

## Analysis of steel price developments – spring 2008

This paper summarises recent developments in the global steel market and the implications for steel prices in the UK.

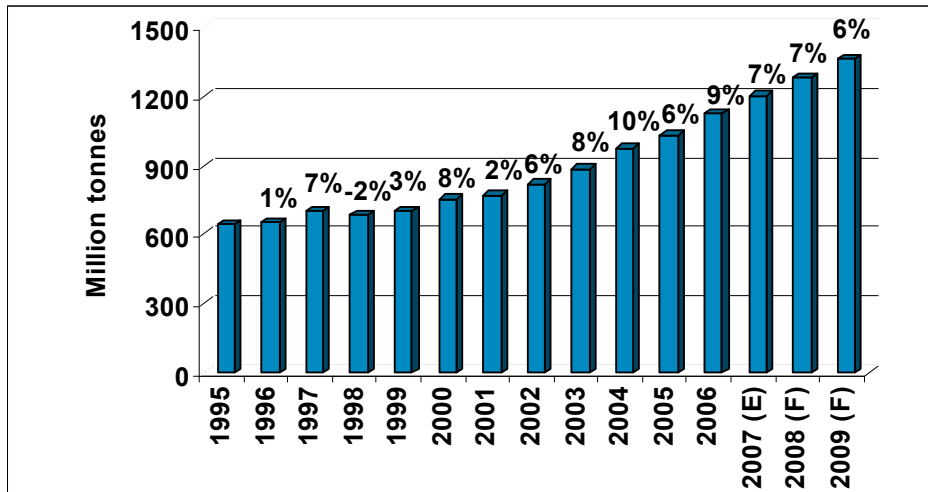
Global steel demand continues to show strong growth – particularly in a number of key newly industrialising countries. This in turn is putting pressure on the supply of steelmaking raw materials, resulting in rapid price increases – most notably for iron ore. Together with escalating freight and energy costs, these developments are in turn forcing steel producers around the world to raise their prices.

The UK and EU steel market is no exception to this global trend. All producers are rapidly raising their prices as they seek to recover the cost increases. UK Steel's members understand the impact on UK steel consumers. However, this is a global phenomenon, and UK consumers' foreign competitors will be similarly affected. Furthermore, as this paper also demonstrates, steel prices still remain historically low in real terms.

### Steel consumption

World steel consumption has continued to grow at historically high rates, and this trend is forecast by the International Iron and Steel Institute (IISI) to continue. The following graph is based on IISI forecasts produced in March 2008.

Graph 1: World apparent consumption of finished steel products (million tonnes)



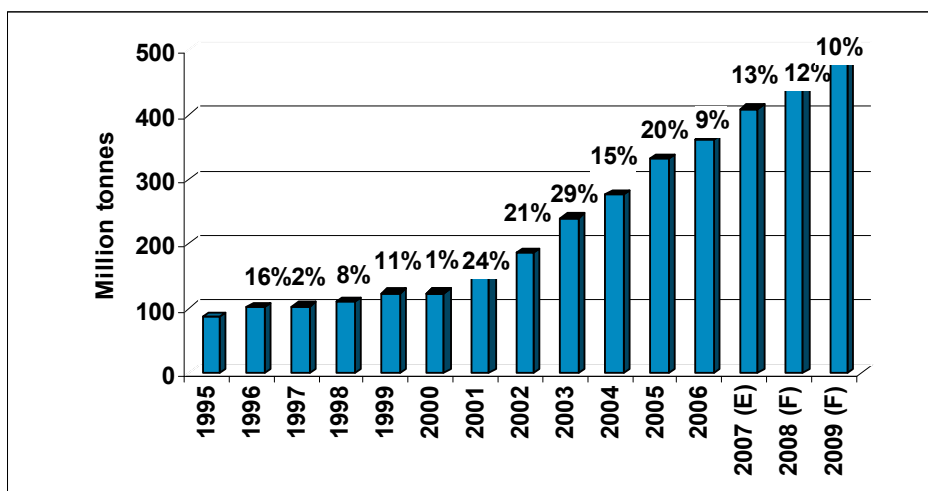
Source: [International Iron and Steel Institute](#)

China continues in volume terms to be the main driver of this growth.

