

Steel Futures II Seminar – Brussels, Belgium

Industry Response – Does This Industry Need a Contract?

18th September 2003



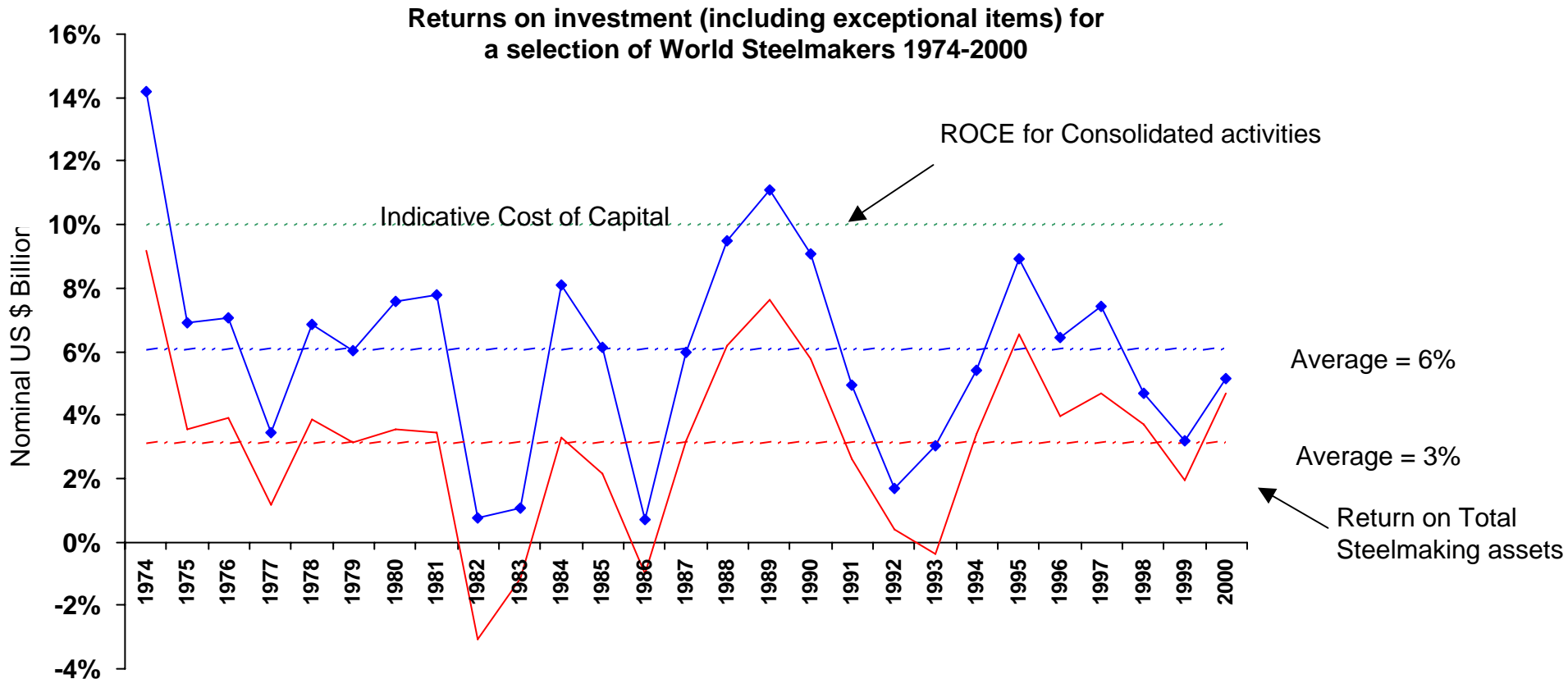
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Hatch Associates - London

Hatch Beddows

Contents

- **The challenge for the industry**
- The responses to the challenges
- The aluminium case
- The industry response
- What needs to be done

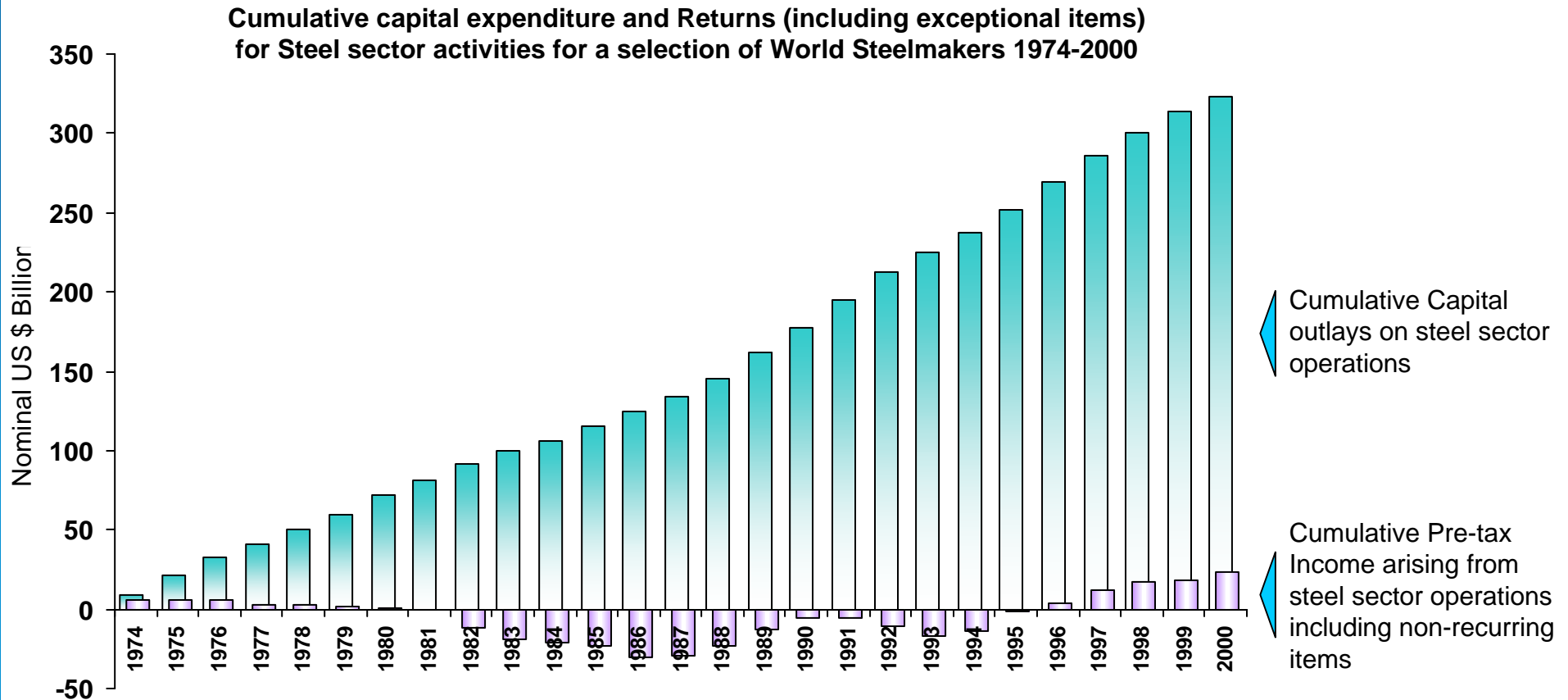
The average ROCE for the steel industry is 6% while consolidated return on total steel sector assets is 3%



