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International Manganese Institute

2003

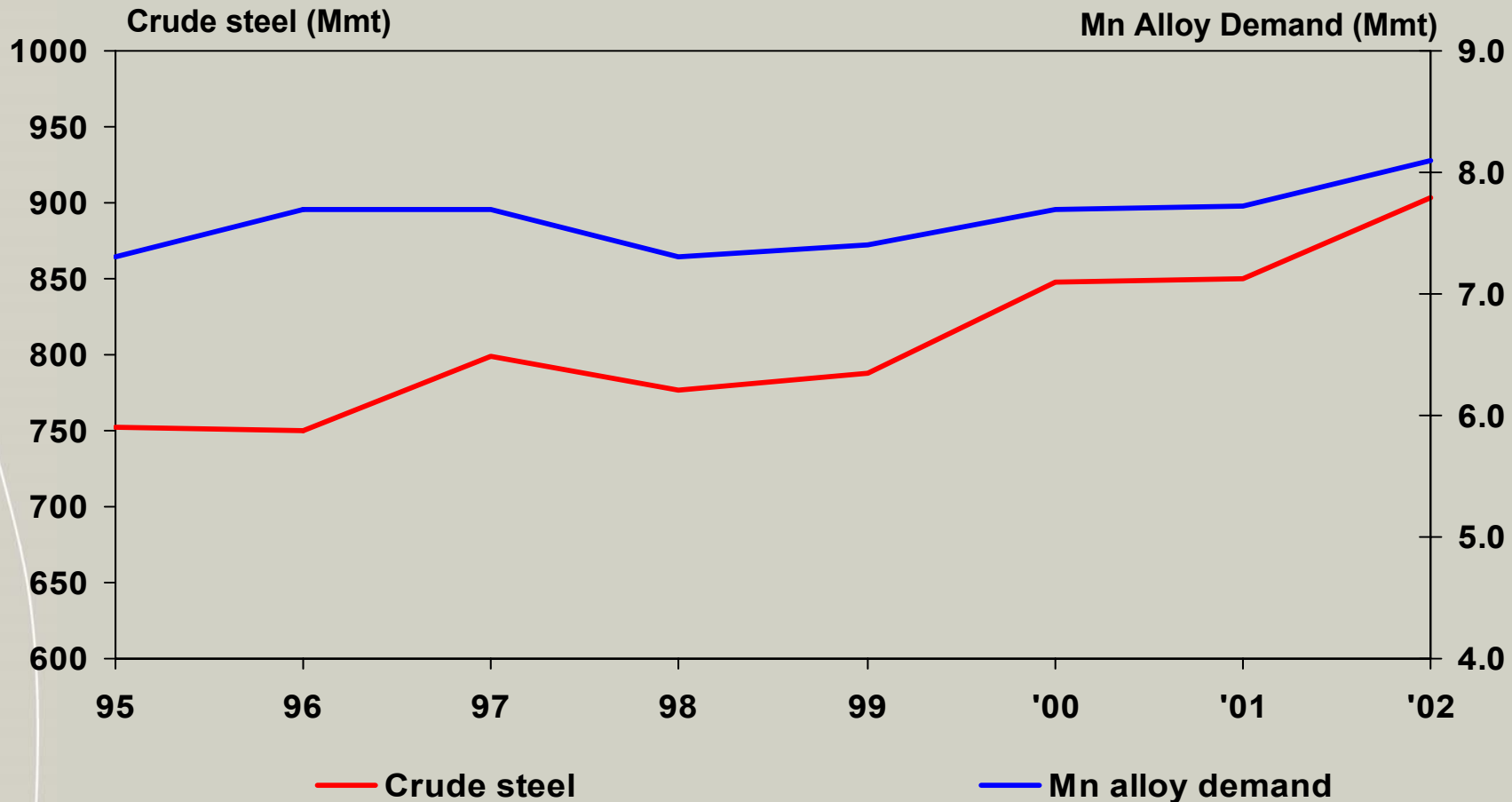
**The role of China in the issues facing the
Manganese industry today**



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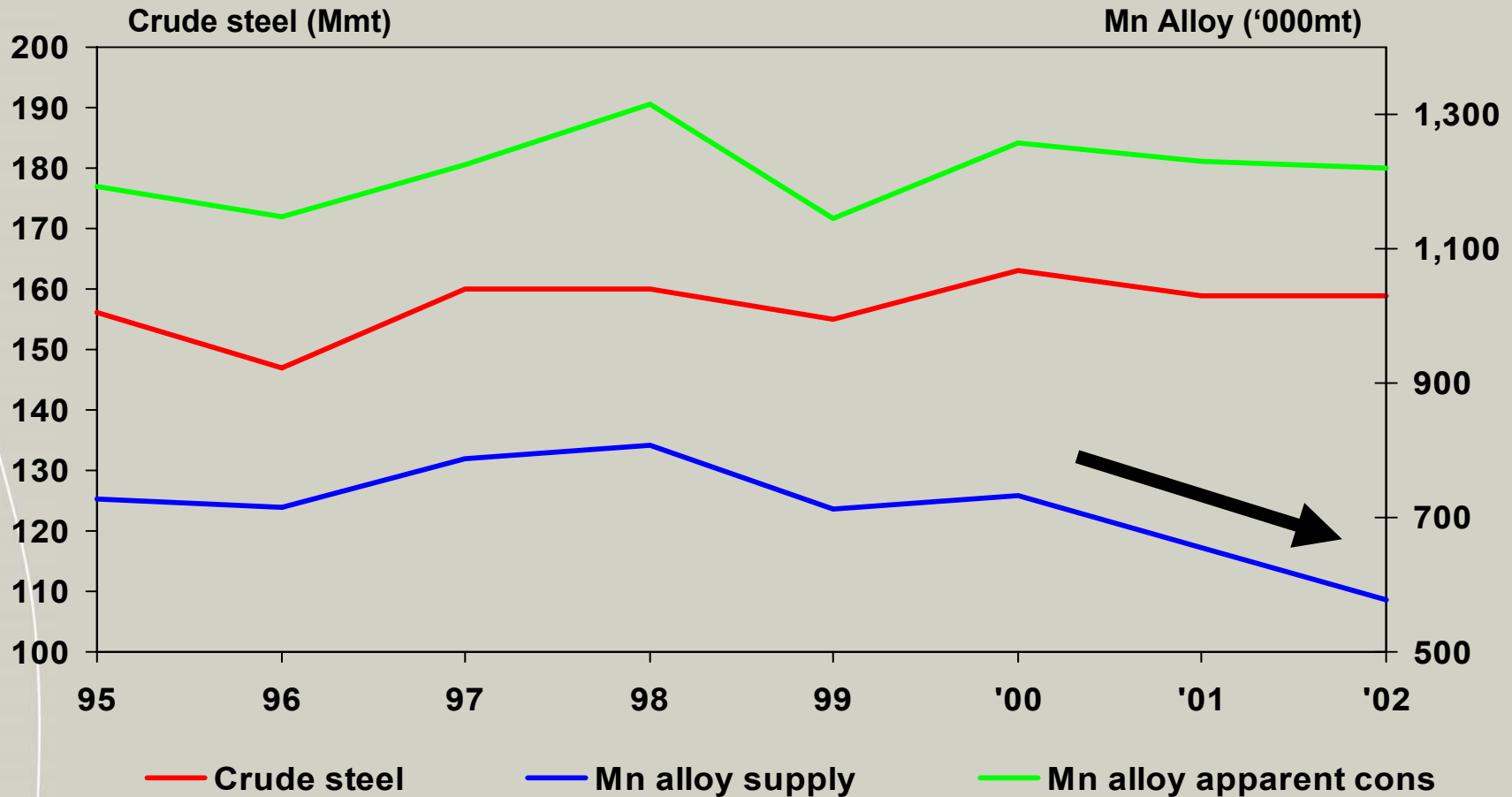
GLOBAL Mn ALLOY DEMAND

