

# Presentation to Metals Finance 2006 Annual Conference

## The Impact of Consolidation on Steel Prices

April 25, 2006



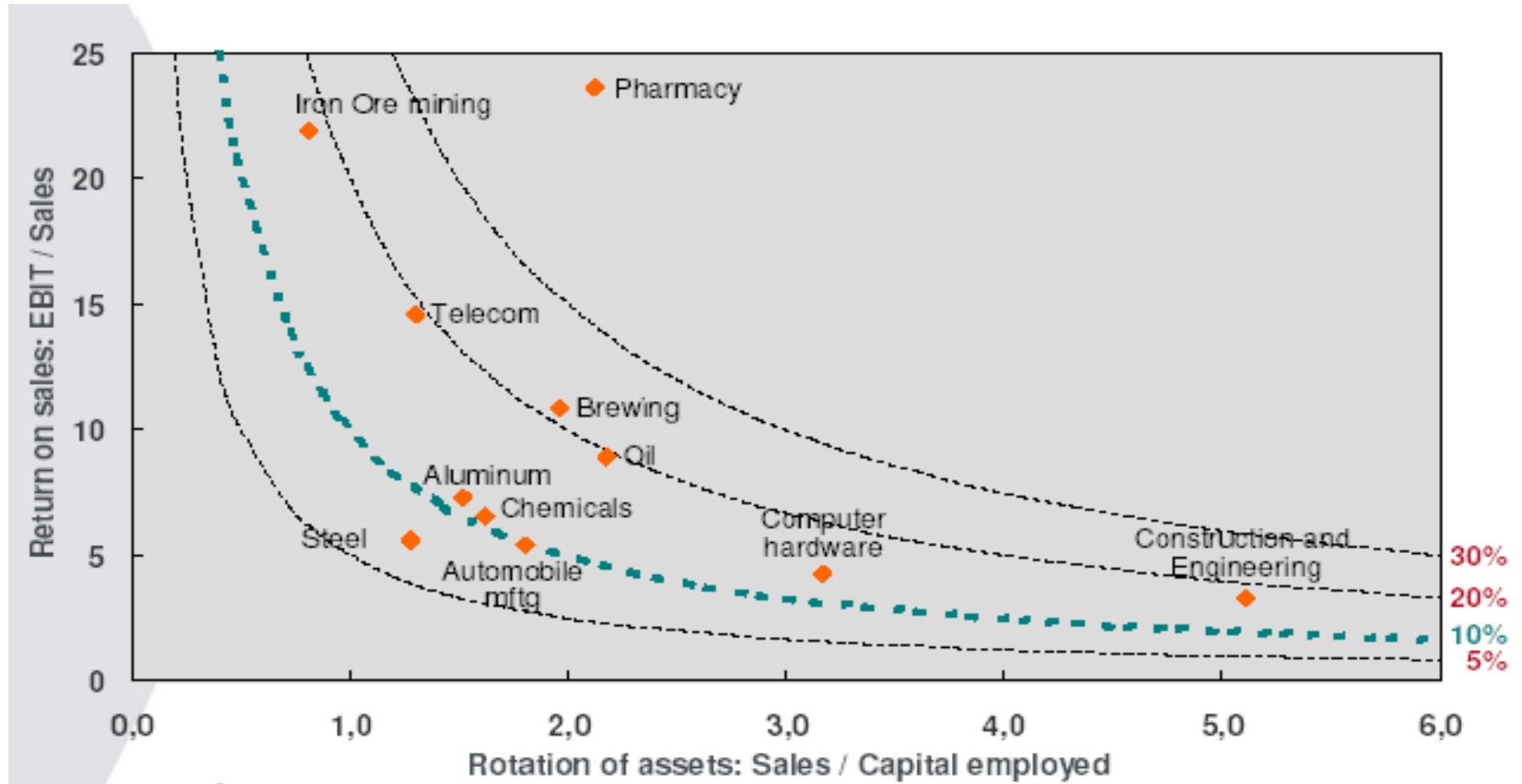
Dick McLaughlin, Director  
Hatch Associates - Pittsburgh

