



BAFD briefing...01.04.2008 What is driving fastener prices?

A complex combination of factors is driving up global fastener prices at an extraordinary rate, likely to prove more violent in its effect than the events of 2003-4.

UK importers are already incurring substantial cost increases, with prices from manufacturers across the world hardening dramatically in recent weeks.

In many cases increases have been applied to existing import orders shipped from the beginning of April.

Wholesalers are now forecasting that prices across the range of standard steel fasteners will be 30 to 50% higher than 2007 levels within a few months.

The main contributors to these increases are:

- **Steeply increasing steel prices as a result of shortages, dramatic increases in raw material costs, and persistent rises in other input costs.**
- **Resultant steep increases in the cost of wire rod for fastener making.**
- **The impact of currency exchange rates, particularly the appreciation of the Chinese RMB Yuan to the US Dollar and the weakening of the British Pound to both US Dollar and Euro.**
- **Chinese government actions to reduce exports of steel and steel products.**
- **Continued increases in Chinese labour costs, energy, transport and sea freight.**

Another significant factor, already having an effect, is the potential for the application of antidumping tariffs on fasteners from China. The deadline for preliminary tariffs is August 8 2008. Although no decision has yet been made by the EU production and shipping lead times mean that orders placed now will be received after the deadline. This has created uncertainty for importers and necessitated spreading order loads to other, higher cost, sources.

What follows is a detailed explanation of these factors.

START WITH STEEL

Attached to this briefing is a copy of 'Reasons for Increases – Spring 2008' prepared by UK Steel, which has given permission for its reproduction. The following notes provide context and additional details.

Producing Steel

Pig iron is produced in a blast furnace using two primary 'ingredients' – **iron ore** and **coke**.

Two main methods are used to produce steel. The Basic Oxygen System, accounting for around 60% of world production, requires an initial 'charge' of around 25% of **ferrous scrap** to which is added molten iron from a blast furnace. The process consumes massive volumes of hydrocarbons – normally **natural gas or fuel oil**.

The other method uses an Electric Arc Furnace and is popular in the US, where it accounts for around 40% of steel production. In this process the charge is almost entirely **ferrous scrap**, with only small amounts of pig or direct reduced iron. The EAF process uses between 350 to 700 kWh of **electricity** to produce a tonne of steel.

Wire rod is produced by driving heated billets of steel along a track which progressively converts the rectangular billet to a circular profile and draws it to wire rod of required diameter. Substantial **energy** consumption is required to cast steel into billets or reheat billets before wire production.

Input costs

As can be seen from the above there are four key elements to the process of producing wire rod for fastener production:

Iron Ore
Coke
Ferrous scrap
Energy

To these can be added **freight**, rail and bulk sea freight of raw materials from mines to steel makers, as well as freight of finished products.

Iron Ore

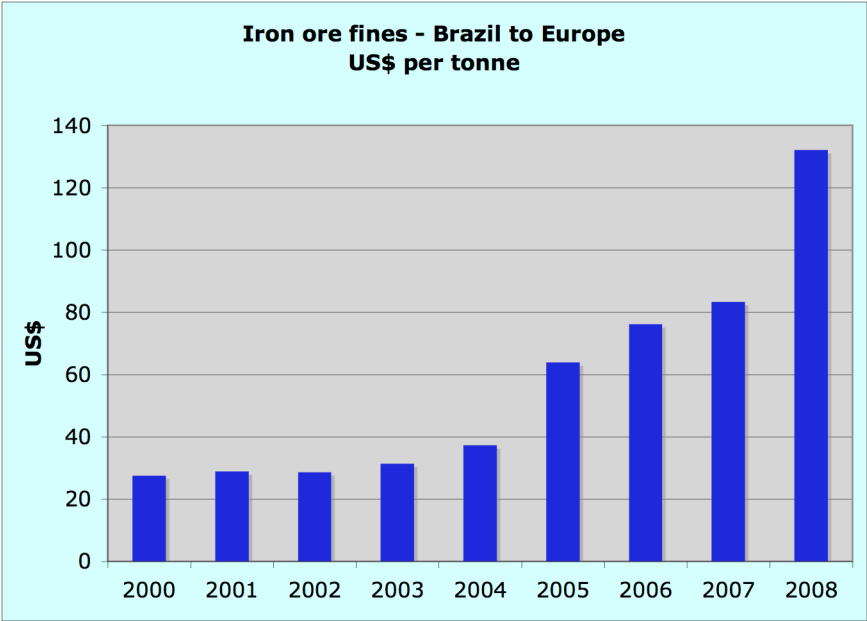
Three companies control more than 70% of the world supply of iron ore. Vale (previously CVRD) supplies from Brazil. Rio Tinto and BHP Billiton mainly from Australia. India is also a significant producer as is China, although its resources are insufficient and of inadequate quality to meet its demand for high grade steel.

