# Steel: Price and Availability Issues

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#### Steel: Price and Availability Issues

#### Summary

The end of the steel safeguard tariffs under Section 201 of the Trade Act of 1974 has not led to the lowering of steel prices. This has disappointed many industries that use steel products, and some Members of Congress, who had wanted the tariffs reviewed. Rather, the price of steel mill products has continued to rise. By the end of the first quarter of 2004, prices for steel are double the level of mid-2003. Furthermore, many users complain that adequate quantities of steel are difficult to find, from either domestic or import sources. On March 10 and 25, 2004, Representative Donald Manzullo chaired hearings of the House Committee on Small Business that focused on small and medium-sized steel users' problems relating to prices and supply of steel and other metals.

Many of the price increases are labeled as temporary surcharges, which steel producers say reflect higher costs that they must pass on to customers. The rising price of ferrous scrap has been especially notable: almost fourfold between early 2002 and March 2004. As scrap is the main input of minimill operations, its increasing price has especially disfavored them, as against the integrated mills, which produce steel from iron ore and coke. However, rising coke, iron ore, and natural gas prices have had a major impact on the costs of integrated operations.

The rapid growth of both steel production and demand in China is widely considered as a major cause of the increases in both steel prices and the prices of material inputs. China is now both the leading producer of steel and the leading steel importer. It is also by far the leading importer of steel scrap from the United States. China is the world's leading exporter of coke and coking coal, including to the U.S. market, but now appears to be limiting its own exports. Meanwhile, there have been disruptions to the U.S. domestic coke supply. This combination has dramatically increased the cost of this critical input for domestic integrated mills.

Both integrated steel mills and minimills recorded poorer financial performances in 2003. Some industry participants and analysts argue that a strong steel price recovery is necessary to allow the steel industry to continue to consolidate and modernize its operations. Others have noted restrictions placed on scrap exports by other countries and urged that the Commerce Department should consider similar "short supply" export controls, as provided under Section 7(c) of the Export Administration Act of 1979. Some representatives of steel consuming industries have also urged consideration of the termination of U.S. antidumping and countervailing duties (AD/CVD) on steel imports, citing the "changed circumstances" provision of U.S. trade remedies law. Another option is suggested by supporters of H.R. 3716, a bill that would overturn U.S. policy and allow CVD petitions to be filed against "non-market economies" – a proposal aimed at China. Conversely, Members of Congress critical of President Bush's ending of the safeguard tariffs have introduced legislation to reinstate them (H.R. 3699 and S. 1997). Some Members also supported a change in AD/CVD margins, to include the costs of safeguards remedies, and thus raise penalty tariffs, but the Commerce Department rejected this option on April 6, 2004. This report will be updated as warranted by developments.

John Williamson, Technical Information Specialist in the CRS Resources, Science and Industry Division, assisted in producing Figure 1 and Table 1. Figure 2 reproduced by permission of *American Metal Market*.

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## Steel: Price and Availability Issues

#### Introduction

Many American businesses find that they are being suddenly and adversely affected by a recent strong rise in the price of steel, and some reported shortages. Their problems are resonating with some Members of Congress, especially those who were previously concerned that the steel safeguard tariffs, imposed by President Bush under the terms of Section 201 of U.S. trade law, could have been keeping steel prices artificially high. Before those tariffs were terminated on December 4, 2003, the costs of raw materials and other inputs in steelmaking were starting to increase, thus creating a cost-driven increase in the price of steel. But after the tariffs were removed, the price increase nevertheless accelerated.

The problem has been exacerbated by a strengthening of the U.S. economic recovery and global economic growth, which have increased demand for steel. The growth of China, in particular, has contributed to a large increase in demand for both steel and steelmaking inputs. China has become both the world's largest steelmaker and its largest steel importer.

This report reviews the pattern of U.S. domestic steel prices over recent years and the current status of U.S. steel production. It also analyzes the impact of the growth of China. The report reviews the rising prices of steel scrap and other inputs as contributory factors. It will also consider the role of profit recovery in the steel industry as may be needed to finance further consolidation and technological modernization. Finally, the report reviews some policy options that have been proposed with respect to steel pricing and availability issues.

#### **Current State of the Steel Industry**

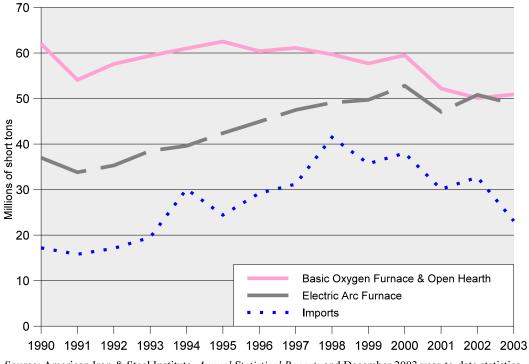
One of the stated purposes of the presidential action on steel safeguards was to effect a restructuring of the domestic steel industry.<sup>1</sup> To a great extent, that restructuring has been achieved, with the development of two dominant players among the integrated companies, and one, in particular, among the minimill producers. But during the period of the 2002-3 safeguards, two important long-term historical trends were at least temporarily reversed. The integrated side of the

<sup>&</sup>lt;sup>1</sup> "I have determined that the safeguard measures will facilitate efforts by the domestic industries to make a positive adjustment to import competition...[including] consolidation of United States steel producers..." President George W. Bush. Memorandum on "Action under Section 203 of the Trade Act of 1974 Concerning Certain Steel Products" (Mar. 5, 2002) in *Message to Congress* (House Doc. 107-185), March 6, 2002, p.56.

industry regained the lead from minimills as the largest U.S. steel producers. Secondly, the rising role of imports was reversed.

Figure 1 illustrates how the long-term trends in production and imports of steel have recently been reversed. The production of the large integrated mills using mostly basic oxygen furnaces (the last U.S. open hearth plant closed in 1991) hovered around 60 million tons per year in the 1990s, then fell substantially below that figure after 2000.<sup>2</sup> The integrated mills produce steel from iron ore, using coke and other inputs. They are characterized by unionized workforces and, in competing with both minimills and imports, believe that they have been burdened with high levels of employee and retiree benefit costs.<sup>3</sup> Although no steel mill is small, integrated mills are generally larger than minimills and may make a wider variety of products at one location.

Minimills employ electric-arc furnaces (EAFs), a newer technology, which has been widely employed only since 1970. Although they may use various forms of iron ore input, most rely primarily on steel scrap, a generally cheaper source, which they remelt. The minimill sector is largely non-union, and, by contrast with the integrated mills, provides a defined-contribution employee pension package instead of benefits defined by union contract.





Source: American Iron & Steel Institute. Annual Statistical Reports and December 2003 year-to-date statistics.

<sup>&</sup>lt;sup>2</sup> All tonnage figures in this report are "short tons" (2,000 lbs.), as commonly used in the U.S. steel industry, unless otherwise indicated.

<sup>&</sup>lt;sup>3</sup> The so-called "legacy cost" issue is discussed in CRS Report RL31748, The American Steel Industry: A Changing Profile, pp. 25-29.

Minimills steadily increased production after the recession of 1991 and gained market share. Figure 1 shows that their production topped 50 million tons for the first time in 2000, when it reached 47% of domestic raw steel production, up from 37% at the beginning of the 1990s. Output from both integrated steel works and minimills fell in 2001. In 2002, minimills overtook basic oxygen furnace (BOF) steel production for the first time, by 50.8 million tons to 50.1 million tons.

In 2003, however, the situation was reversed. For the first time in recent decades, EAF production declined, while integrated mill production increased. This was sufficient for integrated mills to regain their traditional role as production leader, by 50.9 million tons to 48.8 million tons. As will be discussed later in this report, a rise in scrap prices has especially affected the competitiveness of minimills, but the integrated mills have also seen increases in input costs.

Figure 1 also shows the import trend generally increasing through the 1990s, at least until the 1998 import surge to more than 40 million tons. The movement of imports has been up-and-down since that peak, but under the pressure of the safeguard tariffs fell in 2003 to 23.1 million tons, the lowest level since 1993.

To some extent, the recovery and stabilization of the integrated industry's role in domestic steelmaking may be attributed to industry consolidation. This development has affected both sides of the U.S. industry. **Table 1** shows the effect of consolidation in the industry in recent years. Three companies together, one of which is the largest minimill operator, could produce about half of the raw steel produced in the United States in 2004, or more than 50 million tons.

Nucor became the largest domestic steel producer in 2002, passing U.S. Steel, which had held the title for a century. It now operates 15 minimills in 12 states and poured 17.4 million tons of steel in 2003. In recent years, Nucor has expanded mostly by acquisitions, notably through buying financially struggling Birmingham Steel Corporation in 2002, then the second-largest U.S. minimill operator. On the integrated side, Table 1 shows that US. Steel acquired another major integrated company, National Steel, in 2003. Together, the two companies poured almost as much steel as Nucor during the year. The third-largest domestic steel producer, and number-two integrated mill operator, is the International Steel Group (ISG). This is a new company, formed in 2002 by acquisition of the assets of LTV Steel out of bankruptcy liquidation. It added the assets of Bethlehem Steel, another bankrupt integrated operation, in 2003. In early 2004, ISG is negotiating to acquire the assets of yet a third bankrupt integrated steel company, Weirton Steel.