# Hatch Beddows

## Key Questions

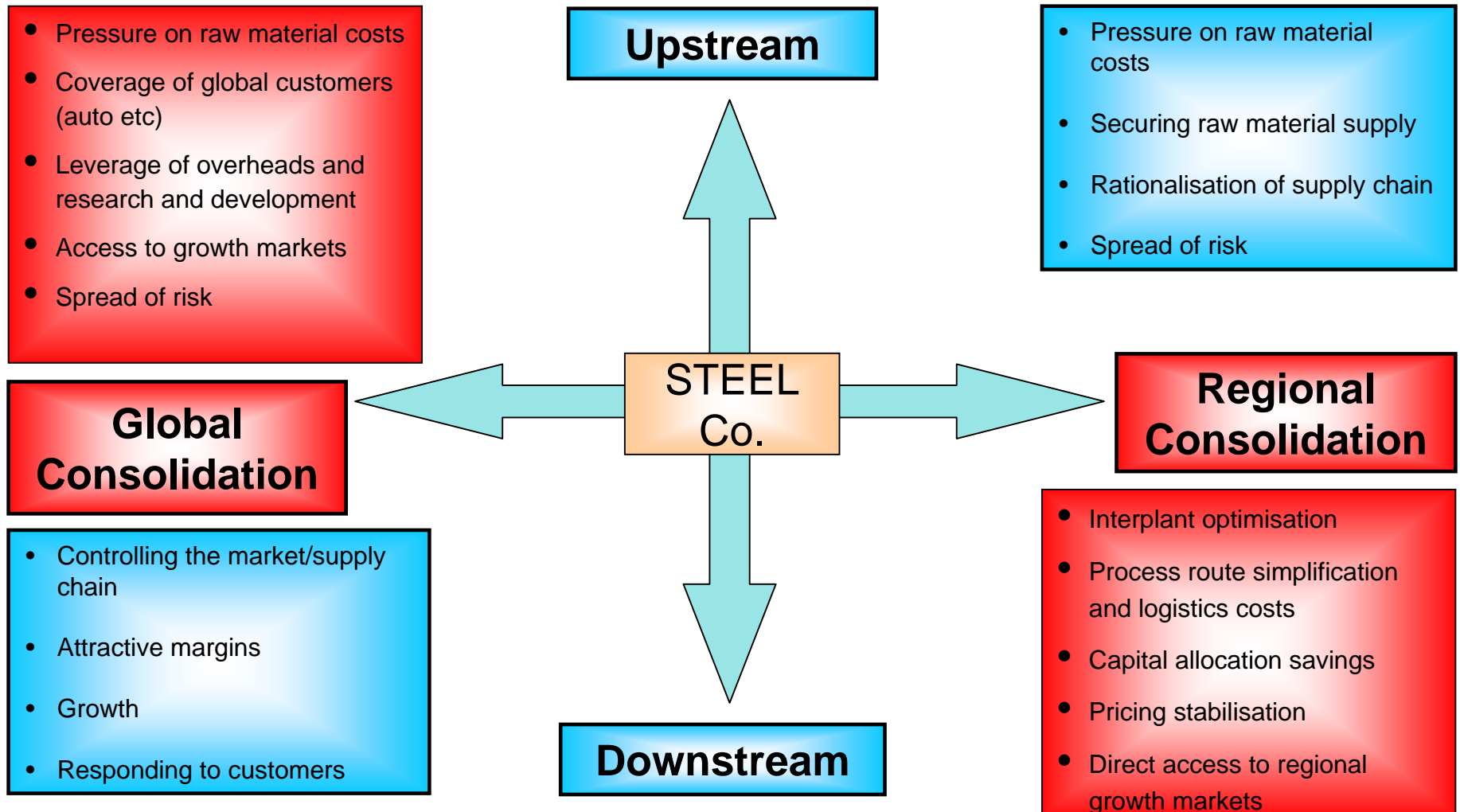
- What are the theoretical effects of consolidation on prices?
- Are they reflected in any steel-related industry that has achieved an “optimum” level of consolidation?
- What are the implications for future steel prices and spreads?