2002 Characterized by strong alloy demand driven by a strong steel industry



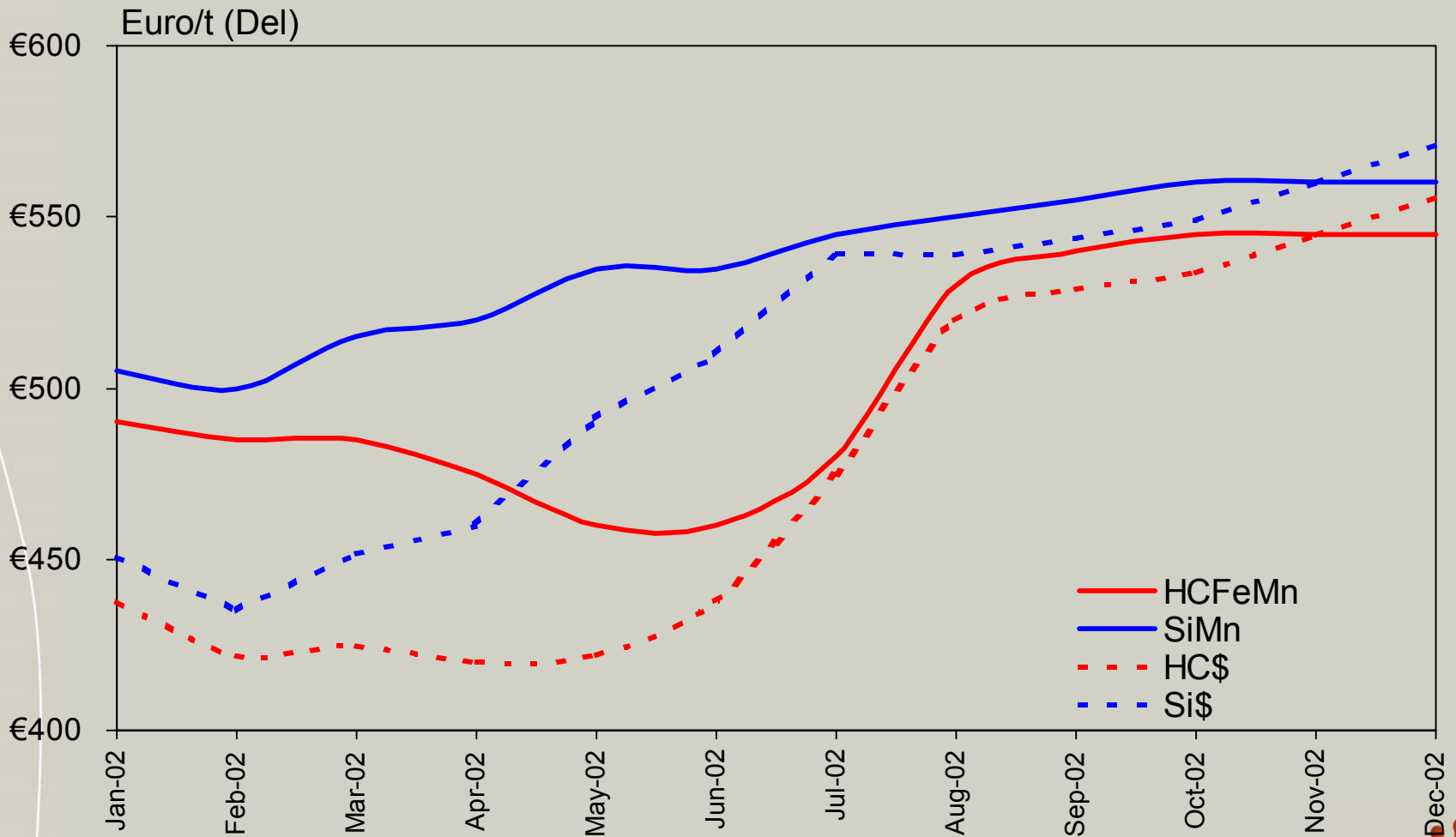
Mn ALLOY INDUSTRY EU

Flat steel demand in 2002 - HCFeMn supply disruptions

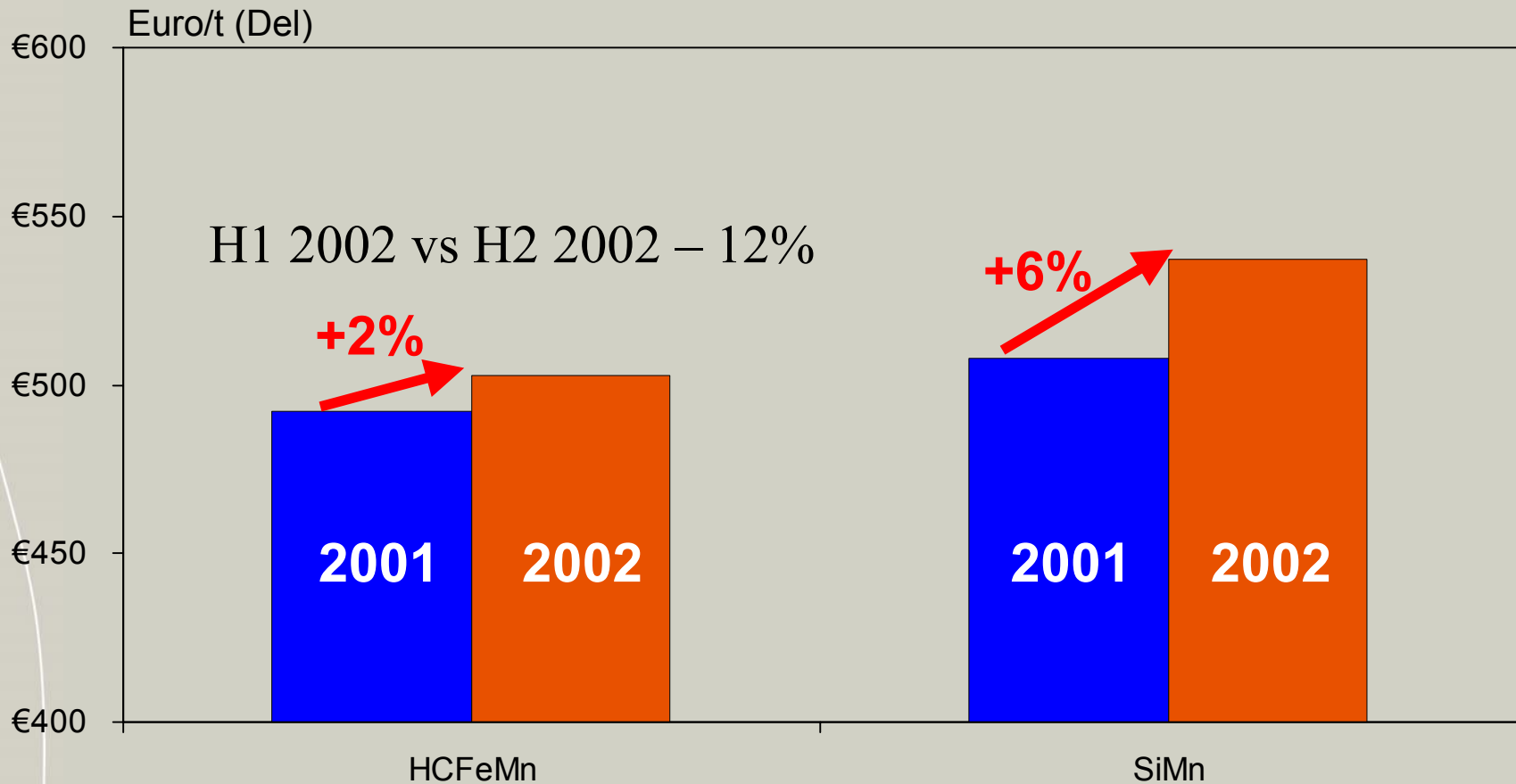


MANGANESE ALLOY INDUSTRY PRICING TRENDS – EUROPE MONTHLY