Consolidation is continuing apace throughout the sector. Among the integrated companies shown as producers of more than two million tons in Table 1, Ispat Inland is already part of the worldwide network of steel mills operated by Lakshi Mittal of India. His LNM Group is now the world's second-leading steel producer. Rouge Steel, originally founded by Henry Ford to supply his Detroit motor vehicle manufacturing operation, has been acquired by a large Russian company, Severstal. The remaining U.S. independent integrated mills are AK Steel, which has both minimill and integrated steel operations, and Wheeling-Pittsburgh. The latter was recently in bankruptcy and is using an Emergency Steel Loan Guarantee to secure

financing to build a new minimill. The remaining three integrated companies on the list, Dofasco, Stelco and Algoma, are Canadian companies.

	2002	2003
Nucor Corp. <sup>a</sup>	11.622	17.441
U.S. Steel*	11.535	17.314
International Steel Group**	3.081	14.641
Bethlehem Steel Corp.**	8.956	
AK Steel Corp.	6.000e	6.000e
National Steel Corp.*	5.755	
Stelco Inc.	5.149	5.135
Gerdau AmeriSteel Corp. <sup>a</sup>	3.130	5.019
Ispat Inland Corp.	5.691	4.997
Dofasco Inc.	4.835	4.697
Ipsco Inc. <sup>a</sup>	3.007	3.217
North Star Steel Co. <sup>a</sup>	3.075	3.179
Steel Dynamics Inc. <sup>a</sup>	2.390	2.817
Rouge Steel Co.	3.060	2.700 <sup>b</sup>
Weirton Steel Corp.	2.759	2.670
Algoma Steel Inc.	2.416	2.445
Wheeling-Pittsburgh Steel	2.530	2.360
Commercial Metals Co. <sup>a</sup>	2.003	2.093

Table 1. Leading U.S./Canadian	<b>Steel Producers</b>
(Millions of short tons	net)

a. minimill operator

b. AMM estimates

\* National Steel acquired by U.S. Steel in 2003; table shows combined production.

\*\*Bethlehem Steel acquired by ISG in 2003; table shows combined production.

Source: American Metal Market, March 29, 2004.

Other minimill operators, besides Nucor, are also consolidating. Gerdau of Brazil acquired a Canadian-based minimill operator, Co-Steel, plus one mill from the Birmingham Steel Group. Together with its own North American operations, it has created Gerdau AmeriSteel, the second-largest North American minimill operator. Steel Dynamics has also expanded with recent acquisitions. Ipsco, a minimill operator of Canadian origin, has moved its headquarters to the United States, and built two new minimills here. On the other hand, North Star, controlled by the Cargill Inc. group, has sold one mill to Nucor, and has reportedly been seeking to exit the steelmaking business.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> For a more detailed discussion of industry developments and consolidation, see CRS (continued...)

#### Termination of Steel Safeguard Tariffs

On March 5, 2002, President George W. Bush established temporary duties of up to 30% on a wide range of steel imports under "Section 201" safeguard procedures (19 USC §2251-54).<sup>5</sup> These safeguard duties were scheduled to be in place for three years, but were successfully challenged under World Trade Organization (WTO) rules by a number of U.S. trading partners. After receiving a mid-point review from the U.S. International Trade Commission in September 2003, as required by law, President Bush on December 4, 2003, rescinded the safeguard tariffs in full.<sup>6</sup> He took this step just before retaliatory tariffs by the European Union against a wide variety of U.S. exports were scheduled to enter into effect. By this action the President immediately eliminated tariffs of 24% that were being applied to most flat-rolled imports from major producing countries, plus tariffs from 7% to 24% that were applied to imports of many long, tubular and stainless steel products.<sup>7</sup>

#### **Steel Price Rises**

Notwithstanding the removal of the safeguards, which had been heavily criticized by many steel-consuming industries and their representatives in Congress, the price of steel has moved up, not down, since the President's action. Most economists would expect that, everything being equal, removal of the safeguard tariffs would encourage importation of steel into the domestic market, more competition with domestic steel producers, and, consequently, lower prices. But instead the price of steel in early 2004 rose sharply. This was only the latest, though perhaps the most extreme, price movement in a steel market that has been volatile in recent years.

Earlier, the price of steel rose around the time that President Bush announced the safeguards in early 2002, though by mid-2003 it had fallen again. For example, the U.S. International Trade Commission (ITC), in its mid-point review of the Section 201 tariffs, reported that the weighted average price for a commercial grade of U.S.-produced hot-rolled carbon steel was \$319/ton (T), as of the second quarter of 2000. By the last quarter of 2000, the price had fallen to \$242/T, as the industry sought relief, and it declined further to \$222/T one year later, in late 2001, for a total 30% fall from the 2000 peak. It was at this low point when the ITC, acting following requests from the President and Congress under Section 201 rules, recommended that the President undertake safeguard action.

<sup>&</sup>lt;sup>4</sup> (...continued)

Report RL31748, pp. 8-16.

<sup>&</sup>lt;sup>5</sup> The Section 201 steel safeguard tariffs are described in full in CRS Report 31842, *Steel: Section 201 Safeguard Action and International Negotiations.* 

<sup>&</sup>lt;sup>6</sup> President of the United States. "Proclamation 7741 of December 4, 2003," *Federal Register*, Vol. 68, no. 235 (Dec. 8, 2003), pp. 68463-64.

<sup>&</sup>lt;sup>7</sup> By law, safeguard tariffs must be progressively reduced. The safeguard tariffs ranged from 8% to 30% in the first year of operation. They had been reduced to 7% to 24% as of March 2003.

Following the imposition of safeguard tariffs in March 2002, and other developments that reduced supply, such as the liquidation of LTV Steel, a major U.S. producer, the price recovered to more than \$330/T by late 2002. But by the first quarter of 2003, the last date covered in the ITC report, the price had fallen back below \$300, to \$292/T.<sup>8</sup> LTV, reorganized into ISG together with Acme Steel and Bethlehem Steel, had come back on line, and U.S. production levels were stable at around 100 million tons per year. By July 2003, according to the *Monthly Steel Report* of Global Insight, a private economics consultancy, the spot price of hotrolled sheet was still falling, to \$260/T.<sup>9</sup>

But prices again started to rise in that latter half of 2003. As President Bush was considering the future of the safeguard tariffs following the ITC's mid-point review, the benchmark hot-rolled spot price reported by Global Insight reached \$300/T by November, and was \$310 in December 2003.<sup>10</sup>

Despite the President's decision to remove the tariffs, the rise in the price of steel then accelerated. Citing tightening input material supplies (steel scrap especially for minimills, coke especially for integrated mills) and higher natural gas prices, steel producers have added an array of "surcharges" in addition to a base price increase. By March 2004, *American Metal Market*, the industry trade newspaper, reported that "[Such] moves ... effectively lift spot market prices for hot-rolled sheet to about ... \$580 a ton ... for May deliveries." That level is double the average price reported by the ITC for one year previously.<sup>11</sup> Other grades are more finished, and, consequently, higher-priced.

These levels are based on spot prices, meaning those paid by buyers outside contractual arrangements, either from steel mills directly or from metals service centers. The actual average transaction price may differ considerably, as many large customers purchase steel from mills under longer term supply contracts, although these contracts must be periodically renegotiated, and customers have to consider the risk of locking in higher prices to secure supply. This is especially notable for the "Big Three" Detroit-based car manufacturers, who generally purchase steel by such contracts for themselves and their "Tier 1" suppliers.<sup>12</sup> "Surcharges," as opposed to base price increases, may also be added to contract prices, but it is not clear that all

<sup>&</sup>lt;sup>8</sup> ITC. *Steel: Monitoring Developments in the Domestic Industry* (Investigation no. TA-204-9) and *Steel-Consuming Industries: Competitive Conditions with Respect to Steel Safeguard Measures* (Investigation no. 332-452), issued together as Publication no. 3632, Vol. 1, Table II-27.

<sup>&</sup>lt;sup>9</sup> Global Insight. *Monthly Steel Report* (September 2003), Table 3.

<sup>&</sup>lt;sup>10</sup> *Ibid.* (January 2004), Table 3.

<sup>&</sup>lt;sup>11</sup> American Metal Market (AMM), "Steel's Wild Price Ride Far from Over" (March 1, 2004), p. 3; see also "CSI Adding Up to \$150/T to Flat Rolled for May," in the same edition, indicating even higher prices on the West Coast.

