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Promoting participation of developing countries in dynamic and new sectors of world trade: (iii) Steel and related specialty products

Background note by the UNCTAD secretariat^{*}

Executive summary

China, Japan, the United States, the EU and the CIS account for about three quarters of world crude steel production. Major exporters are the EU, the CIS, Japan, the Republic of Korea, and Brazil, and major importers are the EU, the United States, and China. Developing countries' share in world exports has been increasing.

The period of very high prices, starting in 2001 ending in 2004, was caused by rapidly rising demand, rising prices of raw materials used in steel production, and transport costs. Developments in China have greatly affected the world steel market. Since 1996, Chinese production and consumption of steel have increased rapidly, making it the world's largest producer and consumer.

The excess steel capacity that long existed has now been reduced. The projected increase in capacity may just cover the additional supply, provided that Chinese demand continues growing at its recent rates. Nevertheless, the general tenor and direction of the market is expected to change, with prices remaining at present levels or falling further and excess capacity possibly again emerging as a concern.

New capacity is planned mainly in developing countries and countries in transition. These countries have significantly lower production costs than most developed countries. This can lead to increased market shares if international trade is not impeded.

Efforts within the OECD to limit the impact of government subsidies on international steel trade have not yet succeeded. To deal with distortions, it is necessary to take into account not only subsidies but all relevant arrangements and measures.

^{*} This document was submitted on the above-mentioned date as a result of processing delays.

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I. INTRODUCTION

1. Steel is an alloy of iron and carbon containing less than 2 per cent of carbon and 1 per cent of manganese (and small amounts of silicon, phosphorous, sulphur and oxygen). It is made through two basic routes: from raw materials (iron ore, limestone and coke) by the blast furnace or basic oxygen furnace route (this method is known as the integrated route), or from scrap via the electric arc furnace (EAF) method. In 2004, 63 per cent of crude steel was produced by the integrated route, 33.8 per cent by the EAF method, and 3.2 per cent by the old open hearth technology.

2. Crude steel is used to produce semi-finished and finished products destined for internal consumption as inputs for further processing or for sale. Semi-finished products are steel shapes (blooms, billets or slabs) that are later rolled into finished products such as beams bars or sheet. Finished products are subdivided into two basic types: flat and long products.¹ There are more than 3, 500 different grades of steel with many different properties – physical, chemical and environmental – 75 per cent of which have been developed in the last 20 years. Alloyed steels, which are sometimes also called special steels and may be considered specialty products, contain small portions of alloying elements such as chromium, cobalt, manganese, molybdenum, nickel, niobium, silicon, tungsten or vanadium. They are used in special applications, particularly those requiring high strength or corrosion resistance. The most important of these is stainless steel, which contains mainly chromium and nickel in varying proportions. Alloyed steels account for a relatively small portion of all finished steel products, and their production and use are concentrated in developed countries and China.

3. Steel production and use have some advantages from an environmental point of view. Steel is completely recyclable, and its production requires relatively small amounts of energy, compared, for instance, to aluminium. Lightweight steel constructions in automobiles and rail vehicles also help to save energy and resources. Since the 1960s, the steel industry has made considerable efforts to limit environmental pollution, reducing by half both energy consumption and carbon dioxide emissions per ton of steel produced.

4. The global steel market has historically been marked by cyclical fluctuations. An interesting set of statistics has been provided by World Steel Dynamics (WSD) regarding the fluctuations that the world steel industry has experienced since 1954 (see table 1).

5. The WSD calculations were made in June 1998. Accordingly, four years (from 1998 to 2001) represented the outlook at that time. In fact, the period had one "good" year (2000) and three "bad" ones. After this period, 2002 was a "good" year, while 2003 and 2004 were particularly "great".

