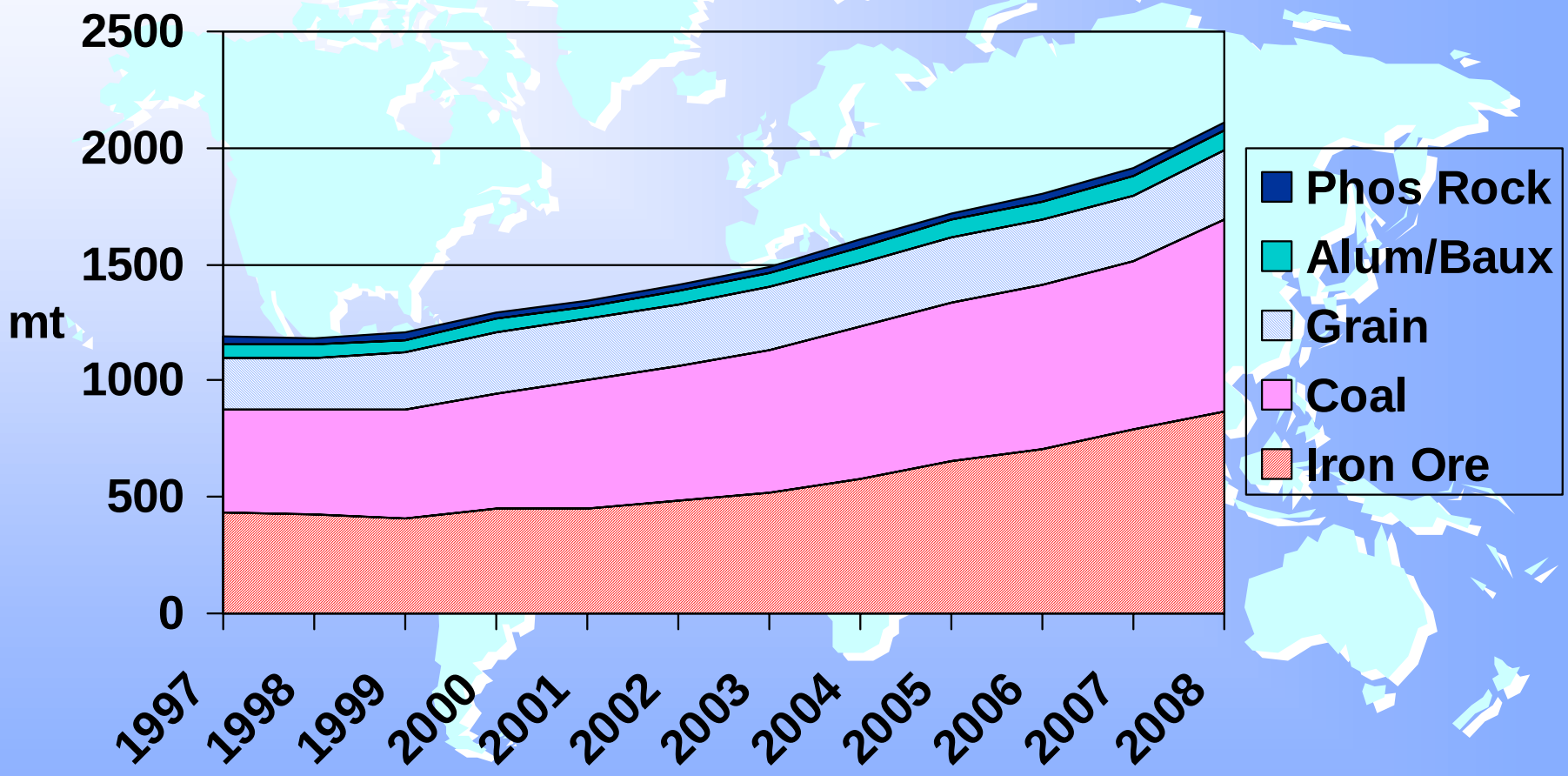
Framework

- Bulk dry cargo about 3,006 mt in 2007, about 60% of total dry cargo
- Major bulks (about 1,977 mt in 2007, “two thirds”)
  - Traditionally carried on Capes and Panamaxes
  - Iron ore, coal, grains (incl soybeans), bauxite/alumina, phosphate rock
- Minor bulks (about 1,029 mt in 2007, “one third”)
  - Sugars (raws, whites), agribulks (soymeal, rice)
  - Steel before (scrap, pig iron) & after (steel products)
  - Cement
  - Forest products before (logs, sawn wood, particle board), during (chips, pulp), after (paper, finished wood)
  - Coke, others (salt, kaolin/china clay, etc.)
- Commodity and economic data from industry sources including Clarkson, Fearnleys, IMF, Economist, IISI