Capital markets are reluctant to invest, except in especially attractive proposals

Source: WSD (2001), Hatch Beddows analysis

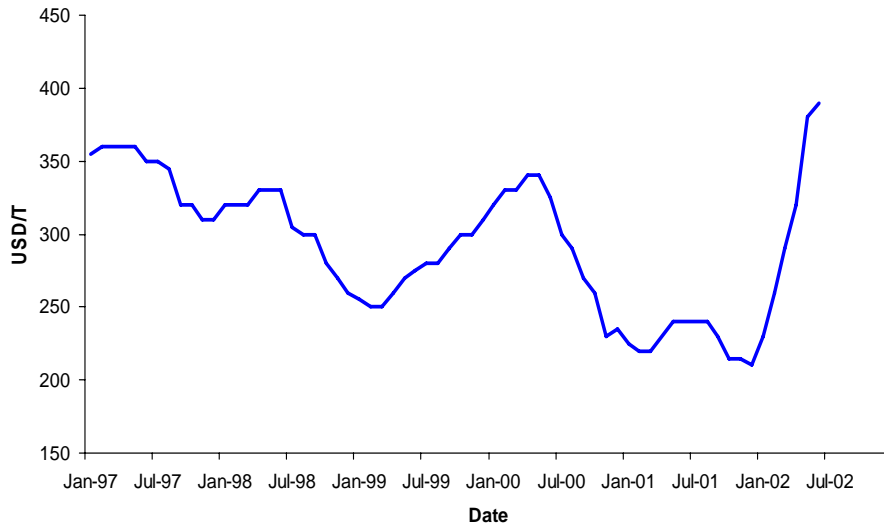
For a cumulative capital outlay of US\$325 billion since 1974, steelmakers have returned a cumulative pre-tax profit of only US\$23 billion



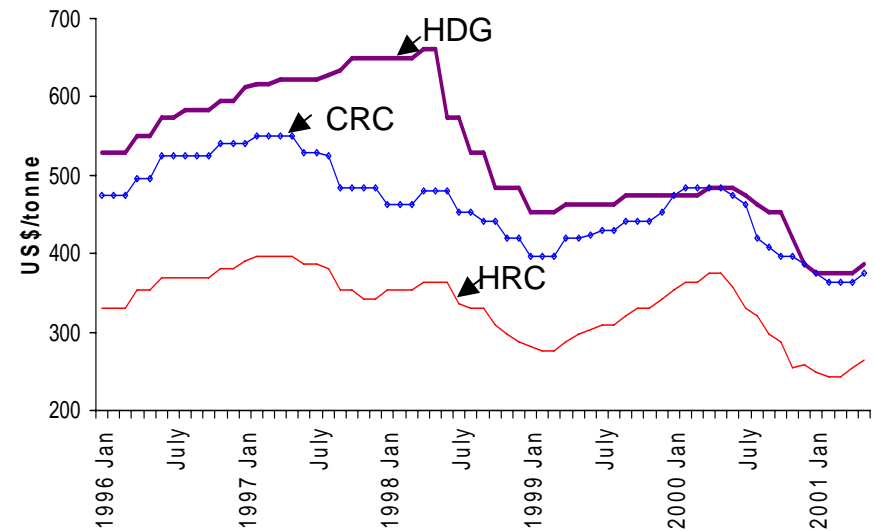
Source: WSD (2001), Hatch Beddows analysis

Steel product prices are as volatile as any base metal market. HRC Midwest prices have shown volatilities greater than 25% during the last five years