Although Chinese demand growth has abated somewhat from the peaks reached in the early years of the decade, it is still rising at nearly double the global average rate. China is forecast to consume 35% of the world's steel this year, compared with only 15% in 1995.



Graph 2: Chinese apparent consumption of finished steel products (million tonnes)



Source: [International Iron and Steel Institute](#)

Other countries and regions however also continue to experience strong growth. This growth continues primarily to be focused in a number of developing countries, the CIS and the Middle East. Russia, Argentina, Brazil, Peru, Saudi Arabia, China, Indonesia and Vietnam are all predicted to enjoy double digit growth this year, as in Europe are Poland, Romania and Serbia. For the so-called BRIC (Brazil, Russia, India and China) countries in total, growth is forecast at 11%. While the EU is forecast to be more subdued in 2008, this follows a relatively strong performance in 2006 and 2007. Demand is also forecast to pick up in the USA this year, after the sharp drop experienced in 2007.

Table 1: Forecast steel consumption in 2008 compared with 2007.

	2008 Forecast		
	Million tonnes	% change over 2007	Share of world total
EU27	195.3	+1.6%	15.2%
Other Europe	33.1	+6.0%	2.6%
CIS	60.5	+8.9%	4.7%
NAFTA	144.2	+1.9%	11.3%
Central & South America	44.6	+8.9%	3.5%
Africa	26.8	+5.9%	2.1%
Middle East	49.2	+11.1%	3.8%
China	455.1	+11.5%	35.5%
India	55.3	+8.9%	4.3%
Japan & Korea	137.3	+1.8%	10.7%
Other Asia	133.1	+5.6%	5.6%
Oceania	8.8	+2.0%	0.7%
WORLD TOTAL	1,284.1	+6.7%	100.0%

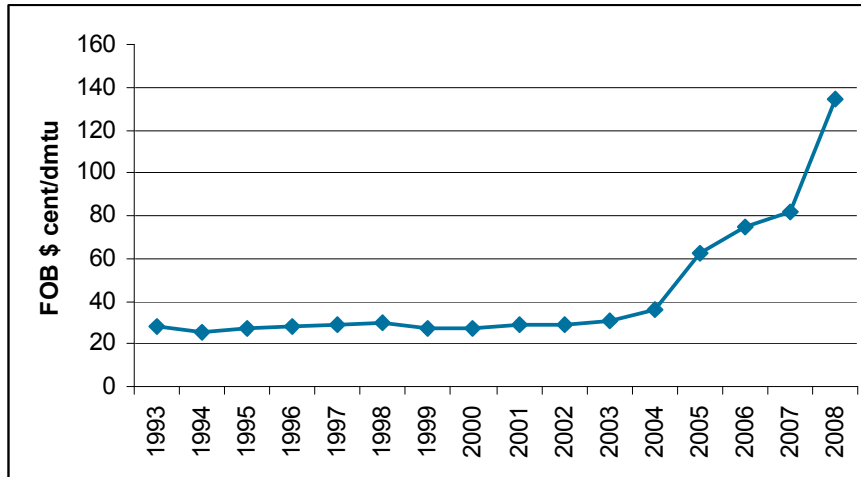
Source: [IISI](#)

### Input costs

The constantly increasing demand for steel is in turn causing tight supply of, and pushing up the price for most steelmaking raw materials, at the same time as most other costs are continuing to rise.

- Iron ore**  
 Iron ore is sold on an annual contract basis. After a couple of more subdued years, the 2008 contract price looks set to rise by 65%, based on settlements reached by a number of important companies with the Brazilian mining company Vale (formerly CVRD), the major supplier to Europe. Since 2004 iron ore prices have increased by nearly 300%.