# Historically, the steel industry has not been able to pay the cost of capital across the cycle

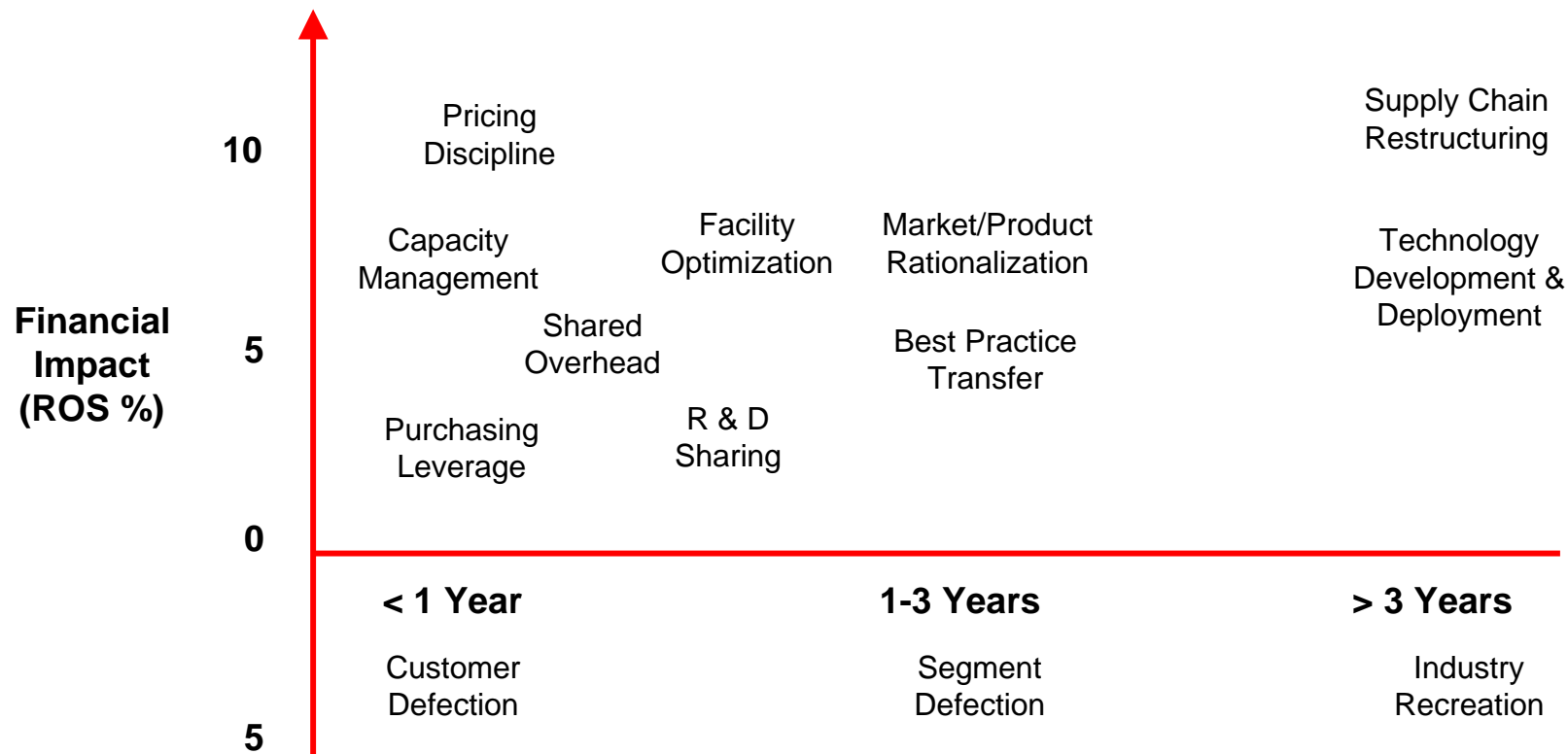


Source: Arcelor and Hatch Beddows

# Potential consolidation opportunities theoretically exist in four dimensions

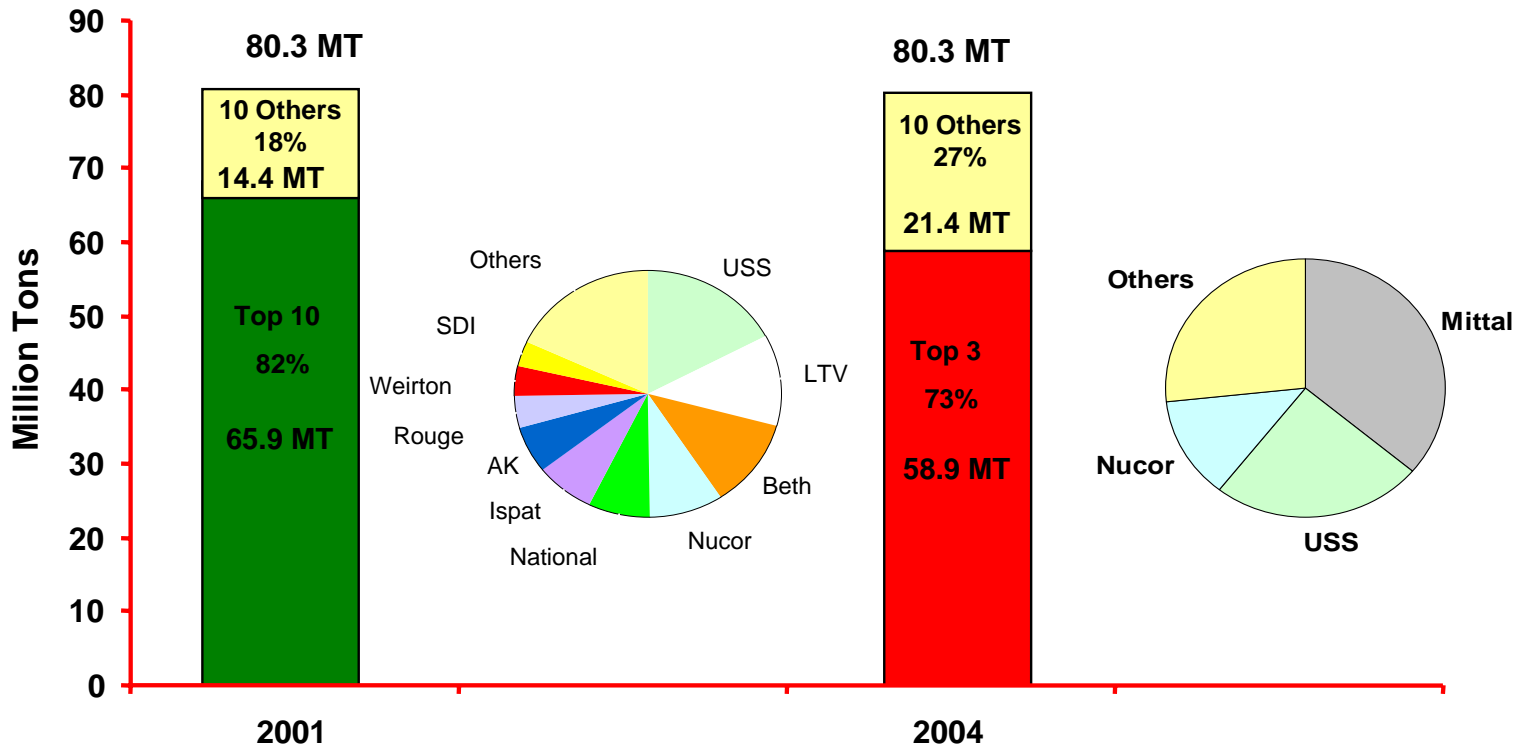


# The theoretical benefits of industry consolidation are diverse, with different degrees of potential financial impact



In the US, flat products consolidation has been especially significant; the “Big 3” already represent nearly ¾ of capacity