US Midwest HRC Prices (FOB)/USD



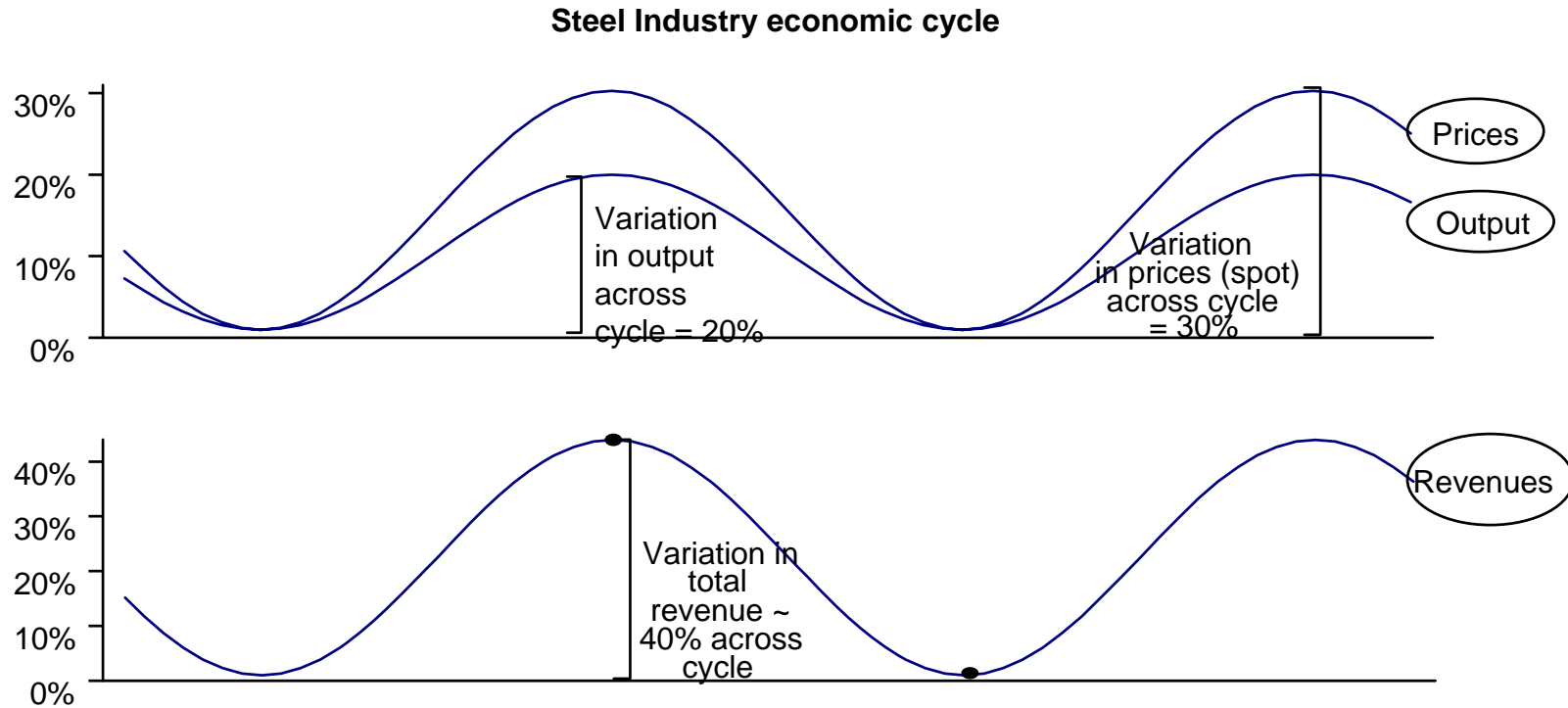
US Midwest Flat Product prices (FOB) January 1996-May 2001



Price volatility of HRC over the last 5 years has been greater than most traditional LME base metals

Source: Purchasing Magazine, Hatch Beddows analysis

Steelmaking fixed costs are high. This is exacerbated by a typical five year cycle with a revenue variation of 40%



Source: Hatch Beddows

- A typical integrated mill has 70% fixed operating costs; in contrast an EAF has 40% fixed operating costs reflecting the lower capital investments
- At the peak of a cycle, an integrated mill must run at approximately 75% utilization to break-even; at the trough of the cycle it must run at 125%. These constraints make for intense rivalry that perpetuates the boom-and-bust of the steel cycle

As a result of these developments, the steel industry is a capital-intensive industry that no longer has sufficient access to capital

Lenders (Banks)

- Substantial credit losses
- Ongoing bankruptcies
- Bankruptcies of old and new steel companies
- Historical bankers leaving the field