Graph 3: Vale standard sinter feed for Europe, FOB Tubarão

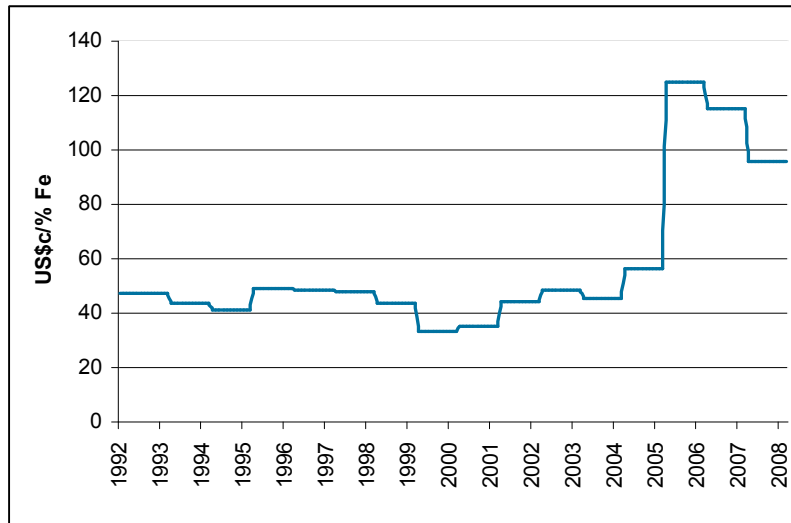


Source: [Steel Business Briefing](#)

The world iron ore industry is highly concentrated with the top 3 suppliers (BHP Billiton, Vale and Rio Tinto) accounting for around 75% of the market. Steelmakers have warned that a successful takeover of Rio Tinto by BHP Billiton would increase the market power of the iron ore miners still further, creating in effect a duopoly. This would put further upward pressure on ore prices in the future.

- Coking coal**  
 Graph 4 shows annual contract prices from Australia. Although coking coal prices have been trending downwards since their peak in 2005/06, they remain at historically high levels – over double the level they were in 2004. Recent supply problems in Australia have created shortages in the market, with at least one miner declaring *force majeure*, and spot prices have been reported as being up to 50% higher than the contract price. Analysts are predicting significant contract price rises in 2008 of between 60% and 100%.

Graph 4: Coking coal - Goonyella Benchmark Grade FOB Australia

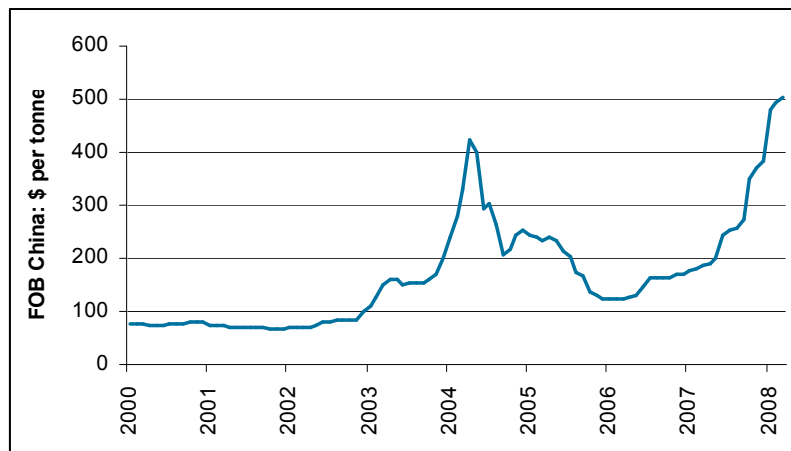


Source: Industry reference prices/[Corus](#)

- **Coke**

In contrast, prices for internationally-traded coke have started soaring again in the past year. The EU steel industry is not self-sufficient in coke, and relies on imports to meet shortfalls in domestic production.

Graph 5: Coke 10.5-12.5% ash FOB

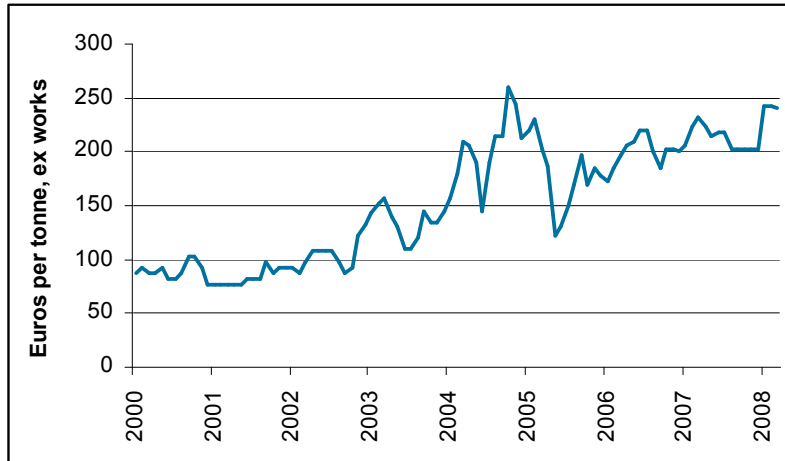


Source: [Steel Business Briefing](#)