U.S. Flat Products Steelmaking Consolidation 2001 and 2004

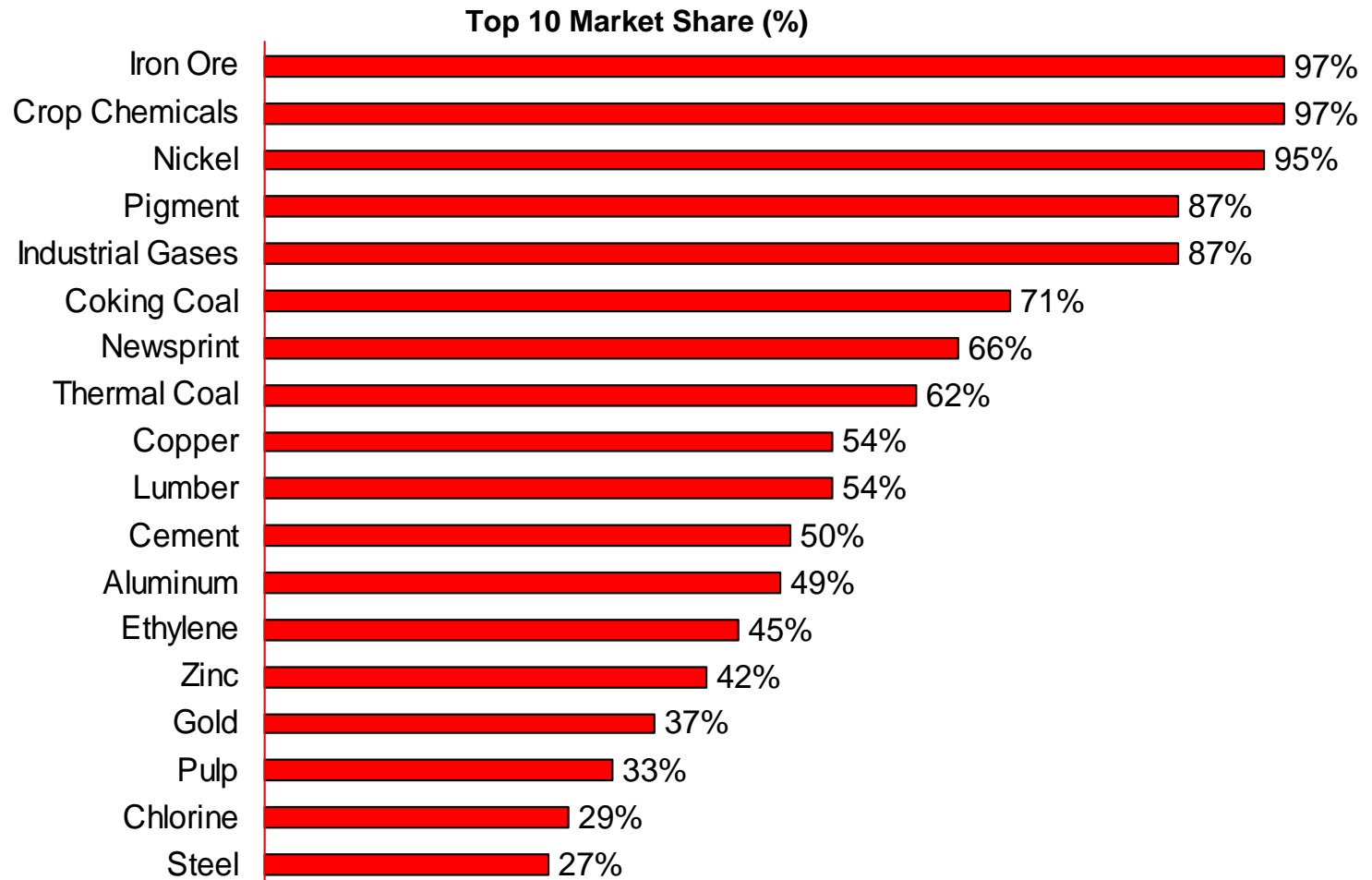


Source: AISI and Hatch Beddows

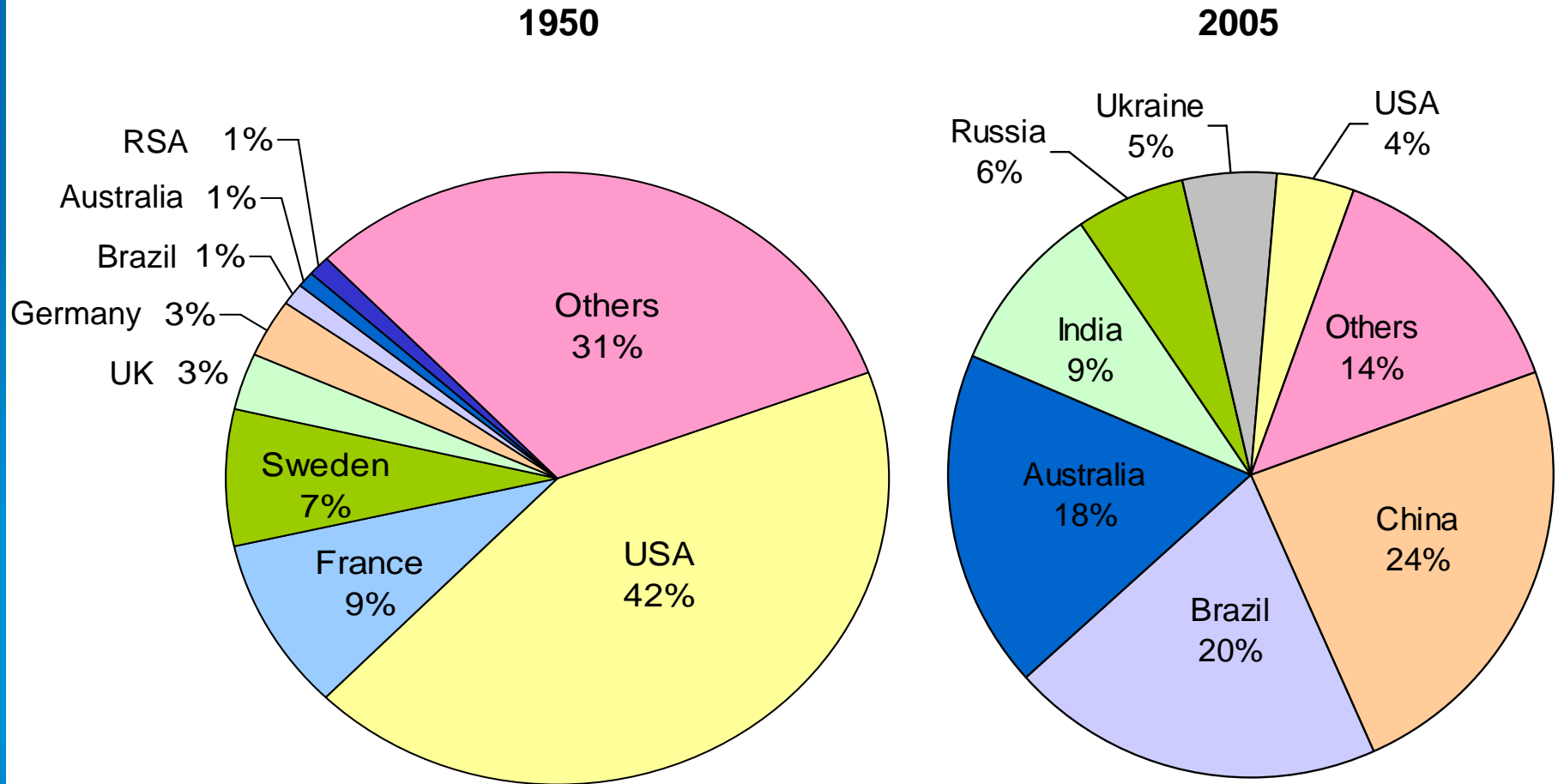
# The evolution of US automotive steel supply – concentration and better balance of supplier/customer power – should support significantly better margins for steel suppliers