¹ A flat steel product is a plate product or a (hot or cold) rolled strip product. Typically steel is rolled between sets of rollers to produce the final thickness. Plate products vary in thickness s from 10 mm to 200 mm, and thin flat rolled products from 1 mm to 10 mm. Plate products are used for ship building, construction, large diameter welded pipes and boiler applications. Thin flat products find end use applications in automotive body panels, domestic "white goods" products, "tin cans" and a range of other everyday products containing steel. A long steel product is a rod, bar or section. Typical rod products are reinforcing rods for concrete, engineering products, gears, tools and a range of products used in building construction. Wire-drawn products and seamless pipes are also part of the long steel products group.

Years	1954-61 8 years	1962-69 8 years	1970-75 6 years	1976-85 10 years	1986-93 8 years	1994- 2001(estimate) 8 years
Great	8	1	2	0	2	1
Good	0	1	2	2	2	5
Bad	0	6	2	8	4	2

Table 1. Steel's good years versus bad years

Source: World Steel Dynamics, *The Steel Strategist*, # 24, June 1998. *Notes:*

1. A 'great' year is a year of premium prices (higher than the US price) for steel in the world steel export market. This permits relatively high profit margins to be earned by most steel companies.

2. A 'good' year is a period when world steel export prices, FOB the foreign port, are selling at about 80 per cent of the US price.

3. A 'bad' year is when world steel export prices, FOB the foreign port, sell at less than 75 per cent of the US price.

6. The dynamism of a given commodity can be measured by different indicators such as the growth of world export value or the growth of its share in world commodities exports compared to those of other commodities of the same group (in the case of steel - "minerals and metals")². The value of world exports of iron and steel (Standard International Trade Classification (SITC) position 67) doubled in the period 1985-2002 from \$US 70.3 billion to \$US 143.2 billion, while their share in world total merchandise exports fell from 3.64 per cent to 2.27 per cent and their share in world commodities exports³ rose by 0.5 per cent (from 10.2 per cent in 1985 to 10.7 per cent in 2002). Thus, steel products as a group were less dynamic than world exports but slightly more dynamic than commodities.

7. Table 2 shows the 10 most dynamic commodities (at the SITC three digit level) ranked by average annual export growth in the period 1985-2002. Among the nine positions within SITC 67, only one, namely Iron and Steel Casting Unworked (SITC position 679), appears among the 10, having doubled its share of world commodity exports. Other relatively dynamic steel product groups include Iron and Steel in its Primary Form (SITC position 672) with growth of 5.7 per cent, and Steel, Steel Universal, Plate and Sheet (SITC position 674), with growth of 5.0 per cent.

² Various measures can be used to define the dynamism of a specific product's evolution in global exports over time, including the rate of growth over alternative periods, the degree of growth stability, and changes of a product's share in total exports. The results based on these measures, however, are not necessarily consistent. (See: UNCTAD Discussion Papers Series, "Dynamic products in world exports", by Jörg Mayer, Arunas Butkevicius and Ali Kadri, No. 159, May 2002.)

³ SITC sections 0, 1, 2, 3 and 4 plus sections 67 and 68.

	Value (millions of US dollars)			Average annual growth rate of exports (%)			Share in world commodities exports	
	1985	1995	2002	85-95 95-02 85-02			1985	2002
111 Non alcoholic beverages nes	856.1	4533.7	6493.7	17.7	5.3	11.6	0.112	0.439
098 Edible products, preps nes	3775.9	16713.9	19785.1	15.4	1.7	10.1	0.495	1.337
048 Cereal etc preparations	3684.6	15239.8	19620.7	15.1	2.3	9.7	0.483	1.326
062 Sugar preps non-chocolate	976.1	4209.7	4367.3	15.2	-0.2	9.5	0.128	0.295
073 Chocolate and products	1934.3	7986.7	8146.6	13.9	-1.0	8.4	0.254	0.551
679 Iron, steel castings unworked	1121.3	3839.2	4785.7	10.6	2.5	8.3	0.147	0.323
091 Margarine and shortening	663.4	1958.1	1765.2	12.1	-3.3	8.3	0.087	0.119
269 Waste of textile fabrics	522.3	1496.7	1684.7	11.2	-0.1	8.1	0.068	0.114
244 Cork, natural, raw, waste	44.0 119.3 196.		196.6	8.6	9.3	8.1	0.006	0.013
689 Non-ferrous base metals nes	1352.8	3171.6	3166.2	7.6	0.7	7.4	0.177	0.214

Table 2. Ten most dynamic commodities in world exports (ranked by growth in export value),1985-2002.