- **Scrap**

Scrap prices have always been volatile, but the surge in recent weeks has been exceptional. Prices in the UK rose by nearly 40% in the first few weeks of 2008. This has been driven by strong demand for scrap from third country steel-producing markets. Increases in other European markets have been less dramatic, but have still been around 20%.

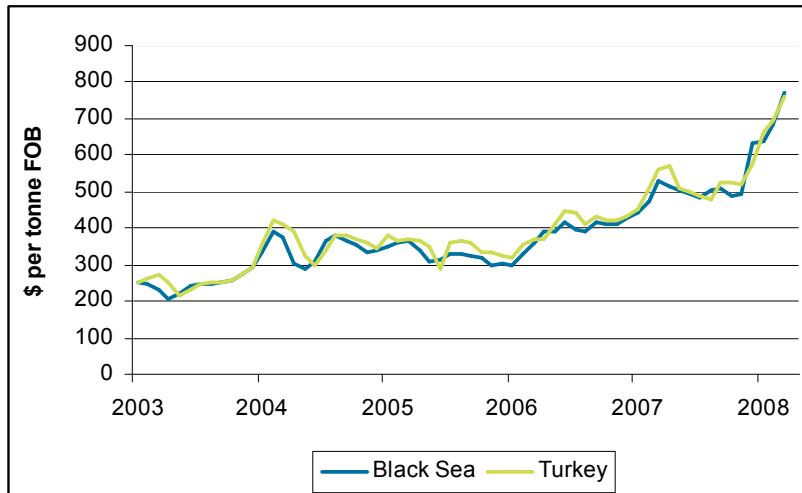
Graph 6: Price of shredded scrap in mainland Europe



Source: [Steel Business Briefing](#)

- Other feedstock**  
 Unsurprisingly, these cost increases have also fed through to semi-processed feedstock. World billet prices for example have surged, impacting on UK re-rollers, regardless of whether they source from within the UK or from overseas.

Graph 7: Export prices for carbon steel billets



Source: [Steel Business Briefing](#)

- Shipping**  
 Driven by a shortage of vessels, shipping costs have escalated dramatically. By December 2007, one-year time charter rates were 250% higher than the 2006 average. Rates slipped back in the new year, but have recently started to rise again, and are forecast at least to return to December levels.

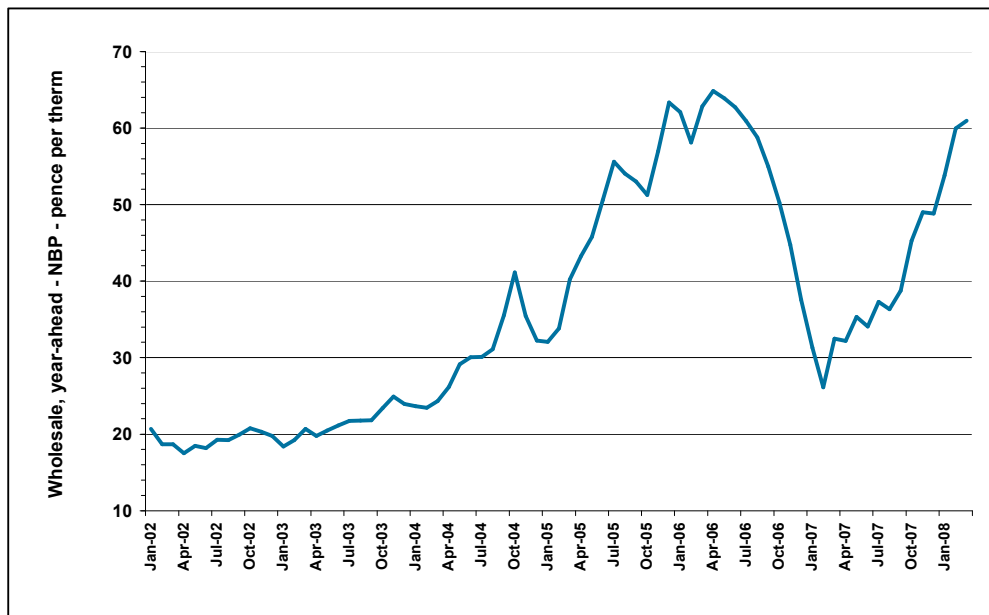
Graph 8: Freight – one year time charter rates