<sup>&</sup>lt;sup>12</sup> This system is described in Al Wrigley, "Car Talk: Wheeling and Dealing Steel in Detroit," *AMM*, Dec.23, 2002 print ed., p. 3.

customers are paying them.<sup>13</sup> General Motors has reportedly resorted to legal action to roll back higher prices from suppliers of steel and steel products that it claims it is being forced to pay in violation of contract commitments.<sup>14</sup>

In testimony at a recent House hearing, representatives of smaller steel consuming businesses indicated that they generally cannot buy from metals service centers or mills until they receive orders from their own customers. They said that they are facing the full brunt of price increases.<sup>15</sup> The road and transportation construction industry noted that its members, many of them smaller businesses, generally face a gap of 8 to 10 months between when a contract bid is calculated and when steel for a project is ordered. As the price has risen substantially in recent months, a witness for this industry stated that contractors were frequently faced with a choice between defaulting on contracts or completing that at a substantial loss, due to the high price of steel.<sup>16</sup>

Similar pricing pressures have also begun affecting the stainless steel sector. U.S. production in 2003 was just under 2.0 million tons, but stainless and specialty steels are high value-added products. Some were included in the Section 201 steel safeguards. Import penetration is high in the sector, ranging from 20% to 60% across product lines, but imports fell by 7% in 2003, while domestic production increased. Prices in early 2004 reportedly rose 4% to 10% on a monthly basis.<sup>17</sup>

#### **Steel Supply Issues**

Some businesses are also indicating that they cannot obtain adequate supplies of steel. Witnesses at the March 10, 2004, hearing complained about supply curtailments. For example, Lester Trilla, head of his family-owned steel drum manufacturing firm, said:

<sup>&</sup>lt;sup>13</sup> See, for example, *AMM* articles, "Contract Customers Wage Fight over Steel Surcharges" (Feb. 3, 2004); "Court on Steel Price War: Keep Delphi Parts Rolling" (Mar. 8, 2004); and, "Republic, Delphi Resolve Dispute on Steel Supply" (Mar. 12, 2004).

<sup>&</sup>lt;sup>14</sup> John Porretto, "Steel Firms Gouging, GM Says," AP wire story (Mar. 24, 2004); *AMM*, "GM Pays Higher Tags; Files Suit Against SDI, Textron" (Mar. 24, 2004).

<sup>&</sup>lt;sup>15</sup> U.S. House. Committee on Small Business. *Spike in Metal Prices – What Does it Mean for Small Manufacturers?* Hearing, March 10, 2004. Statements of Kyle Martinson, Revco, Inc.; Barbara Hemme, Youngberg Industries; and, Lester Trilla, Trilla Steel Drum Corp., at.

<sup>&</sup>lt;sup>16</sup> U.S. House. Committee on Small Business. *Spike in Metal Prices – Part II* Hearing, March 25, 2004. Statement of Patrick P. Loftus, High Steel Structures, representing the American Road and Transportation Builders Association, p. 2. On April 9, 2004, the Federal Highway Administration of the Dept. of Transportation informed "industry and state officials that it cannot legally allow federal funds to be used to reimburse contractors now facing higher steel costs unless adjustment clauses were part of the original contract." Bureau of National Affairs. *Daily Report for Executives (DER)*, "Federal Highway Administration Turns Down Industry Plea for Help with Rising Steel Costs" (April 12, 2004).

<sup>&</sup>lt;sup>17</sup> *AMM*, "Tickets, Please" and "Stainless Imports Shed Some Shine," March 29, 2004 print ed., pp. 4-5.

At the prices we are being quoted, there should be more steel produced, but this is not the case. Last month, our steel supplier cut the volume of steel they would supply to us ... and we have no place to go for more steel ... I was already facing a major shortage ... This will force me to cut back on production ... Faced with the bleak supply picture I just described, we contacted two other domestic steel mills in our area, but to no avail. Everyone seems to be short of steelmaking materials and domestic steel producers seem to be either unable or unwilling to sell to new customers. Steel warehouses do not have steel, because they are not being supplied by their sources. We have contacted the foreign steel mill that we used to do business with before the imposition of steel tariffs, but they won't even return our calls.<sup>18</sup>

Figures released by the American Iron and Steel Institute (AISI) indicate increasing production levels for the domestic industry. Preliminary twelve-month figures for 2003 show that total mill shipments were 105.6 million net tons (external shipments by steel mills). This represented a 6.5% increase over 2002, and only a little below the 2000 level of more than 109 million tons. However, approximately one-third of this increase was accounted for by exports, which grew from 6 million tons to 8.2 million tons in one year.<sup>19</sup> Export growth was concentrated in the first part of the year, when domestic prices and demand were still low.

Production increased marginally in early 2004, but more significantly, the unique "capability utilization" measure reported by AISI took a sudden jump. AISI reported capability utilization at 85% at the beginning of 2004. It stayed below that level until the last week of February, when it suddenly moved to more than 90%, as domestic steel mill shipments increased to more than 2 million tons per week.<sup>20</sup> However, as noted by one observer, most of the increase in capability utilization was accounted for by a sudden statistical reduction in capacity of 5%, not increased production.<sup>21</sup> This nominal capacity decline may be partly offset in the future by a planned reopening of the basic oxygen furnace at ISG's Cleveland West works, idled when LTV was liquidated, although there will be no additional blast furnace capacity.<sup>22</sup>

Increased domestic production in 2003 was counterbalanced by a decline in imports. For 2003, the only full year for which imports were affected by the Section 201 safeguard tariffs, the Commerce Department reported a one-year tonnage decline of 29%, to less than 21 million metric tons (MT), or 23.1 million short tons. According to AISI data, this was the lowest level of imports since 1993, before the

<sup>&</sup>lt;sup>18</sup> Trilla, statement, pp. 3-4.

<sup>&</sup>lt;sup>19</sup> American Iron and Steel Institute (AISI). "Selected Steel Industry Data" (March 2004). The export increase was primarily in the first half of 2003, when the domestic market was slow.

<sup>&</sup>lt;sup>20</sup> *AMM*, (Mar. 11, 2004), "Steel Output" table on p. 4.

<sup>&</sup>lt;sup>21</sup> Charles H. Blum, "USA Tightens Its Capacity Numbers," *Steel Business Briefing* (Mar. 5, 2004).

<sup>&</sup>lt;sup>22</sup> *AMM*, "West Side Story, Part Two: ISG to Restart Shuttered Site" (Mar. 12, 2004). See also House Small Business Comm. hearing (Mar. 10, 2004), Statement of Wilbur L. Ross (International Steel Group), p. 5.

current round of financial difficulties of the American steel industry is said to have begun.<sup>23</sup> With the safeguard tariffs lifted, observers might normally expect that resurgent imports would quickly supplement available supply. After President Bush ended the safeguards, imports in January 2004 rose 35% above the December 2003 level. However, almost immediately, U.S. importers of foreign steel raised prices by up to \$100 per ton. Moreover, imports reportedly fell again in February 2004.<sup>24</sup>

#### The Impact of the Growth of China

Possibly the growth of China and its emergence as a major, market-oriented economic power are having more of a global economic impact on steel markets than anything else today. However, the impact of China has evolved differently than expected by many steel industry participants.

China was the number one threat on the horizon as seen by many steel industry veterans three years ago, when the U.S. industry was entering a downturn. With China's large, if largely outdated, steel industry, as well as low labor and environmental compliance costs, U.S. industry leaders saw no way that they could match a flood of low-cost imports from China.<sup>25</sup> In addition, China's government has maintained a fixed exchange rate against the dollar, leading many U.S. manufacturers to claim that in direct trade this is unfair, because China's currency value does not reflect the country's growing industrial competitiveness.<sup>26</sup> But Chinese steel imports, once a significantly growing factor, are now a small share of the U.S. market. Imports from China were as high as 1.4 million MT in 2000, but were only 582,000 MT in 2003, less than 3% of total U.S. imports.<sup>27</sup>

Instead, China has become the world's largest steel producer and the largest importer. According to Global Insight's *Monthly Steel Report*, based on preliminary International Iron and Steel Institute data, China's 2003 raw steel production was 242 million short tons, 36% higher than the combined total of the European Union, and more than double the output of the United States. China's production increased by 44 million tons over 2002, accounting for 64% of the world production gain.<sup>28</sup> The main reason that China has had an impact on the U.S. industry is that the rapid

<sup>25</sup> Interview with Van Reiner, Bethlehem Steel – Sparrows Point plant manager (August 2001).

<sup>26</sup> CRS Report RS21625, *China's Currency Peg: A Summary of the Economic Issues*, by Wayne M. Morrison and Marc Labonte. Also CRS Report RL32179, *Manufacturing Output*, *Productivity and Employment: Implications for U.S. Policy*, pp.45-48.

<sup>&</sup>lt;sup>23</sup> See CRS Report RL31748, *The American Steel Industry: A Changing Profile*, pp. 2-4 and Figs. 1-2. Trade data for 2003 from U.S. Dept. of Commerce. Bureau of the Census, Foreign Trade Division, "Steel Imports" (Dec. 2003 Final).

<sup>&</sup>lt;sup>24</sup> *AMM*, "Imported Steel up \$100/Ton; Supply Worries Drive Buyers" (Feb. 23, 2004); "Absent '201,' Steel Imports Up 35% in January" (Feb. 26, 2004); and, "U.S. Steel Imports Slide in February; Gain vs. '03 Slower Than Expected" (Mar. 31, 2004), p. 5.

