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Impact of the Chinese Steel Growth on the Manganese World Industry



ERAMET GROUP TODAY

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SHIFTING BORDERS TOGETHER

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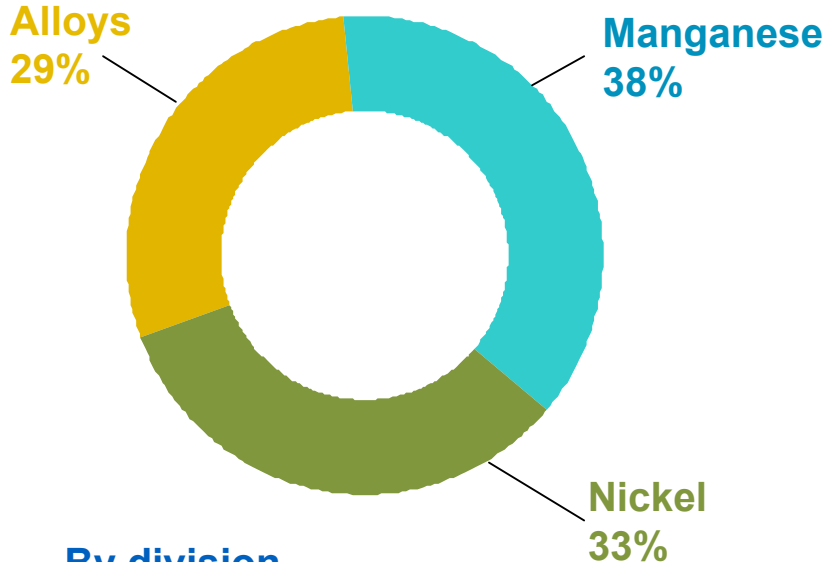


ERAMET

- ❑ A French mining and metallurgy group
- ❑ Eramet has built world leading positions in its three divisions: nickel, manganese and alloys
- ❑ Eramet is listed on the Paris Stock Exchange since 1994, with a market capitalisation of about 3 billion euros
- ❑ 14 100 people

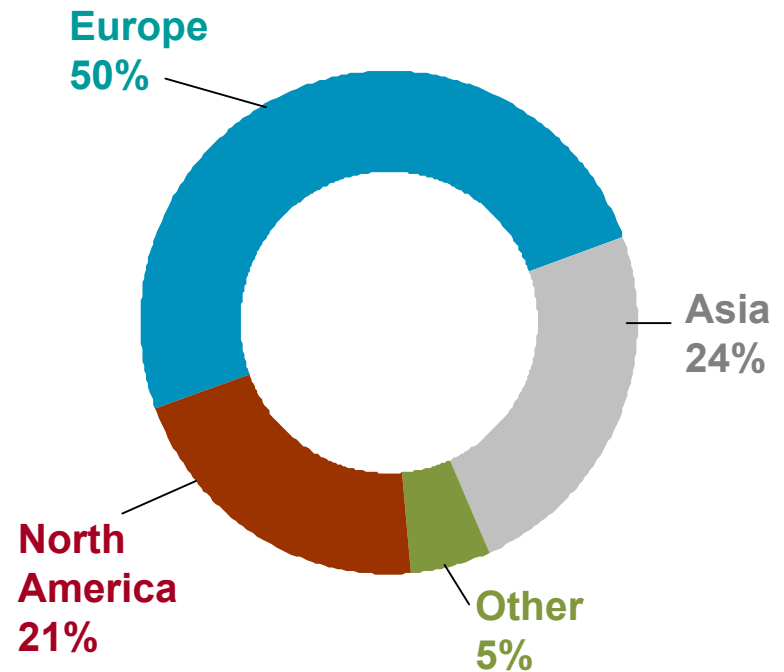
2006 Turnover

PROGRESS MADE BY ALL THREE DIVISIONS: A BALANCED COMPOSITION BY ACTIVITIES AND GEOGRAPHICAL AREAS



By division
(comparison with 2005)

Alloys	+10%
Manganese	+1%
Nickel	+32%



By geographical areas



Structure

ERAMET Group

Tec Ingénierie (100%)
Trappes Research Center (CRT) (100%)
Eramet International (100%)

Eramet Alliages

High performance special steels
and superalloys, high speed steels,
forged parts

Aubert & Duval
(100%)

Erasteel
(100%)

Eramet Manganèse

Manganese ore and manganse alloys
Chemical derivatives
Recycling of catalysts
Ferrovanadium and ferromolybdenum
production

Comilog Asia Ltd (80%)

Comilog (67%)

Eramet Norway (100%)

Eramet Marietta (100%)

20 %

Eramet Nickel

Ferronickel, high purity nickel,
Nickel and cobalt chlorides
Cobalt and tungsten powders

Le Nickel-SLN (60 %)

Sandouville-Le Havre
Plant (100 %)

Eurotungstène Poudres
(100 %)

Weda Bay Minerals Inc
(100 %)



ERAMET MANGANESE

**PROGRESSIVE RECOVERY ON A LONG-TERM
GROWTH MARKET**

SHIFTING BORDERS TOGETHER



ERAMET



WORLD LEADERSHIP POSITIONS

A leading producer of high grade manganese ore (3 millions WMT)

Markets: manganese alloys, chemicals

Leader in manganese based-chemical products

Markets: electronic, other

A leading producer of manganese alloys (750 000 Mt of which 40 % refined alloys)

Market: steel industry

Major producer of refined manganese alloys

Market: steel industry

Comilog (Gabon)

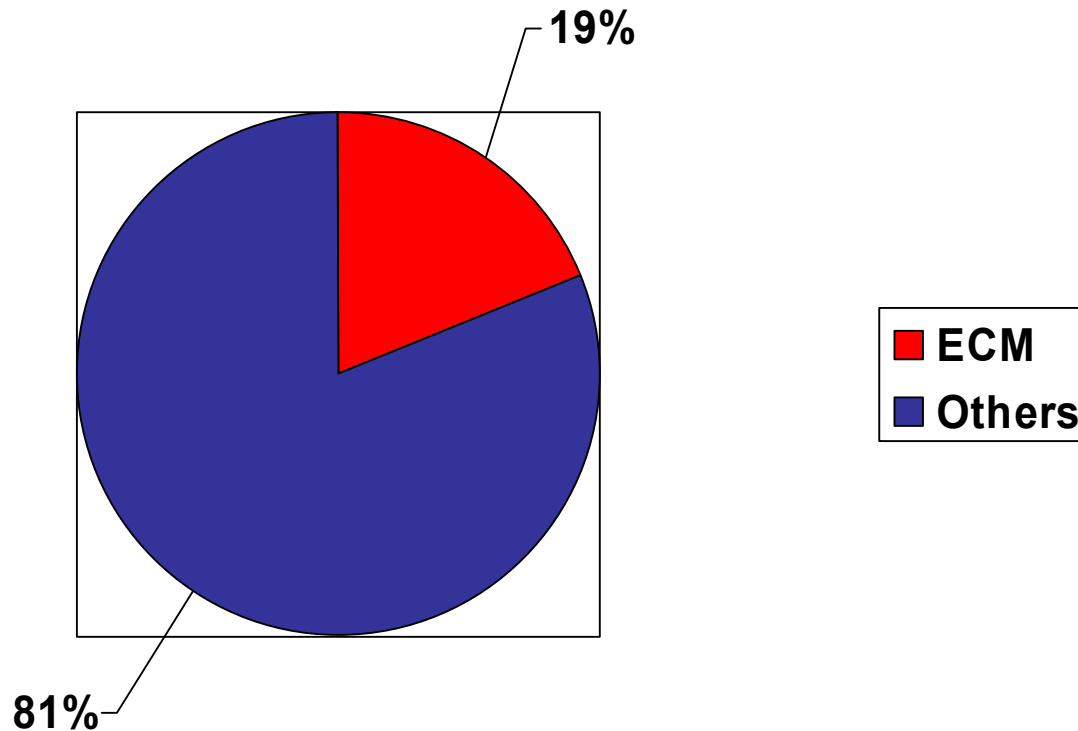
HIGH GRADE MANGANESE ORE



- Extensive mining reserves (Moanda mine)
- The highest grades on the market for large mines
- Approx. 15% of World ore production
- In 2007 will be one of the largest high grade manganese ore in the world
- Open pit mine
- Fully integrated : mine/ train/ port