Source: Marsoft/[Corus](#)

- Energy costs**  
 Like the rest of UK manufacturing, the steel industry has been experiencing high energy prices. Forward prices for both gas and electricity are showing worryingly high increases, with the UK electricity prices once again outstripping those of our main Continental competitors. Steel manufacture is of course highly energy intensive.

Graph 9: Gas prices – wholesale – year ahead



Source: [Energy Intensive Users Group](#)

Graph 10: Electricity – UK wholesale forward prices



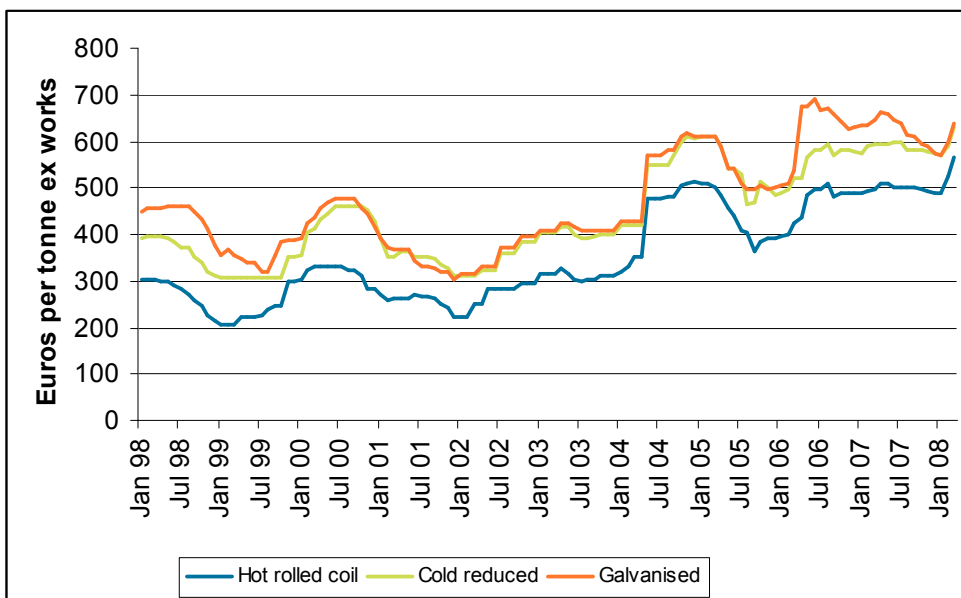
Source: [Corus](#)

### Impact on steel prices

In the light of these developments, steelmakers and re-rollers have had no choice but to seek to recoup their higher input costs through price increases. The following graphs show transaction prices as recorded by the independent steel industry journal, Steel Business Briefing.

After nearly two years of being more or less stable, prices for strip mill products started rising in February, and are already 13% up on average since the beginning of the year.