<sup>&</sup>lt;sup>27</sup> CRS Report RL31748, p. 21, and Dept. of Commerce, "Steel Imports" (Dec. 2003), Exhibit 2, for 2003 annual data.

<sup>&</sup>lt;sup>28</sup> Global Insight. *Steel Monthly Report* (January 2004), Table 2.

growth of its own steel industry has absorbed increasing amounts of the world supply of scrap and other inputs, while also replacing the United States as the largest importer of steel. China's rapidly growing appetite for steel, which will probably surpass 300 million tons in 2004, has also drawn in high levels of imports from other major Asian producers such as Japan, Korea and Taiwan, probably diverting them from the U.S. market.<sup>29</sup> The consequence has been not only higher prices for steelmaking inputs in the United States, but also lower availability of imported finished steel at competitive prices – and U.S. steel-consuming industries are increasingly having to compete with products from Chinese suppliers.

#### **Steel Input Materials Supply Issues**

#### The Steel Scrap Price Rise

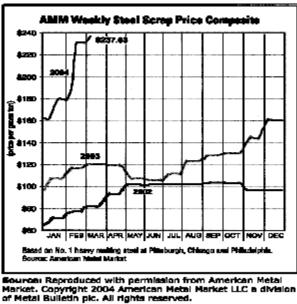
A recent and extraordinary rise in the price of steel scrap has especially affected the minimill sector of the U.S. steel industry. Steel scrap is generally the major input in electric arc furnaces (EAFs), the production technology used in minimills. By 2002, total U.S. EAF production had overtaken the output of basic oxygen furnaces, the steelmaking technology of integrated mills that produce raw steel from iron ore, coke and other materials.<sup>30</sup> But in 2003, as scrap prices accelerated their recent climb, EAF shipments fell 4.1%, while that from integrated mills increased by 6.2%, and again became the major source of domestic steel production.<sup>31</sup> While scrap is usually the principal input in minimill furnaces, scrap is also frequently added to iron in making steel at integrated mills (up to 25-30%), historically because it enables them to produce a more competitively priced product, especially where absolute purity of the steel is not a prerequisite. Thus, all parts of the industry are affected by changes in the scrap price, though the minimills more than the integrateds. A less competitive minimill price enables the integrated mills to raise their prices as well in a tight market.

**Figure 1** illustrates the rise in scrap prices over the past two years. In early 2002, the price of scrap was about \$65 per ton, the composite price for "no. 1 heavy melt scrap," a common commercial category, as calculated by *American Metal Market*. The price recovered to a plateau of about \$100/T from mid-2002 through mid-2003. Then the price rise accelerated to \$160/T by the end of 2003, and climbed even more steeply to an average of more than \$237/T by early March 2004. More premium grades commanded higher prices, up to reports of more than \$300/T.

<sup>&</sup>lt;sup>29</sup> China's total of finished steel imports surpassed the U.S. total by 24m. MT in 2002 vs. 22m. MT (the United States also imported 8m. MT of semi-finished steel, principally slabs); see discussion in CRS Report RL31748, p. 21. China's 2003 total, when reported, will almost certainly be close to double the U.S. import level.

<sup>&</sup>lt;sup>30</sup> See CRS Report RL31748, pp. 8-16, esp. Fig. 2, for an analysis of the competition and development of the U.S. integrated and minimill steel industries.

<sup>&</sup>lt;sup>31</sup> AISI, "Selected Steel Industry Data" (March 2003).



#### Figure 2. Rise in Ferrous Scrap Price

(Figure from AMM, March 8, 2004 print ed., p.4.)

Many in the industry ascribe the rising price and reduced availability of domestic steel primarily to the rise in scrap prices, driven in turn by rising global demand, especially in China. As one witness testified at the March 10, 2004, House Small Business Committee hearing:

Steel prices are skyrocketing, due to rising U.S. steel scrap exports ... Steel scrap prices have grown astronomically and are at or above \$300 per ton, according to industry reports [because] ... steel scrap exports from the United States are increasing, due to surging foreign demand ... U.S. steel scrap exports have almost doubled since 2000, rising from 6.3 million tons in 2000 to approximately 12 million tons in 2003 ... Meanwhile, U.S. domestic scrap demand has remained steady since 2000 and is increasing as the U.S. recovery improves.

In particular [this witness continued] China and South Korea are purchasing greatly increased quantities of U.S. steel scrap. [Among more than 50 importing countries], these two countries alone account for approximately half of all [U.S. ferrous scrap] exports. China purchased 3.3 million tons and South Korea more than 2.5 million tons of U.S. steel scrap in 2003.<sup>32</sup>

The view that scrap prices are exceptionally and uniquely high was challenged by a representative of scrap recyclers at the same hearing. Emanuel Bodner, head of a privately owned recycling company, said that scrap was not in short supply, nor was

<sup>&</sup>lt;sup>32</sup> House Small Business Comm. Hearing (March 10, 2004). Statement of Robert J. Stevens (Impact Forge Inc. and President, Emergency Steel Scrap Coalition).

it at a record high price on a constant-dollar basis. He emphasized that "scrap surcharges" by steel producers included transportation costs, and that these costs had also gone up. Bodner believes that scrap prices "have likely reached, and perhaps passed, their peak."<sup>33</sup> His views with regard to the current level of scrap prices were substantially supported by an independent witness, Wayne Atwell of Morgan Stanley Equity Research, who said, "We believe scrap prices will peak in 1-2 months and drive steel prices down in mid-2004."<sup>34</sup>

Trade data and other evidence reinforce this view that prices and demand for U.S. scrap, especially in the international market, may have peaked. Based on Commerce Department trade data, *American Metal Market* reported on March 16, 2004, that January 2004 ferrous scrap export totals (785,000 MT) were only slightly higher than December 2003 and that both were significantly lower than the November 2003 total of 833,000 MT. Moreover, January 2004 ferrous scrap exports were 18% lower than in January 2003. Exports were down to all markets except China, which reported a large increase, and Thailand. There was even anecdotal evidence that the Chinese scrap market had "cooled."<sup>35</sup>

In early April 2004, both Nucor and Steel Dynamics announced reductions of \$30 per ton in their scrap surcharges. But so far, this has not had an effect on overall steel prices, which may still be rising. As an anonymous southern-based steel buyer quoted in *American Metal Market* said, "Supply and demand are driving the market right now; surcharges really are not."<sup>36</sup>

#### Rise in the Costs of Other Steel Inputs

Ferrous scrap is hardly the only input that has risen in price and contributed to higher steel prices. At the March 10, 2004, hearing, Wayne Atwell stated his view that the "primary driving factors" were:

- "The weak dollar has driven up the cost of imports, which has provided a pricing umbrella over the domestic steel industry."
- "China's steel consumption has grown much faster than anticipated and has put a strain on the global raw-material industry."

<sup>&</sup>lt;sup>33</sup> *Ibid.* Statement of Emanuel Bodner (Bodner Metal and Iron Corp., and Institute of Scrap Recycling Industries), esp. pp. 4-7 and Fig. 4, and oral testimony.

<sup>&</sup>lt;sup>34</sup> *Ibid.* Written presentation of Wayne Atwell (Morgan Stanley Equity Research), p. 2.

<sup>&</sup>lt;sup>35</sup> AMM, "Ferrous Scrap Exports Hit Asian Wall," including tables (March 16, 2004).

<sup>&</sup>lt;sup>36</sup> Quoted in *AMM*, "Steel Plate, Flat-Roll Prices Head Up as Surcharges Fall" (Apr. 14, 2004); see for other examples in *ibid.*, "Steel Prices Strong Despite Scrap Slip" (Apr. 6, 2004); "Steel Plate in West Tops \$700/ton as Supply Thins" (Apr. 7, 2004); "Ferrous Scrap Prices Sink Across US" (Apr. 8, 2004); "New Math: Mills Shuffle Surcharges, Price Hikes" (Apr. 9, 2004).

