

# CHAPTER 2

## REPORTED IMPACT OF SAFEGUARD MEASURES ON STEEL-CONSUMING INDUSTRIES

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This chapter presents information on the impact of the safeguard measures on steel-consuming industries and on recent changes in steel-consuming industries' conditions. It focuses mainly on the responses to the Commission questionnaire sent to steel-consuming purchasers but includes data from publicly available sources, hearing testimony, and written submissions.<sup>1</sup> It presents purchasers' views of how the safeguards measures and other factors have influenced steel prices, availability, contract abrogation, and investment trends since the measures were enacted. Overall data on employment, productivity, profitability, and wages for the steel-consuming firms that responded to the questionnaire for 2000/01, 2001/02 and 2002/03 are also presented.<sup>2</sup>

The impact of the safeguard measures depends on how increased duties affect the price and availability of each of the types of steel purchased and on the supply and demand conditions in each of the steel-consuming industries. Depending on these conditions, the effects of the safeguard measures on firms in different steel-consuming industries will vary. For example, while increases in steel prices have a direct effect on the costs of steel consuming firms, the impact of these increases on a firm depends on its ability to pass the price increase on to its customers. As discussed later in this chapter, some steel-consuming firms were able to pass on the increased cost of steel to their customers. However, a majority of firms responding to the Commission's questionnaire reported that they were unable to pass on the increased cost of steel and that their firm absorbed the increased cost.<sup>3</sup> An analysis of factors that might be expected to determine the effect of the safeguard measures on firms in specific steel-consuming industries is presented in appendix D.

Steel-consuming firms were asked to report on a number of ways that the safeguards may, or may not, have affected their firm. In particular, steel-consuming firms were asked about how the safeguard measures affected their firm's purchasing patterns, prices, sales, employment, wages, availability of steel products, lead times and delivery times, changes in contracts, and the ability to obtain required products or quality specifications. In general, as is discussed below, there were numerous incidents of contract abrogation; longer lead and delivery times were experienced; sales were lost to foreign competitors; and purchases were shifted from imported to domestic steel. However, most purchasers reported that their ability to obtain required steel products or quality specifications did not change; that their customers did not shift to sourcing from foreign plants or facilities; or that they or other steel-consuming firms did not relocate or shift production to foreign plants or facilities after the implementation of the safeguards.

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<sup>1</sup> As noted in chapter 1, useable purchaser questionnaire responses were received from 485 steel-consuming firms; these firms accounted for approximately 22 percent of total steel purchased in 2002/03. Not all firms answered all questions so the total number of firms providing information may vary from question to question.

<sup>2</sup> Much of the data collected for this report was done so for 3 constructed years: (1) April 2000-March 2001, (2) April 2001-March 2002, and (3) April 2002-March 2003. Throughout this report, references to these constructed years will be 2000/01, 2001/02, and 2002/03. For example, if data are reported for 2000/01, the actual data period being referred to is April 2000-March 2001.

<sup>3</sup> Steel distributors accounted for the majority of firms that reported that they were able to pass on changes in the cost of steel due to the safeguard measures to their customers.

## Domestic Competitive Factors

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Given their recent imposition, as well as other economic factors impacting the steel consuming market, it is difficult to isolate the effect of the measures on steel-consuming firms. In the 18 months since implementation, firms may not have had time or sufficient financial resources to implement changes and may have only responded modestly because the measures are temporary. Many firms were unable to determine the specific effect of the safeguards on their firm, reporting that it is difficult to isolate the effects of the safeguard measures given the other changes that were also occurring at the time, including the closing and reopening of a number of flat steel producers; the recovery of the economy from the recession; and other factors that may affect specific steel-consuming industries. Finally, the impact of the safeguard measures will have different effects on different industries; one of the most important distinctions may be between steel-consuming firms that produce products using steel largely covered by the safeguard measures and those that produce products that instead rely on steel not covered by the measures.

Macroeconomic trends can strongly affect what happens to steel producing and steel-consuming firms. Economic conditions may vary across sectors; while construction may be facing high demand, auto parts, for instance, may see falling demand. Figures 2-1 and 2-2 show data for the value of shipments for durable goods, employment of production workers, and wages since 1990/91. These indicators of durable goods shipments, employment, and wages followed consistent trends in the years before the period for which the Commission collected data (before the April 2000 to March 2003 period). Figure 2-1 shows that manufacturing shipments followed an increasingly seasonal trend since the 1990/91 period; employment was relatively flat during that time. As seen in Figure 2-2, hours worked were also generally flat over the entire period, while hourly earnings consistently increased. None of these factors appears to change its trend after the imposition of the safeguard measures.

### *Steel Prices*

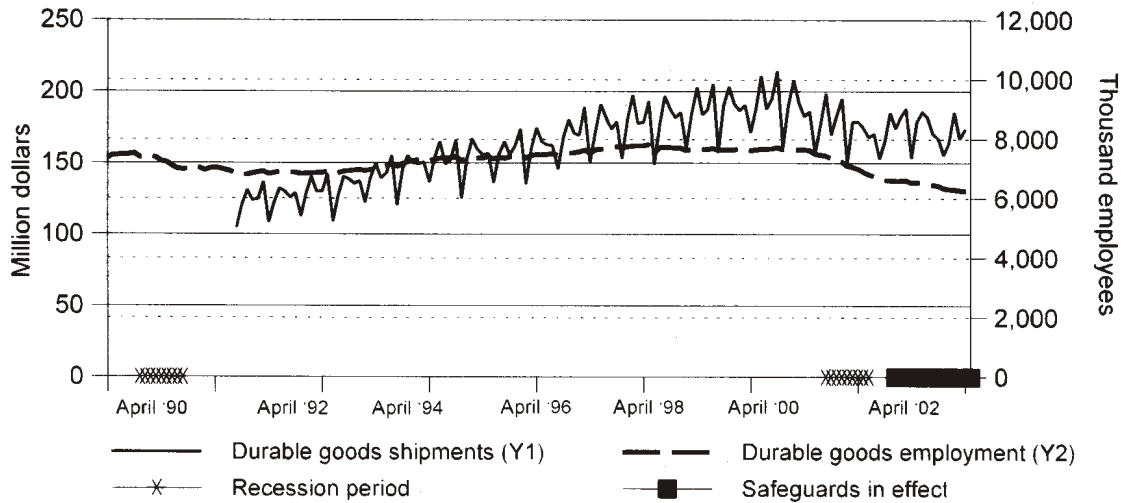
As noted earlier, safeguard measures can have a direct effect on the prices of steel, which can then directly affect steel-consuming industries. The Commission collected both price data from public sources, as well as qualitative information from steel-consuming firms in the Commission's purchasers' questionnaire. Prices (based on the PPI) for most of the steel products generally increased after the imposition of the safeguard measures; however, public data indicate a decline in these prices after that initial increase but remained higher than pre-safeguard prices for several products including hot-rolled, cold-rolled, corrosion, bars, and pipe and tube.