Supply tightness → significant price increase

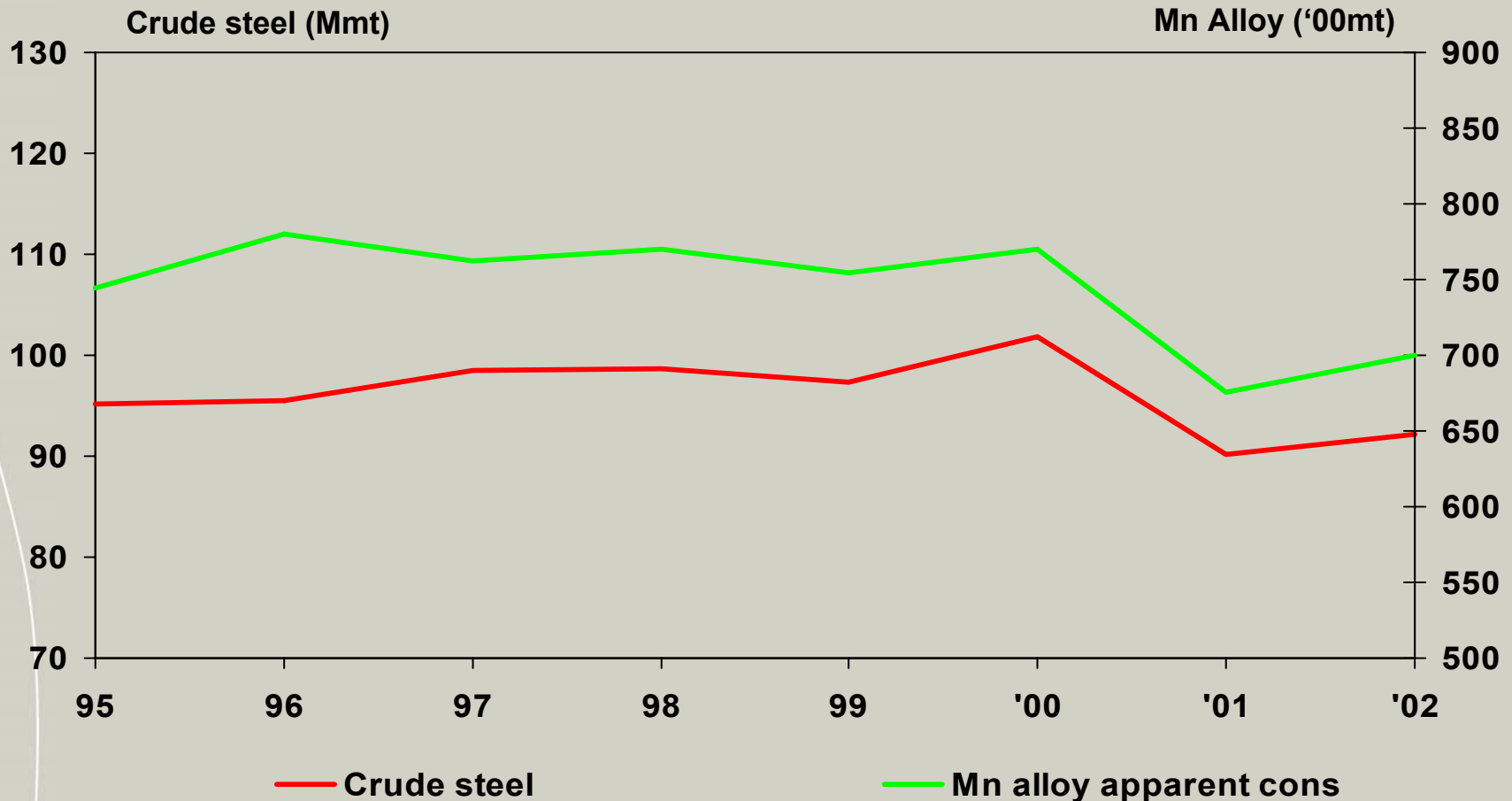


MANGANESE ALLOY INDUSTRY PRICING TRENDS – EUROPE 2001 vs 2002

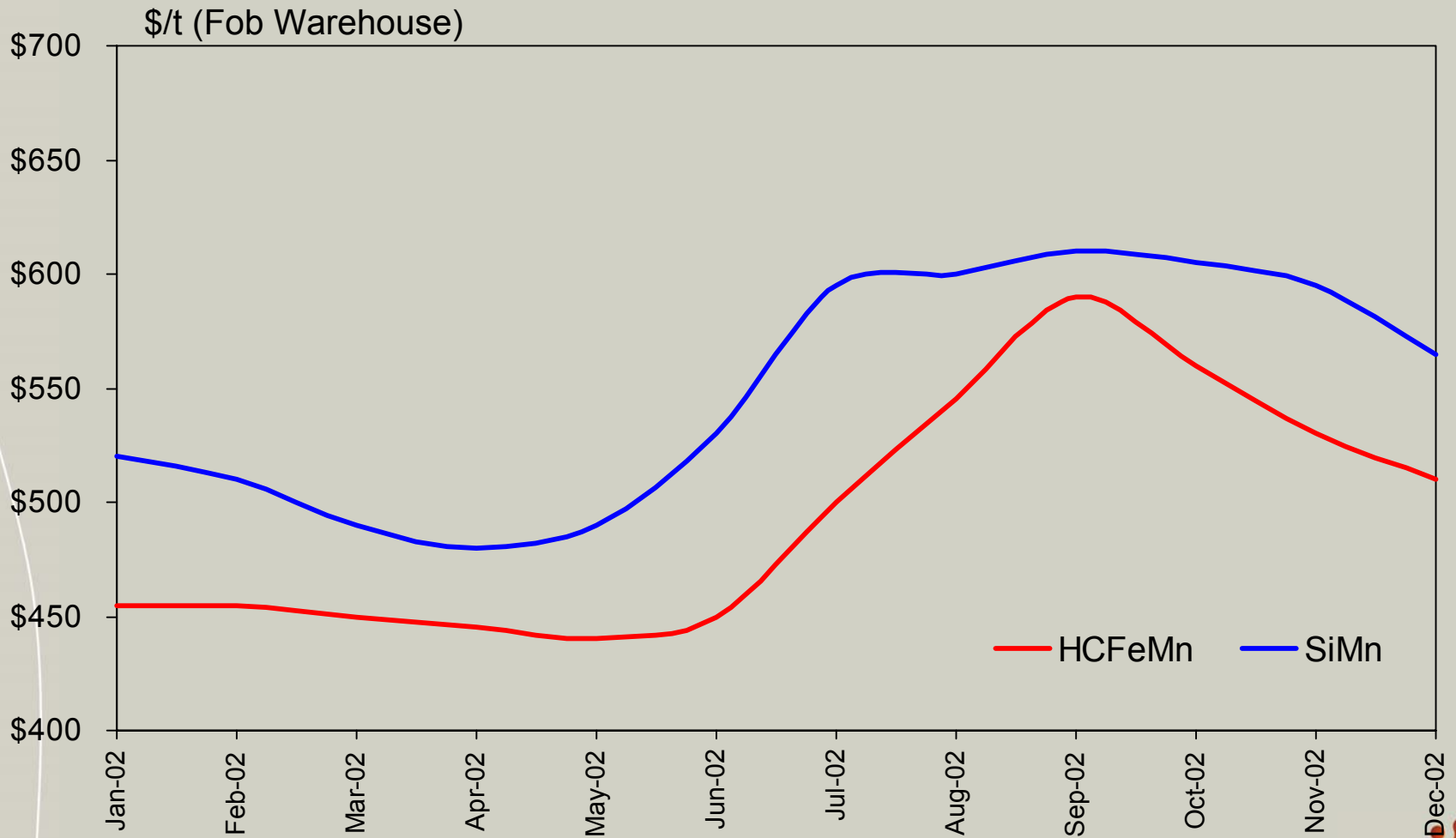


Mn ALLOY INDUSTRY USA

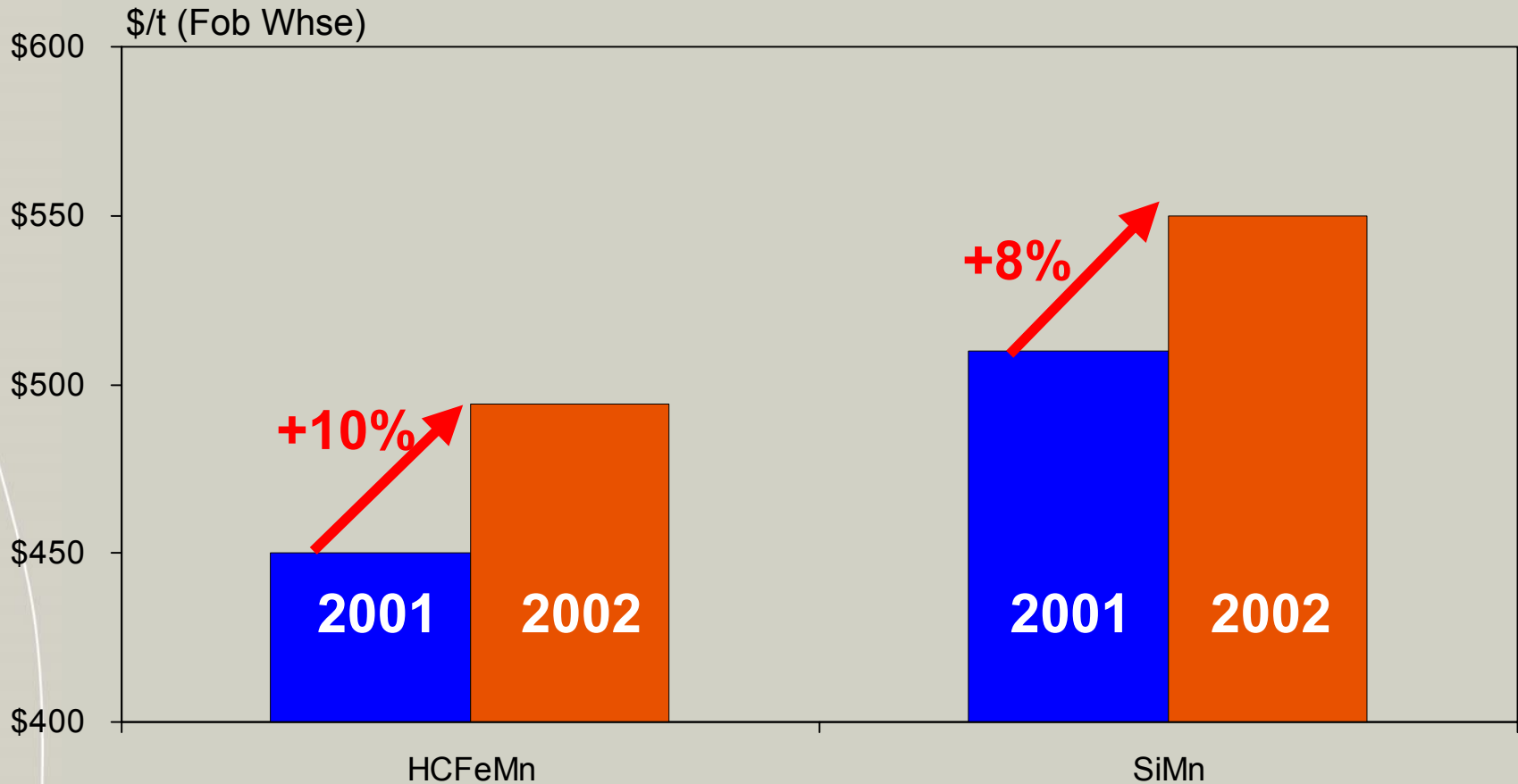
Marginal increase in crude steel output followed by Mn demand