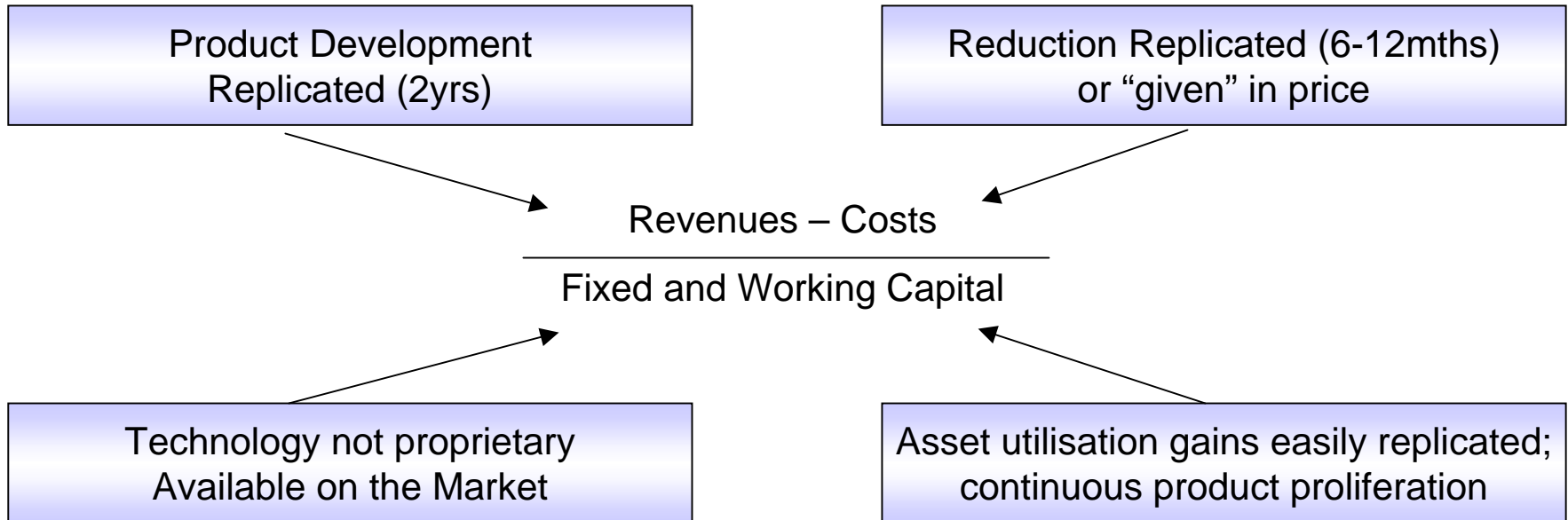
Investors

- Very poor stock performance
- Equity markets closed to new offerings
- Steel offerings from mid-1990s have lost much of value
- “Vulture” capital now circling the industry

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Rationalisation is a necessary but not sufficient response



This needs to be done as part of yearly planning

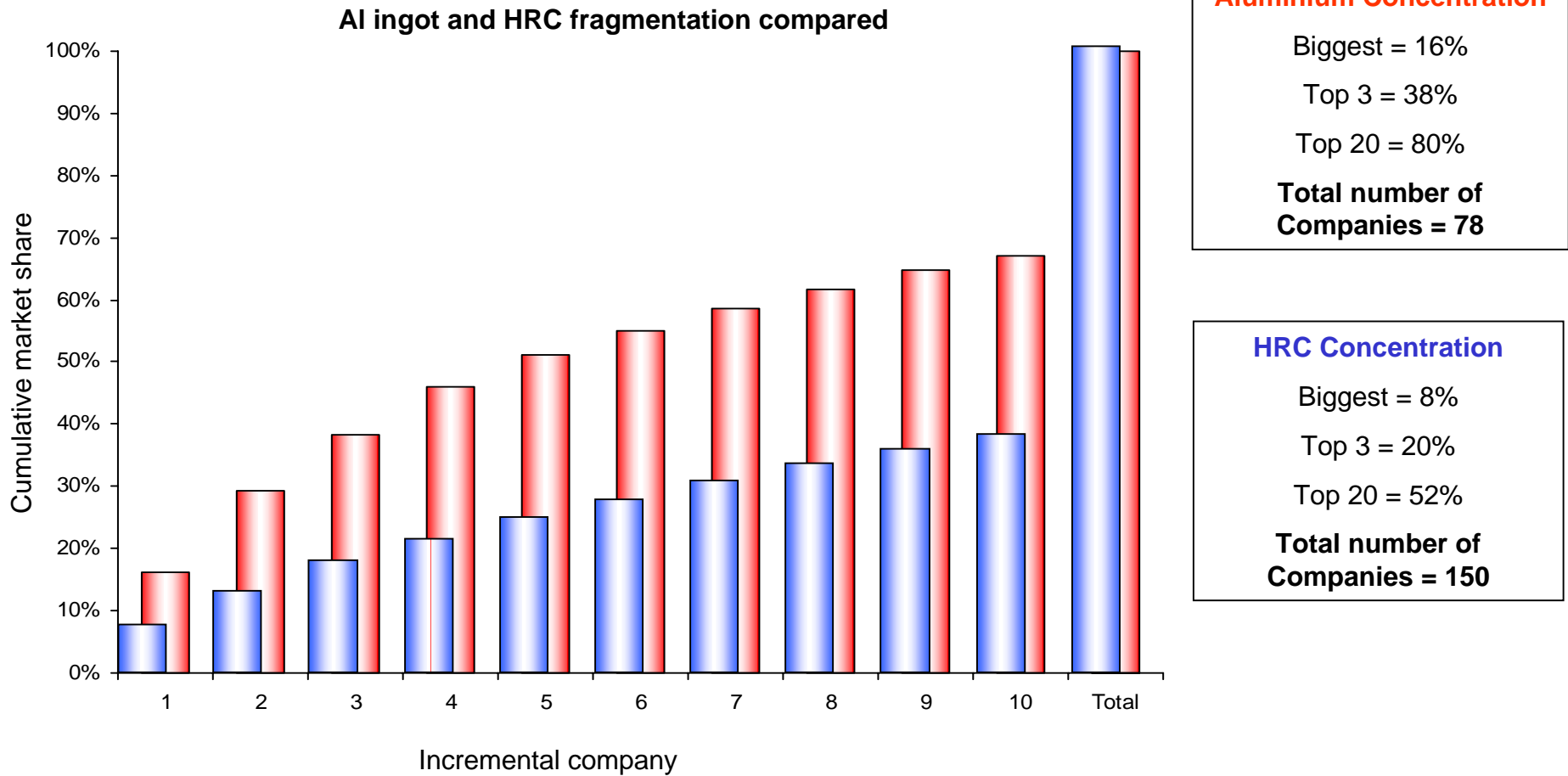
This has not attained the desired result, so producers look for structural change

If that doesn't work try restructuring

- It is a combination of several or all of:
 - capacity reduction
 - changes in ownership; consolidations, spin offs, etc
 - changes in corporate structure
 - radical improvements in labour productivity
 - new technology
 - capital investment in new products and processes
- It seeks to create a new business equilibrium

But: Restructuring has not achieved the required returns

The fragmentation of HRC producers has no doubt contributed to the poor position of steel



Source: Hatch Beddows analysis

What would make a big enough difference?