Late in 2007 BHP initiated a hostile takeover bid for Rio Tinto – the battle continues and there remains a strong probability that three could become two, further tightening the stranglehold on iron ore supplies.

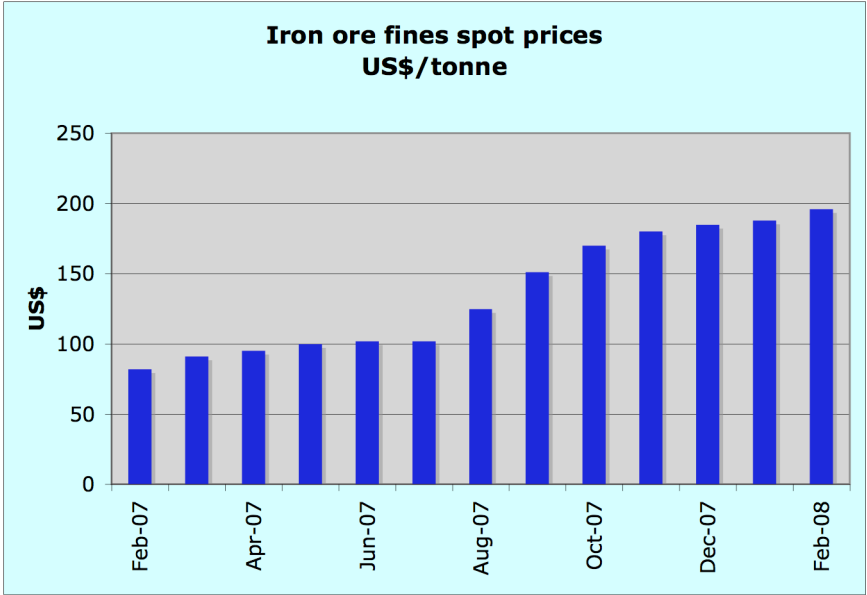
Ore extraction still cannot keep up with demand, with some bizarre consequences. In Australia, drivers of massive mining dump trucks are being taught to drive more gently to extend the life of tyres, replacements for which are on a two year lead time. Additional locomotives to haul the ore to dock have a similar delivery.

Not surprising, then, that all three major suppliers have been extremely robust in annual contract negotiations with steel makers. In late February, despite strong resistance from Chinese steelmakers, Vale clinched a 65% to 71% price increase for iron ore effective from April 2008.

Rio Tinto and BHP continue to negotiate, seeking a price premium to reflect the lower cost of shipping from Australia as opposed to Brazil.



Spot prices had already soared above contract levels, more than doubling since January 2007, and hitting US\$236/tonne in February. Supply bottlenecks were exacerbated earlier this year by extreme weather in Australia, resulting in miners claiming force majeure in order to sell at spot rather than 2007 contract prices. Rio Tinto has made it clear it wants to move away from fixed annual prices and to sell more on the lucrative spot market.



Iron ore costs for all steelmakers, across the world, have already increased and will increase dramatically from April 2008.

Iron ore prices for 2008 will be around 360% higher than those in 2003.

Steelmakers sourcing ore on the spot market have already been hit hard.

Coke

Although there is a wider range of suppliers in the market, and China has been a major player, Rio Tinto and BHP Billiton are again significant suppliers of coking coal from Australia.