Source: UNCTAD Handbook of Statistics, UNCTAD secretariat calculations based on UN Commodity Trade Statistics Database (UN Comtrade) data.

8. In value terms, the share of developing countries in world iron and steel exports (SITC position 67 - Iron and steel) increased from 14 per cent in 1985 to 25 per cent in 2002,⁴ reflecting an average annual increase in developing country steel exports of 7.9 per cent. Table 3 shows data for the different product groups. Most exports come from a relatively small group of countries, including Brazil, China, India, the Republic of Korea, South Africa, Taiwan Province of China, and Turkey. However, several other developing countries, mainly medium- or high-income ones, have been able to build steel industries that are competitive on world markets and export significant quantities of steel products. Accordingly, on past performance, the steel sector would seem to hold interest for developing countries as one component in a mix of exports with growth potential.

SITC and product	Value, n dollars	nillion US	Share in developing countries' commodity exports		Annual growth rate, 1985- 2002, per cent
	1985	2002	1985	2002	
671 Pig iron, etc	1459	4582	0.447	1.108	7.1
672 Iron, steel primary forms	1552	7529	0.476	1.821	8.9
673 Iron, steel shapes, etc	2855	5064	0.875	1.225	4.7
674 Iron, steel univ, plate, sheet	2064	11898	0.633	2.878	11.2
675 Iron, steel hoop, strip	118	152	0.036	0.037	4.2
676 Railway rails etc, iron, steel	26	75	0.008	0.018	4.5
677 Iron, steel wire, exc w rod	201	1015	0.062	0.246	10.2
678 Iron, steel tubes, pipes, etc	1796	5346	0.551	1.293	6.8
679 Iron, steel castings unworked	115	1465	0.036	0.354	15.9
TOTAL	10185	37126	3.123	8.980	7.9

Source: UNCTAD Handbook of Statistics, UNCTAD secretariat calculations based on UN Commodity Trade Statistics Database (UN Comtrade) data.

⁴ UNCTAD secretariat computations bas ed on UN Commodity Trade Statistics Database (UN Comtrade) data .

II. AN OVERVIEW OF THE WORLD STEEL MARKET

A. Production

9. World steel production has been increasing since 1994, and since 2001 the rate of growth has accelerated. In 2004, production crossed the threshold of 1.0 billion tonnes for the first time ever (see figure 1). Three countries (China, Japan and the United States) and two regions (EU-25 and the CIS) account for about three quarters of world crude steel production.

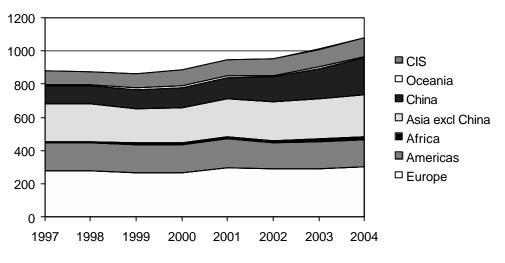


Figure 1. World production of crude steel 1997-2004, million metric tons

10. The global steel industry has long suffered from persistent overcapacity. In 1998, excess capacity was estimated to be 275 Mt. worldwide.⁵ Efforts to identify obsolete capacity with a view to reducing the excess supply have been discussed in the OECD High-Level Group on Steel and have been linked to discussions about an agreement to limit subsidies (see chapter IV). A significant portion of old capacity has been closed in recent years, although new capacity has also been added as part of modernization efforts. Nevertheless, net capacity additions for the period 1998-2002 have been estimated by OECD at 32 Mt., or about 3 per cent. During the same period, crude steel production increased by 260 Mt., indicating that the excess has been reduced.