- Government Intervention?
- Becoming a Products & Services Industry?
- Capturing Value Upstream?
- Capturing Value Downstream?
- Specialisation?
- Consolidation?

Will it be enough?
Will it be fast enough?

Required: A new business model

Futures / Forward Contracts provides ONE tool to get to higher returns

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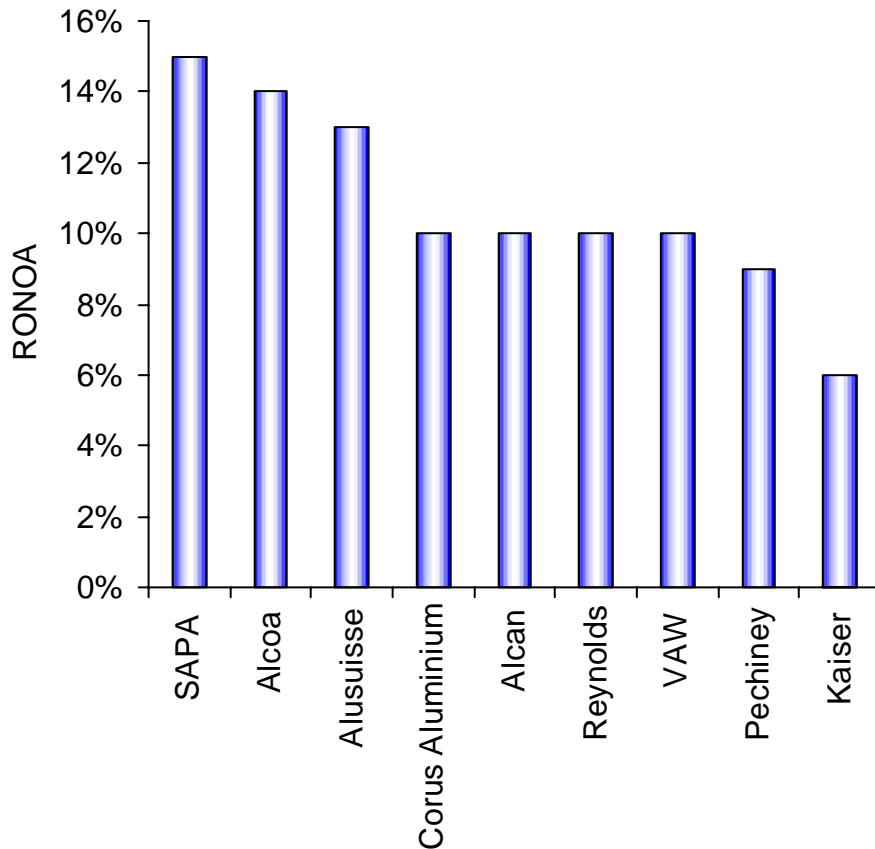
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Aluminium represents an alternative business model: de-integration and market transparency are directly supported by the LME exchange facilities

- Aluminum ingot contract was introduced in 1978 on the LME
- “When the contract was introduced, we fought as strongly as we knew how to kill it”, SVP in major Al producer
- “We now see the contract as the single biggest reason for the health of the industry”, CEO of same Al producer
- 99%+ of contract transactions represent information transfer--not physical transfer
- Creates indisputable price transparency and forecast: the summation of all participants expectations
- Facilitates the arbitraging of risk
- Downstream activities now cut back production rather than margin
- Upstream activities have a more predictable market environment with variable costs and hence manage capacity growth effectively

The aluminium industry is a lot healthier than steel! Many features of the contract have been attributed to this success

Average RONOA 1996-2000
for Aluminium Companies



- Terminal market
- De-integrated
- Simplified product complexity
- Consolidated at the front end
- High delivery performance
- Respected management

A profitable industry!

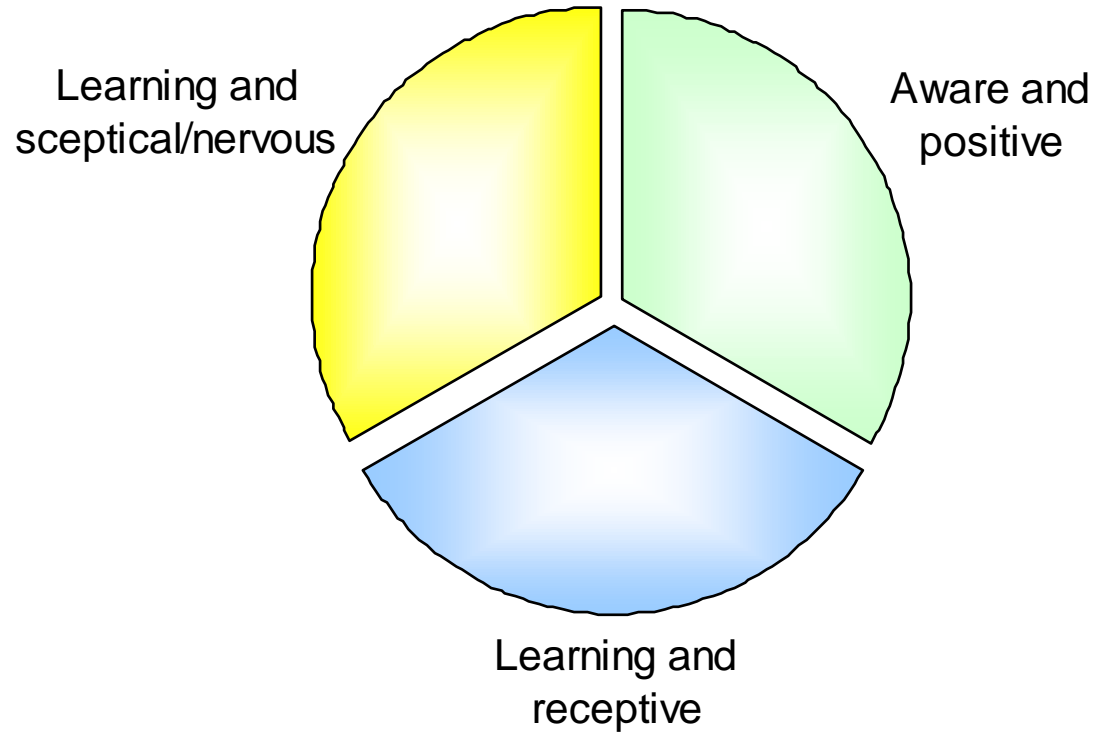
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What is it? Will it happen? Why?