2001	2005
LTV – Cleve. LTV – IH	M/ISG – BH M/ISG – Cleve. M/ISG – IH M/ISG – Inland
Beth – BH	
USS – Gary	USS – Gary USS – GL / MW
National – GL	AK – Middletown AK – Rockport
Ispat Inland	Severstal
AK – Middle./Ash. AK – Rockport	Stelco
Rouge	Arcelor
Stelco	
Dofasco	
# Mills: 11 # Owners: 9	# Mills: 11 # Owners: 6

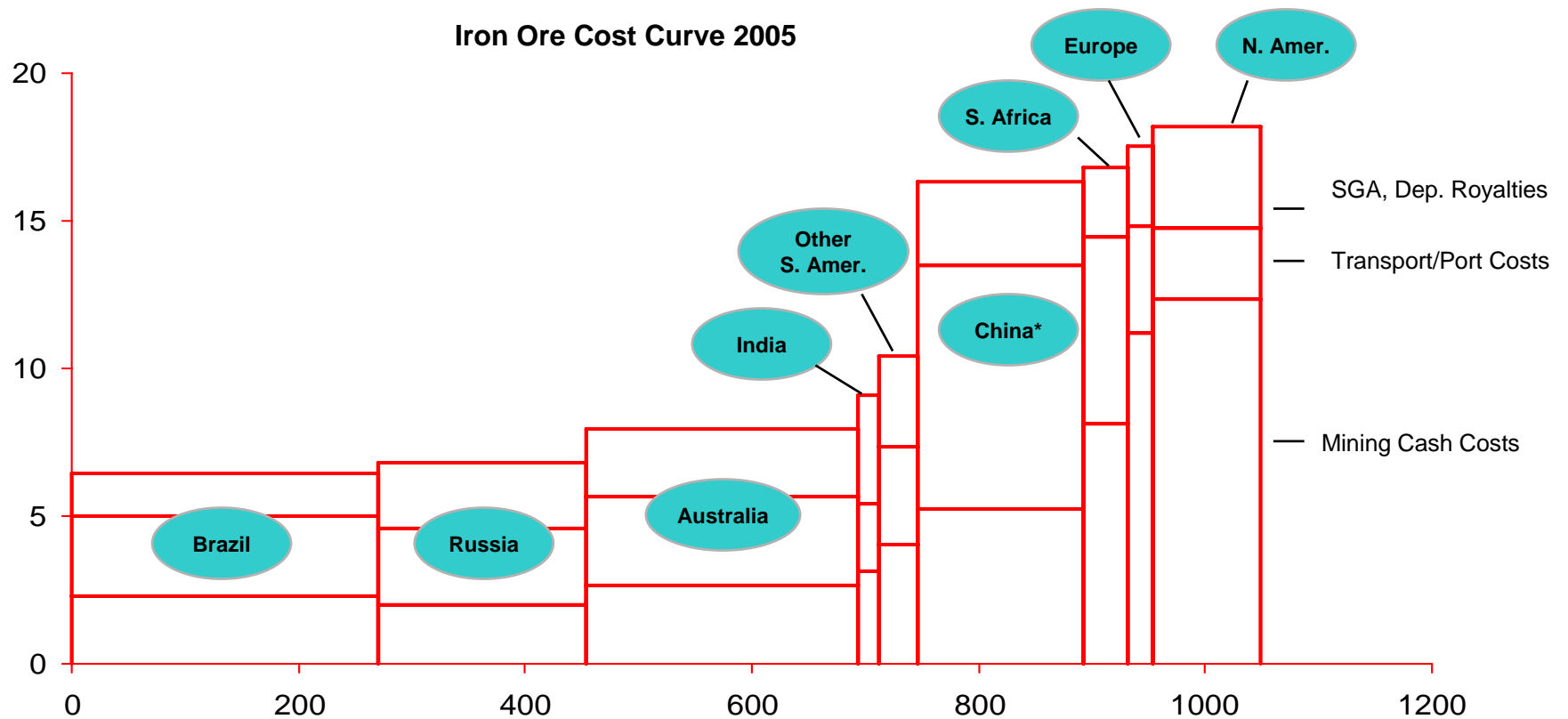
# Globally, however, the steel industry is less concentrated than other base materials industries by a substantial margin



In half a century, global iron ore production has shifted from domination of production by steelmaking countries to those regions of the world with higher quality and higher volumes of ore