Prices had trended downwards from a peak in 2005/6 but remained double pre-2004 levels. Recent problems in Australia - extreme weather and supply chain bottlenecks – are expected to result in a shortfall of 14 million tonnes for 2008.

Current forecasts for 2008 coking coal prices range from US\$140 to a peak of US\$225/tonne, the latter 130% higher than the 2007 contract price of US\$98/t. At the top range that represents a 340% increase on 2003 prices.

Spot prices in the first quarter of 2008 have run at over 3 times contract levels – reaching US\$330/t. Forecasts for 2009 are for coking coal contract prices to stay around US\$165/tonne.

Prices for internationally traded coke have increased steeply over the last year, in February hitting US\$475/tonne, 224% higher than in 2003. This is significant for EU steelmaking, which is not self sufficient for coke.

Bulk Shipping

Iron ore and coke have to be transported to steelmaking facilities across the world. Land transport is mainly by train and in Australia the growth in world demand has outstripped rail and dock capacity, creating supply bottlenecks. Bulk shipping capacity has also lagged substantially behind the growth in world demand over recent years.

In early 2008 bulk sea freight rates did fall, having risen steeply throughout 2007 to around 2.5 times that at the beginning of the year. Latest 2008 figures shows costs are increasing again with projections they will return to peak 2007 levels.

Ferrous Scrap

Required for both steel-making processes, ferrous scrap is a product of consumption, which means that it is primarily sourced from developed, western economies – and has to be transported to Asian steelmakers.

The scrap market is volatile. However the trend over the last two years has been upwards, heading towards peak levels experienced in 2004. At the beginning of 2008 prices in Europe jumped by 20% - higher still in the UK – and US prices have also hardened.

Energy

With oil running at in excess of \$100 per barrel, prices at the fuel pumps rocketing, along with domestic gas and electricity costs, no one needs reminding that energy costs substantially more than ever before.

Forward prices for wholesale gas and electricity show continued increases.

Consolidation in the steel market

In recent years there have been a series of headline making mergers and acquisitions. The top ten steel producers, led by Mittal Arcelor, now account for around 27% of world capacity.

In China the government aims that 50% of steel output should come from ten producers by 2010, currently the figure is 35%.

Consolidation means a more structured market, more specialisation, a tighter balance between supply and demand and more robust market pricing. The major steel players have tasted profits over recent years, and are clearly intent on holding on to them.

China's role in the steel market

In recent years China transformed from a net importer to a net exporter of steel – in 2007 exporting 62 million metric tonnes (mmt). The effect was to suppress world steel prices.

During the second half of 2007 China throttled off exports, replacing export rebates with a surcharge that now stands at 25%. Reasons for this action included reductions in pollution, particularly around Beijing in the run up to the Olympic Games. The government is now enforcing a longstanding policy to close smaller, less efficient and higher polluting steel mills. The largest steel works in Beijing is progressively being shutdown and relocated this year, with only one out of four blast furnaces still operational by the opening of the Olympic Games. Additional concerns centre on economic overheating fuelling inflation and the potential for antidumping actions from Europe and the US.

By the last quarter of 2007 China had effectively backed out of the world steel market. Other steel exporting nations followed suit. Currently the Indian government is trying to limit exports of steel and raw materials.

Steel shortages

World steel consumption continues to grow year on year. In 2007 growth is estimated to have been 7%, with similar growth forecast for 2008, and 6% forecast for 2009. While demand in the US wavered during 2007, it remained strong in the 'BRIC' economies, and US demand now appears to be growing again.

Steel traders report shortages across the world market, driven by raw material shortages, by expectations of price increases, and by the effects of extreme weather both in Australia and in China, just before the New Year holiday period.

There are also reports of some mills standing still for want of raw materials. Turkish mills for example are finding it difficult to get supplies from the Ukraine, because of very high demand in Russia and the CIS countries.

Steel prices

Steel producers worldwide have enacted major price increases for second quarter 2008, on top of increases for the first quarter.

Taiwan's China Steel Corporation increased prices by a record 19%. Korea's POSCO increased by 17%. Baosteel has increased by similar levels and, unprecedentedly, said prices will only be for April not for the full quarter.