• The metals industry as a whole has been insufficiently profitable and has therefore not been able to expand capacity, *e.g.*, there has been "underspending on infrastructure."<sup>37</sup>

Wilbur Ross, the founder of ISG, testified at the same hearing regarding a wider range of higher costs faced by integrated steel companies, such as his company. He stated that these costs accounted for most of the higher price of steel delivered to the customer. He computed that assorted raw material input price increases alone added \$178 since 2001 in production costs per ton (T) of steel produced at an integrated mill. Iron ore pellet costs had increased from \$50-55/T of steel produced to almost \$65, while coke costs per ton produced had increased from \$25-30 to almost \$150. Moreover, the cost of natural gas, used as a fuel in steelmaking, after spiking twice since 2000, had attained a third cost spike of nearly \$22/T of steel produced in the winter of 2003-4, compared to a cost of less than \$10/T produced for much of 2001-2.<sup>38</sup> To these increases, Ross added \$10 in other costs and "incremental interest expenses." Finally, he noted that as 56% of ISG's steel is sold under contracts "that do not escalate rapidly, the spot price half of the business must go up faster to avoid insolvency."<sup>39</sup>

**The Rising Cost of Coke.** Noteworthy in Ross' list of input cost increases was the price of coke, driven by recent U.S. shortages in coking coal. These shortages are both domestic and international in nature. According to the Department of Energy, U.S. domestic production of coke, derived from a grade known as metallurgical coal and used almost exclusively in blast furnaces by integrated steel mills, was 22 million tons in 1997. It was more than 20 million tons annually from 1998 through 2000, 18 million tons in 2001 and less than 17 million tons in 2002. It continued at a slightly higher rate through the first three quarters of 2003.<sup>40</sup>

The major domestic coke producer is U.S. Steel, which produces coal for its own use in Clairton, Pennsylvania. With other integrated steel operations generally closing their own coking operations, U.S. Steel supplies many other companies from Clairton. Clairton buys its coking coal comes from two mines, one in West Virginia, formerly owned by U.S. Steel, but now spun off as a separate company. In late 2003, a major fire shut down the West Virginia mine, which suspended fulfilment of the contract it had maintained with U.S. Steel, citing *force majeure*. This meant that Clairton could no longer meet its own outside contracts, and it also declared *force majeure*. These falling dominoes created a shock wave through the integrated steel industry. According to one industry source, the cost of coke rose from \$145/T to \$250/T between November 2003 and early 2004.<sup>41</sup> The most seriously affected

<sup>&</sup>lt;sup>37</sup> House Small Business Comm. Hearing (March 10, 2004), Atwell statement, p. 2.

<sup>&</sup>lt;sup>38</sup> *Ibid*. Ross statement, Exhibits 6-9.

<sup>&</sup>lt;sup>39</sup> *Ibid.*, p. 3.

<sup>&</sup>lt;sup>40</sup> U.S. Dept. of Energy. Energy Information Administration (EIA). "U.S. Coke, Production, Imports Consumption, Exports and Stocks, 1995-2001" (Dec. 2003).

<sup>&</sup>lt;sup>41</sup> Scott Roberson, "For Some Steelmakers, a Lump of Coal Would be a Welcome Gift," (continued...)

company was Weirton Steel, which relied exclusively on coke from Clairton, and was forced to shut down part of its operations. With Weirton already in bankruptcy, the loss of a reliable, nearby coke source, even temporarily, may have precipitated its sale to ISG, and its end as an independent company.<sup>42</sup>

Imports have not been able to resolve the recent domestic production shortage. In 2001, U.S. domestic furnace coke producers brought an antidumping case against imports from China and Japan. Though the ITC voted negatively as to whether the domestic industry had been injured, the case is still being reconsidered after remand from the U.S. Court of International Trade.<sup>43</sup> Except for the low U.S. steel production year of 2001, coke imports have run 3-4 million tons in recent years, though the annual rate fell below that in the first three quarters of 2003.<sup>44</sup>

The surge in China's own steel production has led to indications of a change in policy for this major U.S. import supplier (China accounts for 80% of world coke trade). As more Chinese coke output is being used in domestic steel production, exports have flattened out, or may even be falling.<sup>45</sup> One recent report is that despite a 25% 2004 coke production increase in China over the same period in 2003, licenses for coke exports, required under Chinese law, will be reduced from 11 million MT in 2003 to 9 million MT in 2004.<sup>46</sup> Wayne Atwell in his testimony before the House Small Business Committee summarized:

The rapid growth in China's steel industry has forced the Chinese to cut back coke exports. The Chinese coke export price has risen from \$55 per ton to between \$200-300 per ton ... last month China was actually a net importer of [coking] coal versus a typical net exporter of one million tons per month.<sup>47</sup>

**Rising Cost of Minerals.** Wilbur Ross, as well as many industry analysts, cite the rising price of iron ore and other minerals used in alloys, as increasing cost

<sup>43</sup> See CRS Report RL31792, Steel: Legislative and Oversight Issues, p. 10.

<sup>44</sup> EIA. "Coke Production, Imports" (Dec. 2003).

<sup>&</sup>lt;sup>41</sup> (...continued)

*AMM* print ed. (Mar. 15, 2004), p. 3. The information on the price rise is from industry consultant Charles Bradford, in Tom Balcerek, "Back Behind the Wheel," *AMM* print ed. (Feb. 9, 2004), p. 6. The thrust of the article, however, is that higher scrap prices have made the integrated industry overall more competitive against minimills.

<sup>&</sup>lt;sup>42</sup> *AMM*, "Weirton Details Staggered Cuts in Plants, Staff" (Jan. 16, 2004); "Arneault Offers Plan to Ease Weirton Cash, Coke Troubles" (Jan. 29, 2004); and, "Weirton, Union Applaud \$255M Proposal by ISG" (Feb. 19, 2004).

<sup>&</sup>lt;sup>45</sup> A Chinese official has stated that, "China would limit coal exports in 2004 to meet the increasing domestic demand;" "China Coal Policy," *China Business News On-Line* (Jan. 29, 2004). See also "China Coke Exports Seen Even Lower," *Platts International Coal Report* (December 8, 2003).

<sup>&</sup>lt;sup>46</sup> *AMM*, "China Looks to Stoke Supplies via 20% Coke Export Quota Cut," (Mar. 19, 2004).

<sup>&</sup>lt;sup>47</sup> House Small Business Comm. hearing (March 10, 2004), Atwell statement, p. 2.

factors in producing steel. The World Bank's commodity prices tracking data, for example, reported that iron ore, stable at an average price around 30¢ per dry metric ton unit (dmtu)<sup>48</sup> in 2002-3, rose to almost a 38¢/dmtu price in January-February 2004.<sup>49</sup> A January 2004 pricing agreement between CVRD of Brazil, the world's leading iron ore producer and Arcelor of Europe, the world's largest steel producer, was expected to set this price as a benchmark for 2004, which would be an 18.6% increase over the previous standard price.<sup>50</sup> Various forms of iron substitutes, such as pig iron, can be used by minimills instead of steel scrap, but rising prices, stimulated also by demand from China, may keep them from becoming more competitive as inputs. A contributing cause to the rising price of iron ore is a relative shortage of dry bulk shipping and limitations in port infrastructure.<sup>51</sup>

Prices of alloying metals rose even more sharply. Nickel increased from 6,772/MT in 2002 to 9,629/MT in 2003, and 15,236/MT in January-February 2004. Tin, used especially for steel cans, rose from 4.06/kg to 6.58/kg over the same period, and zinc, used in galvanizing, increased from  $77.9 \notin kg$  in 2002 to  $105.2 \notin kg$  in the most recent period.<sup>52</sup> Meanwhile, Eramet, the sole domestic producer of silicomanganese, a mineral compound used in steelmaking, announced that, due to "production problems," it would cut back output by 70-80% for six months, reportedly driving the price from  $34-36 \notin lb$ . to nearly 1/lb.<sup>53</sup> On March 25, 2004, the House Small Business Committee held a second hearing on the "spike" in metals prices, which focused primarily on non-ferrous metals. Again, a principal conclusion was that new demand from China, possibly including government subsidization of metals-consuming industries, may be enabling them to outbid U.S. companies for metallic scrap and ores.

**The High Cost of Natural Gas.** Another factor that has bedeviled the steel industry because of its inconsistency in recent years, is the price of natural gas. Natural gas is not generally the primary energy source in steelmaking. EAFs, as the name implies, use electrical power, generally off the local grid (a large Nucor mill in Berkeley County, South Carolina, for example, consumes 20% of the power used in the state every year<sup>54</sup>). Integrated mills use coking coal in their blast furnaces. However, gas is usually used to reheat steel during rolling operations.<sup>55</sup> Natural gas also plays a critical role as a fuel in various minimill processes, especially those

<sup>54</sup> Interview with Ladd Hall, plant manager, September 2003.

<sup>&</sup>lt;sup>48</sup> The dmtu is a unit used to equate prices of ore with differing iron content.

<sup>&</sup>lt;sup>49</sup> World Bank, *Prospects for Development*, "Commodity Price Data (Pinksheets)" (March 2004).

<sup>&</sup>lt;sup>50</sup> *AMM*, "CVRD-Arcelor Accord on Iron Ore Sets Benchmark for Pricing in '04" (Jan. 14, 2004).

<sup>&</sup>lt;sup>51</sup> House Small Business Comm. hearing (March 10, 2004), Atwell statement, p. 2.

<sup>&</sup>lt;sup>52</sup> World Bank Pinksheets (March 2004).

<sup>&</sup>lt;sup>53</sup> *AMM*, "Silicomanganese Prices Soar as Eramet Reduces Deliveries" (Feb. 10, 2004); and, "Silicomanganese Heading to \$1/lb.; Eramet Struggles" (Feb. 20, 2004).