- **What:** A steel futures contract is a financial instrument
- **Will it happen:** Yes, 2004. LME, perhaps others
 - » 2 x HRC contracts (Europe and N. America) and 1 x billet/rebar (Eurasia)
- **Why:** It's a market in itself
 - » Potentially 3 times current LME size
 - » It's functional
 - » Like Everest – it can be done

We have discussed this with many steel companies both when we started this initiative and more recently



Six areas of potential benefit have so far been identified

1. Price risk exposure can be managed and controlled
 - for producers
 - for all participants in the value chain
 - the market of last resort for buyers and sellers can match finance to inventories and provide for trade finance opportunities

2. Front end capital investment decision taking
 - performance will be much more transparent
 - forecasts will be more “honest”
 - project finance will be objective and the risk hedgable

3. Downstream of HRC
 - margin and profit will be the drivers
 - businesses will be able to participate in the emerging value space between materials and OEMs
 - fragmentation will be economically viable and more niche and sector specialization should emerge

Six areas of potential benefit have so far been identified (cont.)

4. Raw material relationships
 - energy industry example
 - aluminium industry example
 - front ends as a “utility” business
 - opposition from iron ore industry expected

5. Consolidation of the front ends
 - consolidation will be facilitated
 - new companies and players
 - utility orientation
 - ownership of front ends and back ends no longer necessarily link

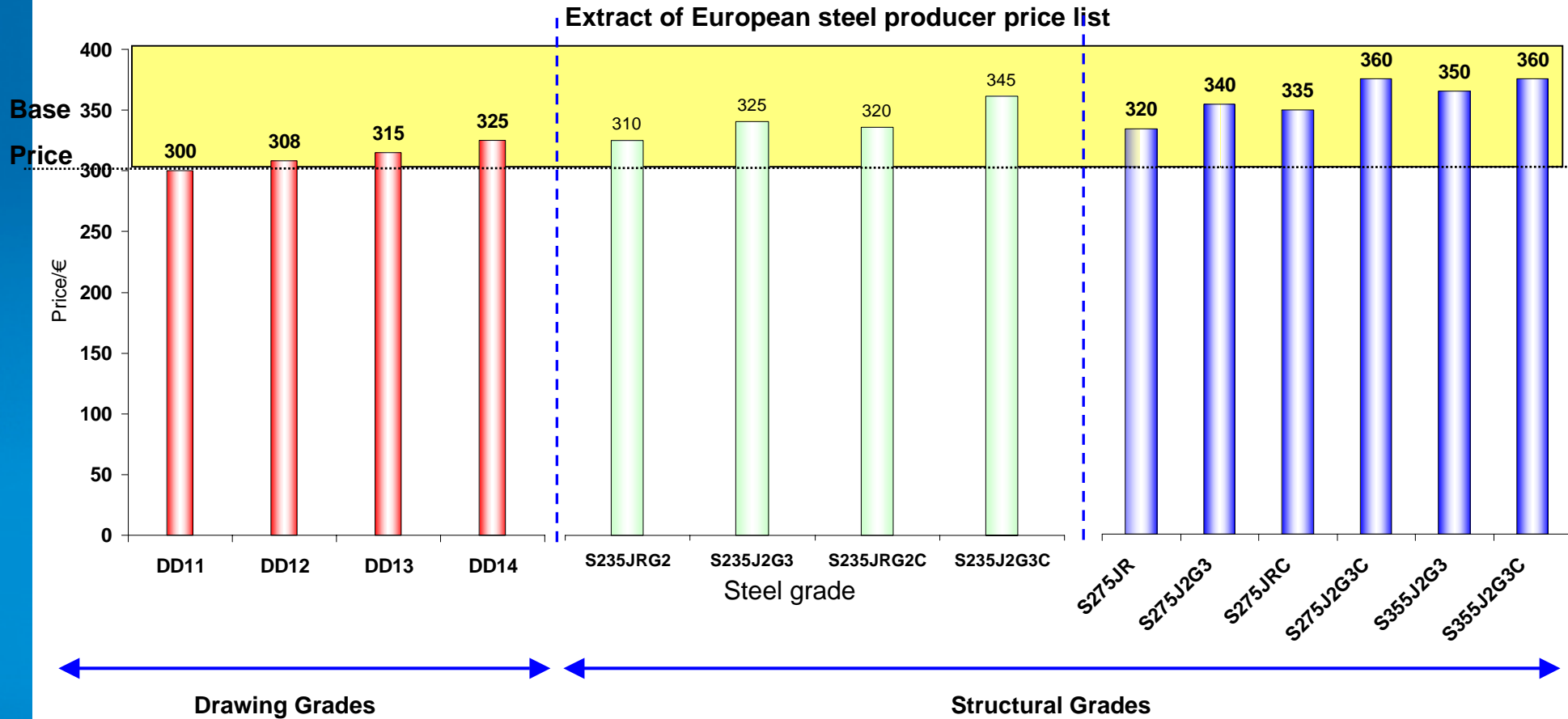
6. Unambiguous and indisputable prices will facilitate discussions internally and externally
 - Enhanced negotiations regarding labour and unions etc.
 - Clarity in governmental trade matters especially regarding anti-dumping

What concerns do the steel industry have?

