The steel industry: Enlargement creates opportunities for EU mills

When the Central and Eastern European countries (CEECs) have joined the European Union, steel manufacturers there will also have to be fit to face competitive pressures within the EU. The steel industry is already one of the most important sectors in many accession countries. Its share in total industrial production amounts to 5% in both Poland and the Czech Republic, for instance, while the figure is barely 2% in the EU. According to estimates by the German Steel Federation, the accession countries’ crude steel capacities come to approximately 40 m tonnes. By contrast, total production capacity of the EU countries is over 200 m tonnes – with Germany accounting for 51 m tonnes. This means the CEECs’ steel capacities amount to almost one-fifth of the EU level. In terms of productivity in the steel industry, however, the CEECs lag far behind the current EU. According to the German Steel Federation, the CEECs produce 130 tonnes of crude steel per worker and year, while the figure is almost 600 tonnes in the EU. In the CEECs, too much steel of poor quality is produced in totally outdated plants with an excessively large workforce. However, unit labour costs are 60% higher in Germany (over EUR 80 per tonne of crude steel) than in Poland, for example, the largest steel producer among the accession candidates. In Germany, the EU’s leading steel-producing country, the last few decades have seen massive restructuring thanks to new technologies, resulting in considerable productivity advances. In the west German steel industry, for instance, the workforce was reduced by two-thirds between 1980 and 2002, while crude steel production declined by only one-tenth in the same period. After the fall of the Iron Curtain, Eastern Europe’s „sleeping beauties“ in the steel industry entered a phase of adjustment to western standards which has by no means been completed yet. Hence, it will take a long time for the accession countries to catch up with western production and quality standards.

CEE accession countries: small share in EU steel production

Total crude steel production in the CEE accession countries amounted to only 22 m tonnes in 2002, which corresponds to just under 15% of total EU output. In the past ten years, output stagnated in Eastern Europe and exports rose only marginally, to 13 m tonnes (EU: 109 m tonnes). Major steel-producing countries are Poland, the Czech Republic, Slovakia and Hungary, which together account for 95% of crude steel production in the accession countries. The largest steel exporter is the Czech Republic, followed by Slovakia and Poland. Their most important sales market is Western Europe, but sales prospects should look up markedly in the future in North America and Asia. In 2002, for instance, 46% of Polish rolled steel was taken up by Western Europe, while only 6% went to North America and Asia, respectively. By contrast, total steel imports rose by roughly 15% p.a. to 9 m tonnes (EU 98 m tonnes) in the same year, which led to import restrictions in some countries (e.g. the Czech Republic). At just under 3 m tonnes, the Czech Republic is the largest steel importer, followed by Poland (2.5 m tonnes) and Hungary (1.2 m tonnes). But steel imports in the CEE accession countries are still 4 m tonnes lower than exports.
Real GDP growth in these countries is currently about 2 percentage points stronger than in the EU. Rising wages and salaries mean that Eastern European customers are also becoming more demanding. Besides numerous consumer goods for everyday use (e.g. household appliances) there is also rising demand for capital goods (i.a. in mechanical engineering and plant construction). The local steel industries with their technologically backward plants, however, can hardly meet this rise in demand for high-quality output. For this reason, imports are rising more quickly than exports.

1. EU steel policy sets standards

In 1993 the Copenhagen European Council set in motion the enlargement process for the Central and Eastern European countries. The EU’s strategy, which is to provide orientation and support to the applicant countries, is very ambitious. The negotiations over steel policy in the framework of the EU enlargement process proved difficult. For one thing, enormous costs will arise from the modernisation of outdated steel mills and, for another, the industry plays an important part as a major employer in many accession countries. The European Commission and Council must ensure that there are no competitive distortions in the form of prohibited aid, unfair trade (dumping) or circumvention of environmental and labour legislation. For this reason, the European Commission concluded Association Agreements, so-called “Europe Agreements”, with the accession candidates back at the beginning of the 1990s. These agreements formed the legal basis for the association between the candidate countries and the EU. They regulated political and economic relations and created the framework for gradual integration into the EU. These agreements stipulate strict compliance with the EU’s Steel Aid Code. According to the Code, aid was only permitted for very few exceptions such as plant closures. Prior to EU entry, the countries affected can grant restructuring aid in a period of grace if this ensures future viability of the companies or if the funds are used for rationalisation or capacity reduction. However, most accession countries have so far been very reluctant to tackle the obligation laid down in the Europe Agreements to restructure their steel industries.