Comilog's Estimated Market Share of High Grade Manganese Ore Seaborne Trade in 2006



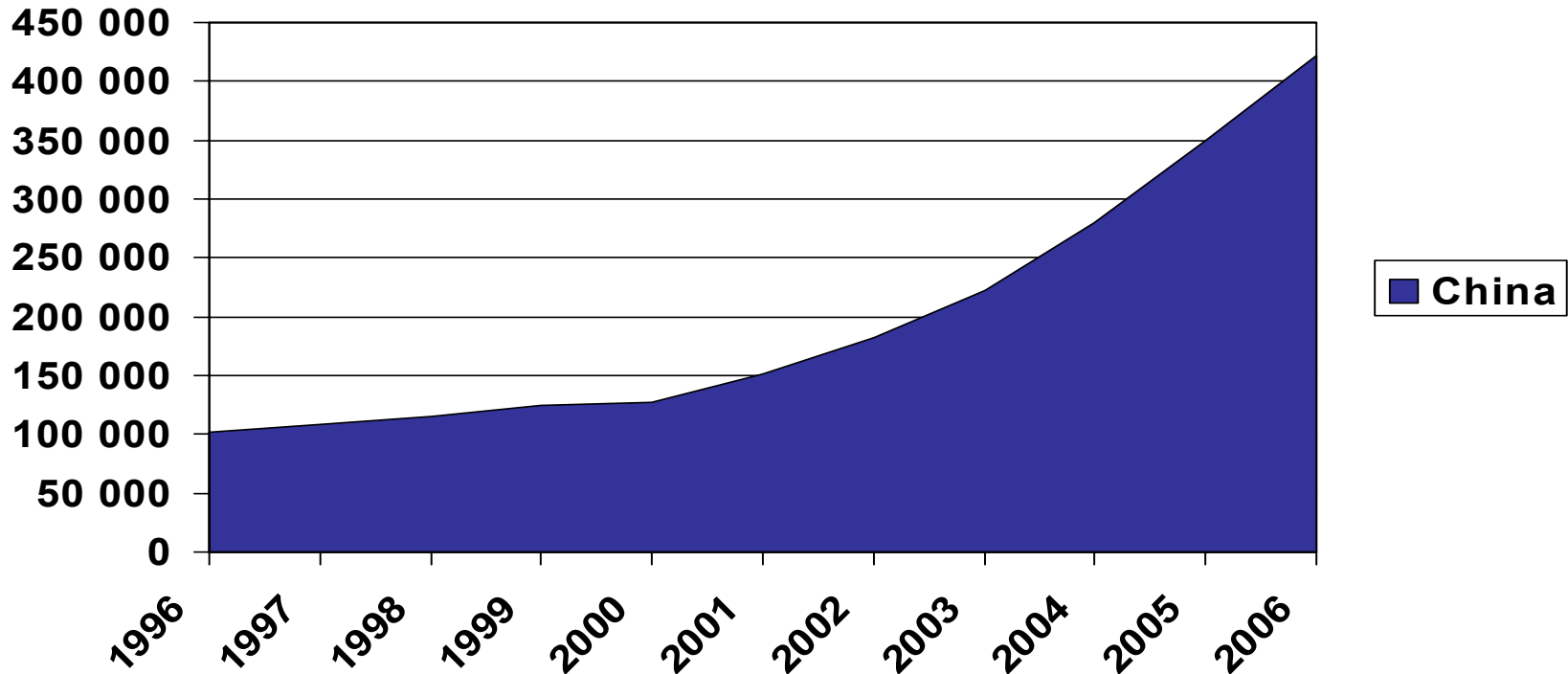


Impact of the Chinese Steel Growth on the Manganese Industry

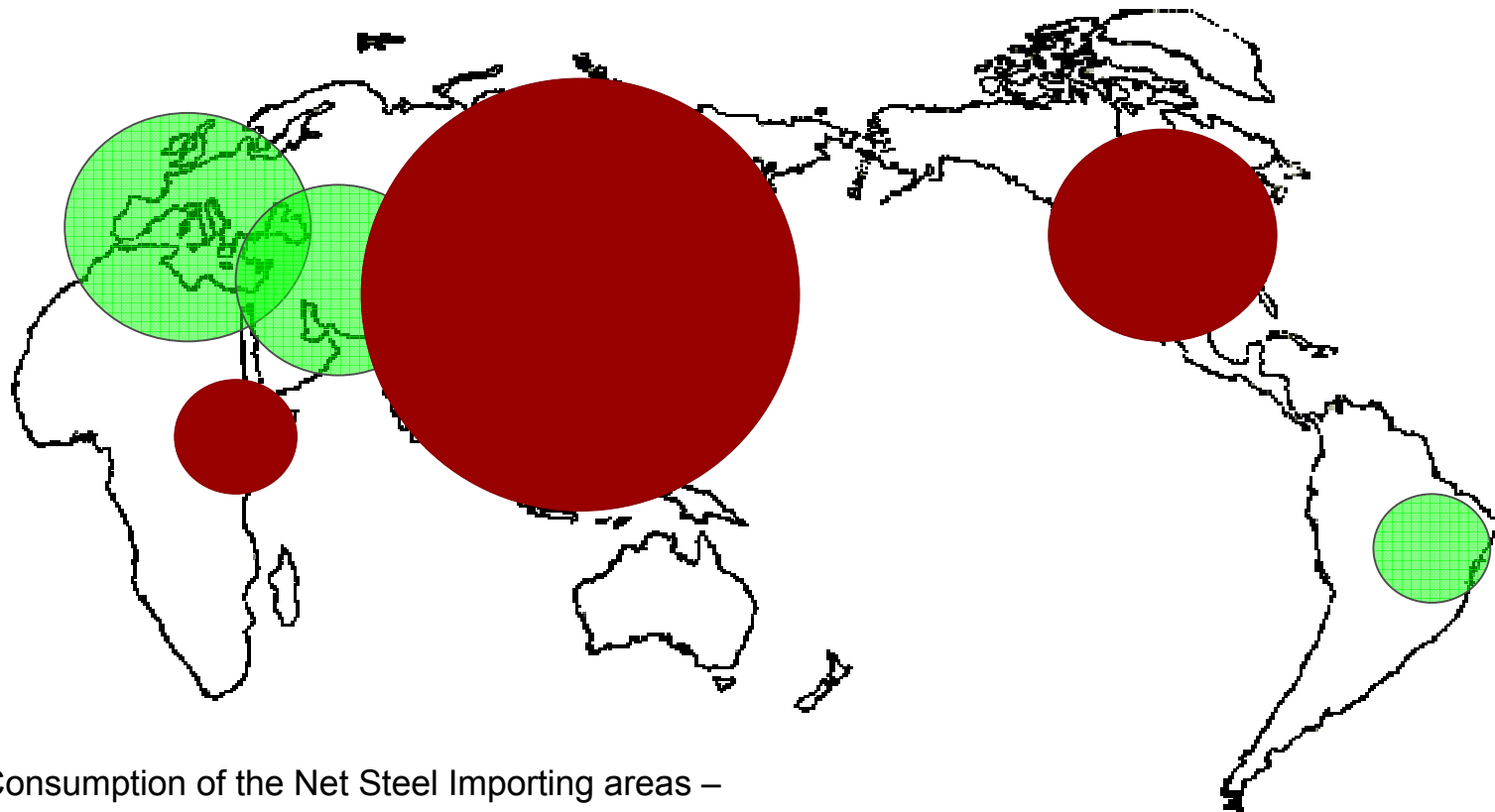
China has changed the Picture of the Global Steel Industry