<sup>&</sup>lt;sup>55</sup> Global Insight. "Steel," excerpt from *Demand Destruction: The Impact of Higher Natural Gas Prices* (2003), pp. 5-6.

which seek to use "direct reduced iron" (DRI) technology, as an alternative to reliance on remelting steel scrap.<sup>56</sup>

Natural gas prices spiked in the early winter of 2003-4, but not as high as two previous spikes since 2000. Nevertheless, rising and volatile gas prices are a worrying long-term trend for the steel industry. From 1986 through 1992, the wellhead price of natural gas annually averaged less than \$2.00 per thousand cubic feet (Mcf). From 1993 through 1999, the average price varied between \$1.55/Mcf and \$2.32/Mcf. In 2000, however, the average price was \$4.00/Mcf, and in January 2001, the wellhead price spiked at \$6.82/Mcf. The price then fell back, and the 2002 annual average price was below \$3.00. But the monthly price rose from a low of \$2.19 in February 2002 to a new high of \$6.69 in March 2003. After dipping a little later in the year, the monthly wellhead price was again more than \$5.00 in January and February 2004.<sup>57</sup>

#### **Steel Profit Recovery**

Because of the higher cost of inputs, whether the issue is primarily scrap costs for the minimill industry or multiple input costs for the integrated steel industry, the bottom line profitability of the American steel industry has not yet fully reflected the rapid rise in steel prices.

As Wilbur Ross argued in his testimony at the March 10, 2004 House Small Business Committee hearing:

The steel industry needs about \$40 per ton of earnings before interest, taxes, depreciation, and amortization (EBITDA) just to cover its debt service and make net capital expenditures. [In 2001] ... EBITDA losses were about \$8 per ton, so \$48 per ton of price increases were needed just to sustain operations. This level, however, would not make up for the cumulative \$132 per ton of industry losses from 2001 through 2003. Cyclical industries must earn back in strong markets the money they lost in weak markets or they will not survive. To recoup these losses over the next five years would require an average of \$26 per ton each year. [Thus, including the cost increases enumerated earlier] ... the price had to go from \$209 [per hot-rolled ton of sheet steel] to at least \$539, even without recoupment of prior losses.<sup>58</sup>

<sup>&</sup>lt;sup>56</sup> An innovative but short-lived application of DRI technology was a 1.4 million ton capacity plant in Louisiana, built by Midrex, a DRI specialist, for Birmingham Steel and GS Industries. The plant was commissioned in 1998, but idled in 1999 after a downturn in the U.S. steel market. It has since been acquired by Nucor with a view to future operation; *Metal Producing & Processing* (Jan.-Feb. 2004). Such plants, if they are to be successful, will require reliable supplies of natural gas at stable prices.

<sup>&</sup>lt;sup>57</sup> EIA. "U.S. Total Natural Gas Prices" (annual and monthly tables, as published March 17, 2004), and "Natural Gas Weekly Update" (March 11, 2004). For a detailed analysis of gas pricing issues, see CRS Report RL32091, *Natural Gas Prices and Market Fundamentals*, by Robert Pirog.

<sup>&</sup>lt;sup>58</sup> House Small Business Comm. hearing (March 10, 2004), Ross statement, p. 3 and exhibit (continued...)

When Ross challenged the president of Bodner Metal and Iron on profitability issues at the hearing, he was asked in turn whether his company was profitable: "We're not yet profitable," he replied.<sup>59</sup> For 2003, his company reported \$3.5 million in net income from operations for the year, and operating earnings of \$53 million in the fourth quarter. But the small annual net operating earnings figure was offset by \$51 million in net interest and other financial expenses. The total net loss on the year was \$23.5 million.<sup>60</sup>

Similarly, financial reports by other steel companies show losses or reduced earnings for 2003. The other major integrated U.S. steel companies all reported losses, though in some cases these losses were significantly affected by "legacy costs" such as retiree health care costs and pension fund losses. After making a small net profit in 2002, for example, U.S. Steel announced a full year net loss of \$730 million in 2003. In continuing operations, which excludes retiree health care costs, some financing costs, and similar expenses, the company was profitable for the fourth quarter and the year in 2003, although this was mainly due to profits from operations in Europe.<sup>61</sup>

More recently, Wheeling-Pittsburgh Corp., which received the largest loan guarantee issued by the federal Emergency Steel Loan Guarantee program before emerging from Chapter 11 bankruptcy in August 2003, announced an operating loss for the fourth quarter of 2003 that was twice what it had lost in the same quarter a year earlier (\$21 million vs. \$11 million).<sup>62</sup> Wheeling-Pitt is using loans received under the federal guarantee largely to build a new EAF, and to convert part of its operations to a minimill-type technology.

Nucor, the leading minimill operator, reported net earnings of \$63 million for 2003, almost \$100 million less than in 2002 despite a 30% increase in net sales. The net income figure was influenced by the costs of consolidating recent acquisitions that contributed to the higher sales volume. Net earnings for the fourth quarter of 2003 were less than half those for the last quarter of 2002.<sup>63</sup>

<sup>&</sup>lt;sup>58</sup> (...continued)

<sup>10.</sup> 

<sup>&</sup>lt;sup>59</sup> See a brief account of this exchange in the *AMM* "Potomac Pulse" column, March 15, 2004 print ed.

<sup>&</sup>lt;sup>60</sup> Securities and Exchange Commission. Form 10-K for International Steel Group (Fiscal Year ended Dec. 31, 2003).

<sup>&</sup>lt;sup>61</sup> See table "Earnings Highlights" in U.S. Steel Corp., "United States Steel Corporation Reports 2003 Fourth Quarter and Full-Year Results," press release (Jan. 30, 2004).

<sup>&</sup>lt;sup>62</sup> Wheeling-Pittsburgh Corp. "Wheeling-Pittsburgh Corp. Announces 4<sup>th</sup> Quarter and Year End Results," press release (March 16, 2004).

<sup>&</sup>lt;sup>63</sup> Nucor Inc., "Nucor Reports Results for the Year and the Fourth Quarter of 2003," press release (Jan. 29, 2004).

Some steel company stock prices have shown strong appreciation<sup>64</sup> and the industry has made much progress in the restructuring efforts that it promised as a concomitant of the Section 201 safeguard tariffs. For example, Nucor CEO Daniel DiMicco on March 19, 2004 substantially increased his forecast of corporate net income for the first quarter of the year to 80¢-\$1.00 per share, as compared to 23¢ in the same quarter of 2003.<sup>65</sup> Also, in another harbinger of recovering profitability, Texas Industries Inc., which operates steel minimills in addition to other construction products businesses, announced that higher prices and stronger demand enabled its steel business to lead a corporate turnaround in a quarter that ended in February 2004. Its TXI Chaparral steel unit posted an \$11.6 million operating profit, compared to a loss of \$12.5 million one year earlier.<sup>66</sup> But the U.S. industry as a whole has not produced a consistent period of strong and steady growth, such as would put it on a firmer footing with respect to modernization of its capabilities, and enable it to enter a new era of global competition.<sup>67</sup>

If an increase in prices and profits in the domestic industry is sustained, it may be seen by industry analysts as a healthy trend that could finance more investment. Speaking recently at an industry forum, analyst Michelle Applebaum emphasized that new management and new owners in the industry "aren't interested in making steel. They are interested in making money." She further said that, "I think you will see the hot-rolled price remain above \$500 for the next two to three years. What I believe will happen is that new capacity will serve to cap prices. The U.S. has been steel short for more than a decade, and I believe new capacity will come online to provide equilibrium."<sup>68</sup>

#### **Policy Issues**

Many Members of Congress have concerns about volatile steel price swings' effect on steel-consuming businesses, whether price increases are caused by rising input costs or steel earnings recovery. Because of the way steel contracts are structured, the smallest companies may typically bear the brunt of higher spot market prices. Spot prices tend to overshoot actual cost increases, because spot prices must cover lower margins earned by steel producers on less flexible contract steel. In such an environment, some policymakers argue that even temporary steel price increases to present levels or beyond are forcing steel-consuming industries offshore, a development that could ultimately undercut the domestic market base served by the North American steel industry.

<sup>&</sup>lt;sup>64</sup> U.S. Steel's one-year gain of 219% in 2003 ranked fifth among all companies on the Standard & Poor's 500 company index. *Business Week*, "The Best Performers," (April 5, 2004), p. 80.

<sup>&</sup>lt;sup>65</sup> Bloomberg.com, "Nucor Raises 1<sup>st</sup>-Qtr EPS Forecast to as Much as \$1" March 19, 2004.

<sup>&</sup>lt;sup>66</sup> *AMM*, "TXI's Quarterly Results Bolstered by Higher Steel Prices, Demand" (Mar. 26, 2004), p. 4.

<sup>&</sup>lt;sup>67</sup> For a more fundamental review of the structure of the industry and its international competition, see CRS Report RL31748.

<sup>&</sup>lt;sup>68</sup> Quoted in *AMM*, "Steel Sheds Fear of Raising Prices in Exodus" (Mar. 18, 2004).