- Fear: Commoditisation
 - » Loss of control of markets
 - » Lowest price takes all

- Hope: Defence of value added
 - » Better transparency and information
 - » Risk management of prices

Will transparency in the base price help to defend or erode the value adding price component? European steel producers publish price lists which use a “market driven” though ultimately opaque base price



The clarity of a true base price will enhance added value

Source: European steel producer, Hatch Beddows analysis

European steel producers publish price lists which use a “market driven” though ultimately opaque base price, but with relatively fixed premia to cover higher value grades and delivery conditions (cont.)

Extras for size

Thickness mm	Width mm	50	75	150	300	600	900	1100	1550	1850
		<75	<150	<300	<600	<900	<1100	<1550	<1850*)	<2030
		Narrow Strip				Wide Strip				
<1,00	<1,00	-	-	-	-	-	68,00	68,00	68,00	-
1,00	<1,25	-	-	-	-	-	55,00	55,00	55,00	-
1,25	<1,50	-	-	-	-	-	45,00	45,00	45,00	-
1,50	<1,75	95,00	78,00	68,00	56,00	40,00	35,00	35,00	35,00	-
1,75	<2,00	90,00	73,00	63,00	50,00	35,00	30,00	28,00	28,00	-
2,00	<2,50	85,00	70,00	60,00	48,00	33,00	28,00	20,00	23,00	30,00
2,50	<3,00	80,00	65,00	55,00	45,00	30,00	25,00	18,00	20,00	28,00
3,00	<4,00	75,00	62,00	52,00	43,00	28,00	23,00	15,00	20,00	25,00
4,00	<7,00	-	60,00	50,00	40,00	25,00	20,00	13,00	18,00	23,00
7,00	<10,00	-	68,00	63,00	45,00	30,00	25,00	18,00	20,00	25,00
10,00	<12,00	-	68,00	63,00	50,00	35,00	28,00	20,00	23,00	25,00
12,00	≤15,00	-	68,00	63,00	50,00	35,00	28,00	23,00	25,00	28,00

Extras for pickling

Thickness mm	Width mm	50	75	150	600	900
		<75	<150	<600	<900	≤1650
		Narrow Strip			Wide Strip	
<1,00	<1,00	-	-	-	-	65,00
1,00	<1,25	-	-	-	-	57,00
1,25	<1,50	-	-	-	-	50,00
1,50	<1,75	50,00	43,00	43,00	43,00	43,00
1,75	<2,00	45,00	38,00	38,00	38,00	38,00
2,00	<7,00	37,00	30,00	28,00	28,00	28,00
7,00	<10,00	48,00	45,00	40,00	40,00	40,00
10,00	<12,00	-	55,00	50,00	50,00	50,00
	≤12,00	-	65,00	60,00	60,00	60,00

Other Extras

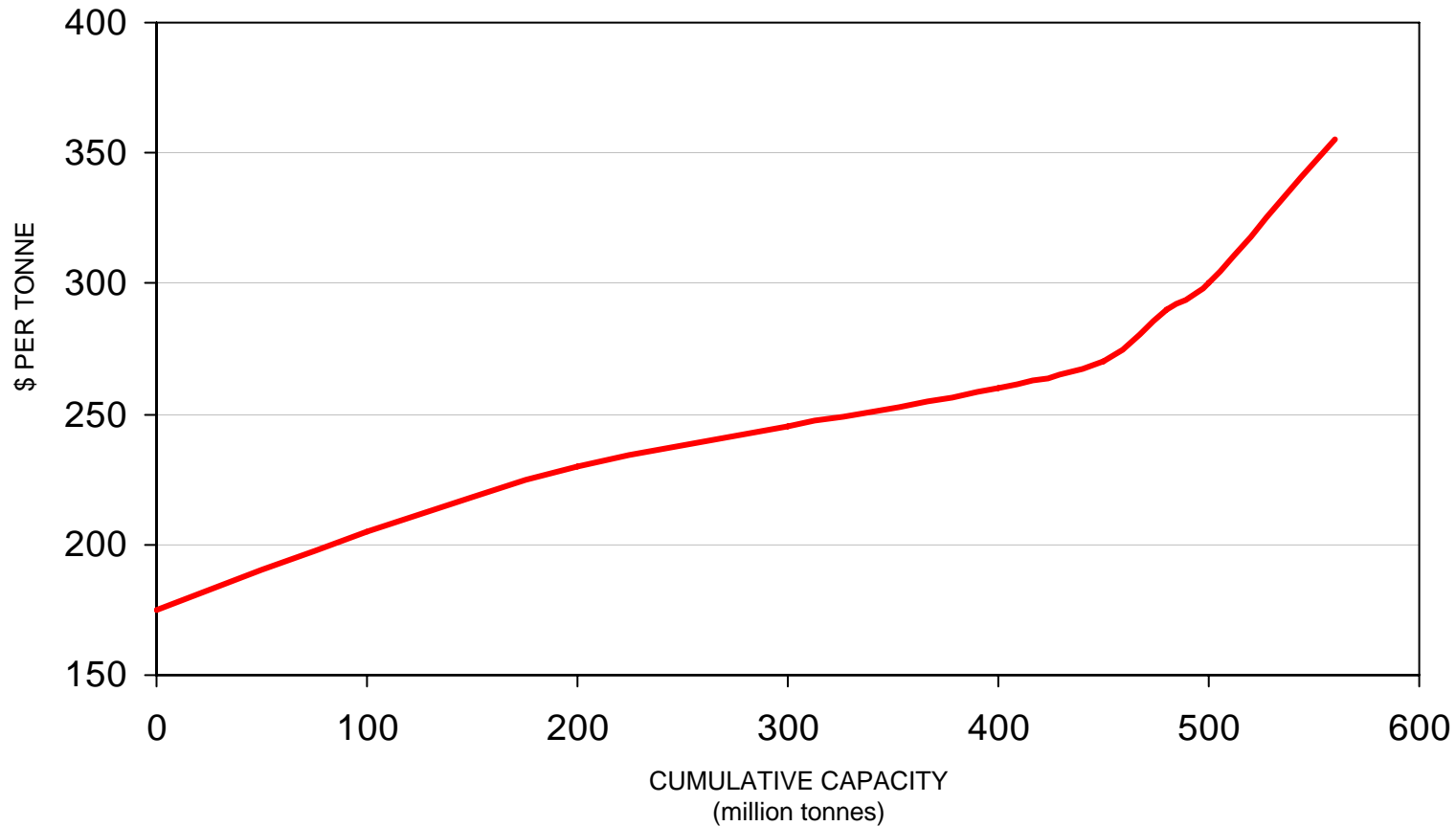
Cu Contens	
0,25 – 0,35%	20,00
0,35 – 0,50%	30,00
Edge Trimming	
Of pickled wide strip	8,00
Of unpickled wide strip	20,00
Packing	
Creped, tarred or oiled paper with steel strapping and edg protection	3,00
Sheet metal wrapping 5,00	Euro/pce 25,00