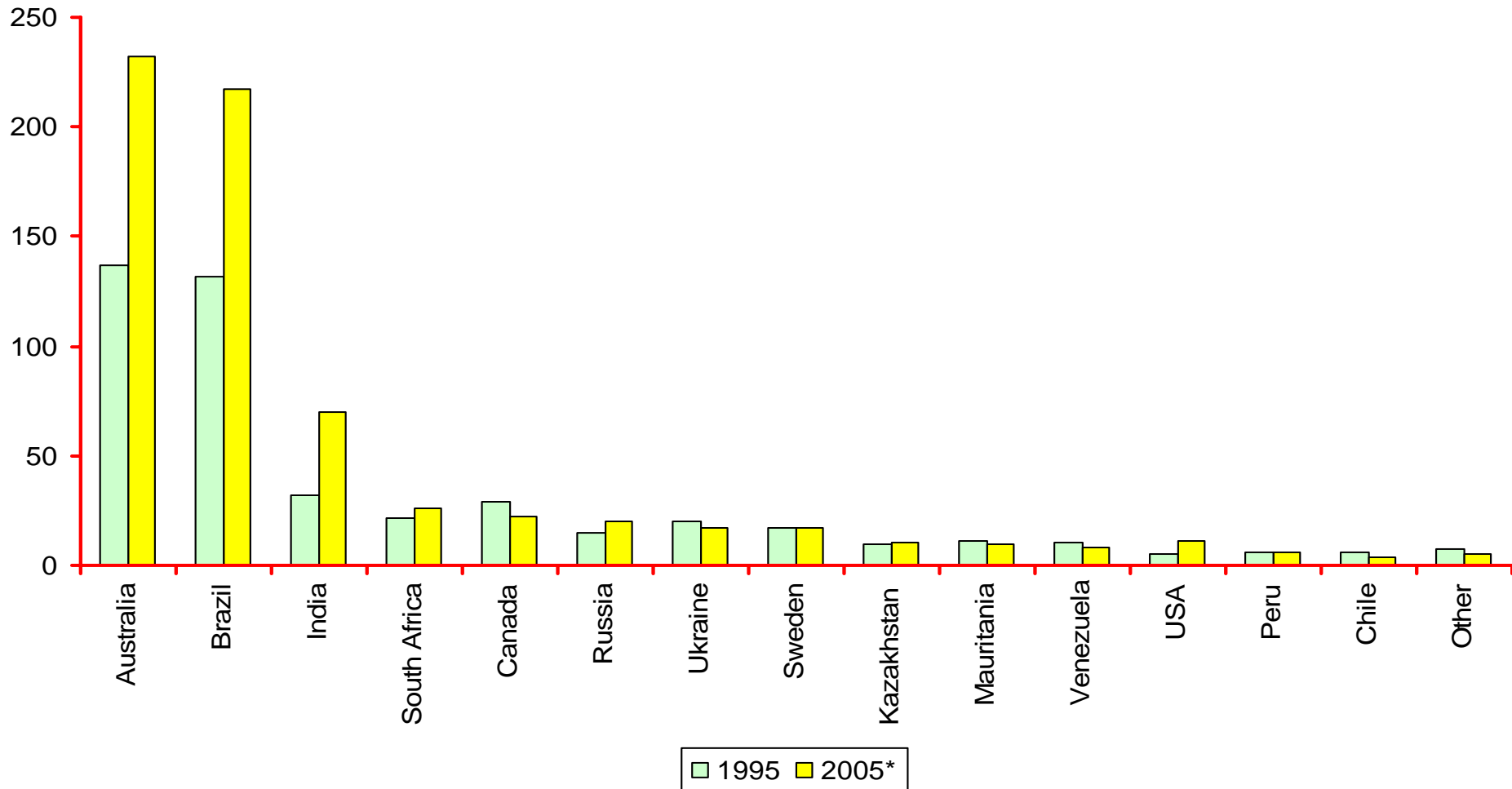


**Russia, Brazil and Australia are the global ore suppliers with a significant cost advantage (50% lower) over other regions of the world**