Chinese Crude Steel Production

'000 Mt



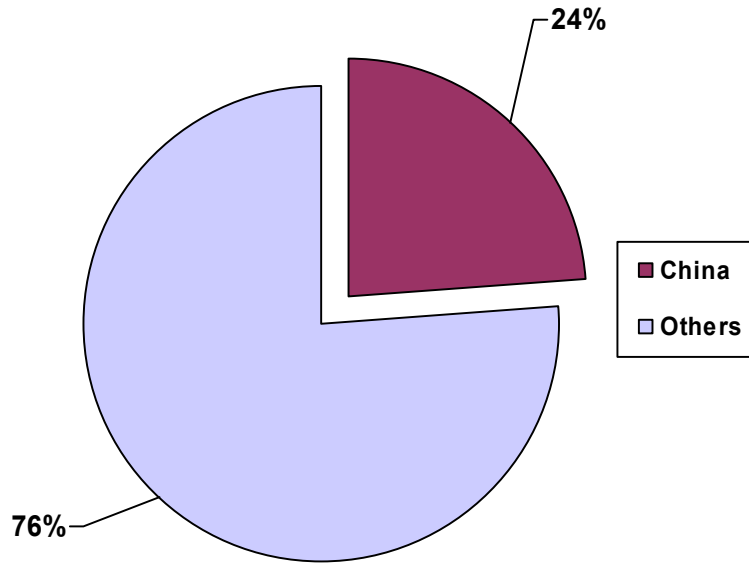
Chinese Crude Steel Production



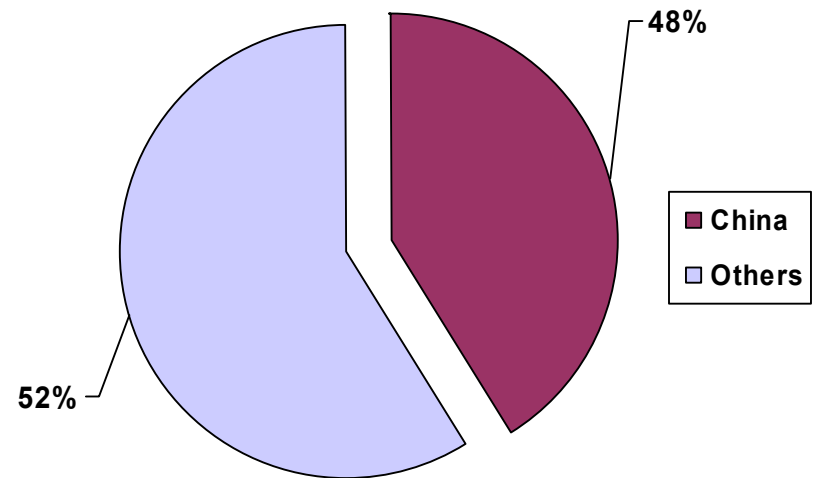
- Consumption of the Net Steel Importing areas –
Africa & Middle East import 14 Mt – Asia imports 40 Mt – NAFTA imports 30 Mt
- Production of Net Exporting areas –
CIS + Romania + Turkey export 70 Mt outside their area WE + South America export 14 Mt (net)

