



Steel boom not over yet

Steel and scrap prices may have come off their peaks but the boom has not necessarily ended, more than 200 delegates were informed at the BIR Ferrous Division meeting in Berlin. One of several positive predictions was that China would start to relax its tight monetary controls over the coming months in order to enable its mills to replenish their depleted raw material stocks.



Rolf Willeke of the German steel recycling organisation BDSV.



Ralph Schmitz of the German non-ferrous metals traders organisation VDM.

By Alfred Nijkerk

In 2003, European steel production reached 159.8 million tonnes - broadly in line with the totals for the previous two years but below the 163.4 million tonnes recorded in the year 2000. This relative lack of change contrasted sharply with world steel production which rose almost 14% from 847.6 million tonnes in 2000 to 962.5 million in 2003, Anton van Genuchten of German scrap processing company Thyssen Sonnenberg Recycling (TSR) told the 200-plus delegates attending the BIR's Ferrous Division meeting in Berlin.

Scrap exports and imports by the EU's 15 established member states had remained more or less in balance over recent years, totaling 8.6 million tonnes and 8.4 million tonnes respectively last year. Turkey once again emerged as the leading buyer of EU scrap in 2003 with total imports of 3.5 million tonnes (see box 'EU Trade Balance'), while the largest external supplier was Russia on 2.2 million tonnes. Scrap consumption among the 15 established EU members totalled 85 million tonnes for the fourth year in succession. 'There is currently no scrap shortage in the EU and I do not expect the current steel boom in Europe to end in the near future,' observed Mr Van Genuchten.



U.K. tops export list

Christian Rubach reported on the activities of the European Ferrous Recovery and Recycling Federation (EFR), of which he is President. The organisation's main task was to defend and promote the interests of the EU ferrous industry, and to date EFR had successfully managed to ward off the export restrictions, quotas or monitoring demands advanced by various EU mills. But the meeting was surprised to hear Mr Rubach say: 'We were not able to prevent the EU retaliation measures against the U.S. and import duties of 5% up to 17% on ferrous scrap imported from the U.S. into the EU will be imposed this year until March 2005.'

Eu Trade Balance (million tonnes)

Exports Third Countries ex EU		Imports Third Countries into EU	
	Jan-Dec 2003		Jan-Dec 2003
Scrap Exports Total	8.65 (+7.3%)	Scrap Imports Total	8.40 (+9.5%)
Biggest Buyers		Biggest Suppliers	
Turkey	3.50 (+18.1%)	Russia	2.19 (+8.1%)
USA	0.95 (+7.7%)	Poland	0.99 (+15.5%)
India	0.82 (+23.8%)	Czech Rep.	0.99 (+9.3%)
Malaysia	0.58 (-37.8%)	Hungary	0.39 (+29.7%)
Indonesia	0.55 (+11.8%)	USA	0.32 (-228.3%)
China	0.38 (+108.0%)	Ukraine	0.27 (+41.0%)



From this station in Berlin, which was built in 1865, trains once departed for Hamburg. Today, it is the home of the museum for contemporary art.



From left: Alan Goldstein of AMG Resources; former BIR Environment Committee President Patrick Neenan; and John Crabb of Australia.

the same period last year. Scrap exports increased by a factor of 2.3 to total 3.3 million tonnes. Of this, 1.4 million tonnes was exported through the Baltic sea ports, 1.3 million tonnes through Black Sea and Sea of Azov ports, and 400 000 tonnes through Far East ports. Mr Ilatovsky noted: 'Exports are limited to about 12 million tonnes, due to limited port capacities. In order not to be deprived of scrap, mills in Russia paid more for domestic scrap than export prices in April, thus creating large stocks.' He predicted that scrap collection in 2004 would reach 26 to 27 million tonnes while exports would achieve a maximum of 12 million tonnes. High domestic transport costs made melting steel in electric arc furnaces more economic than exporting material sometimes over thousands of miles to the ports. Thus, Russia's scrap exports could fall within a few years to the extent that it could become a net importer, Mr Ilatovsky concluded.