MANGANESE ALLOY INDUSTRY PRICING TRENDS – USA MONTHLY

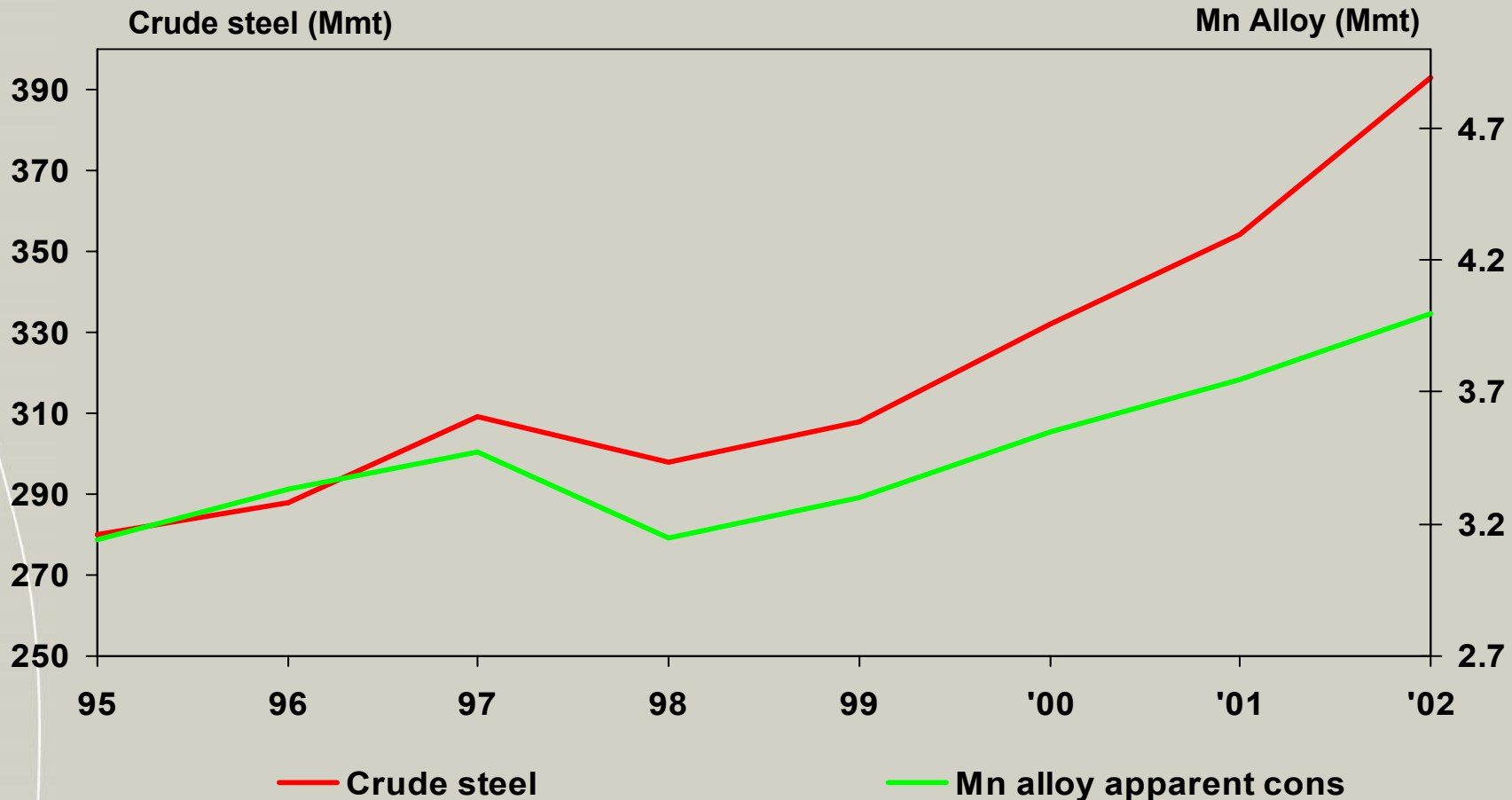


MANGANESE ALLOY INDUSTRY PRICING TRENDS – USA 2001 vs 2002



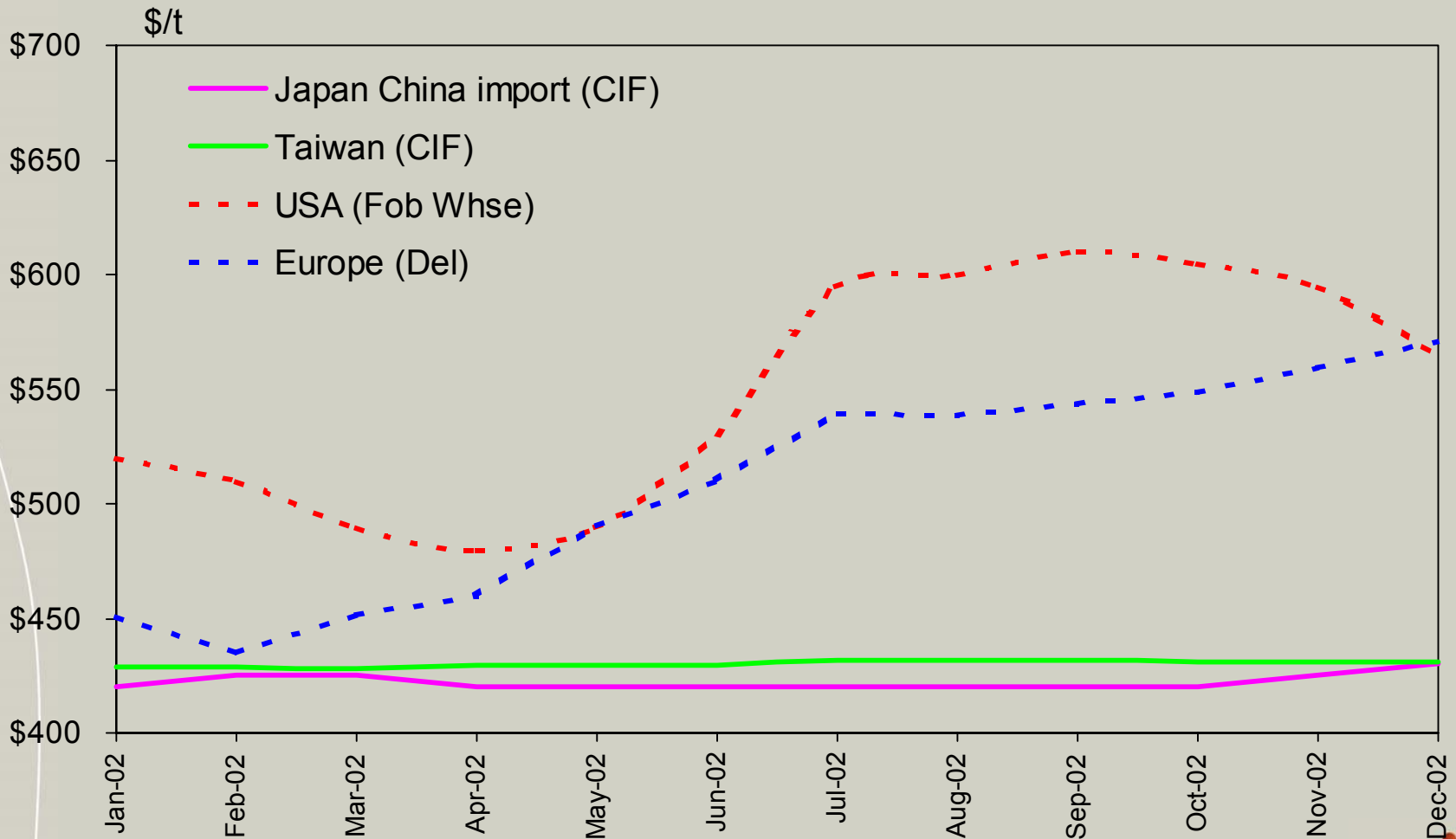
Mn ALLOY INDUSTRY ASIA

Significant steel demand growth in Asia – strong growth in alloy demand