Protocols to accession treaty include fixed deadlines

The protocols to the EU accession treaty foresee fixed deadlines for the restructuring of the steel sector. In the cases of Poland and the Czech Republic, restructuring is to be completed by 2006. For Poland, this means a reduction in net capacity for finished steel products of at least 1.2 m tonnes (~10%) between 1997 and 2006. This figure includes reductions, above all, for hot and cold-rolled products. Individual companies and their plants as well as fixed dates for capacity changes are listed in an annex to the protocols: one example is Polskie Huty Stali (PHS), which is forced to close its hot-strip steel mill in Krakow (0.7 m tonnes capacity) and its cold-strip steel mill in Swietochlowice (36,000 tonnes) by the end of December 2005. Overall, Poland will have to cut the number of people employed in the steel industry from the current 23,000 to 16,000. Of the 7,000 affected workers, 4,000 may stay on until they have reached retirement age or will be asked to take early retirement. 3,000 steel workers will have to be laid off.
In the period between 1997 and 2006, the Czech Republic must reduce its net capacity for finished products by 0.6 m tonnes. Here, too, the deadlines for plant closures have been fixed. This affects, above all, the Nova Hut rolling mill for heavy section steel.

However, capacities do not have to be slashed in all cases. The Polish PHS, for example, will be allowed to increase capacities by 0.2 tonnes in its wire rod mill in Sosnowiec and by 0.4 m tonnes in its hot steel plate mill in Krakow. In the Czech Republic, Nova Hut will be allowed to increase capacities in its section steel mill by 0.3 tonnes.

**Monitoring through regular reports**

In its Agenda 2000, the Commission said it would give regular reports to the Council on the progress made by the individual applicant countries in Central and Eastern Europe in preparation for accession. The steel industry restructuring laid down in the protocols to the accession treaty is monitored by the Commission and the results regarding progress on the way to EU membership are published on a regular basis. Even though Poland has made great progress with its privatisation programme, the state still holds majority stakes in companies in the steel, chemicals and energy sectors. However, the Polish government aims at completing the privatisation process by 2005, as aid for restructuring measures is expiring. The state holding will then amount to 10-15% of GDP, as opposed to almost 35% currently. The number of state-owned enterprises (excluding companies owned by municipalities) had already been reduced to roughly 2,000 in 2002 from 8,400 in 1990.

**2. Steel industry's significance in individual CEE countries**

**a) Poland: pent-up demand for restructuring**

With crude production of over 8 million tonnes, Poland is the largest steel producer among the accession countries. However, in the EU it is outstripped clearly even by Belgium which produces 11 m tonnes. In the last two years, Poland's crude steel output was down while production volumes looked up slightly in other accession countries such as the Czech Republic and Slovakia. Crude steel capacities currently amount to just under 13 m tonnes, so utilisation rates at the

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Source: ISI
mills would only come to nearly 70% (in 1992 capacity utilisation was a mere 60%).

The sector remains mired in crisis in Poland as restructuring has so far not been carried out to the desired extent. Half of the nearly 40 steel and metal works are in the red. Over the past years the industry has focused on reducing crude steel capacities and cutting jobs. Many of the affected companies were “industrial dinosaurs”, such as the Sendzimir plant in Nowa Huta near Krakow, a huge industrial combine built in the 1990s with c. 100 km of roads and 150 km of rail tracks. Of the former 15,000 employees, only 9,000 are left today. Proposals regarding specialisation of the enterprises have so far not met with much approval from the responsible parties. There is still a lack of flat steel products in the country, so these imports are increasingly gaining in importance. One-fifth of the imports come from Germany, followed by Slovakia, Ukraine and the Czech Republic. Imports cover 50% of domestic demand for flat steel. Should these imports continue to rise, local suppliers could be crowded out of the market. By contrast, the industry produces excessive volumes of structured steel for which there is only a small market. For Polish rolled steel, the ratio between flat and structured steel products is 45:55; a ratio of 60:40 is seen as competitive in the EU.