Extras for Inspection and Materials Testing Certificates

At purchaser’s choice only one certificate to DIN EN 10 204 will be issued, to be agreed on ordering	
Works Certificate 2.1	0,00
Works Certificate 2.2	
Details of heat analysis	0,00
Details of mechanical properties	2,00
Inspection Certificates 3.1 A, B, C or Inspection report 3.2	
By lot or heat	4,00
Minimum amount	20,00
euro	
Inspections in supplier’s works only	

Will a transparent “base” price lead to a change in the application of the supply/demand balance principle for pricing or will it facilitate it?

Representative HRC global cost curve



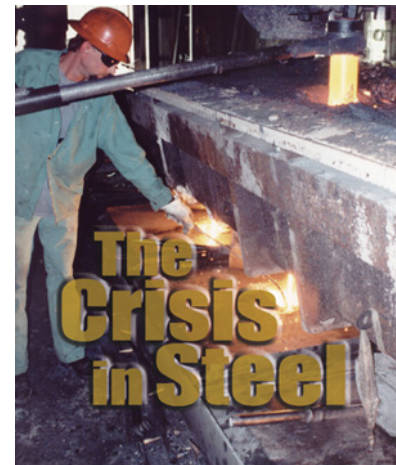
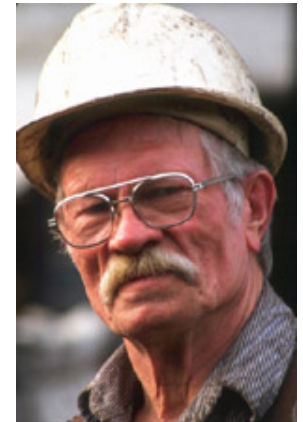
The more perfect the information the more prices will reflect the cost of marginal tonnes

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There is only one remaining structural problem in creating a liquid and successful steel futures market for the benefit of the greater steel market

There must be reconciliation, empathy, common nomenclature and understanding between:-



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There must be reconciliation, empathy, common nomenclature and understanding between and :-



The Model:

$$C = SN(d_1) - Ke^{-rt}N(d_2)$$

C = Theoretical call premium

S = Current Stock price

t = time until option expiration

K = option striking price

r = risk-free interest rate

N = Cumulative standard normal distribution

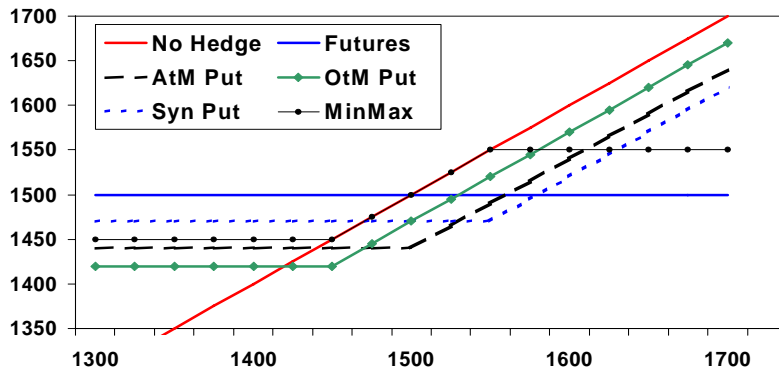
e = exponential term (2.7183)

$$d_1 = \frac{\ln(S/K) + (r + \frac{s^2}{2})t}{s\sqrt{t}}$$

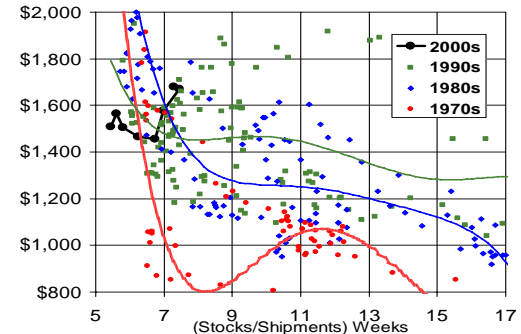
$$d_2 = d_1 - s\sqrt{t}$$

s = standard deviation of stock returns

ln = natural logarithm



- Current Ratio
 - 5.4 weeks
 - price s/b 1700
 - equil: 7 to 9 wks
- Forecasts:
 - 2000: 5 wks
 - 2001: <5 wks



Thank you for your attention!

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