China has also changed the manganese industry

In Mn content



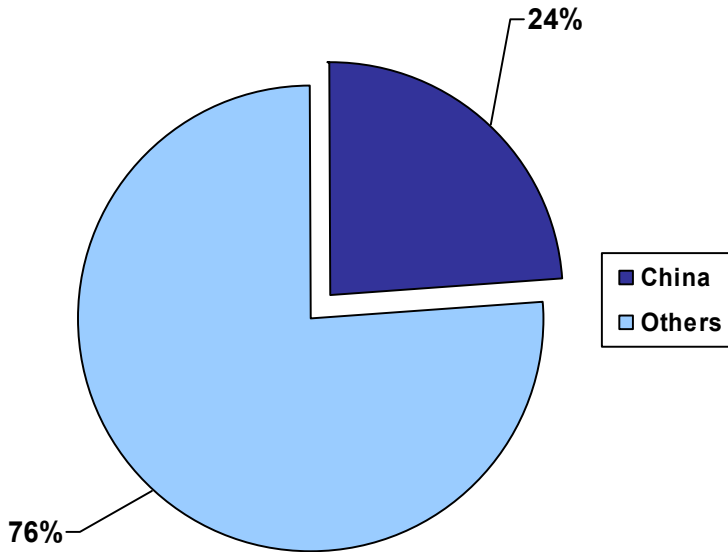
In 2000



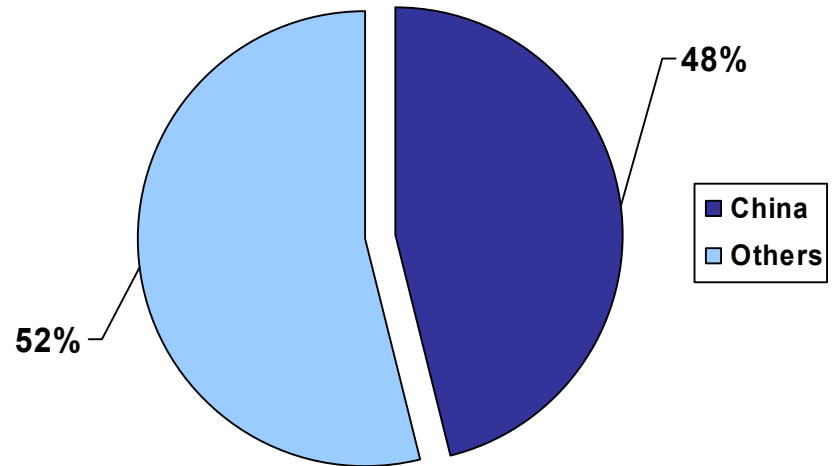
In 2005

Share of China in Manganese ore Imports in Global Seaborne Trade

In Mn content



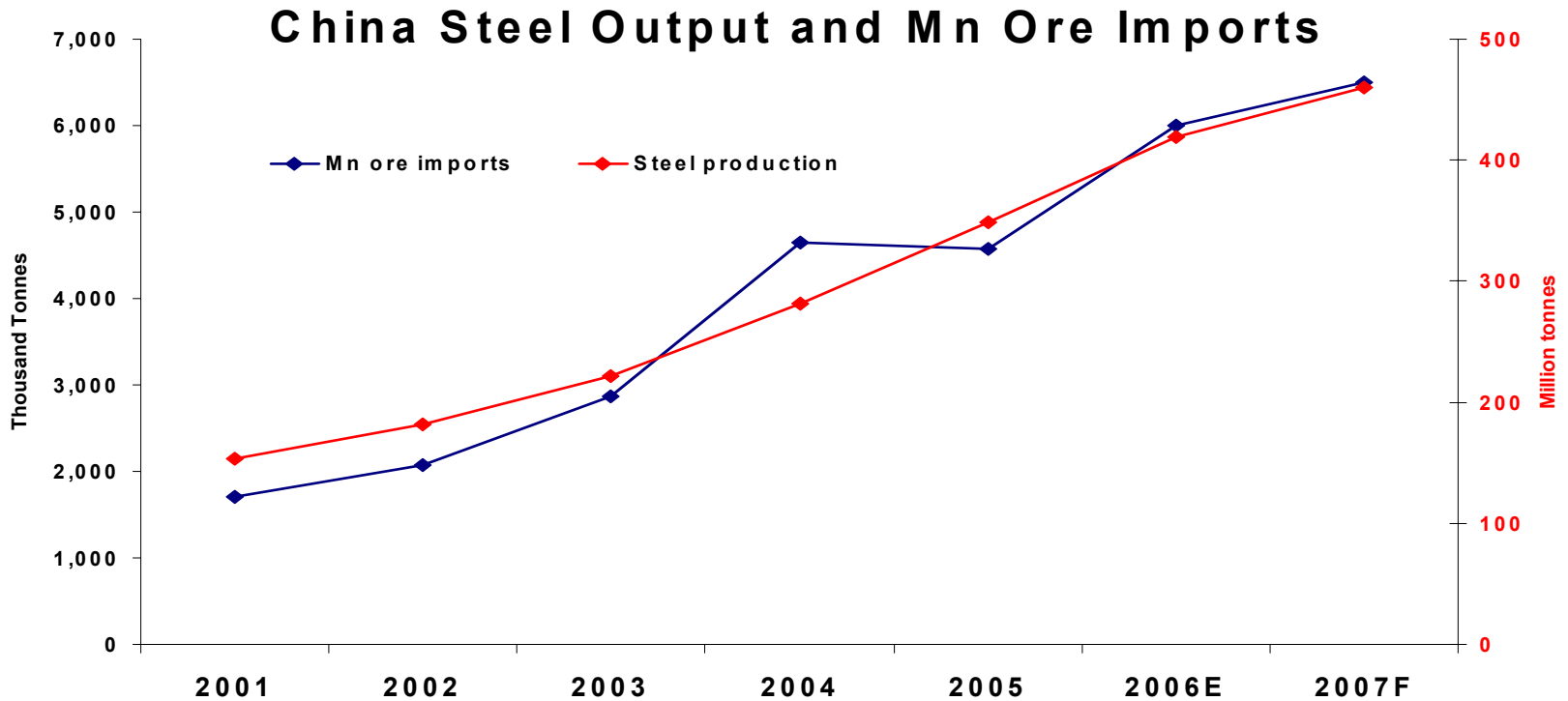
In 2000



In 2006

Share of China in Manganese Alloys production

The manganese industry has been able to cope with the growth of Chinese Steel Production

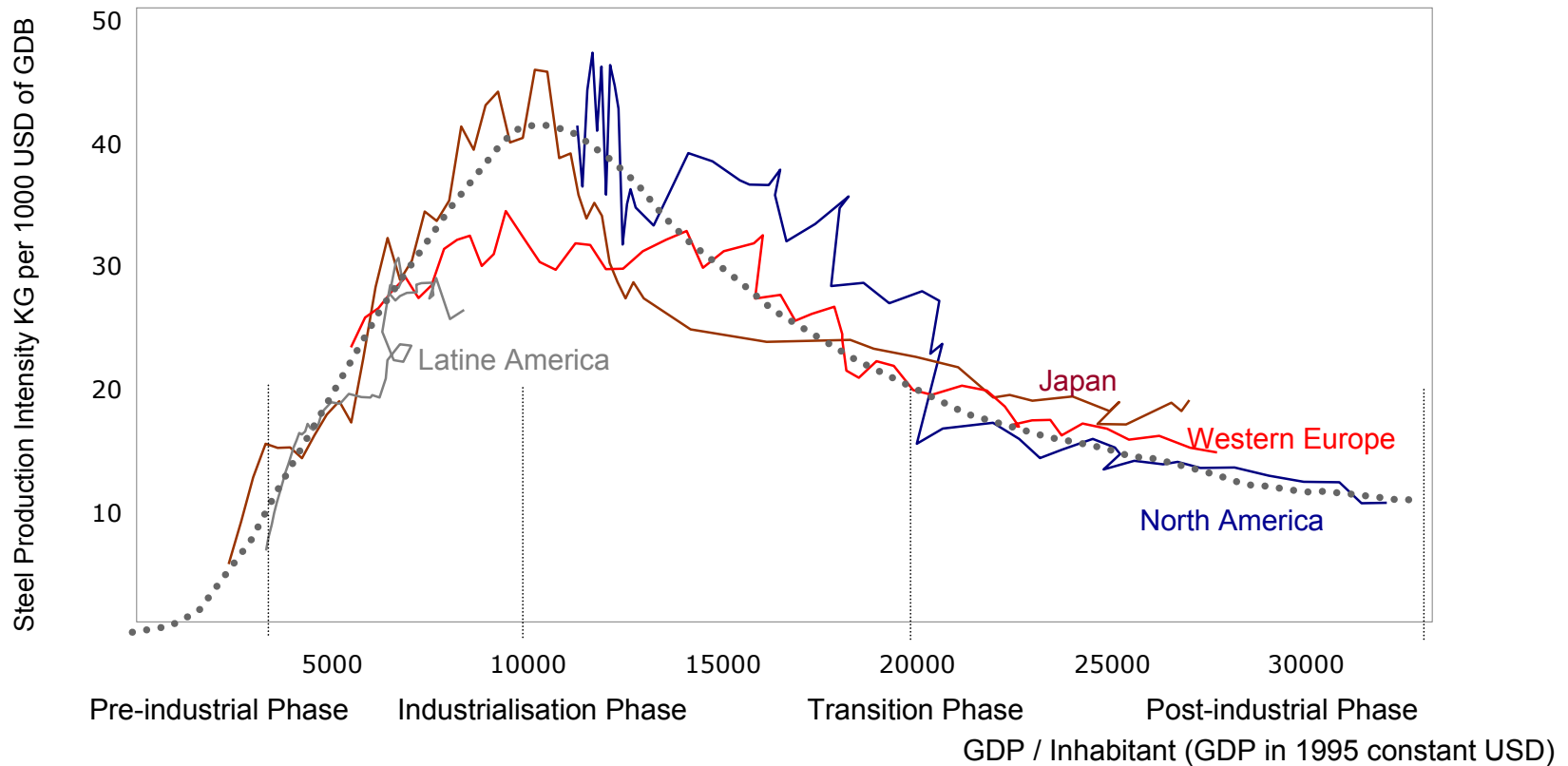




What about the future ?