Without massive help from the government and/or foreign investors it will hardly be possible to modernise the Polish steel industry. In order to reach the Western European level, the Polish steel industry must increase productivity by roughly one-third. On the basis of rehabilitation proposals by the individual companies, the Polish government has put the total amount required for debt repayment and modernisation at EUR 1.2 bn, a realistic figure.

**On track after establishment of PHS**

The first step in the right direction was the establishment in 2002 of the Polish steel consortium PHS, which represents about 70% of total Polish steel production. Massive import pressure and the related disappearance of domestic products from the market brought the necessary understanding that a merger was called for. Previously, all attempts had failed at individually privatising Huta Katowice, Huta Sendzimir, Huta Florian and Huta Cedler, which are combined in a holding company. No German company submitted an offer within the deadline for PHS’s privatisation, which expired at the beginning of 2003. The reason is probably the considerable financial burden that would have awaited future owners. Meanwhile, the government has given up its former strategy of “repay debt first, sell later”. PHS’s debt alone piled up to EUR 1.1 bn by year-end 2002. The state intends to retain 25% of the shares to have a say in the restructuring programme. Among the bidders were Luxembourg-based Arcelor, the world’s largest steel producer, US Steel and the Dutch LNM (London Netherlands Metal). In mid-2003 the Polish treasury secretary said that only LMN Holding was a candidate for taking over the company as it had submitted the most attractive bid. At the end of October the Polish government decided that LNM would take over PHS. However, no details on the privatisation contract have been published yet.

**Outdated production methods partly replaced**

Steel was still produced in technologically backward Siemens-Martin ovens at the beginning of the 1990s in Poland. In Germany, these ovens had already disappeared in the early 1980s. The same method is still used in Poland today. The share of low-cost oxygen steel is only two-
thirds, as opposed to over 70% in Germany. Since the mid-1990s, Poland has increasingly invested in continuous casting technology and thus triggered an increase in its share in total production which increased eightfold between 1995 and 2001. At 72%, though, the share of continuous casting in total steel production is still markedly below the EU ratio (96%).

b) Czech Republic: structural disadvantages caused by break-up

Steel output in the Czech Republic, the second largest crude steel producer among the accession countries, has been rising again since the end of the 1990s. In 2002, 6.5 m tonnes were produced, up from 5.6 m tonnes in 1999. The Czech Republic also has considerable excess capacities of just under 2 million tonnes. This is about as much as total steel production in Greece. As in Poland, the necessary flat steel products must be imported, which has resulted in a rise in the import ratio in this segment to 70% since the early 1990s. The break-up of the former Czechoslovakia in 1993 had an adverse effect as the production of structured steel was concentrated in the Czech part of the country and flat steel products in the Slovak part. The opening of the new rolling train at Nova Hut, however, will lead to a noticeable increase in flat steel production for domestic use and to a decrease in import pressure.

Privatisation since the beginning of the 1990s

The political turning point in 1989 also marked the beginning of the privatisation process in the Czech steel industry. The government placed particular emphasis on financially sound foreign partners, who should not only provide funding but also introduce new production technologies. Trinecke Zelezarny, for example, the Czech Republic’s second largest steel producer after Nova Hut, was gradually privatised after transformation into a joint-stock corporation. Its largest stockholder is the Czech company Moravia Steel, followed by Commercial Metals from the USA. The remaining shares are widely spread. The share of steel produced by means of continuous casting technology has risen from 36% at the beginning of the 1990s to 91% recently – i.e. noticeably stronger than in Poland. Overall, productivity has increased considerably and the company is planning to achieve labour productivity of 500 tonnes per worker by 2005 with a reduced workforce (down by 1,600 from 2001). In order to ensure competitiveness in international markets, the company is planning considerable investment in new production technologies and, as a result, improved product quality. In particular, it intends to produce more SBQ (special bar quality) steel required by the automobile industry. These are high-strength steels with exceptional forming qualities.