11. The dramatic improvement in demand in 2002-2004 did of course provide an incentive to add capacity, particularly in countries where continued strong demand growth was foreseen. The biggest increase took place in China, where more than 100 Mt. of new capacity was installed in the period 1998-2004. Other parts of Asia have also experienced growth, with 20 Mt. of expansion, while South American capacity has risen by 8 Mt. and Middle East capacity by over 10 Mt., which is a notable increase for the region.⁶ In 2004, global crude steelmaking capacity was reported to be 1.18 billion tones, while the utilization rate was 88 per cent.⁷

Source: International Iron and Steel Institute (IISI)

⁵ International Trade Administration, US Department of Commerce, 2000.

⁶ Peter Avery, Principal Administrator, OECD, "The Outlook for Steel Global Prospects and Policy Issues", *Arab Steel*, February 2005.

⁷ Reuters, Monday, January 17, 2005. "World steel market seen buoyant to 2006 - OECD"

12. The world steel industry remains highly fragmented, with the 10 largest producers (by size in 2003: Arcelor, Mittal Steel, Nippon Steel, JFE, POSCO, Shanghai Baosteel, US Steel, Corus Group, Nucor, and ThyssenKrupp) accounting for just 30 per cent of total world production.⁸ Iron ore production, for instance, is much more concentrated with the largest producer, CVRD, accounting for 17.8 per cent of world production in 2003, the three largest producers for 36.3 per cent, and the top 10 for 53.4 per cent.⁹ The low market concentration probably makes it easier for steel companies from developing countries to enter the world market.

B. Consumption

13. Apparent consumption of finished steel increased from 698 Mt. in 1996 to 967.9 Mt. in 2004, a growth of 38.7 per cent (9.2 per cent in 2004). ¹⁰ Most developed countries experienced a decline in their respective shares of world steel consumption during this period, and most developing regions increased their shares only marginally (see table 4), except for China and the Middle East where, in relative terms, consumption rose faster.

		1996		2004
	Volume	Share in World	Volume	Share in World
EU(15)	115.8	16.6	145.7	15.1
EU(10)	12.8	1.8	20.7	2.1
Other Europe	18.9	2.7	26.1	2.7
CIS	26.7	3.8	52	5.4
NAFTA	124.4	17.8	148.6	15.4
Central and South America	22.3	3.2	33.3	3.4
Africa	13.3	1.9	18.8	1.9
Middle East	14.2	2.0	27.6	2.9
Asia	296.9	42.5	487.2	50.3
Oceania	6.6	0.9	8	0.8
World	698	100	967.9	100

Table 4. Finished steel consumption by major region (Mt.)

Source: IISI.

14. Since the early 2000s, China has been the major driver of growth in steel consumption in the world. Due to the rapid growth of its economy, demand for steel has increased at very high rates.¹¹ The major portion of the consumption growth is attributable to construction applications – construction materials are estimated to account for over half of total steel

⁸ *IISI Annual Report*, 2003. Several mergers have taken place since then, and Mittal Steel is now the world's largest steel company.

⁹ UNCTAD: The iron ore market 2004-2006, May 2005.

¹⁰ Consumption of finished steel is smaller than production of crude steel due to losses in production of finished products (the discarded material is recycled).

¹¹ The growth of apparent per capita consumption of steel in China in 2003-2004 has been compared by experts to that of Japan in the 1960s and the Republic of Korea in the 1980s.

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demand.¹² Concerning the rest of Asia, steel consumption in India increased by 42 per cent from 1996 to 2004, while consumption in other developing countries of the region was stagnant. Outside Asia, steel consumption increased fast in Europe (except EU15), Brazil, Mexico, the Islamic Republic of Iran and other Middle East countries.

C. Trade

15. Approximately half of world steel production enters international trade. World exports of finished and semi-finished steel increased from 245.4 Mt. in 1996 to 337.9 Mt. in 2003. The major exporters are the EU, the CIS, Japan, the Republic of Korea, and Brazil, which together accounted for 49 per cent of world exports in 2004. The main net exporters in the world are the CIS, Japan and Brazil. Net exports of these countries stood at 49 Mt., 30.2 Mt. and 11.4 Mt. respectively in 2004. India became a net exporter as recently as 1999, and its net exports in 2004 were 1.7 Mt..