Data from the Bureau of Labor Statistics (BLS) for several steel products subject to the safeguard measures indicate that prices for some of these products increased following the implementation of the safeguard measures in March 2002 (see figures 2-3 through 2-13).<sup>4</sup> These data also

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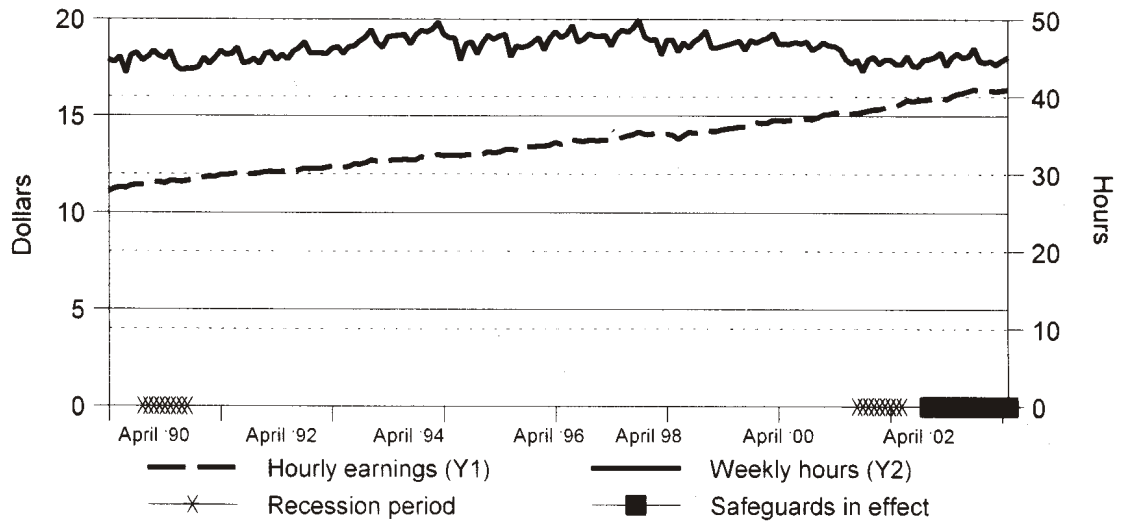
<sup>4</sup> These figures are based on the Producer Price Index (PPI) compiled by BLS. The PPI is a family of indices that measures the average change over time in selling prices received by domestic producers of goods and services. PPIs measure price change from the perspective of the seller and represents the first commercial transaction for many products and some services. PPI data represent a mix of steel sold at spot prices and on a contract-price basis. Steel mills were selling in both markets and those forms for which spot-market prices were available include: hot-rolled carbon sheet, cold-rolled carbon sheet, hot-dipped galvanized sheets and strip, cold-finished carbon bars, stainless steel sheet, and carbon concrete reinforcement bars.

**Figure 2-1**  
**Durable goods manufacturing, value of shipments and employment of production workers, January 1990-June 2003**



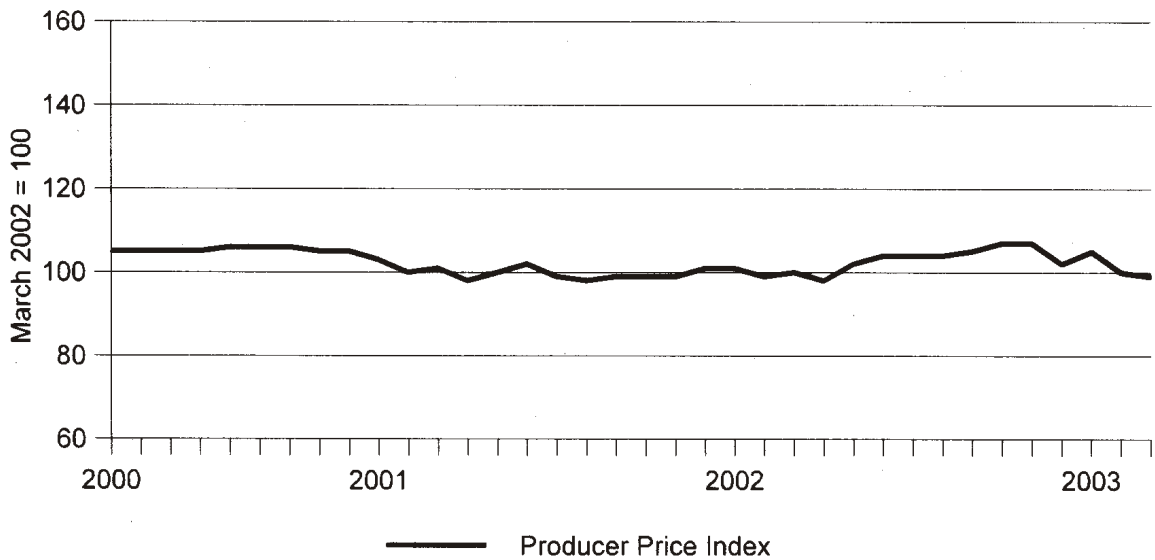
Source: Official statistics of the U.S. Bureau of Labor Statistics, Employment, Hours, and Earnings--National (CE) Series 19, CEU3100000003; U.S. Census Bureau, Manufacturers' Shipments, Inventories, and Orders--Series M3, UMDMVS; and statistics of the National Bureau of Economic Research, U.S. Business Cycle Expansions and Contractions.

**Figure 2-2**  
**Durable goods manufacturing, average hourly earnings and average weekly hours, including overtime, January 1990-June 2003**