Overall, the Czech steel producers are planning to reduce structured steel output from 3.7 tonnes to 3.5 tonnes over the coming years, while flat steel production is planned to be increased from 2.4 m to 2.8 m tonnes. This restructuring will cost approximately EUR 2.2 bn.

c) Slovakia: US company buys steel mill

With crude steel output of over 4 m tonnes, the Slovak steel industry is relatively small in an international comparison. It accounts for less than one-fifth of CEEC output, or just under 3% of total EU output.
Despite these small figures the sector stepped into the limelight with the sale of the VSZ steelworks (Vychodoslovenske zelezarny) in Kosice to US Steel, as this enterprise represents practically the entire Slovak steel industry. US Steel now owns an important production site at the heart of Europe and is surrounded by countries with extremely good sales prospects. VSZ is already the largest state-of-the-art flat steel producer in the eastern part of Central Europe. US Steel plans to invest nearly EUR 1 bn in this plant over the next few years. Total steel consumption in Slovakia comes to only about 1.5 m tonnes that are largely covered by imports – mostly structured steel that is not produced by VSZ. The company has therefore been selling 80% of its products in foreign markets for some time now. Its main customers are the neighbouring Central and Eastern European countries. VSZ has increasingly tailored its products to the rapidly growing automobile industry in these countries. The company plans to tap new markets within a radius of approx. 1,000 km – i.e. also in the south of Germany.

d) Hungary: Steel companies looking for partners

The Hungarian government intends to sell all state holdings in industrial corporations by the end of 2005. The state currently owns or has a stake in more than 80 enterprises. The proceeds are to go into infrastructure improvements. One of the privatisation candidates is the Dunaferr mill complex. The tender process was completed at the end of 2003. In summer 2002 the Boston Consulting Group had examined Dunaferr’s “suitability for privatisation” and found that the company was not viable without a strategic partner. With its slightly under 9,000 staff, Dunaferr produces approx. 80% of Hungary’s total crude steel output. According to the national trust agency, there are six to eight potential buyers, among them US Steel, a Canadian enterprise and a Ukrainian-Hungarian group of investors. As in the other CEECs, the investor will have to spend huge sums on modernisation and environmental protection. Dunaferr made considerable efforts, however, to reduce its structural deficits at least in some areas in 2002. The modernisation programme ends in 2010 and will swallow as much as EUR 0.4 bn. The restructuring would lead to 3,000 redundancies – an extremely difficult number both politically and socially.

Hungary, which produces approx. 2 m tonnes of crude steel (nearly one-tenth of the accession countries’ output), has been a net importer of steel since 1998. In 2002, 1.2 m tonnes were produced, compared with only 0.6 m tonnes ten years earlier. The share of imported steel in total consumption had risen to 60% in 2002. This induced the government at the beginning of 2003 to introduce quotas and additional tariffs on certain steel products. These are steel piping from EU countries as well as hot-rolled products and steel piping from Russia and Ukraine. If Hungary fails to modernise its plants quickly, its competitiveness compared with the current EU countries is likely to suffer.

3. Trends: opportunities for steel producers?

GDP growth in the EU accession countries will probably be considerably higher in future than in the current EU (2002: +2.5% real). Growth rates in the future member states ranged from 1% in Poland to 7% in Lithuania in 2002. Such an expansionary economic development will boost steel consumption in these countries. However, the companies should increasingly seek to meet the demand in their home markets by adjusting their product ranges and improving product quality through higher value-added. In this context, privatisation will offer opportunities to benefit
from western know-how. For one thing, this could enable the CEECs to strengthen their competitive positions in the home markets and boost their sales figures; for another, their export chances will look up.

EU steel producers will also gain, though: by taking over companies in the accession countries, they can enjoy the benefits of low labour costs. Moreover, there is the possibility of tapping market potential through joint ventures and stakeholdings. Also, economic expansion in the accession countries will likely lead to a general increase in imports. This will benefit, above all, companies from the EU.