Overview

- Steel industry accounts for 49% of major bulks and 38% of minor bulks
- However, steam coal and coking coal (metallurgical coal) together comprise about 39% of major bulks
- Iron ore and coal largest sources of seaborne trade growth
- China key factor in steel and coal market
- Affects both major and minor bulk cargoes
- Sources: IISI, Clarkson, BP

Major Bulk Trade



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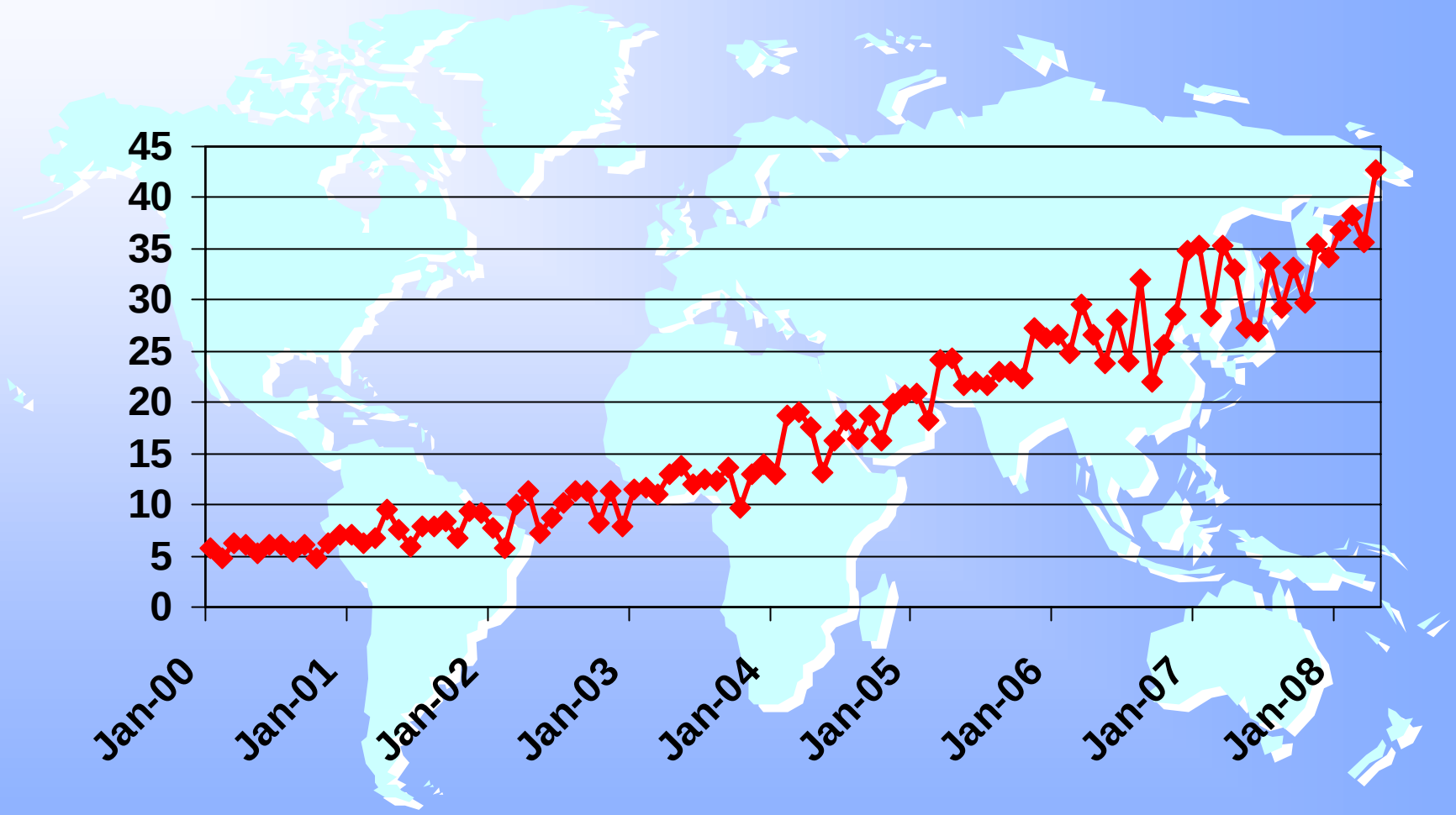
China monthly iron ore imports mt