European prices have been rising since November, with long products generally seeing a 20% increase. **Wire rod, however, has suffered particularly and seen increases closer to 35%. In the Corus has announced wire rod increases of GB£70 to 90 for 31 March. Elsewhere in Europe April wire rod prices are expected to have increases by upwards of Euro 100 compared to the beginning of the year.**

In China wire rod prices have continued to increase on the back of big increases throughout 2007 – see graph below.

ISSUES SPECIFIC TO CHINA

There are a series of sustained factors that have turned China from an exporter of deflation to an exporter of inflation in most products, including fasteners.

Reduction in export rebate

In July 2007 China reduced the tax rebate paid to exporters of fasteners, amongst many other products, from 13% to 5%. As the Chinese economy continues to overheat there is a strong expectation that the remaining 5%.

Currency

The RMB Yuan has progressively appreciated against the US Dollar – see graph. This trend is expected to continue, particularly as China wrestles with high inflation. As a result exporters from China are increasingly unwilling to quote in US Dollar at all.

For UK importers, particularly, falls in the rate of the Pound to both US Dollar and Euro have reversed a long period when this country has been insulated by a relatively strong currency.

There are indications that Chinese exporters are less and less willing to accept orders in US Dollars. While a trend towards Euro would help importers in the Eurozone, sterling's weakened position against the European currency will present continued problems for UK importers.

Inflation

Inflation has become a major concern for the Chinese government as well as for companies there. Officially inflation hit 8.4% in February. Most companies emphasise the word 'officially' and speak of substantially higher levels for many goods including staple foods.

Labour costs

Labour costs in the industrial areas have been on an upward curve over recent years as a result of skills shortages and the level of labour churn – people quitting one job for another. In January 2008 new labour laws came into force further contributing to the costs of employment – estimates of the impact vary between 4 and 10%. Although too early to be confirmed there were expectations that migrant labour would be less willing to return to the coastal regions, following the New Year holiday, and would seek work closer to home.

Overall labour costs are expected to rise in 2008 by 20%, with some analysts predicting levels nearer 40%.