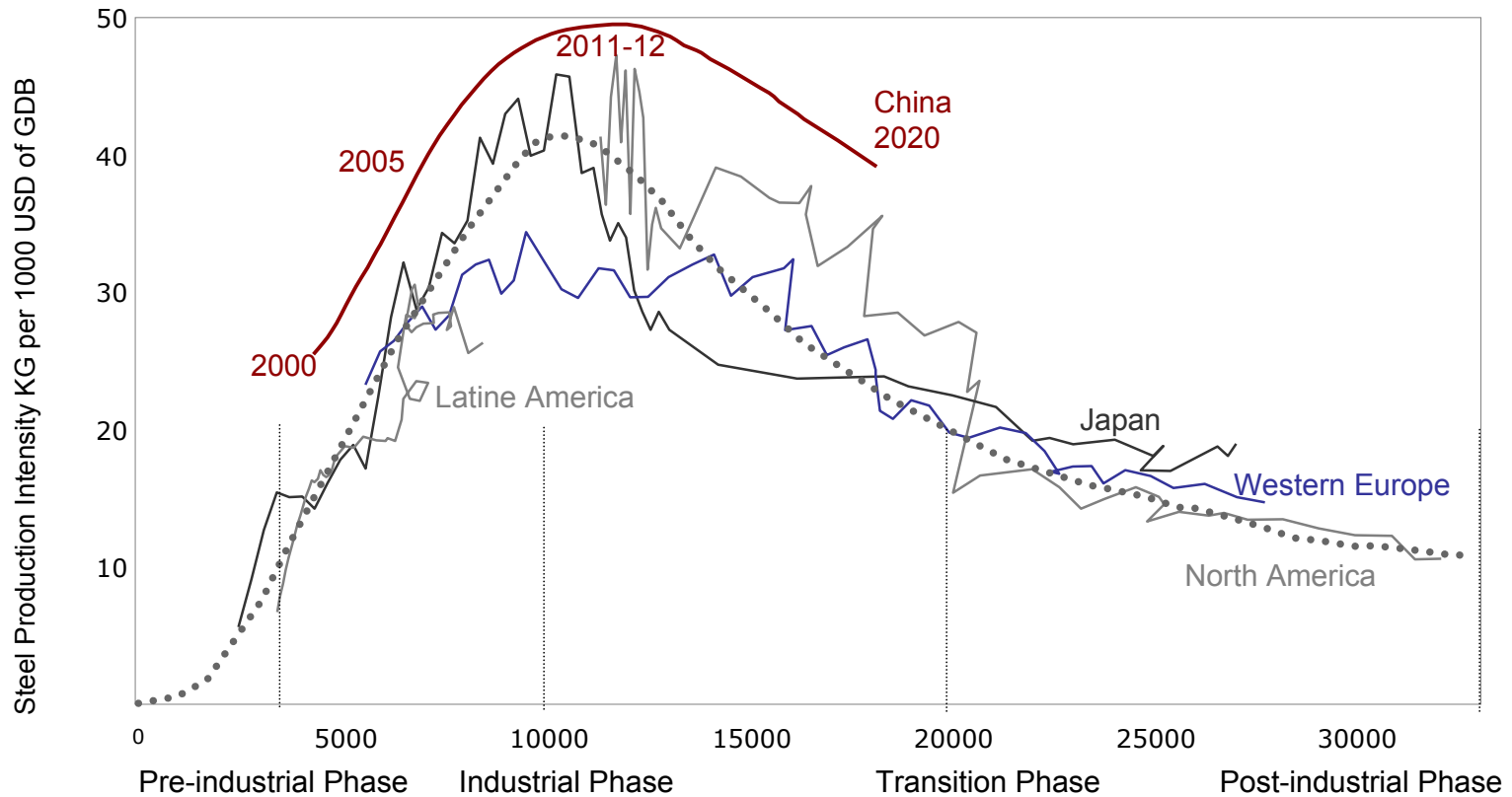
The Growth of Steel consumption is directly linked with development stage of each economy

Evolution of Specific Steel Production per GDP Unit between 1950 and 2003



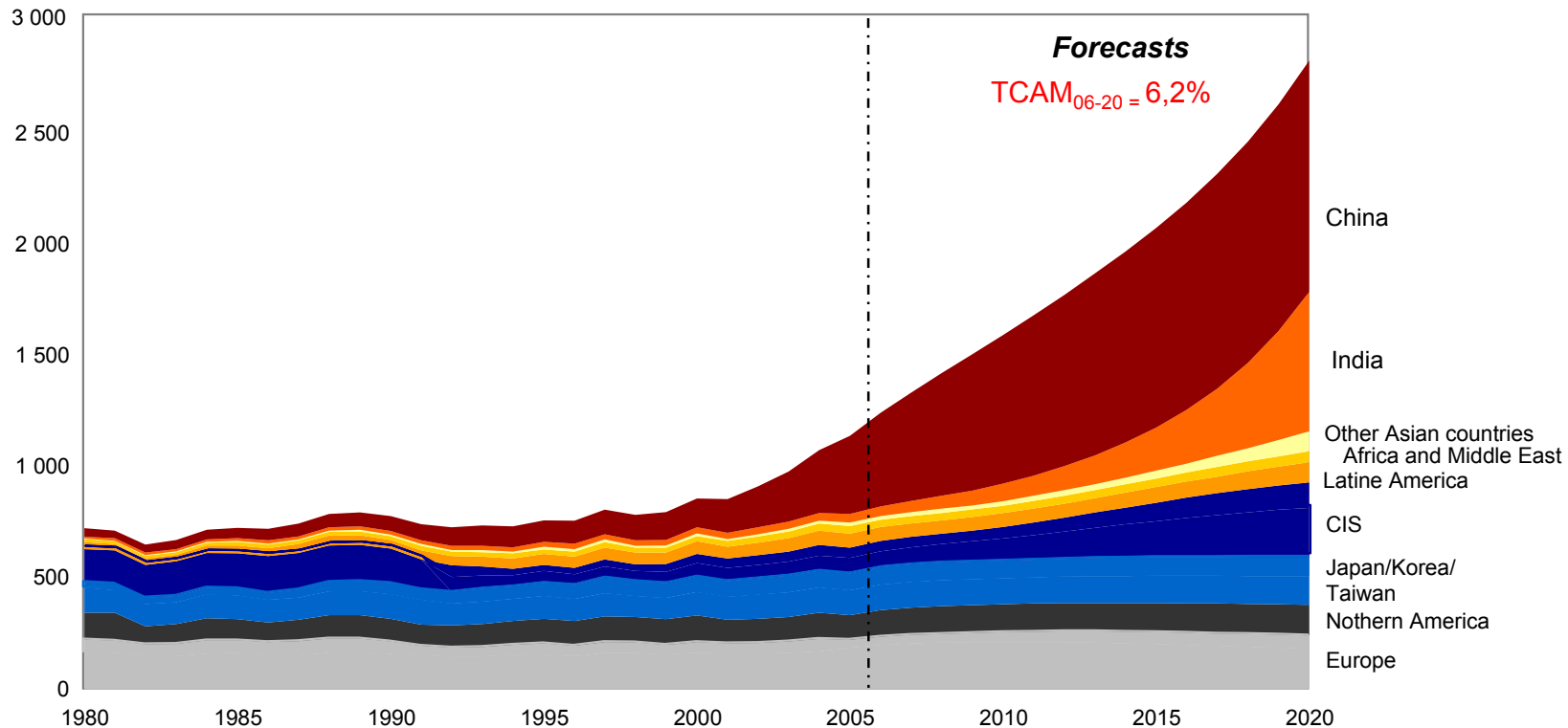
China seems to follow the same rule

Evolution of Specific Steel Production per GDP Unit in China (forecasts)