Record prices in South East Asia

In his report on the Pacific Rim market, Jeremy Sutcliffe of Sims Group Australia cited record prices of US\$ 350 per tonne in South East Asia this year. Even allowing for recent heavy falls, prices were still significantly higher than 12 months earlier.

Mr Sutcliffe dealt with the key question of why China was so quiet, listing among other reasons the attempts by the country's central government to cool down the economy, including severe restrictions on loans to expand steelmaking capacity. Power shortages and healthy stocks of both imported and domestic scrap were also mentioned. These conditions had forced EAF mills to operate at substantially lower capacities and was directly affecting the supply and demand of steel scrap. Nevertheless, China imported 3.2 million tonnes of scrap in the first quar-

Steel in a global economy

Guest speaker at the BIR Ferrous Division meeting in Berlin was Prof. Dr Dieter Ameling, President of the German steel federation. Providing an excellent overview of the world steel situation, he underlined the spectacular increase in China's steel production and gave forecasts for the year 2007. The apparent per capita utilisation rate of crude steel differed widely around the world, it was noted, with India lagging well behind and China rapidly gaining ground.

According to Prof. Dr Ameling, worldwide scrap input was currently around 400 million tonnes per annum but recycling share as a percentage of crude steel production had been declining as a result of China's decision to invest largely in integrated mills rather than electric arc furnaces. In 2002, steel production totalled 903 million tonnes while scrap input amounted to 383 million or 42.4%.

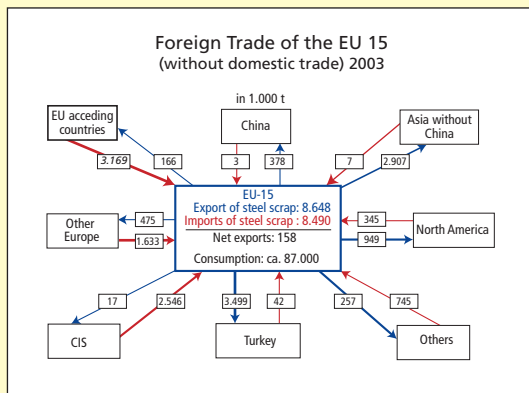
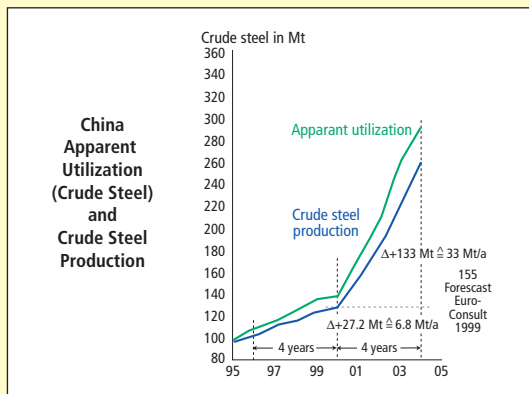
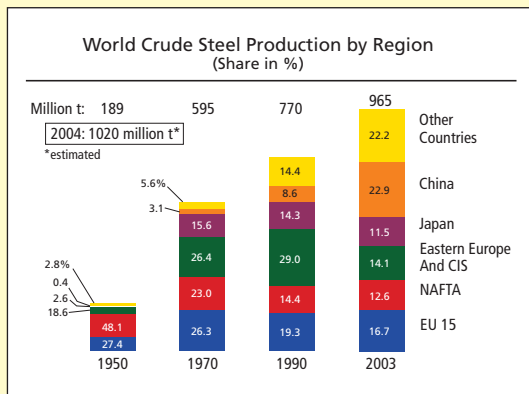
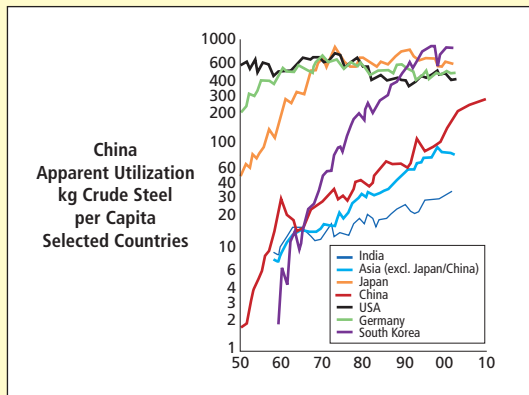
Prof. Dr Ameling also gave an overview of the established 15 EU member countries, in which he showed foreign scrap trade and compared the explosion in hot metal/DRI/scrap prices to the slower rise in steel prices.