At the second House Small Business Committee hearing on the subject of high metals prices, held on March 25, 2004, Chairman Donald Manzullo suggested a range of policy options to be considered in response to surges in both steel and non-ferrous metals prices that are affecting small manufacturers and thereby threatening U.S. job creation. Some of the proposals discussed by Chairman Manzullo and others at the hearing, such as possible trade policy action against Chinese foreign currency peg, action on energy legislation, and regulatory changes on environmental issues, are beyond the scope of this report. Other options, such as a national security investigation on possible shortages of steel and other metals, and an ITC investigation of reported shortages of scrap and coking coal, would be fact-finding steps, with no likely short-term relief for steel consuming industries. The options discussed below include those supported by Representative Manzullo that foresee some direct action on this issue and others that have been proposed relative to the steel issue.<sup>69</sup>

#### **Option: Short Supply Export Controls on Steel Scrap**

Some steel users heavily affected by higher steel prices are urging the consideration of export controls on steel scrap. Under Section 7 of the U.S. Export Administration Act (EAA) of 1979 (P.L. 96-72), the Secretary of Commerce may establish controls over U.S. exports of products in short supply in the domestic economy. Section 7(c) of the EAA specifically establishes a procedure by which the Secretary may be petitioned to establish such controls by trade associations, firms or unions representing "an industry or substantial segment [thereof] that processes metallic materials capable of being recycled."<sup>70</sup>

Some steel using industries seriously affected by the rising price of steel, having identified as the principal cause the sharp increase in the rise of steel scrap, formed a coalition to consider petitioning the Secretary of Commerce to take action under the EAA. Steel minimills, acting through the Steel Manufacturers Association (SMA), indicated support for the coalition, though the SMA has not formally adopted a position calling for short supply controls on scrap. Representatives of the coalition and the SMA have met with Commerce Department officials, including Secretary Evans.<sup>71</sup> As of early April 2004 no one has presented any formal petition to the

<sup>&</sup>lt;sup>69</sup> The most complete list of Rep. Manzullo's suggested remedies are in a press release from his office, "Manzullo Offers Potential Remedies to Reduce Surging Steel, Metal Prices" (Mar. 25, 2004).

<sup>&</sup>lt;sup>70</sup> Technically, after several periods of renewal, the EAA has expired. However, EAA regulations are enforced by executive order under the International Emergency Economic Powers Act. The text of EAA §7 is at 50 USC App. §2406. Currently, short supply controls are in place for domestically produced crude oil and timber from federal public lands, but these controls were established by congressional mandates under different provisions of law.

<sup>&</sup>lt;sup>71</sup> An excellent summary of the views and the logic of the Emergency Steel Scrap Coalition was presented at the House Small Business Comm. hearing (Mar. 10, 2004) by Robert Stevens, CEO of Impact Forge, Inc., and co-founder of the coalition, in his statement, pp. 5-6. See also *AMM*, "Mini-mills, FIA May Lobby for Scrap Export Controls" (Feb. 6, 2004); "Cellar Dweller Hatches Plan on 'Strategic' Ferrous Scrap," "Potomac Pulse" (continued...)

Commerce Department requesting controls.<sup>72</sup> Should a petition be presented, and the Secretary of Commerce were to decide to take monitoring or controlling actions (such as export restrictions and licensing), the entire process would require 135-150 days to be implemented.<sup>73</sup>

Other steel-producing countries have clearly been using formal or informal regulations to curb their own scrap exports, and thus have contributed to a tightening of supplies in the world market. Such actions have been most prevalent in eastern Europe and the former republics of the Soviet Union, especially Ukraine and Russia. But even countries such as South Korea, a major net importer of scrap that nevertheless also exports some grades, have taken restrictive measures.<sup>74</sup> Article XI of the General Agreement on Tariffs and Trade 1994 (GATT 1994), the WTO agreement which contains the fundamental rules of international trade, clearly requires the general elimination of quantitative restrictions on exports as well as imports. However, paragraph 2 of that article exempts "export restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party." And the "general exceptions" in Article XX of the GATT 1994 include measures "essential to the acquisition or distribution of products in general or local short supply," subject to qualifications on duration of such measures, treatment of trading partners and other considerations.<sup>75</sup>

Steel scrap export controls were applied in the United States in 1973-75, and the experience of that era has contributed to a backlash against the proposal. The imposition of controls at that time apparently led to an increase in the domestic price of scrap. In his analysis of the controls, Robert Dale Shriner found that this was perhaps because foreign scrap prices increased as U.S. scrap exports were restricted, everyone knew that the controls would be temporary, and foreign and domestic markets were not fully isolated from each other. U.S. recyclers reportedly withheld

<sup>&</sup>lt;sup>71</sup> (...continued)

column in print ed. (Feb. 9, 2004); and, "Evans, Regula Aware of Scrap Export Moves" (Feb. 27, 2004).

<sup>&</sup>lt;sup>72</sup> However, on April 7, 2004, two industry groups formally petitioned that the Commerce Department monitor and restrict exports of copper scrap and copper-alloy scrap; *Washington Trade Daily*, "Limiting Copper Scrap Exports" (Apr. 8-9, 2004).

<sup>&</sup>lt;sup>73</sup> Interview with Bernard Kritzer, U.S. Department of Commerce, Bureau of Industrial Security, March 12, 2004.

<sup>&</sup>lt;sup>74</sup> On eastern Europe, see *Recycling Today*, "No Scrap Zone: Eastern Europe Could Be a Helpful Source of Supply for a Red-Hot Scrap Market, But Restrictive Export Strategies Have in Effect Closed Its Docks to Exports" (Jan. 1, 2004). On Korea and other countries more generally, *AMM*, "South Korea Plans to Restrict Exports of Steel Scrap, Rebar," print ed. (Mar. 8, 2004), p. 14. For a sample of other measures, see reports on trade regulations in the Economist Intelligence Unit *Views Wire* regarding Thailand (Feb. 10, 2004); Sweden (Nov. 25, 2003); and, Egypt (Aug. 19, 2003).

<sup>&</sup>lt;sup>75</sup> World Trade Organization. "General Agreement on Tariffs and Trade 1994," Articles XI:2(a) and XX(j).

scrap from the domestic market, until prices here actually exceeded those abroad.<sup>76</sup>

Shriner's findings were cited by Emanuel Bodner, who represented the Institute of Scrap Recycling Industries, at the House Small Business Committee hearings on March 10, 2004. But he was joined in opposing export controls by Wilbur Ross, who suggested that China could then retaliate by reducing coke exports to the United States. Moreover, he said, "in view of our staggering balance of payments deficit, it would be ludicrous to reduce our exports."<sup>77</sup> On the whole, the idea has not had broad support within the steel industry, with even the SMA seeming somewhat ambivalent on actually applying such a policy.<sup>78</sup>

## Option: Application of "Changed Circumstances" to Trade Remedies

The Consuming Industries Trade Action Coalition (CITAC), a group of companies and organizations that actively opposed the Bush Administration's steel safeguard tariffs, has suggested a broader resolution to the issue of rising steel prices and tight availability. This would be to review existing antidumping and countervailing duty (AD/CVD) orders on imported steel products under the "changed circumstances" provisions of U.S. trade law. As argued by CITAC counsel Lewis Leibowitz:

We think that the current market situation clearly constitutes changed circumstances. Under the law, the Department of Commerce may remove the duties in response to changed circumstances. We believe that such removal is necessary and appropriate to alleviate the incredible shortages and price increases that currently afflict American manufacturers.<sup>79</sup>

As noted in a March 2004 Congressional Budget Office analysis, the steel industry is by far the largest user of AD/CVD orders. The CBO counted 131 AD/CVD orders against imports of steel mill products currently in place, plus a further 30 orders against imported iron and steel pipe products, and 30 orders against assorted other iron and steel products.<sup>80</sup> Consequently, if the Commerce Department or the ITC undertook a fundamental review of these orders with a view to their

<sup>&</sup>lt;sup>76</sup> Robert Dale Shriner, "Control Reversal in Economics: U.S. Scrap Export Restrictions," *Business Economics*, XII:3 (May 1977), pp. 14-17.

<sup>&</sup>lt;sup>77</sup> House Small Business Comm. hearings (Mar. 10, 2004); see Bodner and Ross statements; the quote from Ross is on p. 5.

<sup>&</sup>lt;sup>78</sup> See Paul Schaffer, "Short Supplies, Export Angst," *AMM* print. Ed. (February 23, 2004), p. 2, for a useful summary of the existing state of the law and the pro's and con's of action on the issue; also, *AMM*, "Scrap Wars Create Turmoil, Skepticism" (Mar. 3, 2004). No SMA representative testified at the March 10 hearing.

<sup>&</sup>lt;sup>79</sup> CITAC. "Steel Shortage Causing Havoc for U.S. Manufacturers; CITAC Urges Lifting of Trade Barriers," press release, March 4, 2004.

<sup>&</sup>lt;sup>80</sup> Congressional Budget Office. "Economic Analysis of the Continued Dumping and Subsidy Offset Act of 2000," attachment to letter from Director Douglas Holtz-Eakin to Rep. Bill Thomas, Chairman, House Ways and Means Committee (March 2, 2004), p.3.

termination, the result could have a major impact on U.S. steel imports and the domestic steel market.