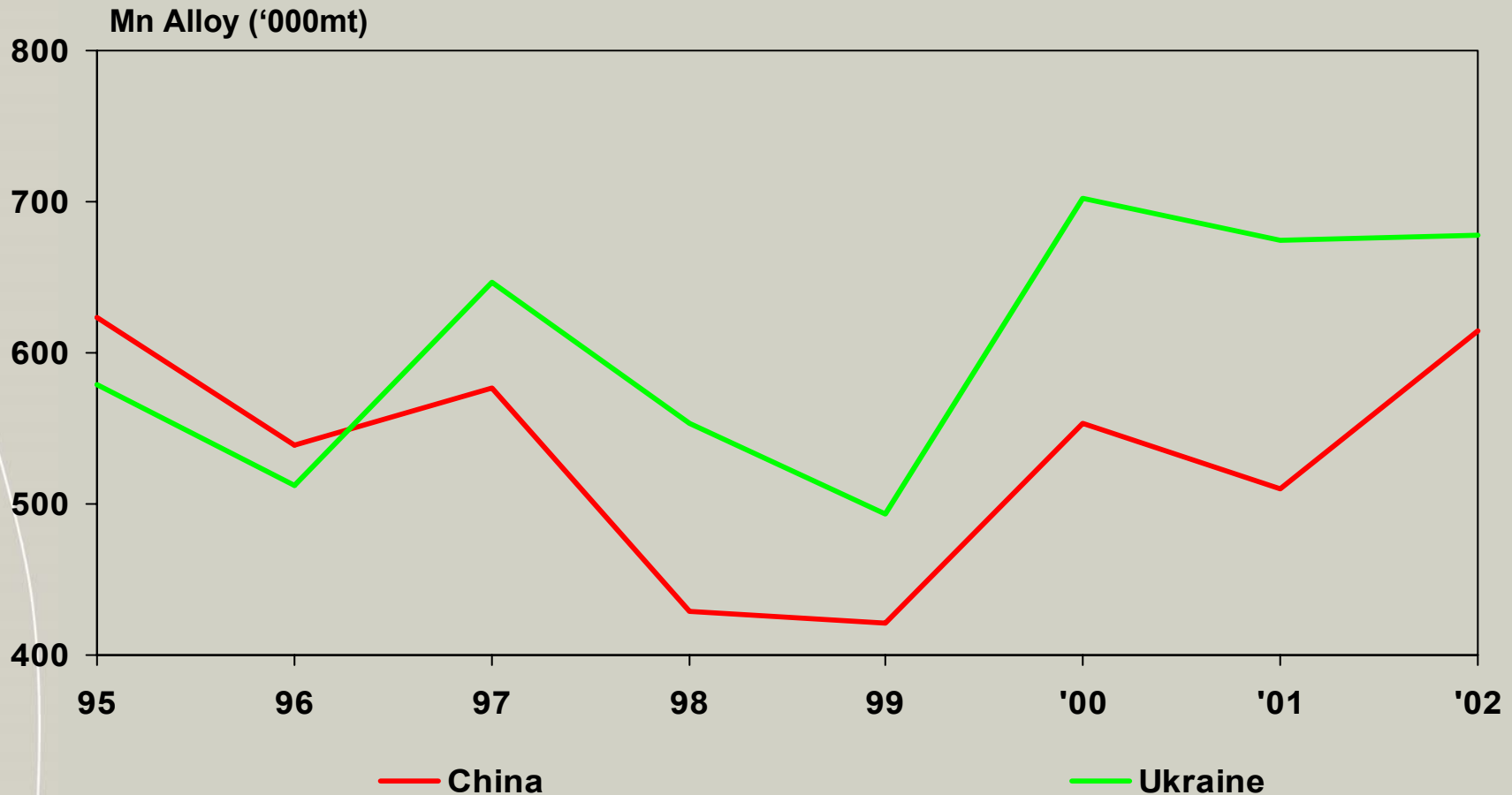


PRC SiMn PRICE IMPACT

Asia SiMn price levels stagnant compared to USA/Europe

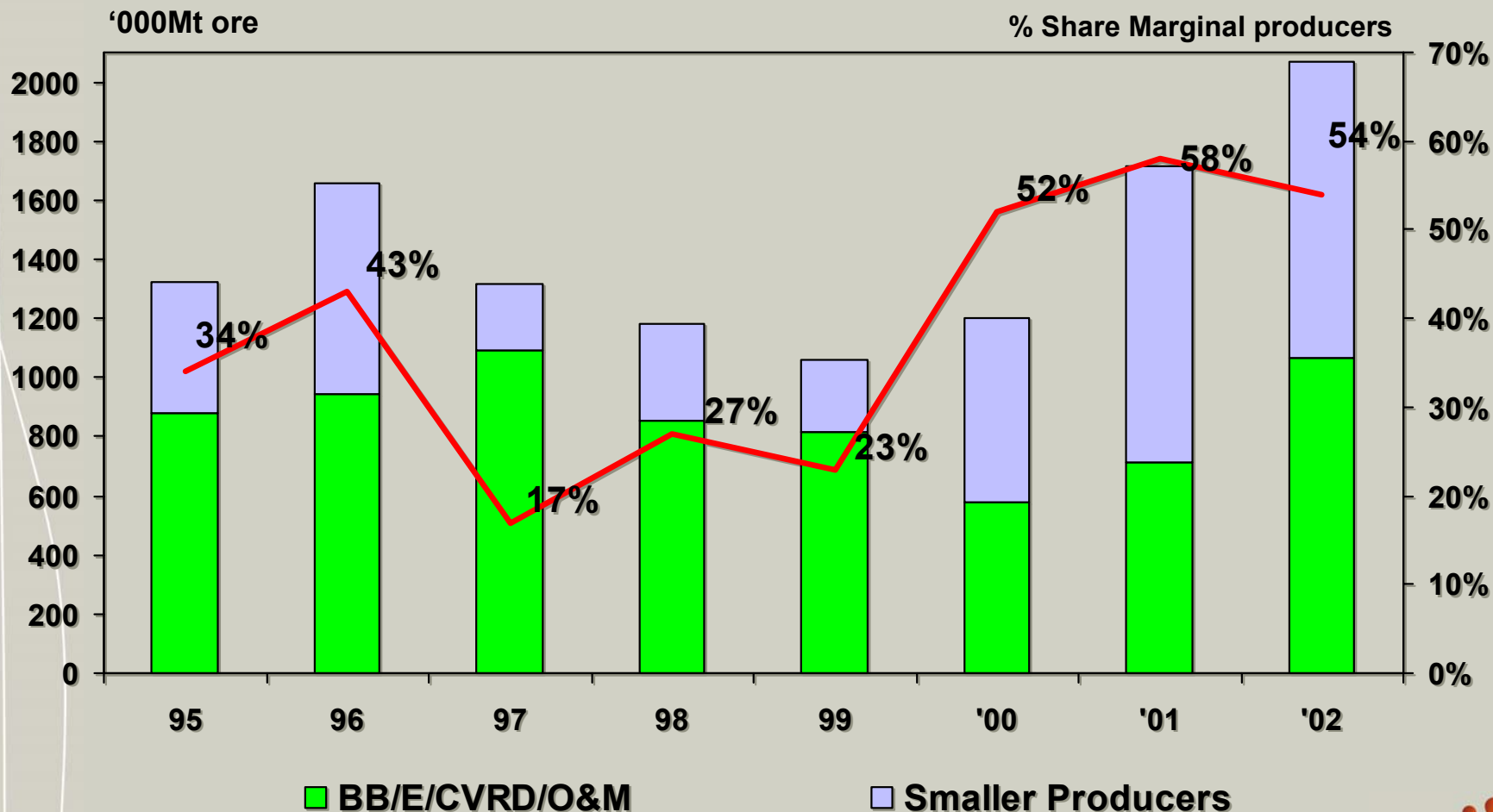


MANGANESE ALLOY EXPORTS UKRAINE/ CHINA



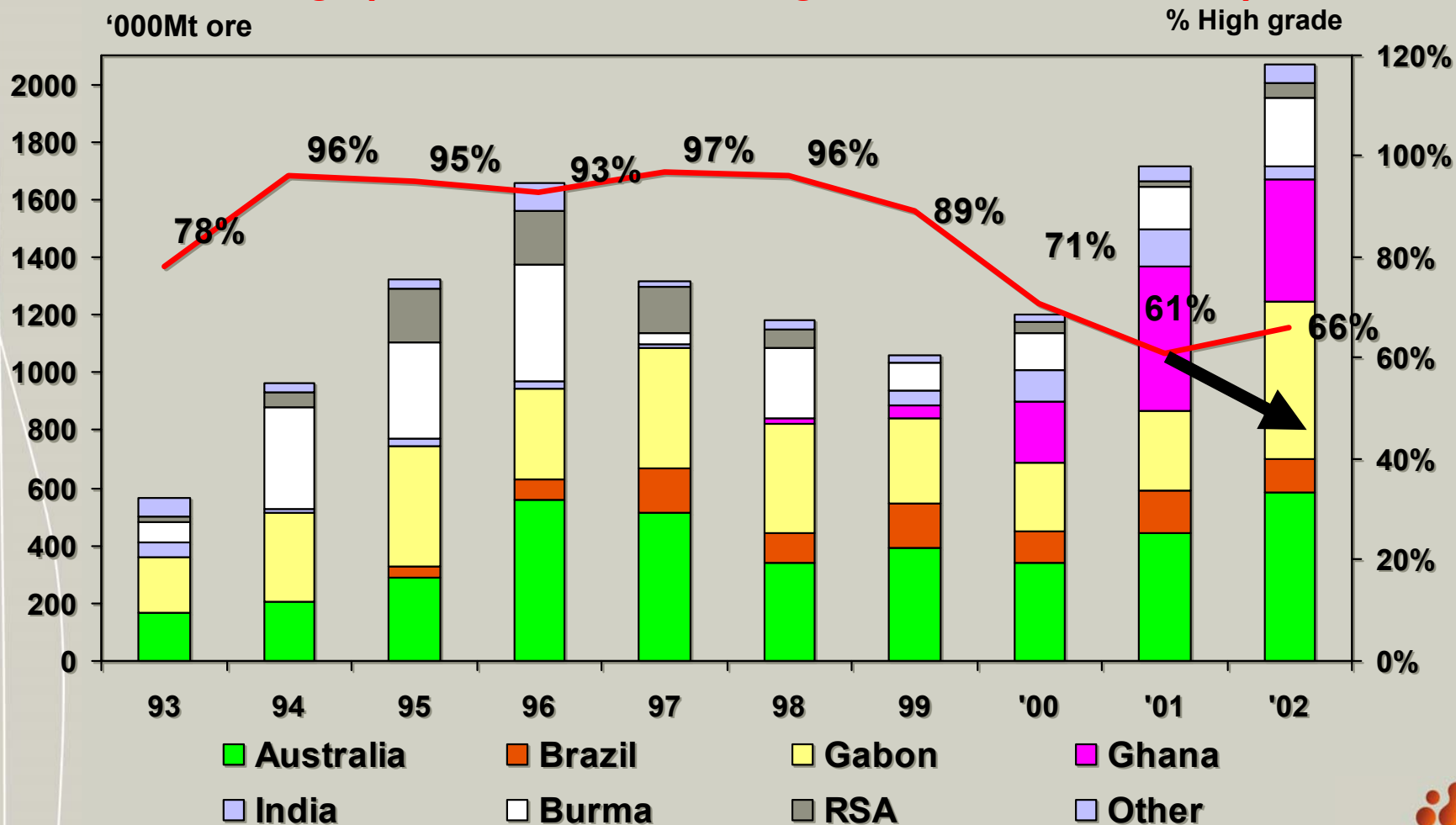
CHINA MANGANESE ORE IMPORTS

Ore supply into China is shifting from high grade to low/medium grades