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Growth for Chinese steel and iron ore

- Chinese iron ore imports up from 55 mt in 1999 to 385 mt in 2007 with 450 mt forecast for 2008 in High Case
  - China steel production up from 127 mt in 2000 to 489 mt in 2007 with 550 mt forecast for 2008 in High Case
- Chinese steel exports at about 65 million tons 2007 but forecast at 50 mt for 2008
- Brazil 1Q08 iron ore exports 65 mt (vs 58 mt 1Q07)
  - Cooperative attitude led to high Asian liftings
- Expect high second quarter iron ore trade due to iron ore negotiations
  - High Brazil exports resulting in high dwt demand due to port delays and distance effects
  - Australia liftings high because of advantages of contract ore versus spot ore

China Iron Ore Delivered Cost $/t

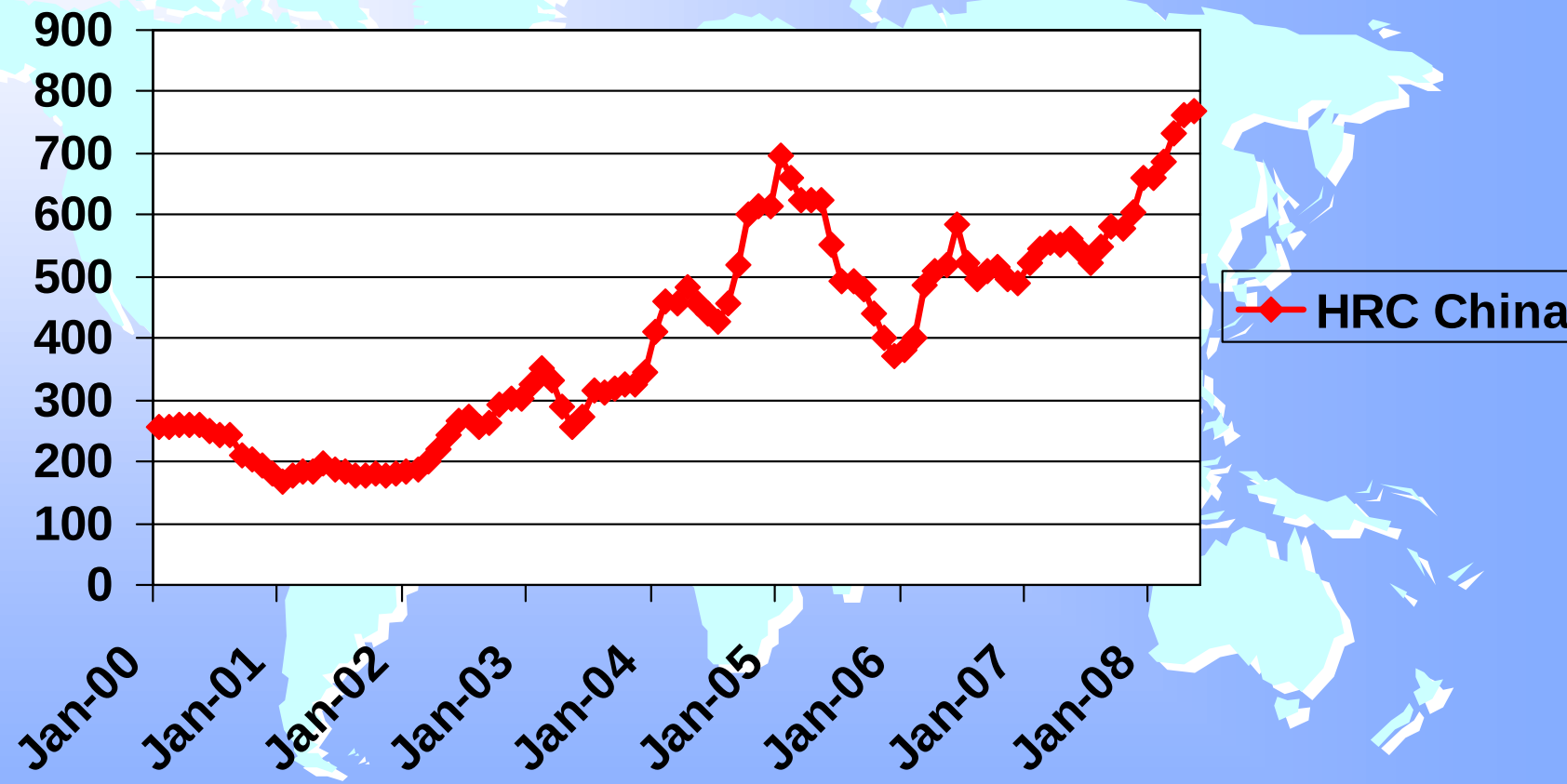
	Brazil	Australia	India
FOB Price	75	95	
Freight (4m08 average)	70	27	
Delivered $/t	145	122	190