Under U.S. trade law, an "interested party" may request a review citing changed circumstances.<sup>81</sup> The point of a changed circumstances review is that market conditions have changed, and that the penalized foreign action – dumping or subsidization – is not occurring or not likely to recur. However, commentators have noted that prevailing on either the Commerce Department or the International Trade Commission to accept that a change of circumstances has occurred, or to otherwise undertake an administrative review outside of the standard five-year "sunset reviews" is difficult. In such cases the "burden of persuasion" that circumstances have changed is on the petitioning party.<sup>82</sup>

#### **Option: Application of CVD Laws to Non-Market Economies**

As mentioned often in this report, the competitive demand of China for scrap and raw materials has become a key issue for U.S. metals producing and consuming industries. The growing competition from Chinese-made finished products in the U.S. market exacerbates the concern faced by U.S. producers. At the March 25, 2004, House Small Business Committee hearings at least one witness, who represented secondary aluminum producers, suspected that a broad range of Chinese government subsidies to its industries enables Chinese competitors to outbid U.S. companies for scrap and raw materials that are in short demand. Chairman Manzullo noted that U.S. law, as it is currently applied and interpreted, does not allow industry petitioners to seek redress through application of countervailing duty provisions against subsidies in non-market economies. He therefore stated his support for H.R. 3716, which would explicitly change the law to allow such actions.<sup>83</sup>

H.R. 3716, a revised version of legislation introduced in previous Congresses, would briefly add to Section 702 of the Tariff Act of 1930 (19 USC §1671(a)(1)) a provision to specify application of the law to non-market economies as well as other countries, and cover all industry petitions filed after date of enactment. The Commerce Department in the 1980s determined that U.S. anti-subsidy trade remedy law should not be applied to non-market economies. This determination was upheld by the courts (*Georgetown Steel Corp. v. United States*, 801 F.2d 1308 Fed. Cir.1986) in a steel-related case. China is still considered by the Commerce Department as a "non-market" economy, although it has become a member of the WTO, has absorbed large amounts of foreign investment, and has taken many steps to modernize its industry and infrastructure. With the growing significance of China in U.S. trade, Representative Manzullo, together with Representative Philip English, who introduced H.R. 3716, argue that U.S. companies should have access to this

<sup>&</sup>lt;sup>81</sup> Tariff Act of 1930 §757(b), 19 USC §1675(b).

<sup>&</sup>lt;sup>82</sup> 19 USC §1675(b)(3). See Raj Bhala and Kevin Kennedy. *World Trade Law* (Charlottesville, VA: Lexis Law Publishing, 1998), pp.620-28.

<sup>&</sup>lt;sup>83</sup> House Small Business Comm. hearing, March 25, 2004. Statement of Edward Cowan, Beck Aluminum Corp., p. 6; and, Opening Statement of Chairman Manzullo, p. 2.

remedy against Chinese competitors.<sup>84</sup> The legislation has 33 co-sponsors; no committee action has been taken on the bill within the Ways and Means Committee. A companion bill, S. 2212, was introduced on March 12, 2004, by Senator Susan Collins and four co-sponsors.

#### **Option: Reinstatement of Steel Safeguard Tariffs**

The options discussed above are aimed at finding ways to reduce upward domestic price pressures on steel. But some Members of Congress sympathetic to the steel industry still believe that termination of the safeguard relief after 20 months, instead of the initially planned three years, undermines the industry's long-term recovery and restructuring. In spite of the current relatively high prices of steel, they have suggested policy options that may help sustain domestic steel prices against import competition.

An example is legislation introduced to overturn President Bush's decision to terminate the Section 201 steel safeguards and to reinstate them. Almost immediately after President's decision was announced in December 2003, Representative Peter Visclosky introduced H.R. 3699 and Senator Robert Byrd introduced S. 1997, two short bills that would have this effect. In identical language, the bills would reinstate the terms and conditions of the safeguard remedies as they existed on December 4, 2003, including the temporary tariff schedule changes in chapter 99 of the U.S. Harmonized Tariff Schedule. They also provide that the presidential proclamation of December 4, 2003, would have no effect. As of March 16, 2004, H.R. 3699 had 76 co-sponsors; S. 1997 had two co-sponsors. Neither house of Congress had acted on the measures.

Proponents argue that President Bush has inadequately justified his termination of the safeguards. Senator Jay Rockefeller and Representative Sander Levin, respectively the ranking members of the Senate Finance Committee's International Trade Subcommittee and the House Ways and Means Committee's Trade Subcommittee, sought from U.S. Trade Representative Robert Zoellick the legal basis of the presidential action. They claimed that the justification given by Ambassador Zoellick in response does not meet the "clearly specified, defined circumstances" established in the law.<sup>85</sup>

<sup>&</sup>lt;sup>84</sup> Information on the rationale for H.R. 3716 provided in a statement from the office of Rep. Philip English, "Background Information on H.R. 3716."

<sup>&</sup>lt;sup>85</sup> For background, see Associated Press, "Indiana, West Virginia Senators Try to Revive Steel Tariffs" (Dec. 9, 2003) and "Lawmakers Ask Zoellick to Provide 'Legal Basis' for Steel Tariff Repeal" (Dec. 10, 2003). On January 8, 2004, Sen. Rockefeller and Rep. Levin released a copy of USTR Zoellick's response to their request, and a joint press release indicating their views as to its inadequacy.

#### Option: Adding Safeguard Tariffs to AD/CVD Margins

The Department of Commerce in September 2003 indicated that it was considering the deduction of safeguard tariffs, when it calculates margins or subsidy levels in AD/CVD cases. That is, in assessing the level of subsidy or dumping for any imported product that was covered by a safeguard tariff during the period of investigation, should Commerce subtract from the export price any U.S. safeguard tariff that may have been applied, even if the safeguard remedies themselves have subsequently been terminated?<sup>86</sup>

On March 26, 2004, 28 Representatives wrote Secretary of Commerce Evans in support of this change to U.S. AD/CVD practice. Twenty-one Senators sent a similar letter on the same day. In the view of the Members, U.S. antidumping law specifically provides for the inclusion of import duties when calculating dumping margins. In their opinion, this should mean all applicable duties, including any safeguard duties that may apply.<sup>87</sup>

The Commerce Department received extensive comments on this proposal. Many major steel-trading partners of the United States weighed in against the proposal during the comment period, including the European Union (EU), Brazil, Canada and India. The EU in particular noted that such a practice would "double the impact of the remedial duty that is deducted." It further claimed that its own practices have been misrepresented and that it has recently adopted a policy to ensure that AD/CVD and safeguard duties cannot be applied to the same imports.<sup>88</sup>

The Commerce Department is reportedly making determinations in one or more forthcoming steel AD/CVD cases in which proponents of the policy change believe that it could be applied. If the change in methodology were to be adopted, it could apparently increase substantially the level of any AD/CVD penalties applied to imports that had been covered by the safeguard remedies.

But the Commerce Department on April 6, 2004, announced that it would not make this change, with specific reference to administrative review of an antidumping order on stainless steel wire rod imported from Korea, the case which occasioned the September 2003 policy review. The Department acknowledged that the law "clearly requires the deduction of normal import duties for dumping calculations," but further concluded that "safeguard tariffs cannot be considered normal duties." Similar to the view expressed by the EU, the Commerce Department found that "Deducting safeguard tariffs from the export price in calculating dumping margins would effectively increase the safeguard remedy; in some cases providing a double remedy."

<sup>&</sup>lt;sup>86</sup> 68 Federal Register 174 (Sept. 9, 2003), pp. 53104-5.

<sup>&</sup>lt;sup>87</sup> Rep. Philip English, *et al.* and Sen. Barbara Mikulski, *et al.* Letters to Secretary of Commerce Donald Evans (both dated March 26, 2004). See also Nancy E. Kelly, "Lawmakers in Push for Duty Deductions," *AMM* (March 29, 2004 print ed.), p. 2.

<sup>&</sup>lt;sup>88</sup> Petros Soumelis, Delegation of the European Commission. Letter to Assistant Secretary of Commerce for Import Administration James J. Jochum (November 7, 2003).

It also said that, if this policy were adopted, "fairly traded imports could become liable for antidumping duties simply due to the imposition of safeguard tariffs."<sup>89</sup>

<sup>&</sup>lt;sup>89</sup> The quotes are from U.S. Dept. of Commerce, Office of Import Administration. "Fact Sheet: Decision Not to Include Safeguard Tariffs as Costs in Antidumping Duty Calculations," April 6, 2004. The full discussion of the issue and decision is in 69 *Federal Register* 19153*ff*. (April 12, 2004), Dept. of Commerce, International Trade Administration, case A-580-829, "Stainless Steel Wire Rod from the Republic of Korea: Final results of Antidumping Duty Administrative Review," Appendix I. See also *DER*, "Commerce Decides Not to Deduct Safeguard Tariffs in Antidumping Calculations" (April 8, 2004).