16. The major importers are the EU, the United States and China, which together accounted for 34 per cent of world imports in 2004, compared to 50 per cent in 1996. The Republic of Korea and Taiwan Province of China were also major importing countries. The EU, the largest importer, witnessed a rising trend (from 72.8 Mt. in 1996 to 104.5 Mt. in 2004). United States imports increased rapidly in 1998, after which they declined to 32.7 Mt. in 2004.

17. China's imports have fluctuated, but have generally increased since 1996. In 2003, China was the largest net importing country, with net imports of about 35 Mt.. In 2004, however, increased Chinese production led to a fall in imports by 23.1 per cent, while exports more than doubled from 8.2 Mt. to 20.1 Mt.. Since September 2004, China has been a net exporter of steel.

Exports									
	19	996		2003					
	Volume	Share in world	Volume	Share in world					
EU(15)	92	37.5	111.2	32.9					
EU(10)	11.9	4.8	14.7	4.4					
Other Europe	11.7	4.8	18.6	5.5					
CIS	42.5	17.3	63.3	18.7					
North America	15.6	6.4	18.9	5.6					
South America	13.9	5.7	18.2	5.4					
Africa	4.4	1.8	7.1	2.1					
Middle East	1.6	0.7	2.7	0.8					
Asia	47.8	19.5	81.2	24.0					
Oceania	3.6	1.5	1.1	0.3					
Total	245.4	100	337.9	100					

Table 5. International trade in finished steel products by major regions (Mt.)

¹² JFE Holdings, Inc., Special Feature 2: "Trends in steel demand in China and JFE Steel's Response", 2004.

Imports								
EU(15)	72.8	31.9	105.3	32.6				
EU(10)	5.6	2.5	11.6	3.6				
Other Europe	7.9	3.5	12.5	3.9				
CIS	6.8	3.0	6.4	2.0				
North America	33.8	14.8	34.9	10.8				
South America	4.6	2.0	4.2	1.3				
Africa	5.4	2.4	11.1	3.4				
Middle East	7.9	3.5	20.7	6.4				
Asia	81	35.5	112.1	34.7				
Oceania	1.5	0.7	2.4	0.7				
Total	228.3	100	322.9	100				

Source: IISI.

D. Prices

18. There is no single recognized reference price for steel, and in the short term prices may differ significantly from one regional market to another. As can be seen from Figure 2, world steel prices varied considerably during the period 1974-2004. The most recent rise in prices occurred from 2001 to 2004, and price peaks for most products and in most markets were reached in the autumn of 2004.

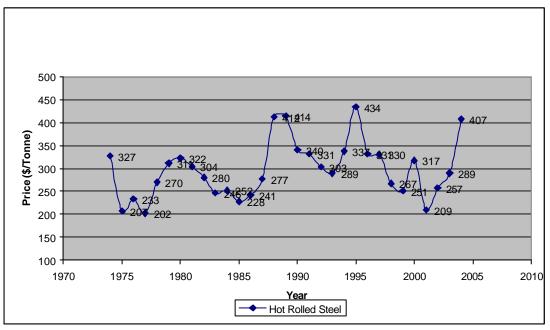


Figure 2. Spot export prices of HR sheet (fob Europe, US\$/tonne)

Source: World Steel Dynamics.

19. In addition to rapidly rising demand, steel prices were pushed higher by rising prices of all major raw materials used in steel production (scrap, coke, coal and iron ore). In the recent past, the prices of these products have increased faster than steel prices. Although coke and scrap prices appear to have peaked in 2005, prospects for coal and iron ore are less certain. Delays at ports have significantly reduced the availability of Australian coal, while reductions in Chinese exports have prompted Asian buyers to turn towards US coal supplies. China's

demand for iron ore has remained strong, leading to temporary local shortages.¹³ The scrap market, traditionally the most volatile, has maintained its unsteadiness, with prices increasing almost threefold in some countries in 2004 before falling again. Pressures to impose restraints on scrap exports have increased in some countries.