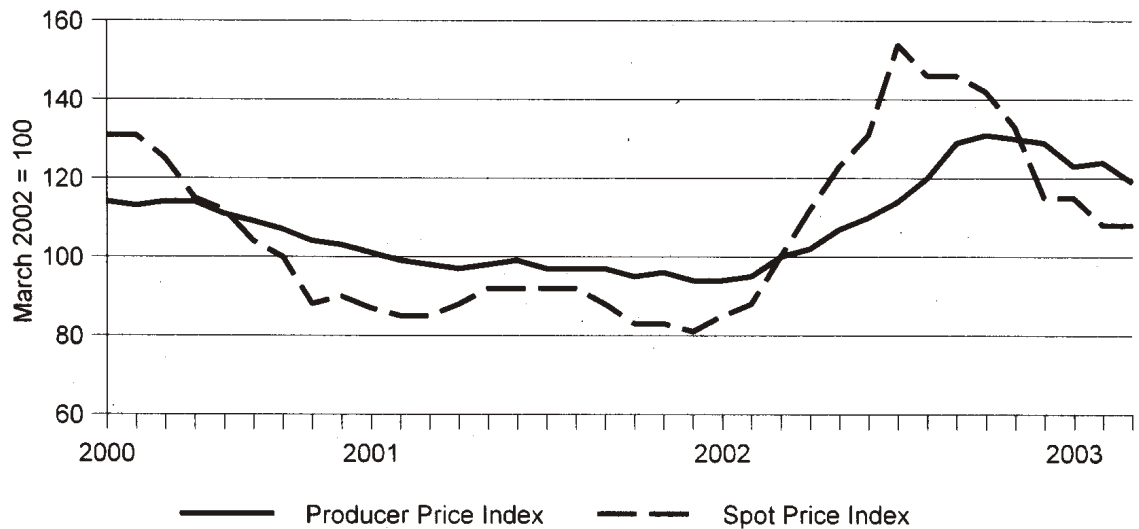
Source: Official statistics of the U.S. Bureau of Labor Statistics, Employment, Hours, and Earnings--National (CE), series 30, CEU3100000005, CEU3100000006; and statistics of the National Bureau of Economic Research, U.S. Business Cycle Expansions and Contractions.

**Figure 2-3**  
**Index of U.S. prices for carbon plates, April 2000-March 2003**



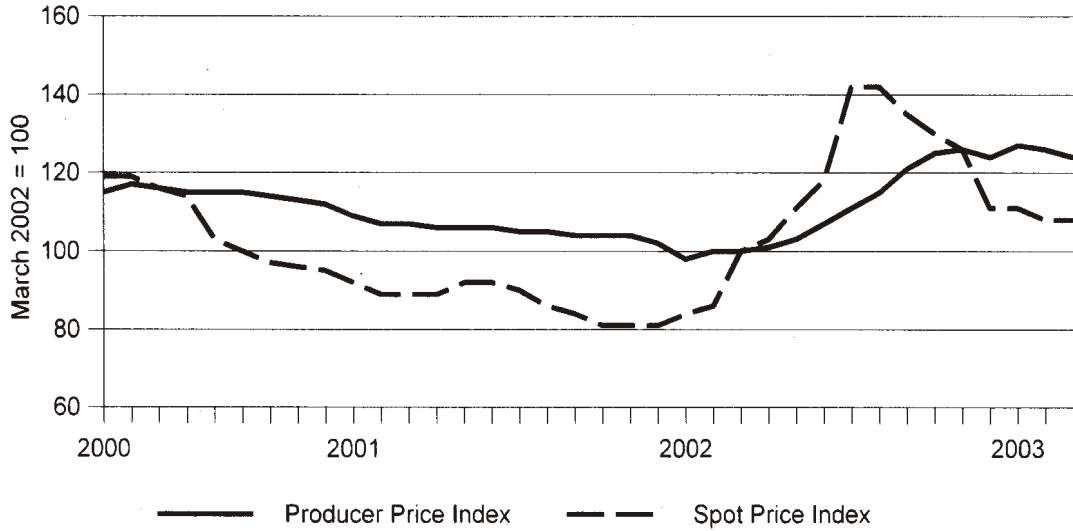
Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU1070412.

**Figure 2-4**  
**Index of U.S. prices for sheet, hot-rolled, carbon, April 2000-March 2003**



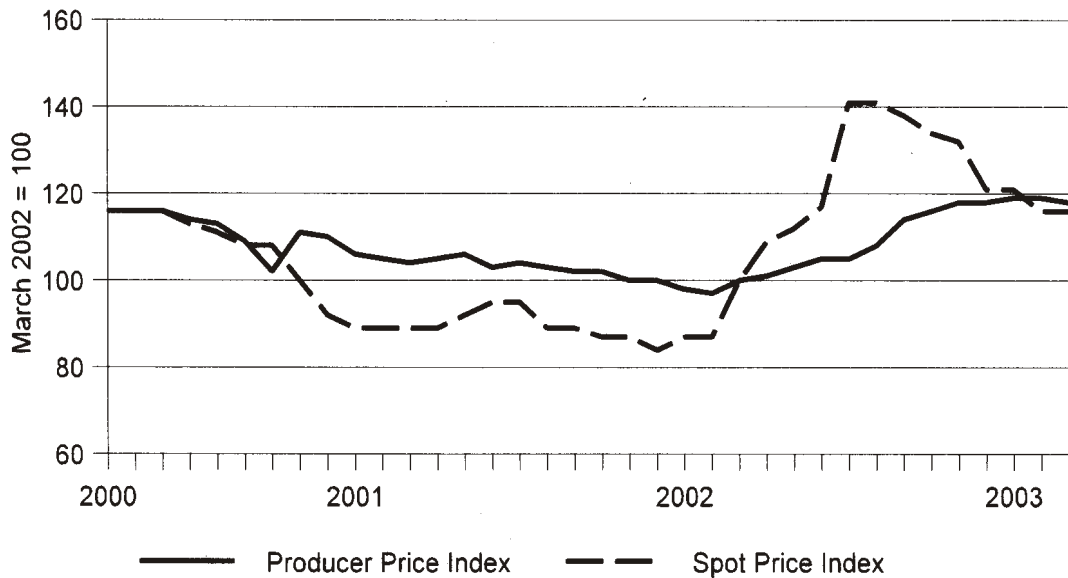
Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU10170311 and Purchasing Magazine.

**Figure 2-5**  
**Index of U.S. prices for sheets, cold-rolled, carbon, April 2000-March 2003**



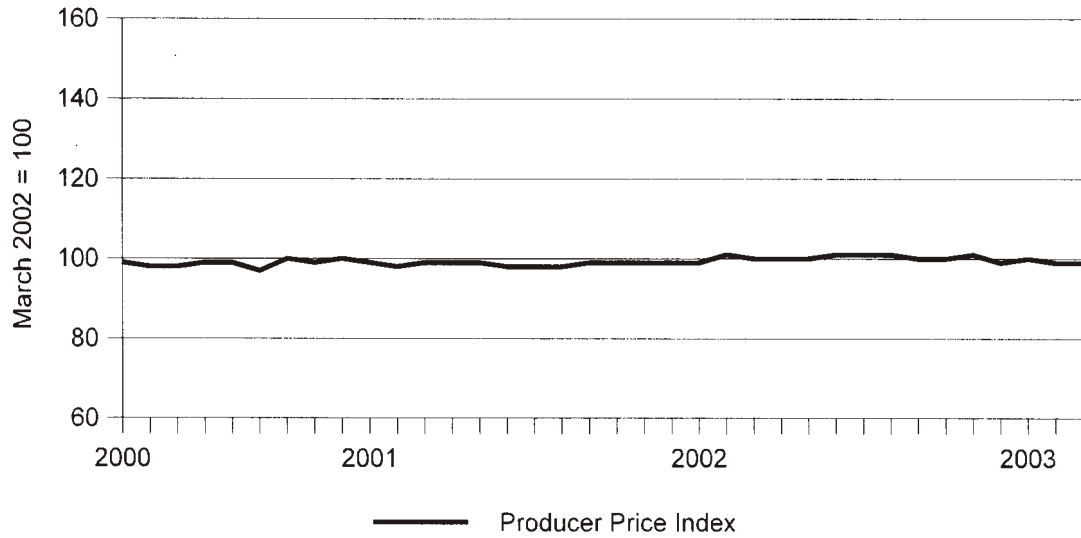
Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU10170711 and Purchasing Magazine.