CHINA MANGANESE ORE IMPORTS

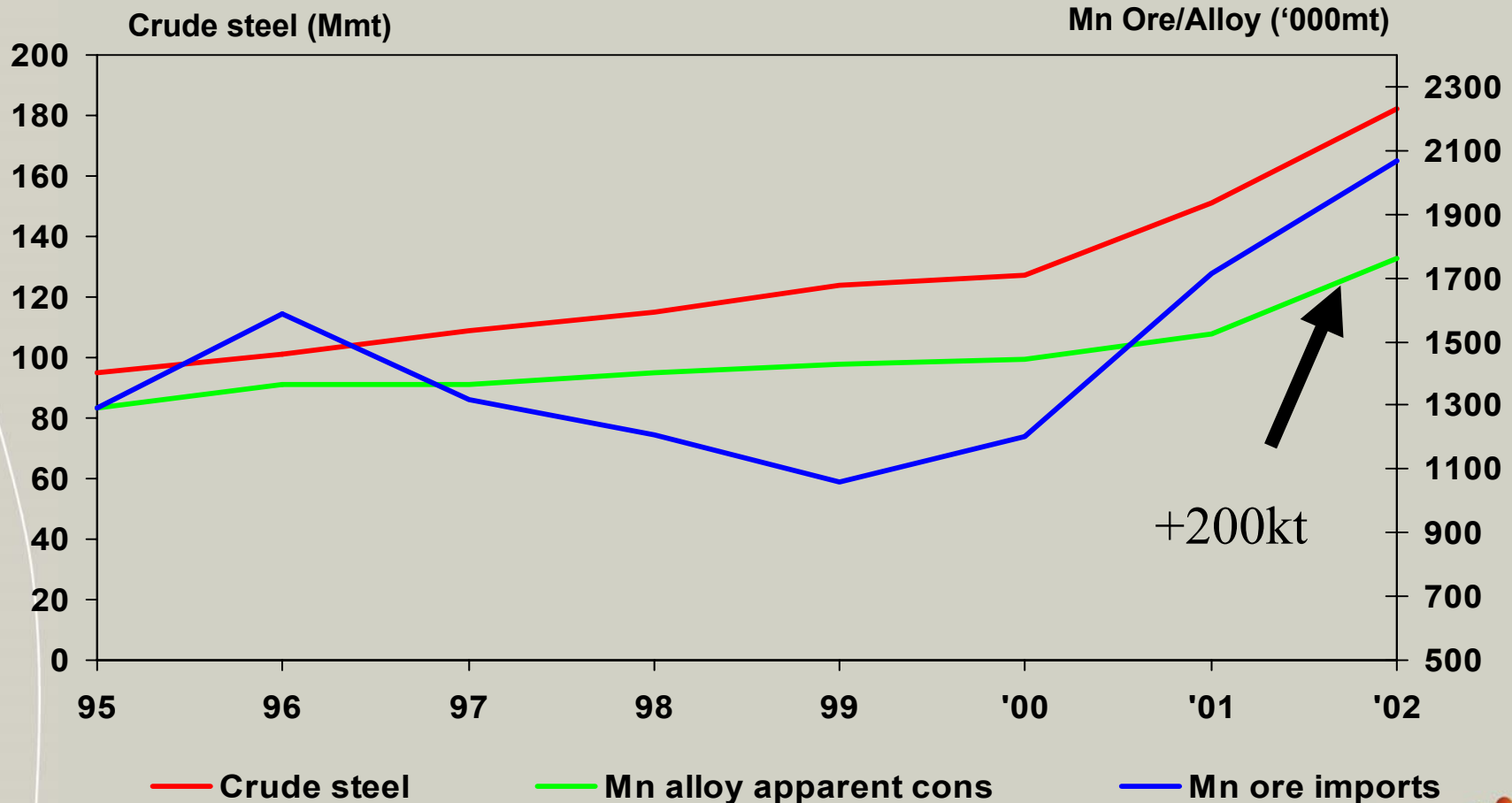
Composition of import ore grades shift from HG → LG
Even more than graph shows due to lower grade BB/E/CVRD ore exports



MANGANESE INDUSTRY CHINA

2002: +30 Mmt crude steel

→ Domestic alloy apparent demand increase 230Kt