Indicative cost only, excludes insurance, working capital, miscellaneous costs

Iron ore negotiation

- Vale (CVRD) settled with Japanese, Korean, Chinese and European steel makers at increase of 65-71%
  - Increase from about $45/t to $75/t
  - Chinese maximising Brazilian iron ore imports
- Australia still holding out for freight rate differential
  - Australians “reminding” Chinese that spot pricing will apply if contract not agreed by June 30
  - Even with 85% increase (increases price from ~ $50/t to $95/t), Brazilian and spot iron more expensive
- 4m08 imports at 153.4 mt (annualised 460 mt)
- Inventories reported at 80 million tonnes
  - Spot ore down from $190/t cif 2008 to $170/t-$180/t

Hot rolled coil $/t



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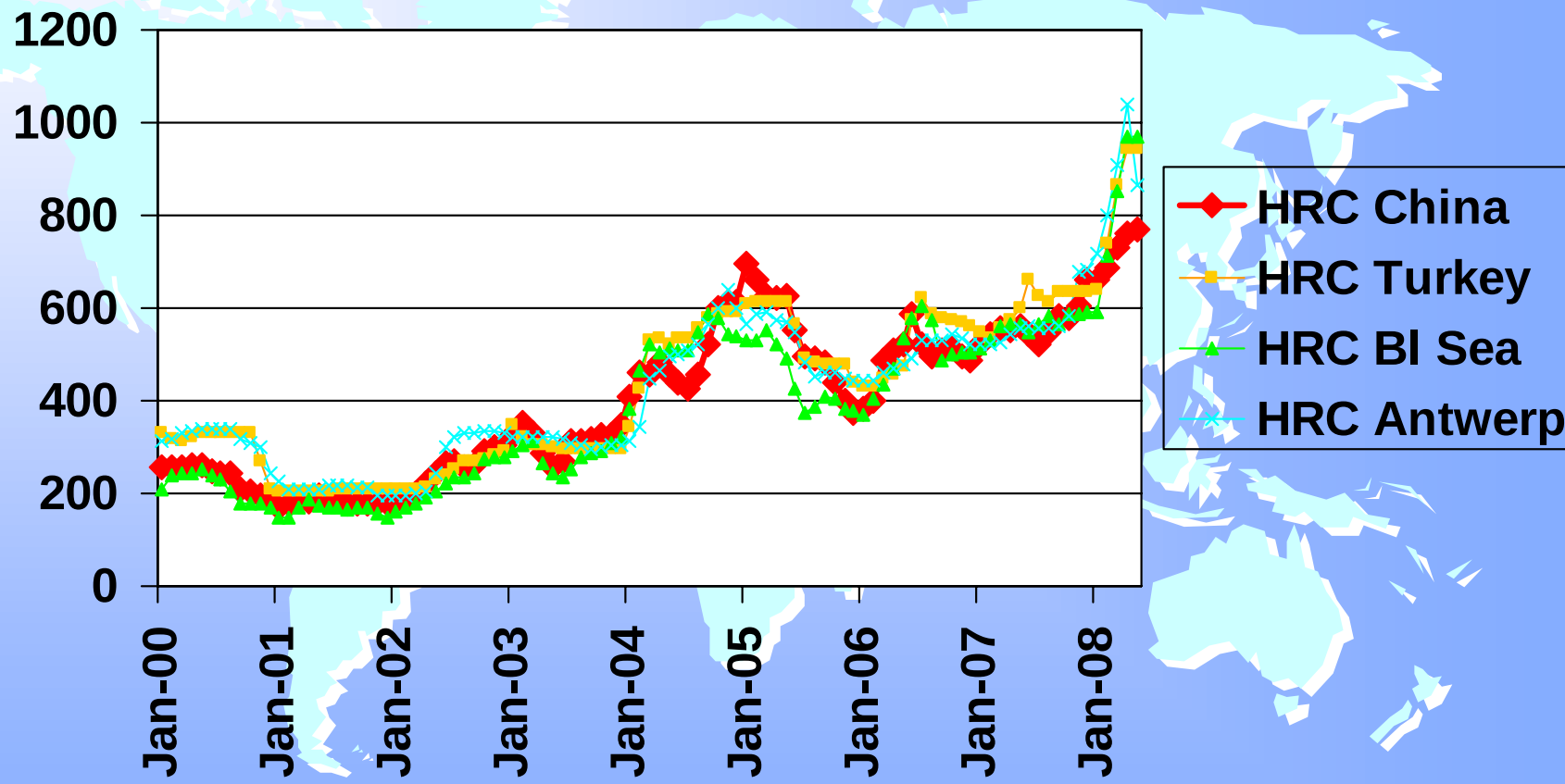
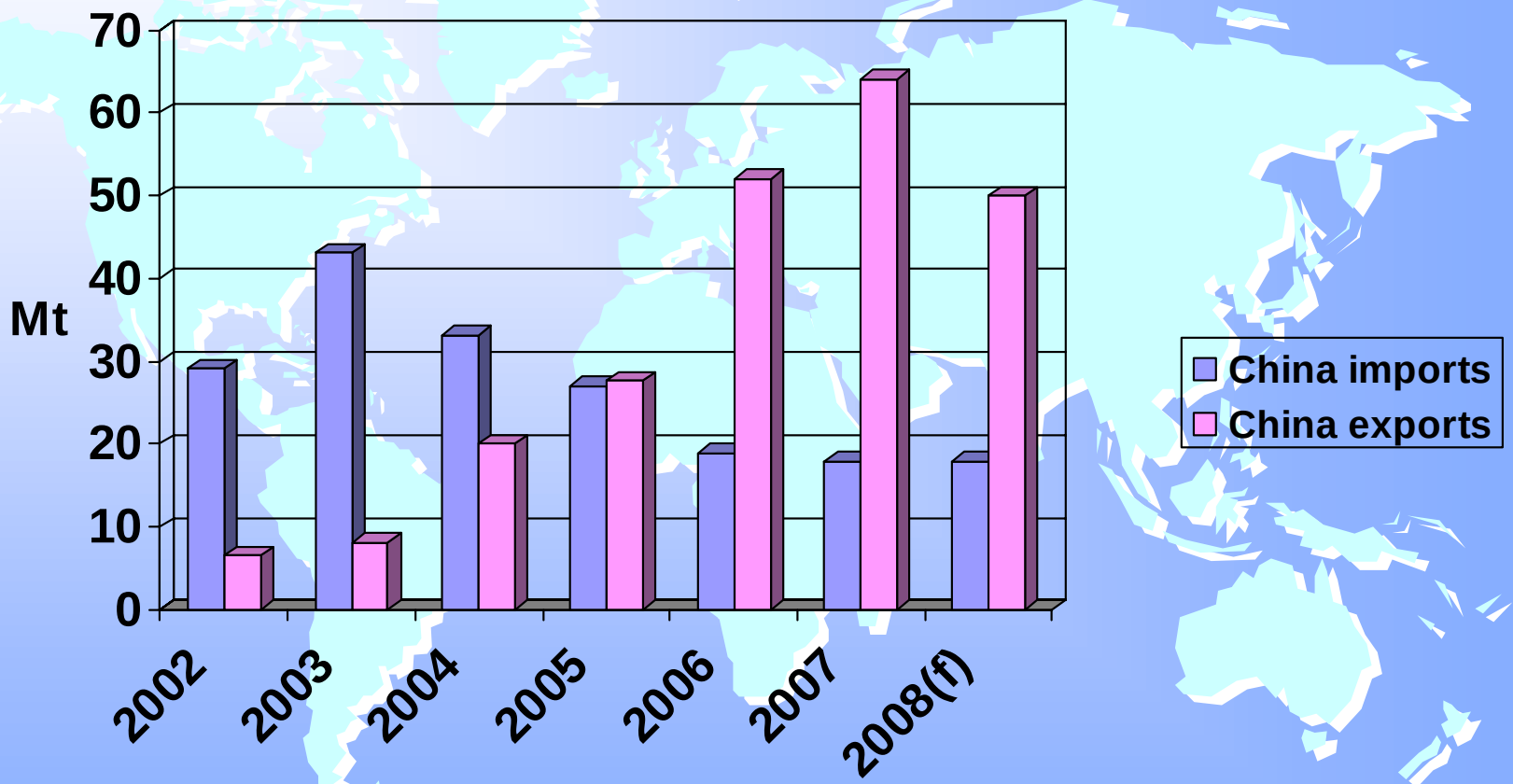