**Figure 2-6**  
**Index of U.S. prices for sheets and strip, hot-dipped galvanized, April 2000-March 2003**



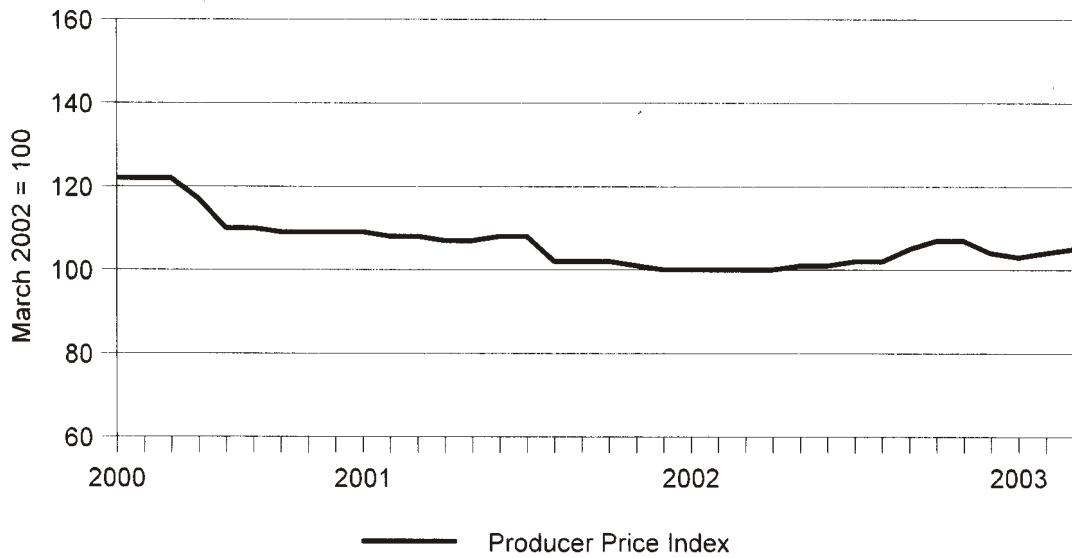
Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU10170313 and Purchasing Magazine.

**Figure 2-7**  
Index of U.S. prices for tinplate, April 2000-March 2003



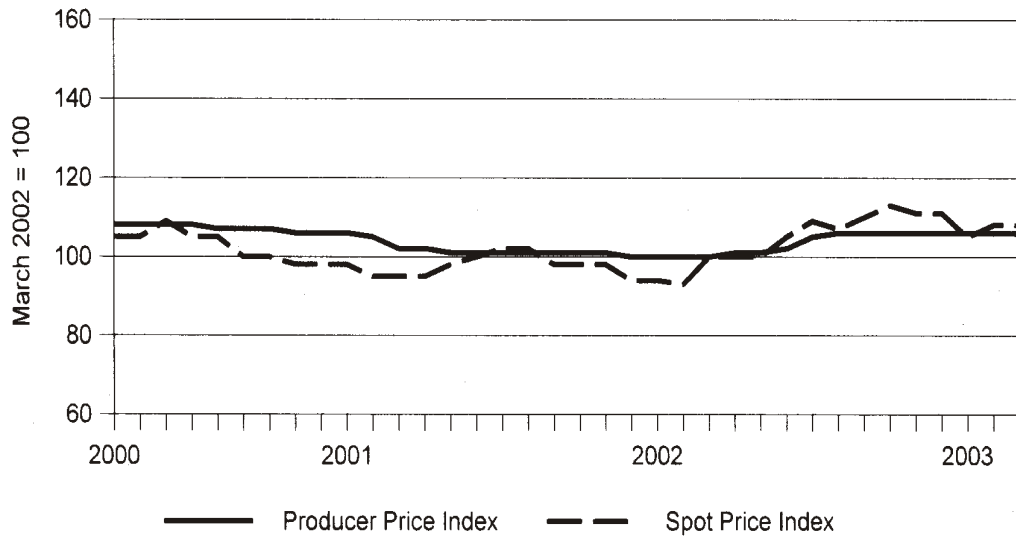
Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU10170326.

**Figure 2-8**  
Index of U.S. prices for bars, light structurals, carbon, April 2000-March 2003



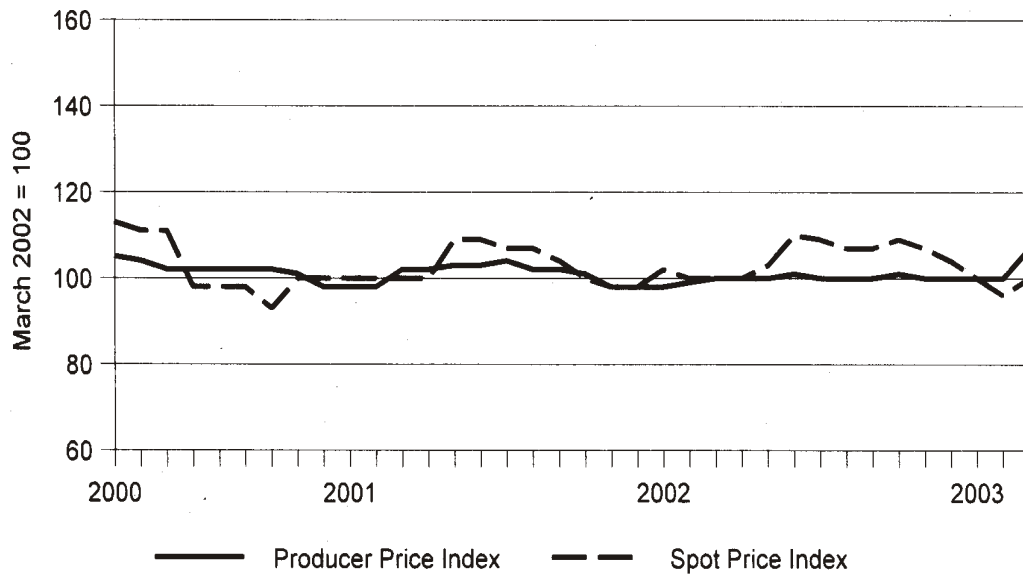
Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU10170424.