**Rising demand from automobile industry**

The steel companies are hoping first and foremost for higher demand from the expanding automobile industry. In Germany, for example, roughly one-third of the steel produced goes directly or indirectly to this sector. In Central and Eastern Europe, the auto sector has become one of the major pillars of growth. Between 1995 and 2002, output rose by a total of 60% to 1.2 million units, while production growth was markedly lower in the EU (+12%). Up to 2000, Poland was the leading location for the Eastern European automobile industry, with annual production of 500,000 vehicles. The most important carmakers are Fiat and Opel, which together account for 90% of total production. Meanwhile, the Czech Republic holds the top rank, with an increase in production of one-tenth p.a. over the last seven years. By far the largest Czech make is Škoda (Volkswagen group).

Production volumes are still small in the EU accession countries at present but will probably grow by an average of 10% p.a. in unit terms in the coming ten years. This forecast is supported by the small number of cars (280 per 1,000 inhabitants compared with 490 in the EU and 540 in Germany).

**Impetus from rising construction investment**

Rising construction investment means additional sales prospects for steel companies. According to an analysis by Euroconstruct, construction investment will likely increase by some 2.5% annually to EUR 46 bn in 2005, while the increase in Western Europe looks set to come to no more than 0.5% p.a. However, the volume is considerably higher here (EUR 960 bn). There is pent-up demand in the accession countries as regards both infrastructure and residential and business construction. Large-scale investment is to be expected in the course of restructuring large industrial combines and establishing new production sites as a result of moves to the East by Western European companies. Equally important factors in this context are the proximity to regional sales markets and cheap labour costs.

**Steel production volumes in accession countries still small ...**

All in all, we expect the accession countries to increase crude steel production from currently 22 m to 24 m tonnes by 2010 (over 1% p.a.). The increase is the same in the EU, but at a considerably higher level of 160 m and 170 m tonnes, respectively. The share of the accession countries in crude steel production of the enlarged EU would remain roughly the same, at over one-tenth.

By contrast, world crude steel production will likely rise by 7% to 1.5 bn tonnes in the forecast period. One reason for the strong increase is the absorption capacity of the Chinese steel market. Its volume could expand by over 10% p.a. in the coming years. In 2002, the “Middle Kingdom” was the world’s largest crude steel producer (182 m tonnes).
... but steel consumption and EU imports on the rise

The accession countries’ steel imports also look set to increase strongly for several reasons. For one thing, steel consumption is rising as a result of expectations of good economic growth. For another, the market is demanding high-quality products, which the CEECs will not be able to produce in sufficient quantities in the foreseeable future. These include products with surface finishing that contributes to a longer life and maintenance of value. In other sectors, the trend towards weight-optimised parts continues; this means higher demands on suppliers and – as a result – better chances for Western European exporters. Consumers have also become more demanding with regard to stainless steel so there is additional sales potential, e.g. for washing machines and dishwashers.

4. Conclusion

Much has been achieved already in the restructuring of the steel industry in the EU accession countries. But the key figures still show that a lot remains to be done in order to catch up with Western European productivity and quality levels. Capacity utilisation in the Eastern European mills has improved but is still markedly below the current level of 90% in Western Europe. The fact that the continuous casting technology is still used to only a limited extent suggests additional need for restructuring. The momentum of crude steel production in the accession countries will likely remain subdued in the current decade – not least because of the competition from Western European steel mills. For this reason, product quality must be improved and the range of products adjusted. As this will likely take some time, we continue to expect large-scale steel imports to the CEECs thanks to the economic upswing there.

Privatisation has not yet been completed in all accession countries as investors shy away from spending considerable amounts on debt restructuring and modernisation. In addition, the governments – for example in Poland – want to have a say in restructuring, especially as regards job cuts.

Overall, however, the steel industry in the CEECs is on the right track and seems to cope well with the painful adjustment process. In this process, companies are enjoying the support of both the governments of the individual countries and of foreign investors. However, it is doubtful whether the restructuring will be completed already in 2006, as called for by the EU.

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