CHINA Mn ALLOY INDUSTRY

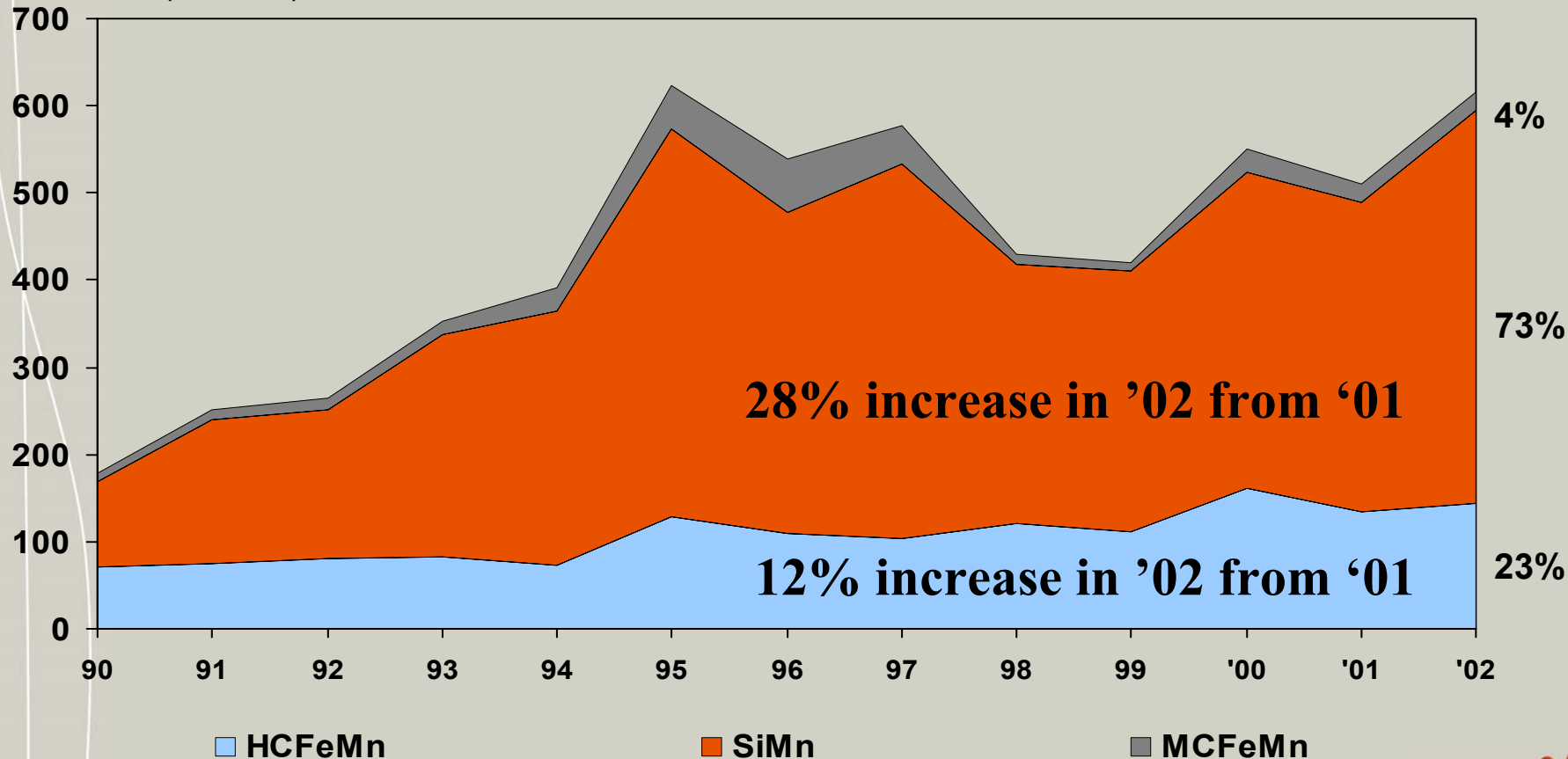
China's alloy capacity in drastic oversupply

	Capacity	Production	Demand	Exports	Excess
000 Mt	2002	2002	2002	2002	Cap vs Dem
HCFeMn	1,200	950	800	144	400
SiMn	1,500	1,130	679	451	821
Refined	150	137	117	20	33
Total	2,850	2,217	1,596	615	1,254