**Figure 2-9**  
**Index of U.S. prices for bars, cold-finished, carbon, April 2000-March 2003**



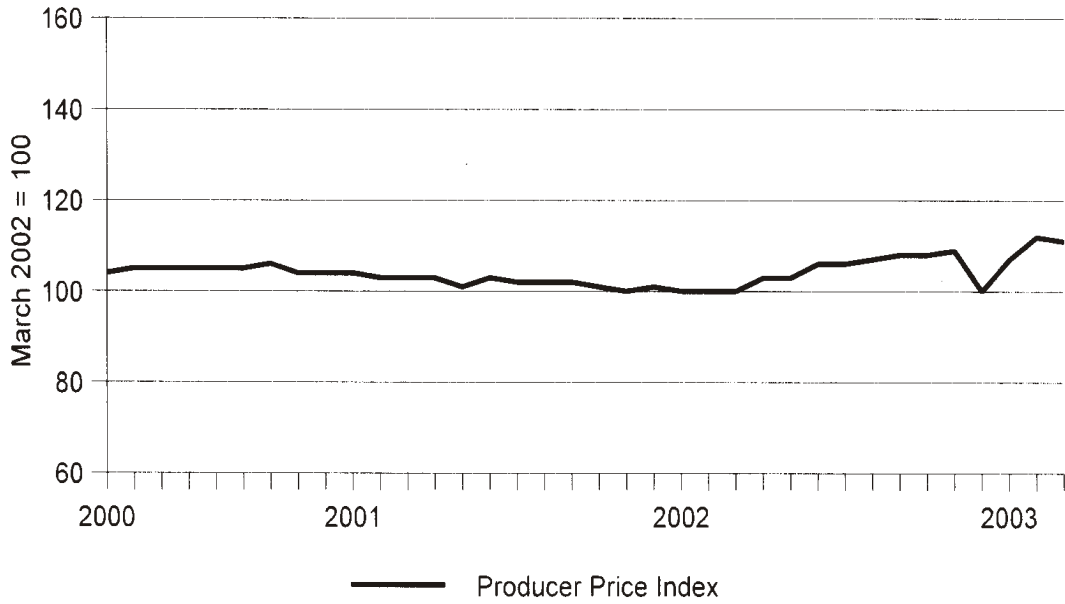
Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU10170811, and Purchasing Magazine.

**Figure 2-10**  
**Index of U.S. prices for concrete reinforcing bars, carbon, April 2000-March 2003**



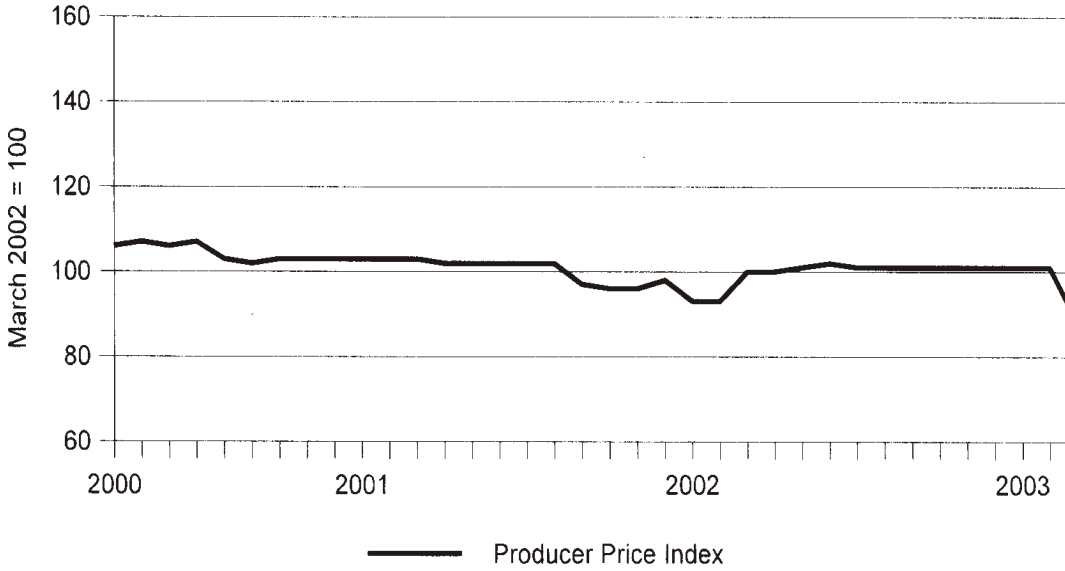
Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU10170425 and Purchasing Magazine.

**Figure 2-11**  
**Index of U.S. prices for steel pipe and tube, April 2000-March 2003**



Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series PCU3317#(N).

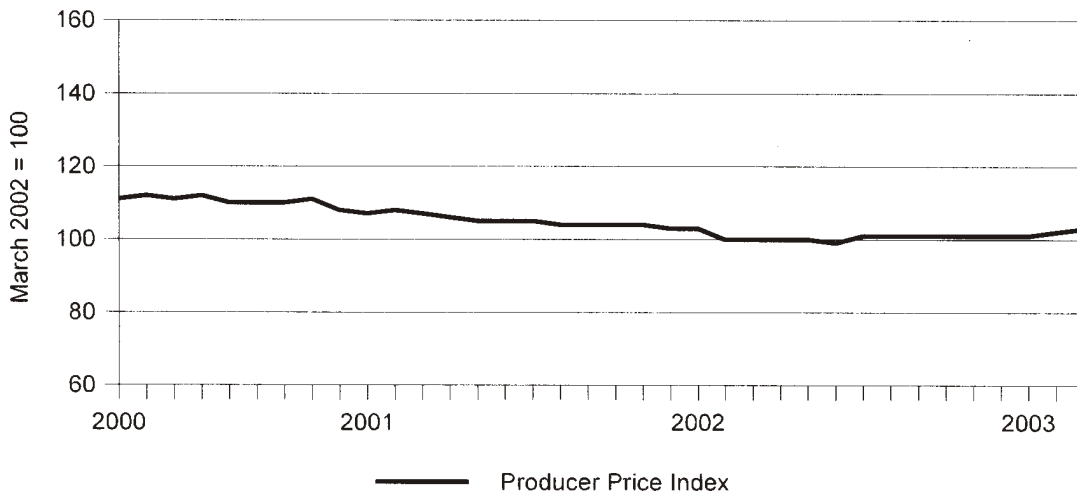
**Figure 2-12**  
**Index of U.S. prices for bars, hot-rolled, stainless, April 2000-March 2003**



Source: Official statistics of the U.S. Bureau of Labor Statistics, Producer Price Index, Series WPU10170461.