20. The rise in raw material prices was exacerbated by increased transport costs. Charter rates for large vessels increased from \$US 17,000 per day in January 2003 to \$US 68,000 in early 2004, leading to significantly higher input costs for those steel producers that rely on imported raw materials. Higher freight rates of course also affected the competitiveness of those steel producers that mainly depend on export markets.

E. The role of China

21. As has already been mentioned, developments in China have overshadowed other trends on the global steel market. Table 6 summarizes the main parameters and shows how China has emerged as the major force on both the production and consumption side of the industry. Its direct influence on trade may be less immediately obvious, since its share of world exports has never exceeded 4 per cent and its share of world imports reached its highest point in 2003 at 15.5 per cent. The same year, the share of imports in Chinese steel use also reached a maximum, at 18.5 per cent. However, since steel trade consists of trade in a large number of different steel products, the global figure may considerably understate the impact of Chinese exports and, particularly, imports on individual markets. China is a net exporter of long products and a net importer of flat products. Moreover, over the last few years Chinese imports have increased quite rapidly, and since this increase coincided with a more widespread economic recovery, the impact on the supply/demand balance on the world market was dramatic.

	1996 (Mt.)	2004 (Mt.)	Annual rate of change, per cent	China's share 1996, per cent	China's share 2004, per cent
Production, China	101.2	272.7	13.2	13.5	26.3
Production, ROW	648.8	764.8	2.1		
Consumption, China	100.7	265.0	12.9	15.5	27.4
Consumption, ROW	548.2	702.9	3.2		

Table 6. China and the rest of the world (ROW): A summary, Mt.

Source: International Iron and Steel Institute.

Note: Production refers to crude steel, consumption to finished steel products.

III. MEDIUM-TERM OUTLOOK FOR THE WORLD STEEL MARKET

22. Steel prices fell from their very high levels starting in late 2004/early 2005. By August 2005, they had lost about 30 per cent compared to their peaks. The price fall represents a return to more normal conditions after the overheating of the market in 2004, and reflects the fact that demand growth has slowed in most parts of the world while supply has continued to increase. Crude steel production in the first four months of 2005 increased by 7 per cent compared to the same period in 2004. The production increase is, however, very unevenly

¹³ For a more detailed description of the current iron ore market see: UNCTAD: *The Iron Ore Market 2004-2006*, May 2005, Geneva.

distributed. Production in China rose by 21 Mt., while the increase in the rest of the world was 2.5 Mt.¹⁴

23. As the just quoted figures imply, the outlook for the world steel market over the next two to three years is above all contingent on developments in China. As far as Chinese demand is concerned, investment in infrastructure is continuing, although the share of capital investment in GDP has been approaching very high levels. When Chinese growth eventually becomes less dependent on investment, growth rates in steel consumption can be expected to fall sharply. However, this may not occur in the medium term.

24. The rapid growth in Chinese steel production has not only caused great turbulence on the world steel and raw materials markets, but has also made major demands on the country's power and transport system. At its meeting in April 2005, the State Council agreed that the country should control investments in the steel industry's fixed assets tightly to avoid excessive expansion.¹⁵ It was agreed that the policy goals for the national steel sector were: reducing energy consumption and waste of raw materials by adopting more efficient production methods, encouraging the consolidation of the highly fragmented national steel sector, modernizing outdated plants, and improving the geographical distribution of the industry. Before these decisions were taken, China had already eliminated a 13 per cent rebate on slab and billet exports in early 2005. The aim of this move was to reduce the pressure on the country's limited raw material and energy supplies by making it less attractive to produce steel for export. Thus, the Chinese Government does not consider expansion of steel exports to be an objective, in spite of China having been a net steel exporter since the autumn of 2004. In fact, two reasons may explain the emergence of net Chinese exports.¹⁶ First, steel prices on the international market have been more attractive than on the domestic Chinese market (the elimination of the export rebate should reduce the attractiveness of exports). Second, the Chinese production mix does not correspond to domestic demand, and investment in long products has outpaced demand growth. It can be expected that this imbalance would be corrected eventually. In summary, developments in China appear unlikely to change the balance between global supply and demand dramatically.