Guest Speaker Prof Dr Dieter Ameling, President of the German Steel Federation.

According to Colin Iles of EMR, the U.K. is currently the EU's largest scrap exporter: last year, the country shipped almost 4 million tonnes overseas - equivalent to 47% of total EU exports. Inter-EU trade in scrap amounted to 20.8 million tonnes in 2003, he added. Ruggero Alocci of Italy said his country was one of the world's largest importers of scrap in buying more than 4 million tonnes per annum. Italy produces 60% of its steel in scrap-fed electric arc furnaces (EAFs) compared to the EU average of 40%.

According to Denis Ilatovsky of Mair, one of Russia's largest scrap traders/processors, scrap collection in Russia reached 7.7 million tonnes in the first four months of 2004 - an increase of 42% over



From Left: Colin Iles of the U.K., Christian Rubach of Germany, Ruggero Alocci of Italy and Ikbali Nathani of India.

ter this year compared to 1.7 million tonnes during the same period last year.

Korean imports of deep-sea cargoes have dropped due to strong domestic availability of steel scrap at considerably lower prices. The country's steel production increased year on year by 4.5% in the first quarter of 2004. Weaker domestic prices in Japan had substantially increased scrap exports, further depressing prices in the region, according to Mr Sutcliffe.

It was remarkable, he suggested, that the price difference between pig iron and ferrous scrap remained substantial and abnormal. And he also observed that the fundamentals which had led to the escalation in ferrous scrap prices were still in



Dr Peter Schmölle, Manager of Crude Iron Production at the German ThyssenKrupp Stahl (TKS) steel mills in Germany.

place, leading him to predict that ferrous scrap prices would stabilise shortly and that a new 'resistance level' would be established. Ikbali Nathani of India spoke of a fast-growing steel industry in his country and continuing growth in ferrous scrap imports, despite an import duty of 5% on melting scrap. There was a 15% duty on re-rollable scrap and on ships for demolition, he pointed out. Large volumes of scrap from the Middle East and Africa, as well as from Europe, were continuing to

arrive in India in containers, with almost every shredder operator in Europe offering shredded scrap in this way to avoid crane discharge problems and congestion difficulties. Besides, the freight rate appeared to be lower.

India's steel industry had enjoyed a bumper year and had been running at 110-120% of installed capacity, according to Mr Nathani's report. Steel demand was increasing rapidly and could reach 110 million tonnes by 2010. Per capita steel consumption was still very low at only 30 kg per head compared to 150 kg in China and 460 kg in the U.S.



Scrap was now being used even in some blast furnaces and the proportion of scrap feed would shortly be increased from 5% to 15%.

Production costs rise in the U.S.

Robert Philip of Hugo Neu Schnitzer in the U.S., who was re-elected in Berlin for another two-year term as the Ferrous Division's President, reported on the situation in his home market. He observed: 'Unlike prior economic recoveries, the dramatic rise of production costs due to the rise of commodities pricing could be passed along to the mills' consumers via surcharges. But now that domestic scrap prices have backed off the Spring 2004 highs, these same mills are struggling to justify to their customers why a parallel reduction in the surcharges is not occurring.' He predicted that China would re-emerge as a strong buyer of scrap, but perhaps in a more 'graduated' manner than previously.