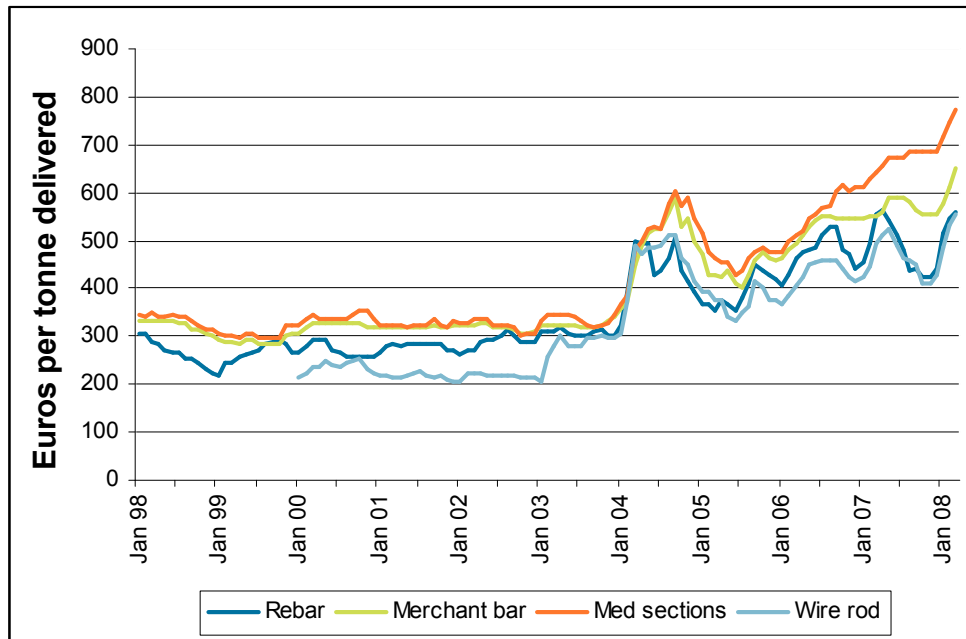
Graph 11: North European flat product prices



Source: [Steel Business Briefing](#)

Long product prices in Europe have been more volatile, because of the strong link to scrap prices. On average, long product prices have risen by 20% since December, roughly the same as the 19% increase in scrap prices. Within this however, reinforcing bar and mesh quality wire rod prices have been rising consistently since November, and at a far faster rate – 32% and 35% respectively – reflecting tight market conditions. All four long products monitored have now reached record high levels – most notably for medium sections.

Graph 12: European long product prices



Source: [Steel Business Briefing](#)

The above graphs show prices as recorded in the market through to March 2008. The recent iron ore price settlement and concerns over surging coking coal prices have forced steel companies to announce a series of further price increases for the April to June Quarter. The following table lists a selection of recent announcements by the three main EU producers.

Table 2: Recent announcements of further price increases

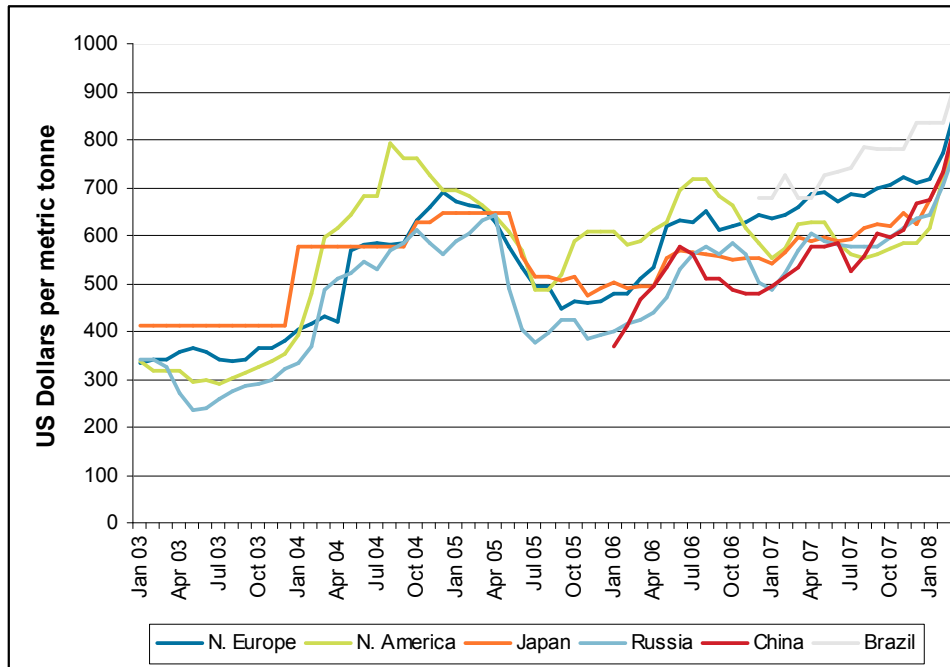
Date of announcement	Company	Product	Detail of increase
6 February	Corus Tubes	Cold formed hollow sections	£50 p.t. from end of Q1
7 February	Corus Construction & Industrial	Structural sections	£60 p.t. from 30 March
13 February	Corus Strip UK	Flat rolled	£80 - £106 p.t. from 1 April
18 February	Corus Strip IJmuiden	Flat products	Up to €100 p.t. from 1 April
22 February	ArcelorMittal	Flat products	€40 p.t. for Q2, following earlier €50 p.t. increase
3 March	Corus Construction & Industrial	Wire rod	£70 - £90 p.t. from 31 March
7 March	ThyssenKrupp	Flat products	€100 p.t. increase for Q2 already successfully implemented.