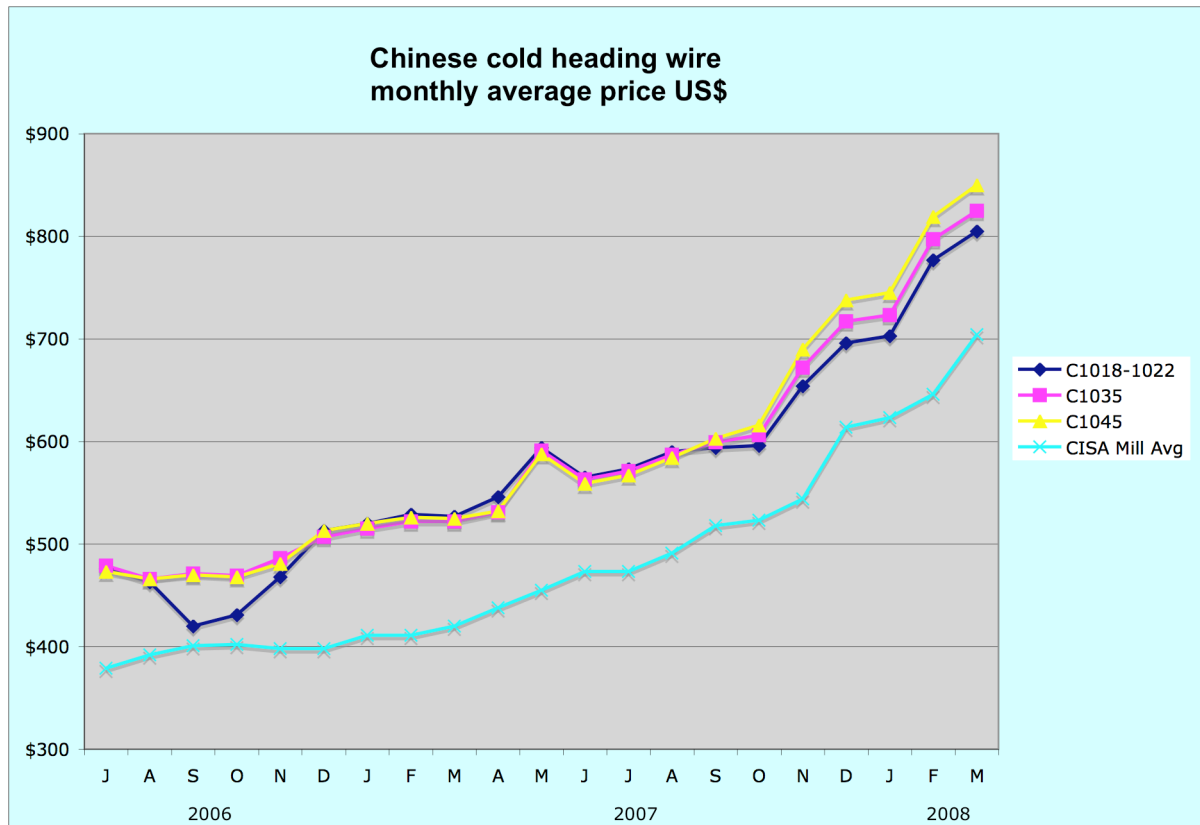
Government action

Inflation is now a major political as well as economic concern for the Chinese government. Continued appreciation of the RMB Yuan is likely to be seen as valuable tool to pull back inflation. The removal of remaining export rebates may also be seen as a contribution to restricting an overheating economy, as well as combating growing protectionist attitudes from Western importing countries.

Regulations targeted at reducing environmental impacts and pollution, as well as improving employment conditions, represent significant on-costs to business. Enforcement appears to be increasingly rigorous.

Wire Costs

Cold heading wire costs have increased consistently throughout the last two years. The graph shows average costs to fastener makers for the main cold heading grades and the official China Iron and Steel Association (CISA) average mill price for 6.5mm wire rod of all grades. Very few fastener makes have the volume to buy direct from mill and are, therefore, also vulnerable to stock holders restricting supply to capitalise on rising costs.



Container sea freight and road transport

During 2007 the cost of container sea freight from Asia to European ports more than doubled.

The volume of containers passing through Shanghai port in 2007 increased by 20%. Although a slowdown is forecast, 2008 is still expected to grow by a further 15%. The imbalance between East-West and West-East traffic also continues. With steel and fuel costs rising, container freight costs are more likely to continue increasing rather than falling off.

SUMMARY

It must be said, particularly in relation to steel costs, that a number of short-term factors have fuelled the dramatic increases and that, almost certainly, speculation will have meant stocks being withheld from the market.

Nevertheless the main input costs have risen substantially and show every sign of remaining at higher levels for the foreseeable future.

The world steel market is continuing to consolidate and there is a strong probability of consolidation in its raw material suppliers. Extractors and steelmakers have tasted a sustained period of profitability as a result of strong increases in world demand and restricted raw material supplies. These companies are intent on maintaining that profitable status.

Cold heading wire rod represents a very small proportion of total steel output and represents only modest added value to steel makers. As a result fastener industry demand has little real influence on the supply chain or the prices it is charged.

There is no doubt that China has ceased to be the exporter of deflation it had been for many years and is now fuelling world inflation. There is no evidence that trend is reversible. Nor is there evidence that any other region has the capability of taking on the role of low cost production across a wide range of goods.

The potential level of antidumping measures against Chinese fastener is impossible to predict at this stage but, at whatever level, the effect will be to increase world fastener prices. Sufficient capacity does not exist in other producing countries to substitute the current volumes and producers in Europe and other manufacturing markets are intent on achieving increased prices for standard fasteners. By definition the only reason companies in higher cost fastener producing countries will have for investing substantially in standard fastener production is if prices increase substantially to justify the relatively long pay-back on fastener production equipment.

The pace of current cost increases is explosive and a level of speculation, impossible to calculate, must exist. These factors, together with the fragile condition of the US and other developed economies, almost certainly means there will be a correction of some sort. However, while prices are likely to fall the underlying trend remains strongly inflationary and it would be extremely imprudent to base commercial decisions on anything other than the expectation that higher prices will sustain.