Denis Mittleman of Hugo Neu Schnitzer remarked that whereas U.S. steel prices were perhaps the lowest in the world some six to eight months ago, they were now among the highest, with heavy plates at just under US\$ 1000 per net ton and hot rolled coil at around US\$ 650 per ton.

The coke shortage had provoked a general increase in demand for scrap and for low residual scrap, pig iron and HBI/DRI especially. Strong containerised shipments of scrap had also been seen, he added.

As in China and other countries, the U.S. was continuing to experience a serious shortage of railcar equipment and a reduction in shipments of up to 70%.

Mr Mittleman ended by predicting that, over the coming months, China would start to relax its tight monetary controls in order to enable its mills to replenish their depleted raw material stocks. He also anticipated that CIF prices of under US\$ 200 in Turkey and of below US\$ 220 in Asia were unsustainable and would eventually move upwards again. □



General Director Herman Voskamp (left) and President Johan van Peperzeel of the Dutch Metal Recycling Federation.

Shredder Committee

Jens Hempel-Hansen of Denmark was unveiled as the new Chairman of BIR's Shredder Committee in succession to Tony Bird of the U.K., who has chaired the committee for many years but has now stepped down following his election as BIR Treasurer.

Ahead of the Berlin convention, the committee had drafted a comprehensive, country-by-country list of shredder operators. This indicated that there were 756 automobile shredders across five continents as against 712 in the year 2000. At first glance, this did not suggest spectacular growth but, as Mr Bird observed, the trend in the U.S., Japan and Europe was to replace smaller shredders of less than 2000 HP with larger models of 3000 to 10 000 HP. The Shredder Committee had identified 234 automobile shredders in the U.S./Canada and 187 in Japan, whereas China and Russia were thought to have only three and five shredders respectively.

BIR's Environmental and Technical Director Ross Bartley presented an update on the activities of the European Shredder Group (ESG) of the European Ferrous Recovery and Recycling Federation (EFR). In monitoring the EU's ELV Directive, the organisation was rather concerned, he said, that implementation was not homogeneous, that timetables and targets differed, that some systems were funded whereas others were not, and that technical requirements often varied. There had also been complaints about lack of enforcement and about the data gathering burden.

According to Mr Bird, ESG was also concerned about bans in various countries on the landfilling of automobile shredder residue (ASR).

Dr Peter Schmöle, Manager of Crude Iron Production at the German Thyssen-Krupp Stahl (TKS) steel mills, gave a presentation on the requirements on ASR

for injection into blast furnaces. In co-operation with other integrated mills in Germany, TKS has undertaken a study on the feasibility and requirements of adding ASR to traditional blast furnace feed. A trial is under way at the 12 000 tonnes a day TKS blast furnace in the German town of Schwelgern. In this process, ores (lumps, fines and sinters) enter the top of a blast furnace at a rate of 1600 kg per tonne of hot metal produced, together with coking coal (300 kg per tonne of hot metal). At the bottom of the furnace, hot wind is blown together with reducing agents such as pulverised coal (180 kg per tonne of hot metal), oil or natural gas. The total amount of reducing agents is some 475 kg per tonne of liquid iron produced.



Because Anthony Bird of the U.K. (left) was elected as BIR's new Treasurer, he stepped down as Chairman of the Shredder Committee. He was succeeded by Jens Hempel-Hansen of Denmark (right). In the centre is Rolf Willeke of Germany.

To date, various operators in and outside of Germany have already added prepared old plastics to their blast furnaces and so the addition of ASR is also thought likely to be possible. But elements such as zinc, lead, alkali oxides and chlorine are allowed only in very limited quantities, while sulphur, phosphorus, copper, chromium, nickel and vanadium represent unwanted elements. 'If the percentages of these "contaminants" in ironmaking can be held below certain standards, ASR could be a good feed in blast furnaces,' Dr Schmöle concluded.