**Figure 2-13**  
**Indexed of U.S. prices for wire, stainless, April 2000-March 2003**



Source: Official statistics of the U.S. Bureau of Labor Statistics. Producer Price Index. Series WPU10170551.

indicate that after the initial increase, prices then tended to decline in late 2002 and early 2003. As shown in the figures, spot market prices were much more volatile during the April 2000-July 2003 period than those reported by the PPI.

At the USITC hearings, most steel-consuming firms who testified reported substantial increases in the price of steel after the imposition of the safeguard measures. The Chairman of Metaldyne Corporation, an automotive parts supplier, testified that “[s]ince the tariffs were implemented, we have experienced up to 10 percent price increases in aggregate, and up to 50 percent price increases of specific items.”<sup>5</sup> The President of a fasteners company testified that “[Our] relationship with our largest steel supplier has been positive and constructive, but the day after the steel 201 tariffs were imposed they broke its [sic] contract and imposed a 40 percent price increase.”<sup>6</sup> An officer of Acuity Lighting testified that “All of them [contract agreements] were broken in terms of the prices. All of the prices went up 20 to 30 percent, all of them.”<sup>7</sup> Some purchasers also noted, however, that prices had eased somewhat after the first quarter of 2003.<sup>8</sup>

<sup>5</sup> Testimony of Timothy D. Leuliette, Chairman, President, and Chief Executive Officer, Metaldyne Corp., transcript of Commission hearing, June 19, 2003, p. 86.

<sup>6</sup> Testimony of Wes Smith, President, E&E Manufacturing Company, transcript of Commission hearing, June 19, 2003, p. 103.

<sup>7</sup> Testimony of Tom Naramoore, Senior Vice President of Global Sourcing, Acuity Lighting, transcript of Commission hearing, June 19, 2003, p. 270.

<sup>8</sup> Testimony of John Stropki, Executive Vice President and Chief Operating Officer, Lincoln Electric Holdings, Inc., transcript of Commission hearing, June 19, 2003, p. 273. “In the early stages of the 201 we saw the 25 to 30 percent increase. Again that was driven by contract terminations by the Steel Supply Centers. Since that period of time we have entered into new contracts they [sic] are lower in than that but still higher than the pre-tariff number. The current range is probably in the 12 to 15 percent increase over the pre-tariff number.” See also testimony of Timothy D. Leuliette, Chairman, President, and Chief Executive Officer, Metaldyne Corp., transcript of Commission hearing, June 19, 2003, p. 182; Larry A. Denton, President and Chief Executive Officer, Dura Automotive Systems, Inc., transcript of Commission hearing, June 19, 2003, p. 183.

Some steel-consuming purchasers testified that they did not experience large increases in price after the imposition of the safeguard measures. Nucor Cold Finish and Nucor Fasteners observed minor price increases for hot and cold bar.<sup>9</sup> These increases followed a 9-year low in the price of cold bar.<sup>10</sup> Most rebar purchasers who testified also reported little change in the price of rebar attributable to safeguard measures and a larger impact due to other factors, principally higher scrap and energy costs.<sup>11</sup> Table 2-1 summarizes the information provided by industry representatives with regard to price increases that occurred since the imposition of the safeguard measures.

In the Commission's questionnaire, steel-consuming firms were asked to report if prices changed for steel products that are covered by the safeguard measures after April 1, 2002; these firms were asked to provide information on price changes for products purchased on both a spot basis and on a contract basis.<sup>12</sup> Overall, slightly more than one-half of the responding firms (51 percent) reported that spot prices for steel covered by the safeguard measures had changed since April 1, 2002 and half reported that spot prices had not changed (table 2-2). On an industry basis, in 7 of the 15 identified industries, most firms reported that spot prices had changed; in the other 8 industries most firms reported that spot prices had not changed. Those industries with a majority of firms reporting changes in spot prices include distributors, producers of hot/cold/coated steel forms, welded pipe, bar finisher/wire producers, fabricators, motor vehicles, and household appliances. The other industries (fasteners, motor vehicle parts, shipping containers/military ships, heavy machinery, construction, steel barrels and cans, and furniture) had more firms reporting that spot prices for steel subject to the safeguard measures had not changed since April 1, 2002.

Steel-consuming firms also were asked in the questionnaire about any changes in contract prices for steel products covered by the safeguard measures since April 1, 2002 (table 2-2). Of the 434 steel-consuming firms that provided responses to this question, 48 percent reported that prices changed for steel products purchased on a contract basis. Steel-consuming industries in which a majority of responding firms reported changes in their contract prices include: fasteners, steel fabricators, motor vehicles, motor vehicle parts, heavy machinery, steel barrels and cans, and household appliances. Industries with the largest number of firms reporting changes in contract prices were the motor vehicle parts industry (56 firms reporting) and the steel fabrication industry (44 firms). Industries with the largest percent of firms reporting changes in contract prices including household appliances (90 percent), motor vehicle parts (74 percent), steel barrels and cans (72 percent), motor vehicles (67 percent), and fabricators (60 percent). Just under one-half of the industries (7 of 15) had more firms reporting unchanged contract prices for steel subject to the safeguard measures. Industries with a significant percent of responding firms reporting no changes in contract prices include distributors (79 percent), producers of hot/cold/coated steel forms (79 percent), bar finishers (74 percent), shipping containers (75 percent), and construction (67 percent).

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<sup>9</sup> Testimony of Terry Cieslinski, Cold-Finish Manager, Nucor Cold Finish, transcript of Commission hearing, June 20, 2003, p. 564; and testimony of Scott Wulff, General Manager, Nucor Fasteners, transcript of Commission hearing, June 20, 2003, p. 566.

<sup>10</sup> Testimony of Terry Cieslinski, Cold-Finish Manager, Nucor Cold Finish, transcript of Commission hearing, June 20, 2003, pp. 563-564.

<sup>11</sup> Testimonies of Jayson Turner, President, Arrowhead Rebar Co., transcript of Commission hearing, June 20, 2003, p. 687, and Tom Yarbrough and Carl Schoenleber, General Managers, SMI Rebar, CMC Steel Group, transcript of Commission hearing, June 20, 2003, pp. 683, 688.

<sup>12</sup> Firms were not asked if they purchased on contract or spot basis. Firms that reported that they did not purchase on contract were recorded as having unchanged contract prices, while those that reported that they did not purchase on spot were recorded as having unchanged spot prices.