CHINA MANGANESE ALLOY EXPORTS

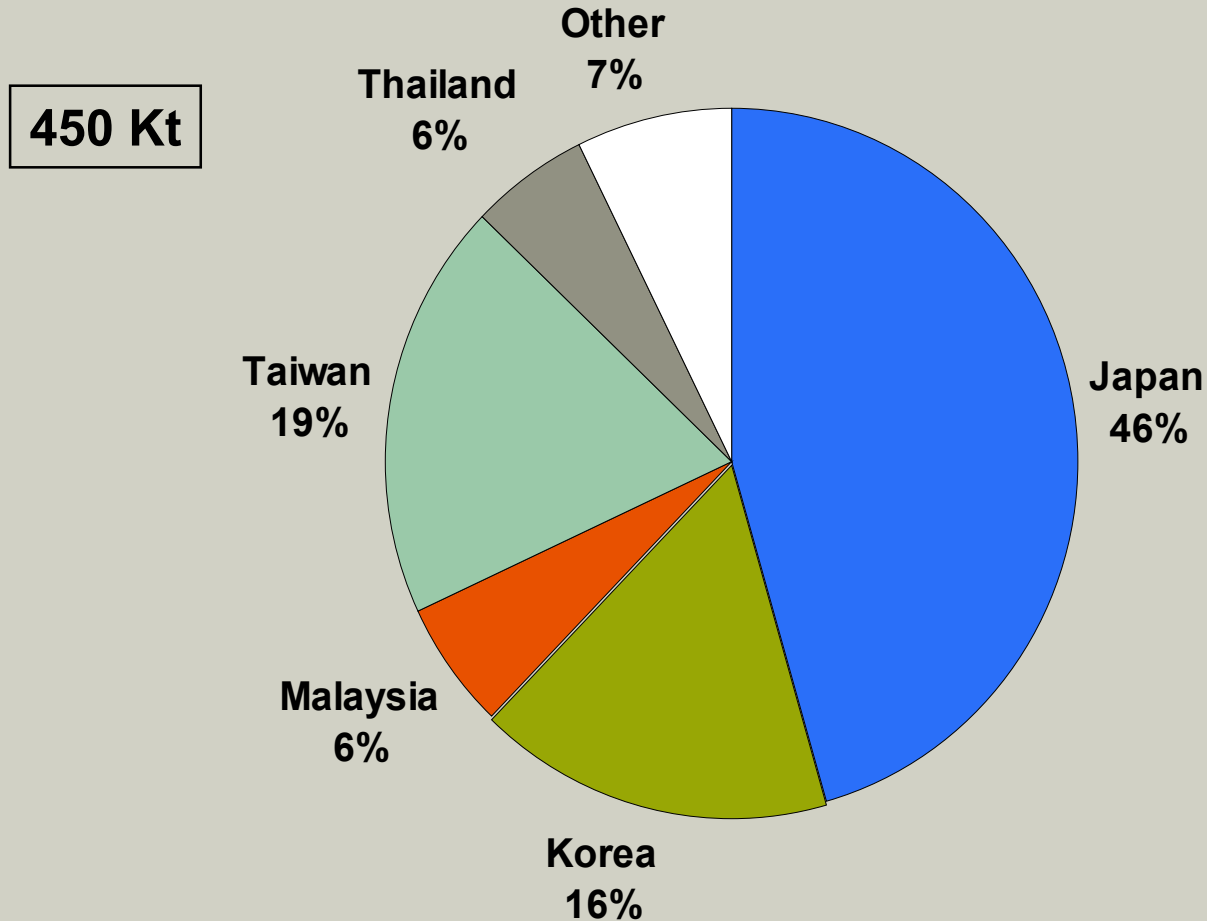
Excess capacity put to destructive use in 2002 ...alloy exports have increased by 100 Kt from 2001 → 2002

('000 Mt)



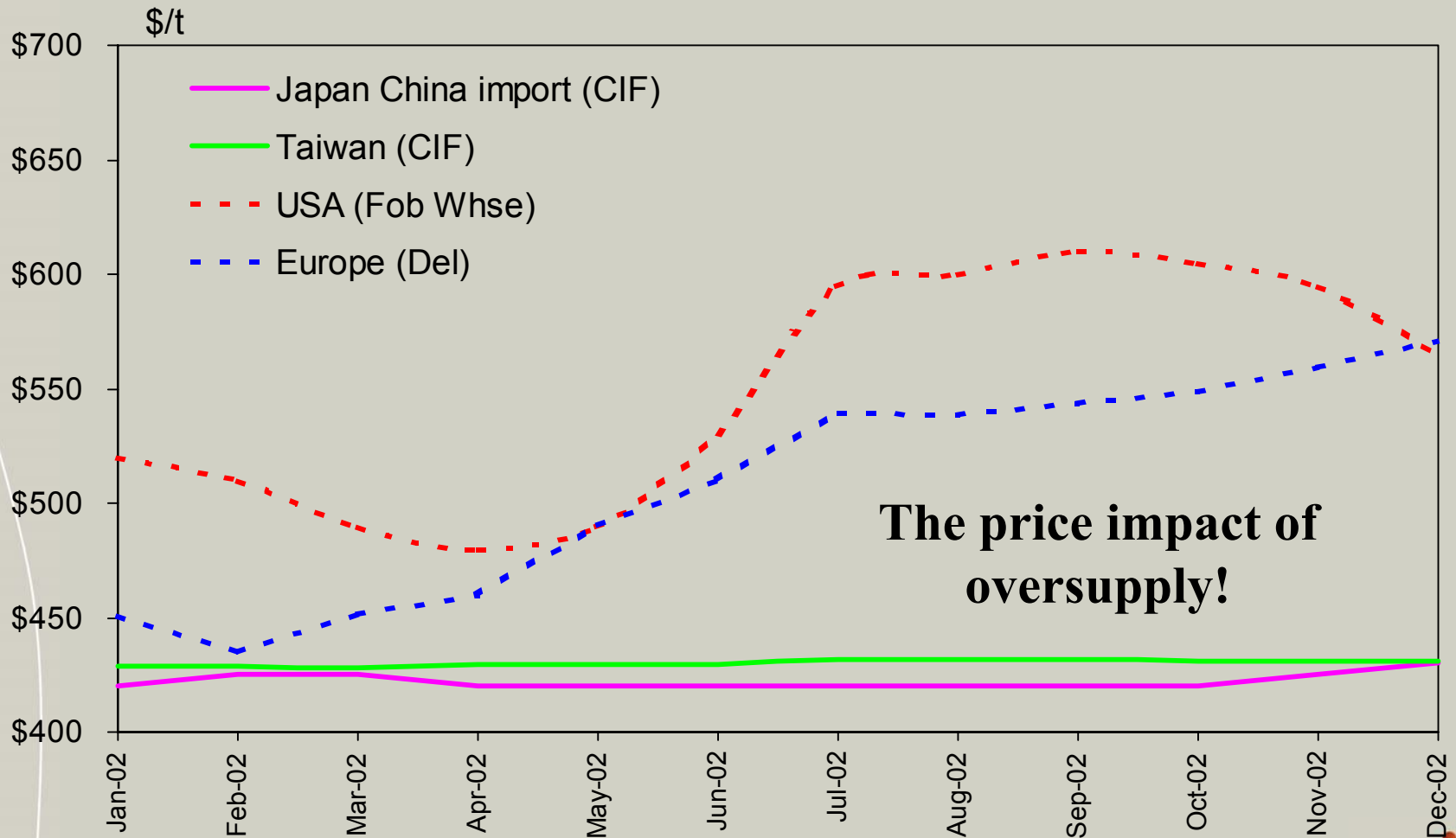
CHINA SiMn EXPORTS - 2002

Due to ADD PRC SiMn limited to Asian markets ... - Europe is coming?



PRC SiMn PRICE IMPACT

Asia SiMn price levels stagnant compared to USA/Europe



The price impact of oversupply!

CHINA MANGANESE ALLOY INDUSTRY

China's Mn alloy industry is at the cross-roads

- **Traditional SOE situation continues to be difficult due to**
 - **historical debts a huge burden, continued cash flow and finance problems**
 - **inefficiencies of the 'past' model continue to exist**
 - **exports driven by cost-plus pricing attitude**
 - **lack of funding and export market knowledge/expertise**
- **"New" model of large private enterprise smelters not yet sufficiently developed – private entrepreneurs and leasing of 'bankrupt' furnaces**
- **migration of smelters from North to South slowed down, interference of government in power price structure (Guangdong)**



CHINA MANGANESE ALLOY INDUSTRY

China's Mn alloy industry is at the cross-roads

- traders continue to '*run*' the export alloy industry – they provide financing role and manage the full export supply chain – little participation from and perceived transparency for the smelters – traders often act opportunistically without consideration for global/regional balances
- There are still hundreds of unregulated and uncoordinated small scale alloy smelters scattered around China - consolidation of the alloy industry was much anticipated but to date has not fulfilled its potential
- despite of government initiatives small furnaces continue to operate, environmental regulations are loose, capacity expansion and new capacity additions commonplace



CHINA MANGANESE ALLOY INDUSTRY

How to improve the situation? Some suggestions.

- Continue industry restructuring efforts
- Government and smelters to develop a longer term view on the industry, understand China's role in the global supply picture and model the impact of increasing alloy exports on the regional and global alloy prices
- participation in industry forums, e.g. IMnI
- Environmental and technological improvements
- Further consolidation to create bigger, more competitive and focused smelters
- Individual smelters need to
 - Increase understanding of the global picture and export markets
 - increase transparency and direct rather than follow the activities of traders
 - Understand value of their products, markets and customers
 - Take charge of the export supply chain



Thank You

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