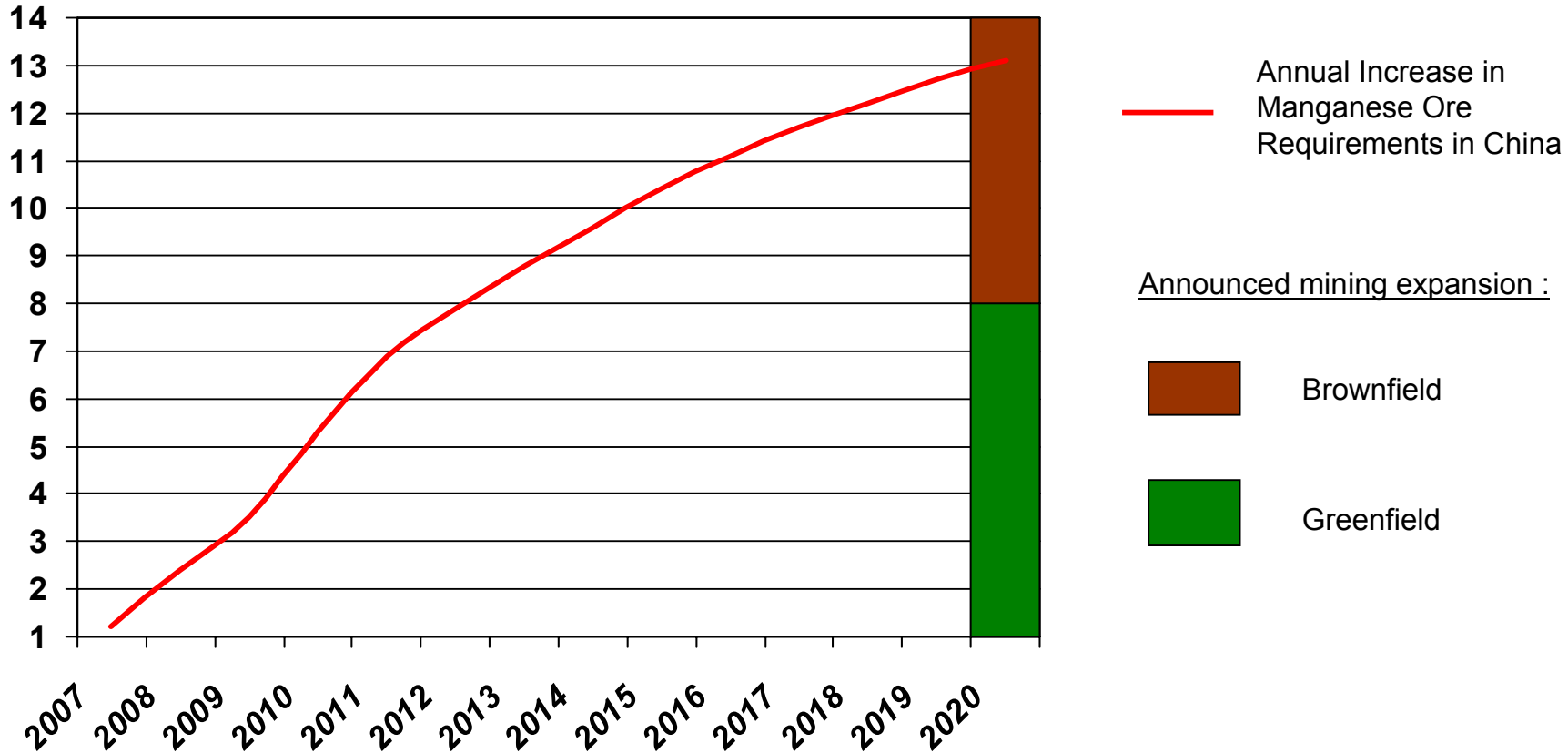
A Slowdown in Steel Consumption Growth can be expected in the 2010's, but growth will remain robust.

Crude Steel Production from 1980 to 2020p (Mt)



The manganese Industry has enough Ore Reserves to supply China

Millions WMt



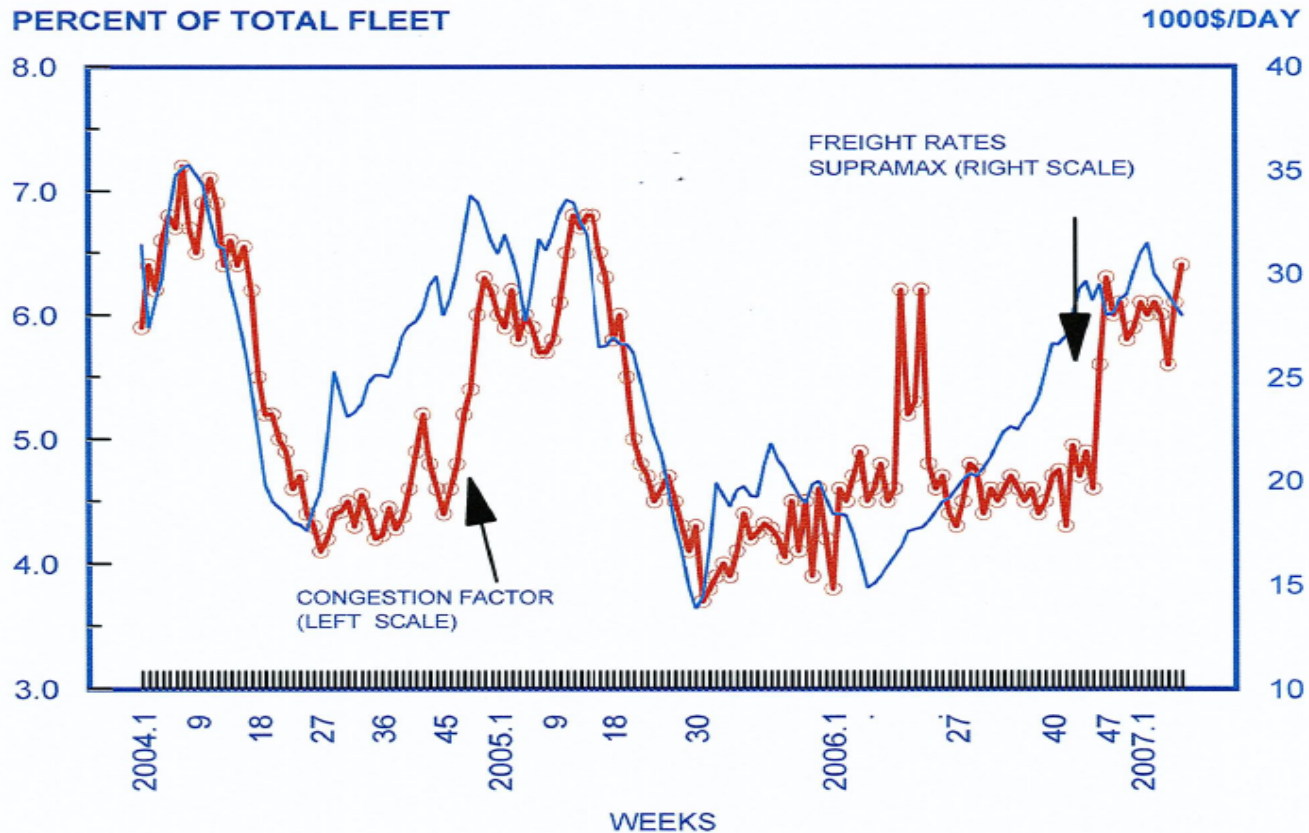


The challenges for the manganese industry are :

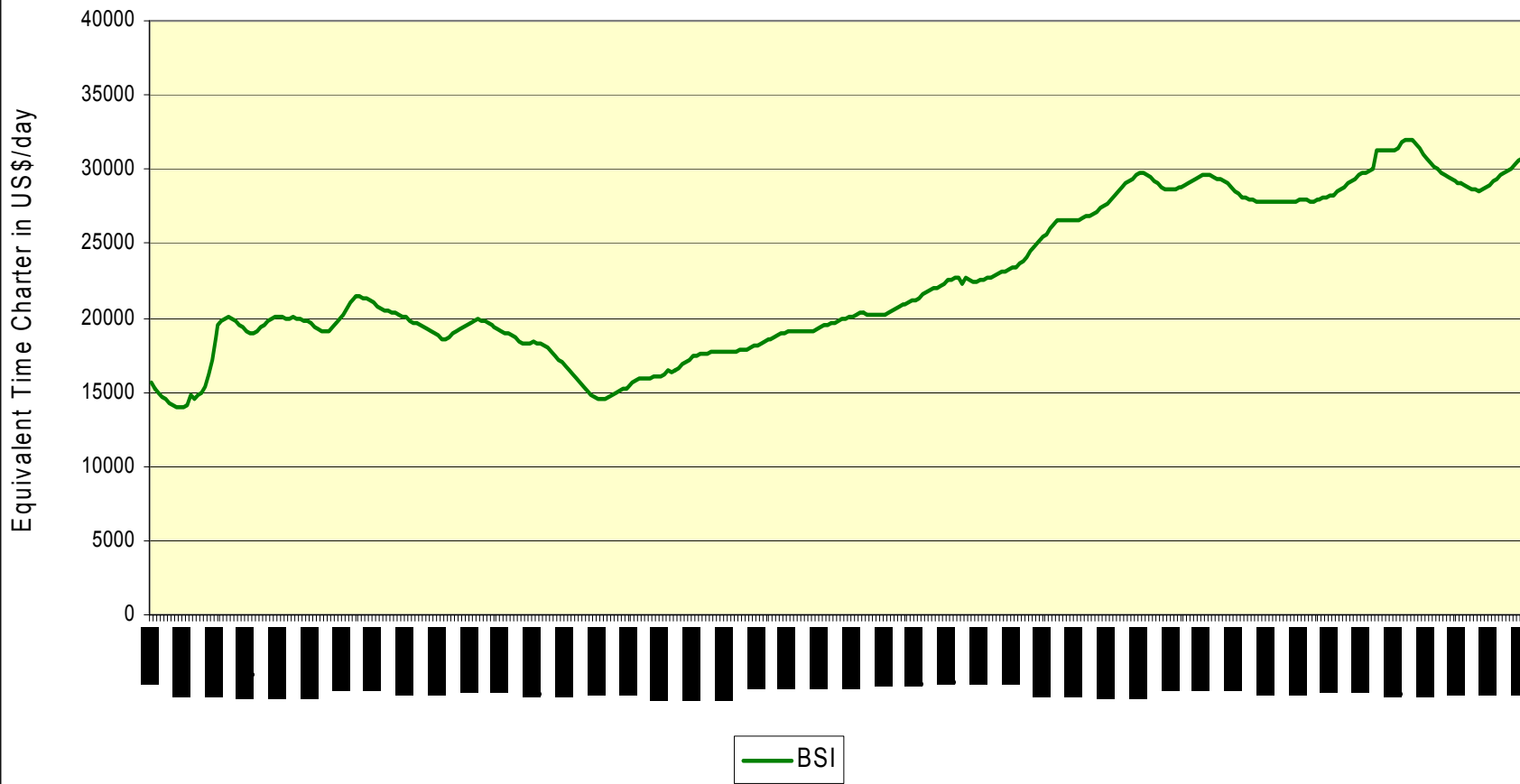
- Rising freight costs
- Other and more lucrative commodities competing for the same transportation capacity (iron ore, coal...)
- Rising energy costs everywhere
- Depletion of high grade manganese ore