**Table 2-1**  
**Price increases after imposition of the safeguard measures as reported at the Commission hearing by U.S. steel-consuming firms**

<b>Firm/group</b>	<b>Industry</b>	<b>Type of subject steel<sup>1</sup></b>	<b>Maximum percent price increase</b>
Arvin Meritor	Automotive parts	cold-rolled, galvanized	<sup>2</sup> 25-40
Delphi	Automotive parts	hot-rolled, cold-rolled, other	<sup>3</sup> 5-48
DURA	Automotive parts	strip steel	<sup>4</sup> 30
Federal Mogul	Automotive parts	unspecified	<sup>5</sup> 25
Metaldyne	Automotive parts	hot-rolled special quality bar	<sup>6</sup> 10
Transpro	Automotive parts	unspecified	<sup>7</sup> 25
GR Spring & Stamping	Fabricator	unspecified	<sup>8</sup> 20-30+
Trans-Matic	Fabricator	low carbon sheet and strip	<sup>9</sup> 32
E&E Manufacturing	Fasteners	unspecified	<sup>10</sup> 40
Nucor Cold Finish and Fasteners	Fasteners	hot and cold bar	( <sup>11</sup> )
Textron Fastening	Fasteners	flat forms	<sup>12</sup> 30
HPBA	Furniture	cold-rolled and other forms	<sup>13</sup> 12-25
KI	Furniture	hot-rolled, cold-rolled	<sup>14</sup> 25-35
Acuity Lighting	Home appliances	unspecified	<sup>15</sup> 20-30
AHAM	Home appliances	hot-rolled, cold-rolled, galvanized	<sup>16</sup> 17-30
Lincoln Electric	Home appliances	hot-rolled, cold-rolled	( <sup>17</sup> )
Caterpillar	Machinery	unspecified	<sup>18</sup> 50
Olson International	Metal stamping	flat-rolled	<sup>19</sup> 30-40
Su-dan Corp.	Metal stamping	unspecified	<sup>20</sup> 30
Advanced Transformer	Power Machinery	unspecified	<sup>21</sup> 12
NRACP	Refrigeration products	galvanized	<sup>22</sup> 34
Dowding Industries	Tool & die	unspecified	( <sup>23</sup> )
Stripmatic	Tube producer	hot-rolled	<sup>24</sup> 7-30

<sup>1</sup> Information on the level of import relief associated with each of the steel products covered by the safeguard measures is presented in chapter 1.

<sup>2</sup> Jeffrey Stoner, Vice President, World Wide Procurement, Arvin Meritor, pp. 109, 210. The current price of cold-rolled is 13 percent higher and galvanized is 28 percent higher than what the price was before April 2002.

<sup>3</sup> Eric Sandford, Deputy Director, Global Purchasing, Delphi Corp., pp. 121-122 and written testimony.

<sup>4</sup> Larry A. Denton, President and Chief Executive Officer, DURA Automotive Systems, pp. 90-92.

<sup>5</sup> Ramzi Y. Hermiz, Vice President, Global Supply Chain Management, Federal-Mogul, Corp., p. 114. Reported that in the spot market, prices were 100 percent higher than contract prices.

<sup>6</sup> Timothy D. Leuliette, Chairman, President, and Chief Executive Officer, Metaldyne Corp., p. 86. For certain products, the price increase was 50 percent.

<sup>7</sup> Layne Gobrogge, Vice President of Marketing, Transpro, p. 118.

<sup>8</sup> Merle Emery, President, GR Spring and Stamping, p. 408.

<sup>9</sup> Patrick A. Thompson, Founder and Chief Executive Officer, Trans-Matic, pp. 417-419.

<sup>10</sup> Wes Smith, President, E&E Manufacturing Co., p. 103.

<sup>11</sup> Terry Cieslinski, Cold-Finish Manager, Nucor Cold Finish, p. 564 and Scott Wulff, General Manager, Nucor Fasteners, p. 566. Reported only that the price increase was minor and based on a 9-year low.

<sup>12</sup> Richard Clayton, President, Textron Fastening systems, p. 99.

<sup>13</sup> Jack Goldman, General Counsel and, Director of Government Affairs, Hearth, Patio & Barbecue Association, pp. 733-734.

<sup>14</sup> Gary N. Van Handel, Director, Supply Chain Management, KI, Inc., p. 739.

<sup>15</sup> Tom Naramore, Senior Vice President of Global Sourcing, Acuity Lighting, p. 239.

<sup>16</sup> Joseph M. McGuire, President, Association of Home Appliance Manufacturers(AHAM), p. 730.

<sup>17</sup> John Stropki, Executive Vice President and Chief Operating Officer, Lincoln Electric Holdings Inc., p. 248. Reported that his company had experienced higher prices for both hot-rolled and cold-rolled sheets.

<sup>18</sup> Dan M. Murphy, Executive Vice President, Global Purchasing Division, Caterpillar Inc., p. 274.

<sup>19</sup> Edward Farrer, Manager, Purchases, Olson International Limited, p. 413.

<sup>20</sup> Teresa Amman, Director, Supply Team Management, Su-dan Corp., p. 425.

<sup>21</sup> Brian Dundon, President, Advanced Transformer, p. 244.

<sup>22</sup> Bryan Kelly, President, National Refrigeration and Air-Conditioning Products, Inc., pp. 723-724. The price of galvanized steel has decreased to a 34 percent price increase from the May 2002 price.

<sup>23</sup> Chris Dowding, President, Dowding Industries, Inc., p. 403. Reported that her company experienced between a \$436,000 and a \$702,000 increase in costs.

<sup>24</sup> William J. Adler, Jr., President and Co-owner, Stripmatic Products, Inc., pp. 422-423.

Source: Testimony submitted to the Commission at its hearings on June 19, 2003 and June 20, 2003.

**Table 2-2**  
**Number of steel-consuming firms reporting changes in prices due to the safeguard measures, by industry**

Steel-consuming sector/industry category	Changes in contract prices		Changes in spot prices		Important factor(s)		
	No	Yes	No	Yes	Safeguard		Not safeguard
					Only	And other	
<b>Steel-product producers/processors/distributors:</b>							
Distributors . . . . .	59	16	36	41	14	38	4
Producers of hot/cold-rolled or coated product . . . . .	15	4	5	15	1	14	1
Welded pipe producers . . . . .	6	7	2	17	1	17	1
Bar and wire finishers . . . . .	14	5	6	13	5	9	1
Fastener producers . . . . .	9	10	11	7	5	5	0
Steel fabricators . . . . .	30	44	27	42	39	24	3
<b>Transportation:</b>							
Motor vehicles . . . . .	4	8	3	7	2	7	0
Motor vehicle parts . . . . .	20	56	31	22	31	25	1
Ships and shipping containers; military . . . . .	6	2	6	2	1	2	0
<b>Machinery and equipment:</b>							
Heavy machinery . . . . .	6	9	8	4	0	10	0
Power, other machinery . . . . .	18	12	22	4	8	8	0
<b>Construction</b> . . . . .	23	11	18	14	7	13	1
<b>Containers:</b>							
Steel barrels and cans . . . . .	3	8	6	4	6	4	0
<b>Consumer and commercial goods:</b>							
Household appliances . . . . .	1	9	3	5	2	7	1
Furniture, hardware, cutlery . . . . .	13	6	11	7	6	3	0
Total . . . . .	227	207	195	204	128	186	13
<i>Percent of responses</i> . . . . .	48	42	49	51	39	57	4

Source: Compiled from data submitted in response to Commission questionnaires.