China steel: Exports down



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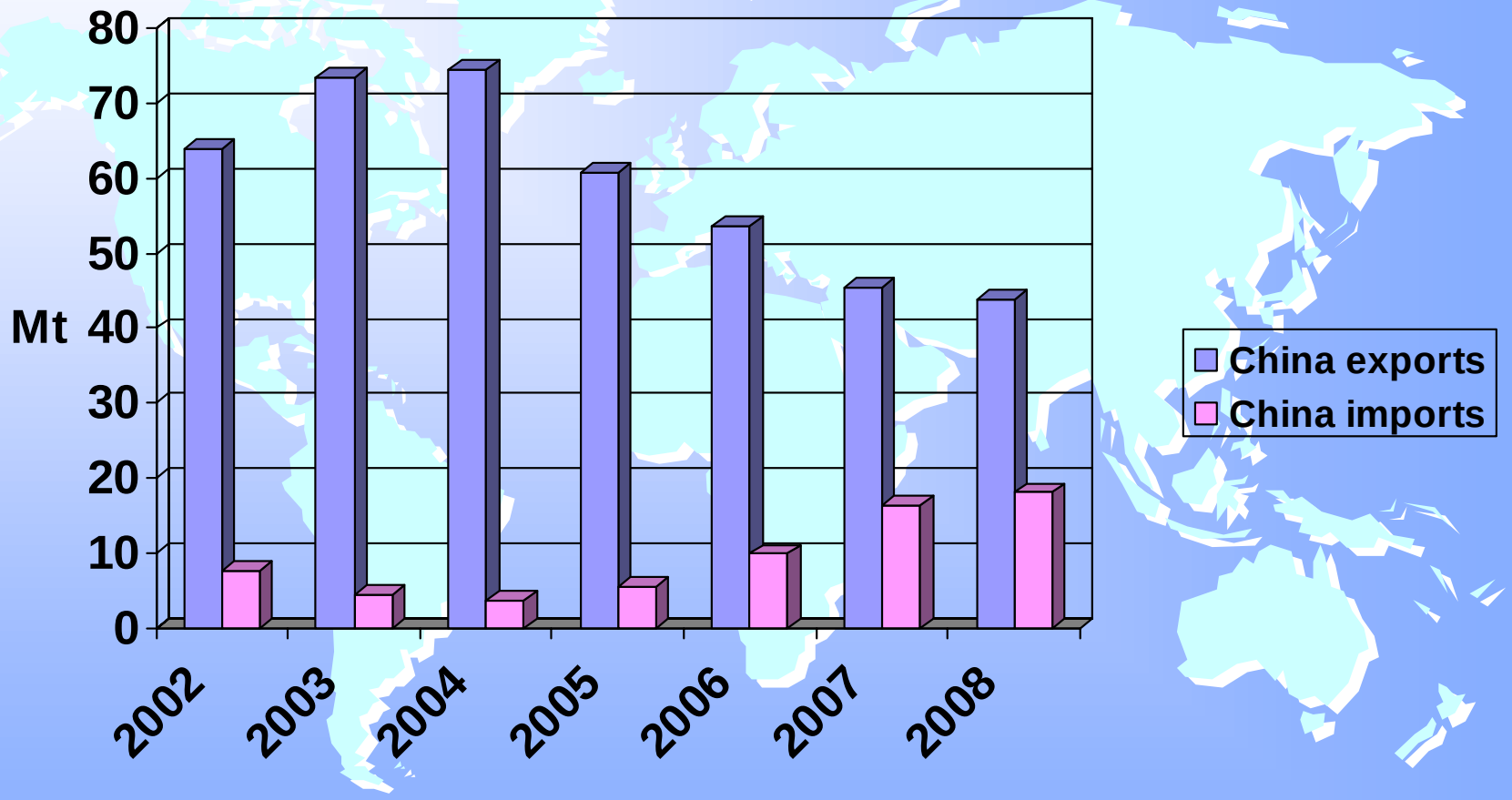
Steel market developments