SIGNIFICANT UPTURN IN CONGESTION IN THE FINAL PART OF 2006



Baltic Supramax Index starting July 2005 to Feb. 2007

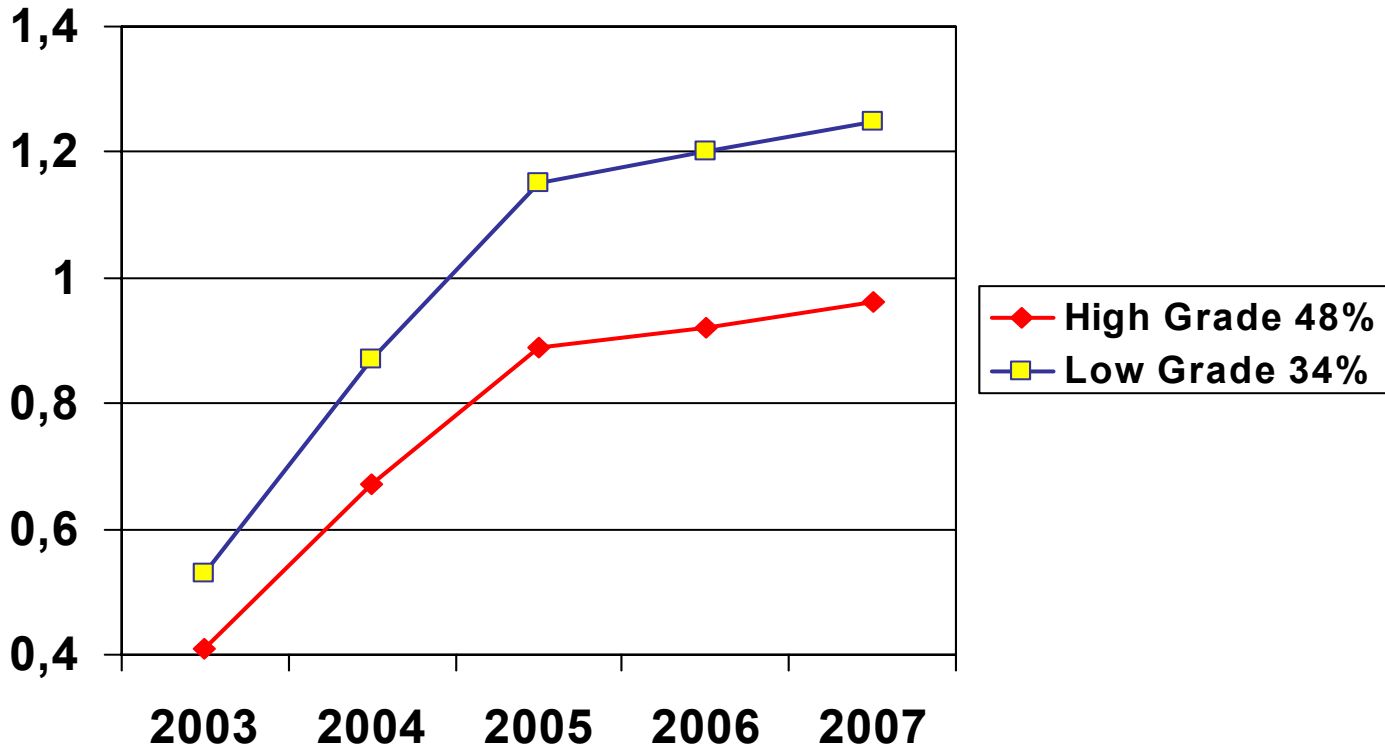


Source : Baltic Index

Impact on Logistic Costs Ore Pricing- Atlantic → China Routes (average estimates) -