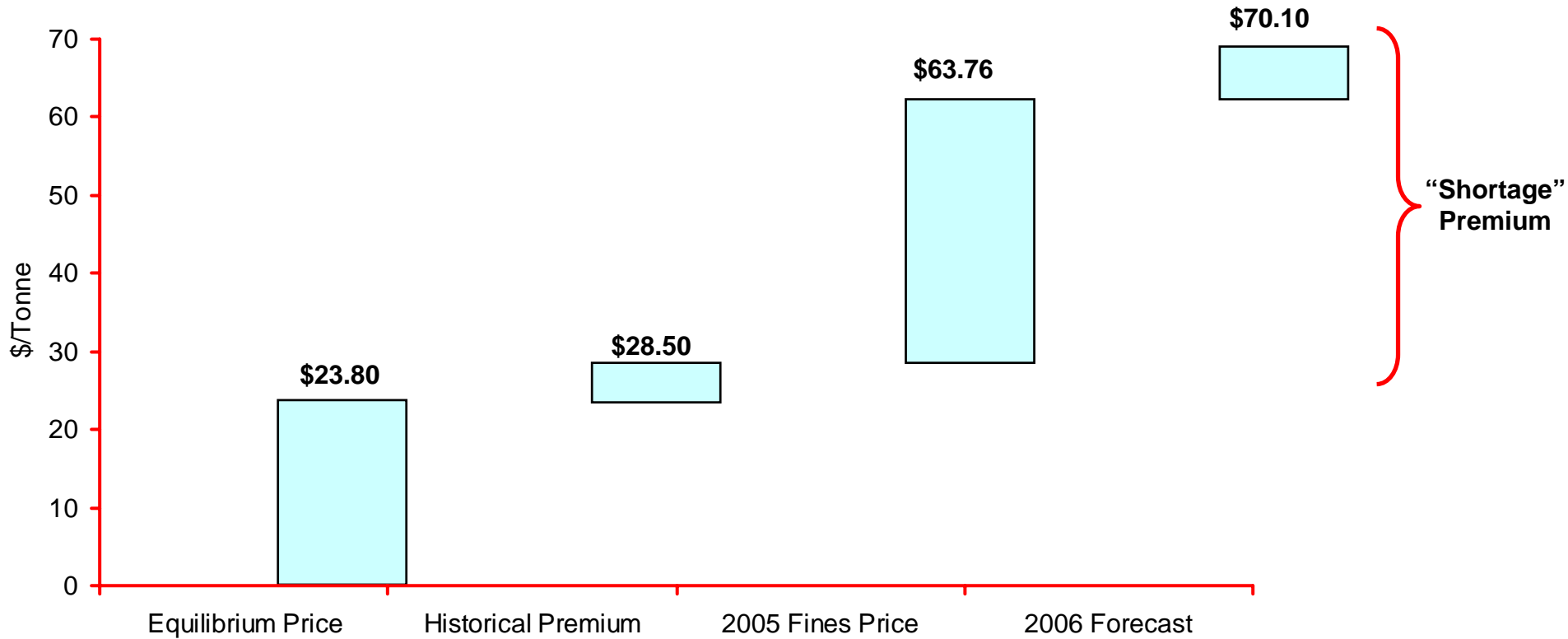


\*Adjusted for Fe content approximately 1/2 that of seaborne ore

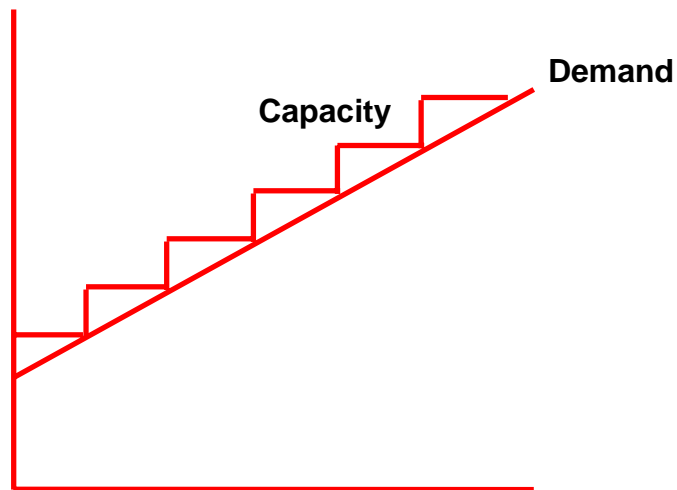
From 1995 to 2005 global iron ore trade has increased by 220 MT or 48% to 676 MT, with Australia and Brazil now representing nearly ¾ of seaborne trade



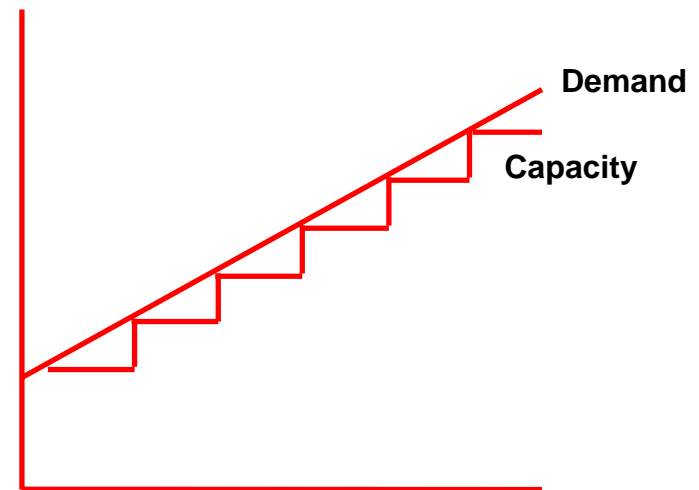
**Our analysis of iron ore prices suggests that historical ore prices have suggested a 20% premium to a theoretical price – full cost and return on capital – recent prices reflect shortage conditions (real or perceived)**



**The most damaging aspect of a fragmented industry – especially one with a history of government participation – is the tendency to build capacity ahead of demand**



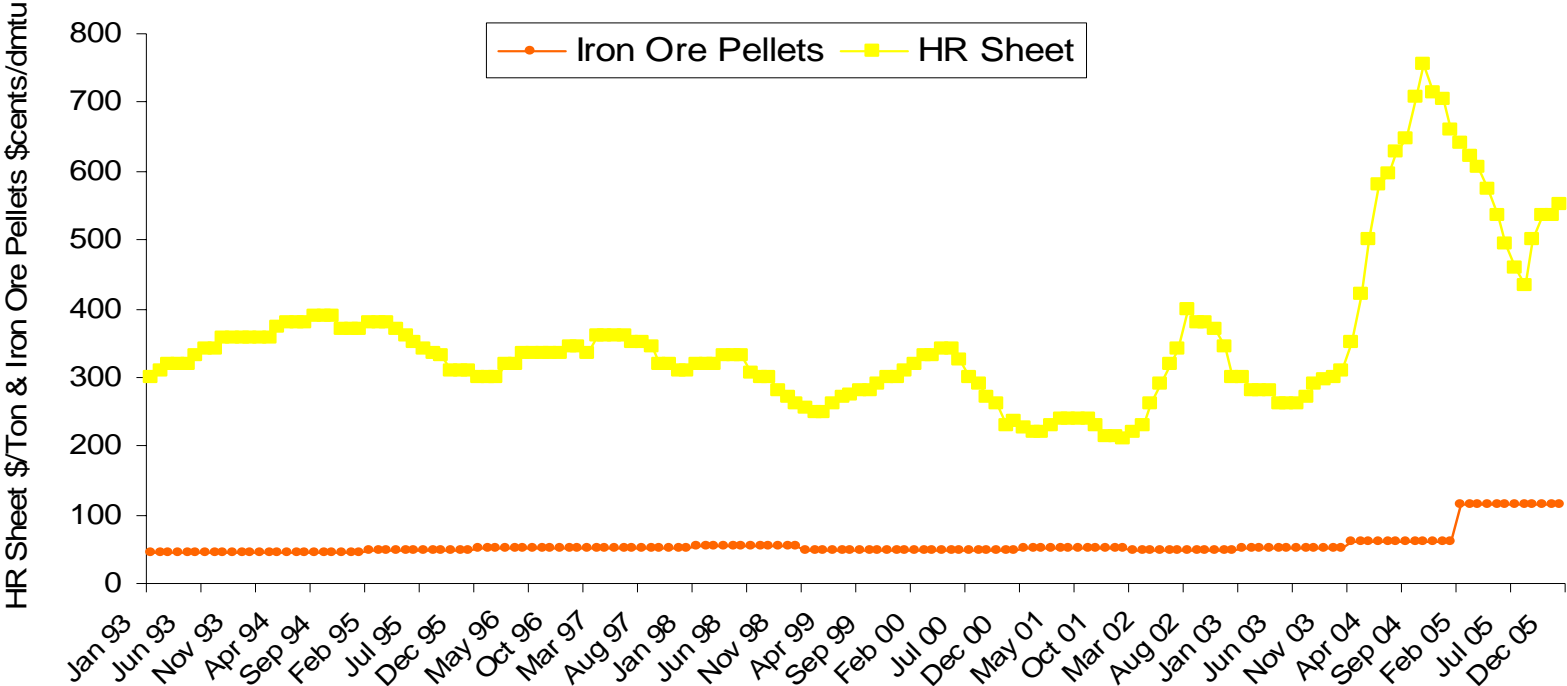
**Fragmented Industry**



**Consolidated Industry**

The historical volatility of steel prices creates stress not only for producers, but suppliers, customers, investors, lenders. . . .