25. Global crude steel making capacity is expected to increase from 1,184 Mt. per year in 2004 to over 1,305 Mt. per year in 2006.¹⁷ This figure assumes that China's restraint policies succeed in reducing investment in new steel-producing capacity. The world market may just be able to absorb a 10 per cent growth in supply over two years, provided that Chinese demand continues growing at its recent rates. World demand forecasts for 2005 and 2006 point to annual growth rates of 4 to 5 per cent, which would be just enough to accommodate the planned capacity additions. However, while the capacity forecast is more likely to be below the mark than above it, the reverse is true for the demand forecasts. Accordingly, the general tenor and direction of the market is expected to change, with prices remaining at present levels or falling further and excess capacity possibly again emerging as a concern.

26. Even in a situation with relatively slow demand growth and weak prices, new capacity may still be added successfully if production costs are low enough. New capacity is mainly

¹⁴ IISI, quoted in *Metal Bulletin*, London, 23 May 2005, p. 33.

¹⁵ *Steel Week*, Vol. 11, No.7, 22 April 2005

¹⁶ See Xie Qihua: "Will China become a real net exporter of steel?", paper presented at Metal Bulletin's \mathfrak{Z}^d Russian Steel Summit, Moscow, 6-8 June 2005.

¹⁷ "Bright Outlook for Steel Industry in 2005-2006 Forecast at OECD/IISI Conference", OECD, 17 January 2005.

planned in developing countries and countries in transition with relatively low production costs and rapidly growing domestic demand. This combination of circumstances may be sufficient for success.

27. Industry consolidation is expected to continue, as the enhanced financial strength of companies may provide means to explore mergers and acquisitions more actively. This consolidation could help the industry to weather cyclical downturns more effectively.

IV. POLICY ISSUES

28. As already seen, developing countries have increased their shares of the international steel market significantly over the past years. In order to continue doing so, they need to be competitive in terms of production costs, and the trading environment has to allow competitive advantages to be decisive. As seen from table 7, the lower labour costs in developing countries and countries in transition more than offset lower labour productivity, resulting in production costs that are significantly lower in these countries than in developed countries.

	USA	Japan	Germany	Rep. of Korea	Brazil	CIS	China
Raw material	117	113	122	124	105	91	145
cost							
Other material	161	149	154	137	114	124	155
costs							
Total material	278	262	276	261	219	215	300
cost							
Employment	39	37.5	44	15	10	1.5	1.75
cost/hour							
Man-	3.5	3.1	3.1	3.9	4.4	9.5	12.7
hour/tonne							
Labour cost	137	116	136	59	44	14	22
Total	415	378	412	320	263	229	322
operating cost							
Total financial	35	55	49	40	60	25	45
expenses							
Total pre -tax cost (rounded)	452	432	460	360	325	255	368

 Table 7. Estimated pre-tax cost of CR (coldrolled) coils (\$/tonne)

Source: World Steel Dynamics, Steel Strategist, May 2003.

29. However, developing countries can only convert their competitive advantage into increased market shares if markets function in a way that is not impeded by distortions. Subsidies have been identified as one important cause of market distortion in the international steel industry. The WTO Agreement on Subsidies and Countervailing Measures (ASCM), permits generic subsidies (available to all industries) and prohibits export subsidies and subsidies contingent on the use of domestic merchandise that are granted to "specific"¹⁸ sectors. Efforts during the WTO Uruguay Round to negotiate a Multilateral Steel Agreement to deal with subsidies and other issues were not successful. In 2001, developed countries took

¹⁸ A programme is deemed specific, if it is granted selectively, in law or in fact, to a group of enterprises. In other words, if it is available for all the sectors of the economy, it is not specific and not a subsidy.