### International dimension

As previously stressed, the upwards pressure on steel prices is part of a global phenomenon. It is driven by the global growth in demand; and the increases in iron ore, coking coal, shipping and energy prices affect all steel producers regardless of their location<sup>1</sup>. Thus steel prices are moving in parallel in all the main regional markets.

The following graph tracks price movements around the world for the benchmark product hot rolled coil.

Graph 13: International price comparison for hot rolled coil



Source: [Steel Business Briefing](#)

#### Notes:

North European prices are the same as those used in graph 11, i.e. ex works for domestic shipment, converted into US dollars.

North America: Domestic price FOB mid-west mill.

Japan: Domestic price FOT.

Russia: Export price, FOB Black Sea port.

China: Export price, FOB Shanghai.

Brazil: Domestic price, delivered.

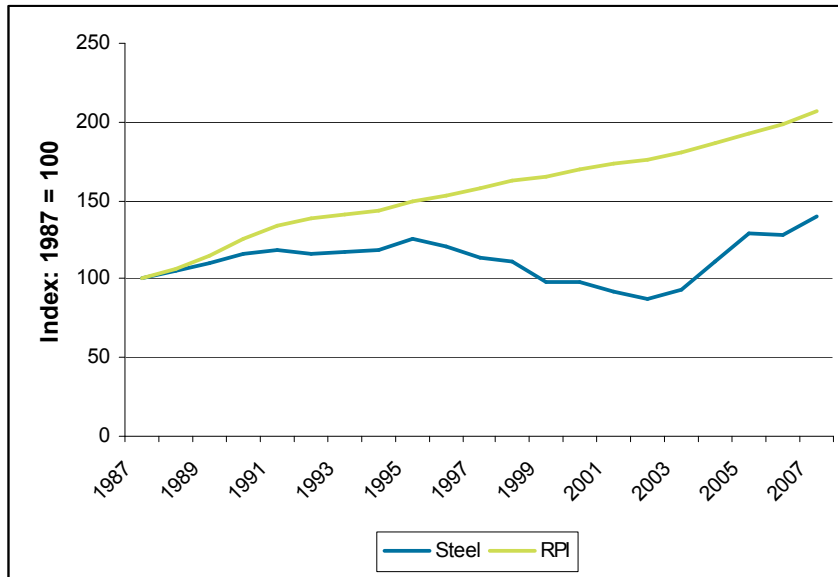
It will be noted that, not only are the trends identical throughout the world, but, with the exception of the high domestic prices recorded for Brazil, hot rolled coil prices in all markets are currently clustered in the \$800 to \$870 range.

<sup>1</sup> The main exception to this statement relates to steel companies who are backwardly integrated, with their own ore or coal resources. Because the increases in world ore and coal prices are not related to cost increases, backwardly integrated steel companies have been able to take advantage of the increases in steel product prices by greatly increasing their profit margins. This does not apply to Western European producers (although ArcelorMittal does have access to iron ore at several of its non-EU plants).

### Steel is still good value

Despite the price increases of recent years, steel remains far cheaper than many other products. Graph 14 plots the prices of a basket of steel products in the UK compared with the retail price index over the past two decades. After eight successive years of absolute price reductions, steel prices only started picking up in 2003. While steel prices in 2007 were 53 points higher than in 2002 (compared with a 31 point increase in the RPI over the same period), steel remains 32% cheaper in real terms than it was in 1987.

Graph 14: Steel price movements compared with the Retail Price Index



Source: [ISSB](#)