Example

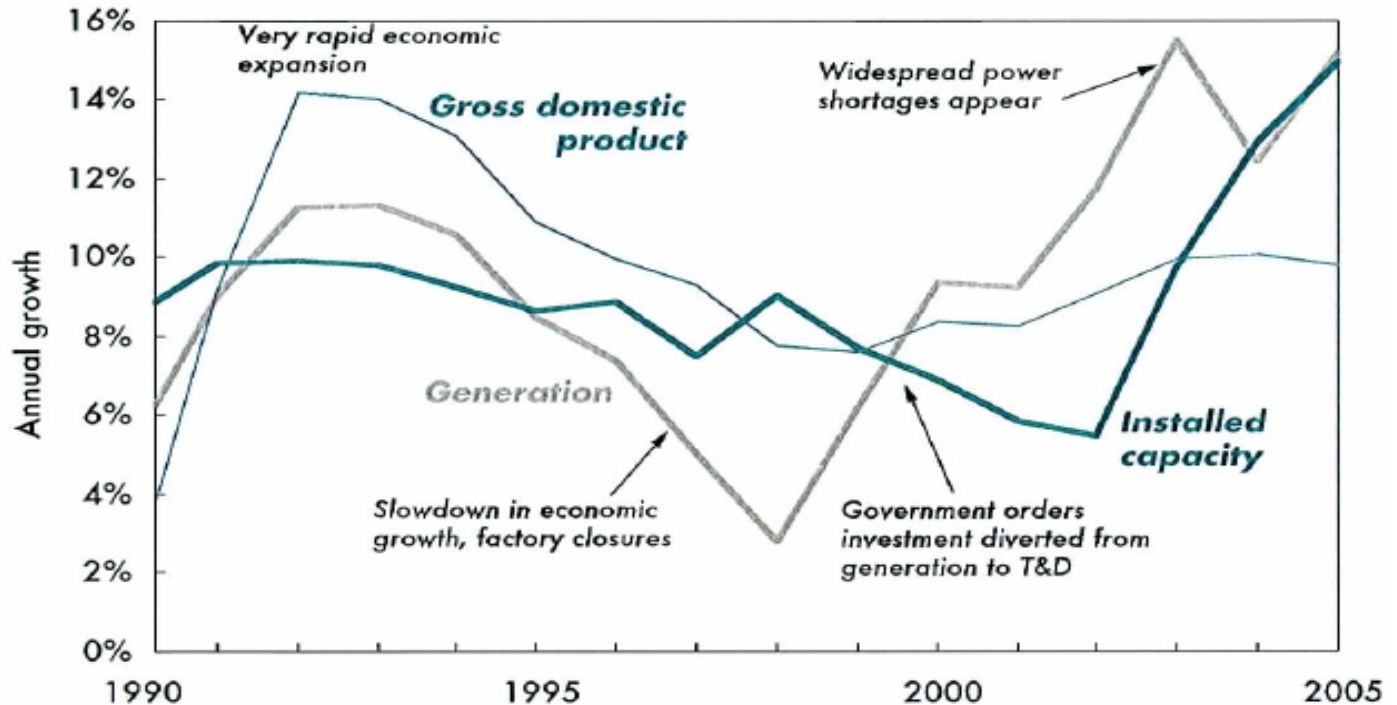
USD/dmtu



POWER SUPPORT TO CHINESE GROWTH

Figure 8

Annual growth rates in China's GDP, installed capacity and electricity generation, 1990-2005



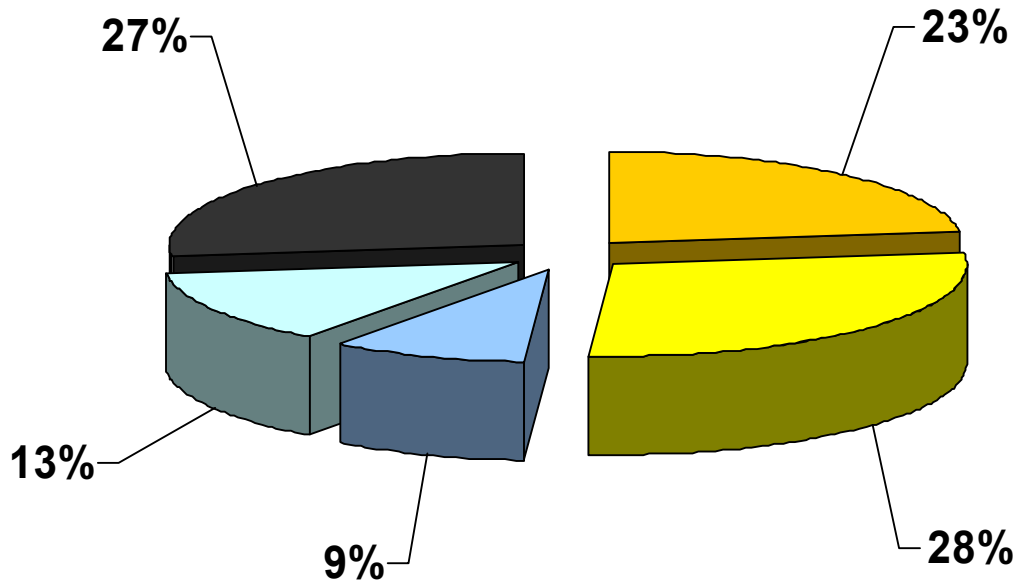
Source: National Bureau of Statistics (various years).

Many shortages recently experienced

A reliable industry needs a more reliable power supply

High Grade Ore availability

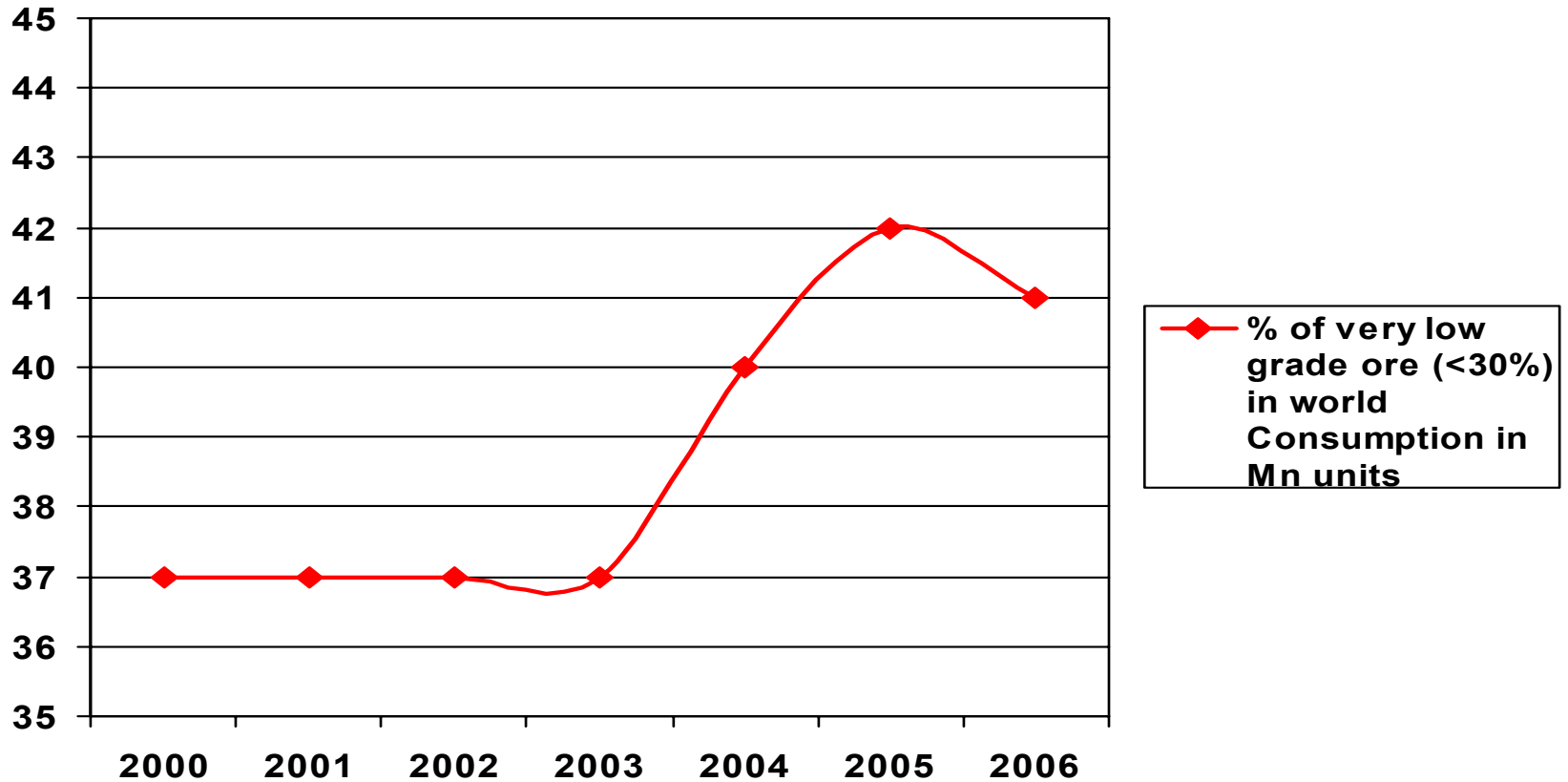
In Mt



- High Grade Free (> 44% Mn)
- High Grade Integrated (> 44% Mn)
- Medium Grade Free (34 - 44 % Mn)
- Medium Grade Integrated (34 - 44 % Mn)
- Low Grade (< 34 % Mn)

Depletion of High Grade Ores

In Mn units



CONCLUSION :

- ✓ The manganese industry worldwide can cope with the growth of Chinese demand for manganese ore.
- ✓ Constrains for developing new manganese ore supplies are mostly :
 - ⇒ Related to logistics infrastructure
 - ⇒ Increasing costs
 - ⇒ Lower manganese grades in ore