the initiative to transfer negotiations on steel from the WTO to OECD. The OECD High-Level Group on Steel has met regularly since September 2001 to discuss a possible Steel Subsidies Agreement (SSA) that would go far beyond the WTO agreements in eliminating trade-distorting subsidies and to promote the elimination of inefficient excess steel capacity. In addition to the OECD countries, the Group includes other countries and territories, which together account for about 95 per cent of world crude steel production.¹⁹

30. The discussions have resulted in a negotiating text reflecting a series of alternatives and options.²⁰ It is agreed that the proposed SSA should provide stricter disciplines on steel subsidies than those in the WTO ASCM, taking into account the needs of the developing countries, and that all subsidies to steel producers (except for generic subsidies available to all industries) should be banned. Countries have different opinions, however, on possible exceptions to the ban. It is agreed that subsidies to facilitate the permanent closure of steel facilities should be allowed, but some countries want to expand the scope of exceptions to include limited aid for environmental purposes and for research and development, and others want a longer list of exceptions.²¹ Another issue is the notion of preferential treatment for developing countries and, perhaps, economies in transition.

31. It deserves to be emphasized, however, that other impediments to trade exist. It can be argued that trade policy instruments, such as safeguards and anti-dumping, particularly if they are not used sparingly and judiciously, lead to higher border protection and, consequently, higher domestic prices and additionally influence artificial maintenance of inefficient capacity.²² This argument is supported by the observation that domestic steel prices in developed countries have tended to diverge from international prices over time, a phenomenon that would not occur if subsidies were the only significant distortion to steel markets, particularly since tariffs are relatively low and have not increased over time. Figure 3 shows one example.²³

¹⁹ Australia, Austria, Argentina, Belgium, Brazil, Bulgaria, Canada, China, Czech Republic, Denmark, Egypt, European Community, Finland, France, Germany, Greece, Hungary, India, Italy, Japan, Kazakhstan, Korea (Rep. of), Mexico, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovak Republic, Spain, Sweden, Switzerland, Taiwan Province of China, Turkey, Ukraine, United Kingdom, United States.

²⁰ Communique Issued Following the High-Level Meeting on Steel, 28-29 June 2004. (OECD Directorate for Science, Technology and Industry) www.oecd.org. See also OECD Special Meeting at High-Level on Steel Issues: "Elements of an Agreement to Reduce or Eliminate Trade-Distorting Subsidies in Steel" (SG/STEEL(2004)4), 12 May 2004; "Ideas for Advancing the Steel Subsidy Talks" (SG/STEEL(2004)5), 15 June 2005; "Steel Agreement Issues" (SG/STEEL(2004)3), 29 June 2004.

²¹ The United States favors an agreement with exemptions only for closure related costs, the EU and Japan argue that subsidies intended to support regional development and environmental mitigation, particularly to reduce carbon releases, should be exempted and developing countries think that an agreement should take into account their disadvantage with respect to infrastructure.

²² See, for instance, Veena Jha, Tanuka Endow and James Nedumpara: "Dealing with trade distortions in steel", UNCTAD/DITC/COM/2004/4.

²³ See Jha et al. for several more examples.

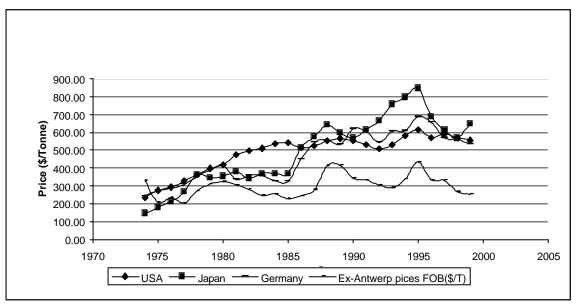


Figure 3. Domestic and export (fob) prices for HR (hotrolled) sheets, US\$/tonne, 1974-1999

32. Accordingly, what may be needed is a more comprehensive approach to dealing with distortions in steel markets that takes into account not only subsidies but the results of all present arrangements and measures in terms of their effect on prices. Meanwhile, continued monitoring of capacity developments is certainly useful and provides one way to observe the effect of changes in trading rules.