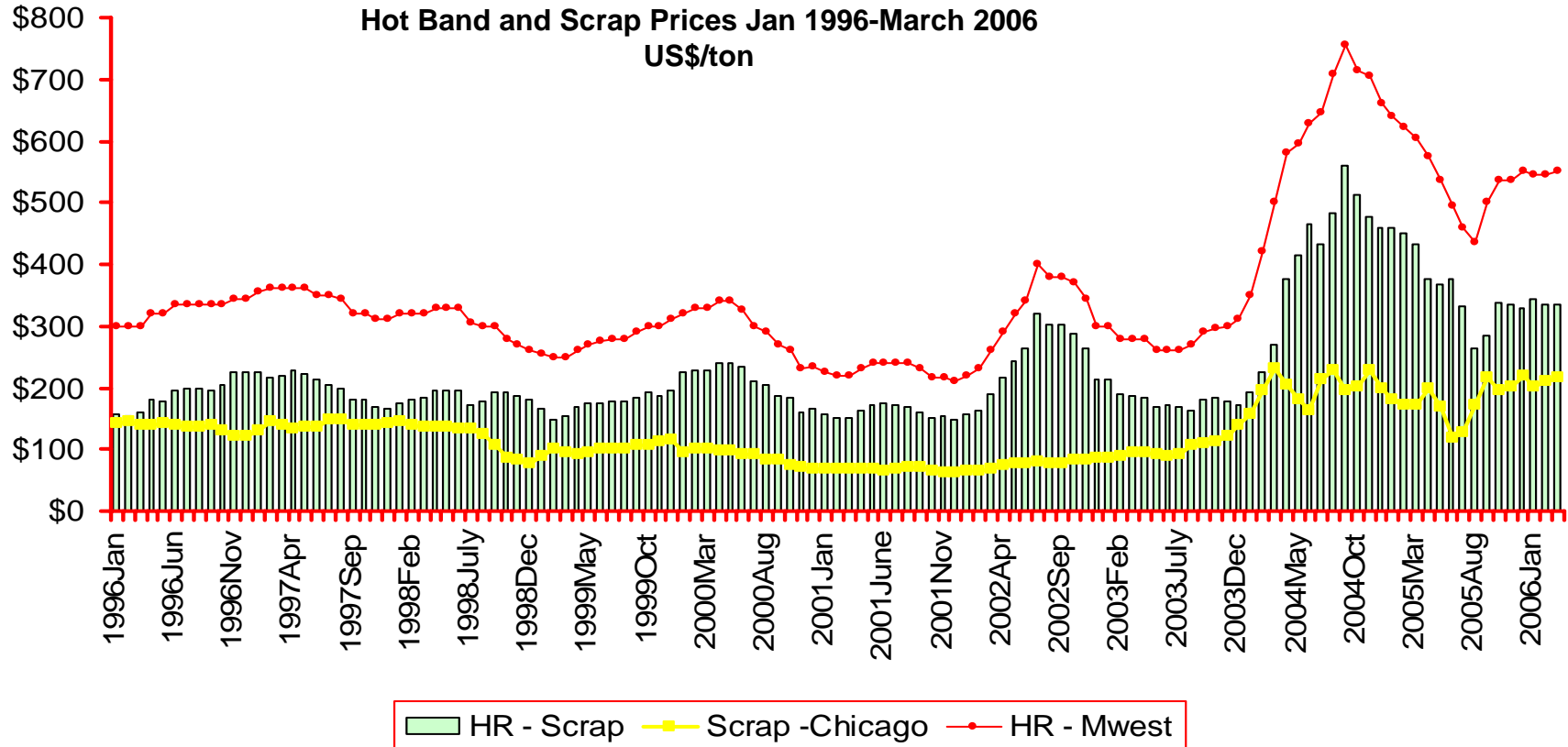
Iron Ore Pellets and HR Sheet Prices



## **Scrap prices are subject to two dynamics that should exert sustained downward pressure over the medium term, making EAF producers the “price leaders” of the industry**

- **Scrap substitutes**
  - At current scrap prices, it is economical to restart dormant DRI/HBI capacity
  - At natural gas prices of Venezuela and Trinidad, cash operating costs of \$125 - \$140/tonne are estimated
  - Capital, depreciation and other fixed costs yield a profitable business at sales prices of approximately \$220/tonne FOB
  - This suggests a “cap” of high quality scrap (#1 bundles) at approximately \$200/gross ton
- **Scrap supply**
  - Scrap prices above \$200/ton have historically created an increase in domestic supply (e.g., more of the reservoir is collected and processed)
  - Minimills are establishing direct ownership of iron supplies (e.g., Nucor – pig iron, Hismelt; SDI – Mesabi nuggets)
  - Worldwide, substantial scrap reservoirs (e.g., Former Soviet Union) are being recycled in greater quantities and with greater efficiency

**We expect that the spread between hot rolled and scrap will narrow to the high end of its historical range, stabilizing at approximately \$300-325/ton over the cycle with less volatility**



**Absent a dramatic economic downturn (especially in China) or other systemic “shock,” we believe that HR -- #1 Heavy Melt spreads should remain in the \$300-325/ton range even in cyclical downturns, due to industry consolidation**

U.S. #1 Heavy Melt and HR Sheet Forecast to 2008