- Steel prices increasing in Asia and Sothern Europe showing even higher broad market strength
- World crude steel production in 2007 at 1,344 mt, up 7.5% (93mt) from 2006
- 4m2008 world crude steel production at 457.3 mt, up 5.7% (25 mt) from 4m2007
  - China produced 169.8 mt, up 9.1% (14 mt)
  - India up 1.4 mt to 19 mt (8%)
  - USA up 2.1 mt to 33.8 mt
  - Turkey produced 9.2 mt, up by 8.2% (0.7 mt)
  - Russia up 0.9 mt to 25.3 mt
- Chinese government increased export steel tax in January 2008
  - China steel exports at 10.6 mt in 1Q08, down 30% yoy

Met Coal Trade Developments

- High steel demand good for met coal seaborne trade
- 204 mt in 2007 due to Asia with growth to 220 mt forecast for 2008
- Chinese exports down: 13 mt in 2002-2003 to 2 mt in 2008
- Japan, Korea, Taiwan, other Asian countries largest source of demand growth with growth to continue
- Australian contract price settled at $305/t f0r 2008, up from $95/t in 2007

China steam coal exports down



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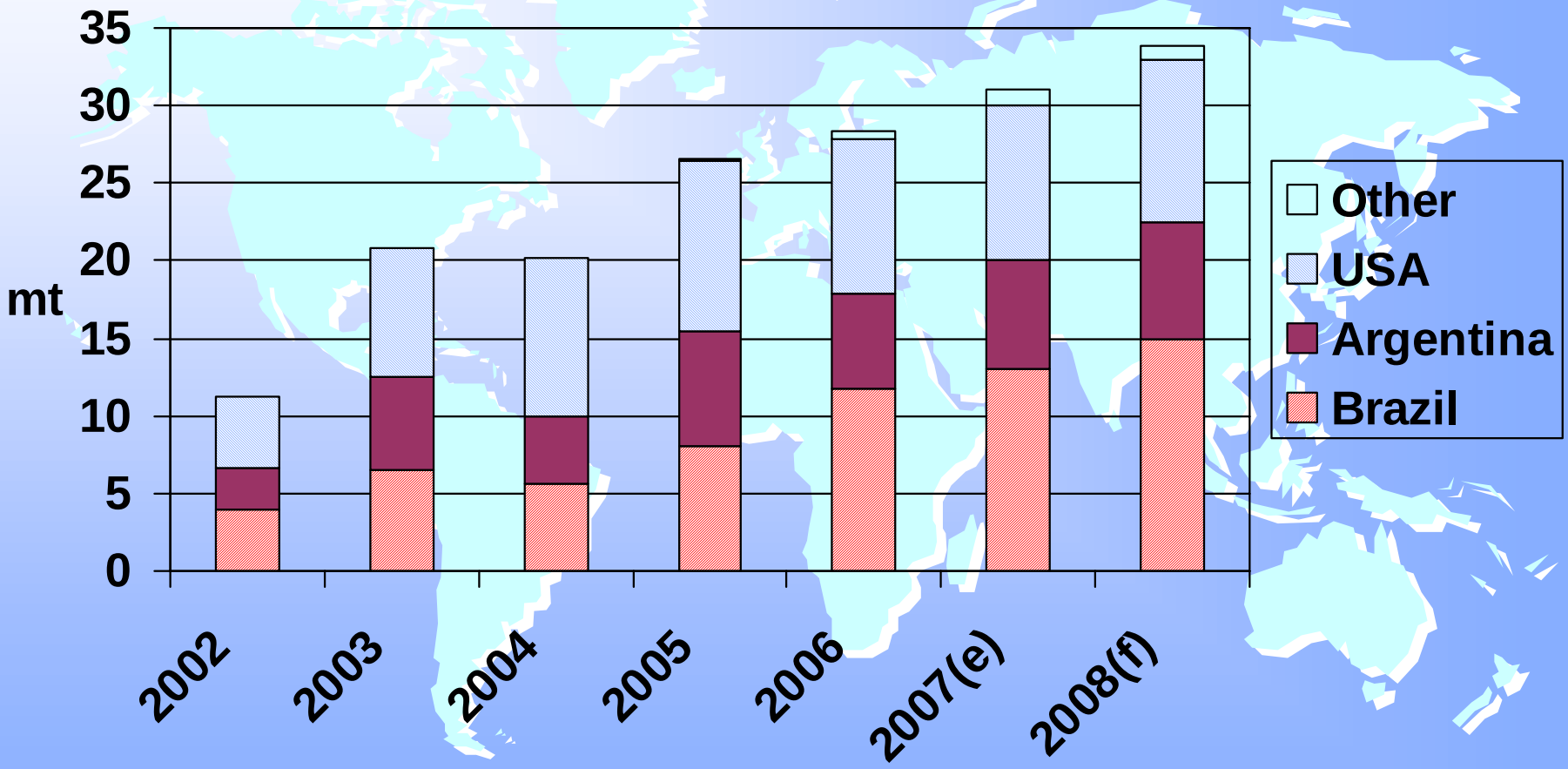
Steam Coal Trade Developments

- Steam coal trade up from 544 mt in 2006 to 574 mt in 2007 with 589 mt forecast for 2008
- China exports decreasing as more coal consumed domestically
  - Creates 30 mt deficit (vs, peak 75 mt in 2004) in Asia
  - Additonally, China imports 18 mt in 2008 (vs. 4 mt in 2004)
    - Mostly Southern China due to poor North-South links
- Primarily supplied by Indonesia and Australia
  - Indonesia production growing from 130 mt in 2005 to 211 mt fcst for 2008
  - Australia down from 111mt in 2006 to 103 fcst 2008 as higher value coking coal given top priority

Soybean production

	1995	2006	2007(e)	**12 yr CAGR-1995-2007**
Argentina	12.5	47.2	47.0	**11.7%**
Bolivia	0.9	1.7	1.9	**6.5%**
Brazil	24.2	59.0	60.5	**8.0%**
Paraguay	2.4	6.2	7.0	**9.3%**
Regional Total	39.9	114.1	116.4	**9.3%**
United States	59.2	86.8	70.5	**1.5%**
China	13.5	16.0	14.3	**0.5%**
Other Countries	12.2	18.7	18.9	**3.7%**
World	137.5	235.5	220.1	**4.0%**

China Soybean Imports



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S. America Megatrend & China

- Biggest change in grain/oilseed trade is soybean production growth in Brazil, Argentina, Paraguay, Bolivia (Parana River Basin, PRB)
  - Up from 40 mt in 1993 to 116 mt in 2007 (53% of world)
  - US down in 2007 as acreage down, China production stable
- South America world role as commodity and biofuel source growing
- South America-China trade growing in soybeans
  - Brazil up from 4 mt in 2002 to forecast 15 mt in 2008
  - Argentina up from 3 mt to forecast 7.5 mt in 2008
  - US up from 5 mt in 2007 to forecast 10 mt in 2008
  - China vegetable oil imports up from 7.6 mtpy in 2006 to 9.3 mtpy in 2007 with soybean oil from PRB accounting for 1.3 mtpy of the 1.8 mtpy increase
    - 10.4 mt forecast for 2008

Summary

- Chinese steel industry key driver of dry bulk market
- China coal export reduction and import increase creating additional dry bulk vessel demand
- High world steel demand resulting in high steel prices in Europe and Asia
  - Chinese steel exports affecting world steel trade as

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  minor bulks
- South America Megatrend and growing agricultural trade supporting Panamax and Handy markets

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