Steel-consuming firms also were asked, if prices for steel subject to the safeguard measures did change, what factors influenced the prices of these steel products. These firms were asked if (1) the safeguard measures were the *only* important factor influencing prices, (2) the safeguard measures were one of several factors that influenced prices, or (3) the safeguard measures did not affect the price. A significant number of responding steel-consuming firms (39 percent) reported that the safeguard measures were the only important factor in price changes (table 2-2). Fifty-five percent (70 of 128) of firms reporting that the safeguard measures were the only important factors were in the motor vehicle parts and fabrication industries. Fifty-seven percent of steel-consuming firms reported that the safeguard measures were one of several factors that influenced price. Only about 4 percent of responding firms that reported price changes reported that the safeguard measures did not affect prices.

Factors other than the safeguard measures that reportedly caused prices to increase included steel producing plant shut downs (reported by 43 firms) and changes in capacity utilization rates (reported by 18 firms). Legacy costs, capital costs, reduced efficiency, and other overhead costs were reported by a few firms as additional factors that caused prices to increase (table 2-3). In 12 of the 15 industries examined, a majority of steel-consuming firms reported plant shut downs were an important factor. In 5 of the 15 industries, some firms reported capacity utilization rates were important in increasing prices. Firms in the motor vehicle parts, fabricator, construction, and steel distributor industries accounted for the majority of responses. The plants that shut down mainly produced flat product so firms that purchased these products would have been most directly affected by their closing. Thirty-three firms reported that capacity utilization, plant shutdowns, and plant openings were factors that decreased prices. Plant openings were listed most frequently as an important factor in reducing the price of steel. Firms in

**Table 2-3**  
**Number of steel-consuming firms that reported factors other than safeguards that increased or decreased steel price, by industry**

	Increased the cost of steel				Reduced the cost of steel				
	Legacy costs	Capital costs	Capacity utilization rates	Plant shut downs	Other over-head	Reduced efficiency	Capacity utilization rates	Plant shut-downs	Plant openings
<b>Steel-product producers/processors/distributors:</b>									
Distributors .....	0	2	3	7	0	0	0	1	5
Producers of hot/cold-rolled or coated product .....	0	0	1	6	0	0	1	1	3
Welded pipe producers .....	0	0	1	5	0	0	0	0	4
Bar and wire finishers .....	0	1	1	2	0	0	0	0	0
Fastener producers .....	0	0	0	1	0	0	0	0	0
Steel fabricators .....	0	1	2	4	1	1	1	0	1
<b>Transportation:</b>									
Motor vehicles .....	0	0	1	1	0	0	1	0	0
Motor vehicle parts .....	1	0	4	10	0	0	1	0	3
Ships and shipping containers; military .....	0	0	0	0	0	0	0	0	0
<b>Machinery and equipment:</b>									
Heavy machinery .....	0	0	0	1	0	0	1	0	0
Power, other machinery .....	0	0	0	2	0	0	1	0	2
<b>Construction</b> .....	1	1	3	2	0	0	3	0	0
<b>Containers:</b>									
Steel barrels and cans .....	0	0	0	0	0	0	0	0	2
<b>Consumer and commercial goods:</b>									
Household appliances .....	0	0	1	2	0	0	2	0	1
Furniture, hardware, cutlery .....	0	0	1	0	0	0	0	0	0
<b>Total</b> .....	2	5	18	43	1	1	11	2	21

Source: Compiled from data submitted in response to Commission questionnaires.

the distributor, producer of hot/cold/coated steel forms, welded pipe and motor vehicle parts industries provided the majority of responses.

In addition to the information from the questionnaires, at the USITC hearings, SMI Rebar testified that price increases were attributable to increases in scrap and natural-gas costs that could be passed on to customers under the safeguards.<sup>13</sup> Nucor Cold Finish and Nucor Fasteners also testified that much of the price movement in hot bar was due to increased global scrap costs.<sup>14</sup>

Those steel-consuming firms reporting any increase in the price of the steel they purchased also were asked how their firm responded to the price increase. Firms were asked to indicate if they successfully passed on the steel price increases to their customers; whether they absorbed any increased steel costs without changes in operations; whether they absorbed the increased steel costs but made changes in operations such as layoffs, reduced overhead costs, etc.; and whether they shifted production off shore, or outsourced to foreign sources to limit the amount of higher priced steel purchased (table 2-4). Overall, about 19 percent of responding steel-consuming firms (71 of 381) reported that they were successful in passing on any increased cost of steel to their customers, while 43 percent (162 of 381) reported that they were unsuccessful in passing on any increase. Sixteen percent of responding steel-consuming companies (59 of 381) reported that they were able to pass on price increases in some instances but not in others. On a sectoral basis, steel distributors accounted for a significant number (36 of 71) of the firms reporting that they were able to pass on any increased cost or were sometimes able to pass on price increases. In addition, a significant number of fabricators (20 firms) also noted that they were, at least sometimes, able to pass on any increase in the cost of steel. Most of the specified sectors had more firms reporting that they were unsuccessful in passing on the increased cost of steel to their customers. In particular, a majority of responding firms in industries such as fasteners, motor vehicles, motor vehicle parts, power equipment, steel barrels and cans, and furniture reported an inability to pass on steel price increases. Information from the hearing and from written submissions to the Commission concerning the ability to pass on price increases generally supports the information obtained from the questionnaires.<sup>15</sup>

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<sup>13</sup> Testimony of Carl Schoenleber, General Manager, CMC Steel Group, SMI Rebar South Carolina, transcript of Commission hearing, June 20, 2003, p. 688.

<sup>14</sup> Testimony of Terry Cieslinski, Cold-Finish Manager, Nucor Cold Finish, transcript of Commission hearing, June 20, 2003, p. 564; and testimony of Scott Wulff, General Manager, Nucor Fasteners, transcript of Commission hearing, June 20, 2003, p. 566.

<sup>15</sup> For example, Jack H. Goldman, General Counsel and Director of Government Affairs, Hearth, Patio & Barbecue Association (HPBA), written submission to the USITC, for Investigation No. 332-452, June 20, 2003, p. 4; Joseph M. McGuire, President, AHAM, written submission to the USITC, for Investigation No. 332-452, June 20, 2003, p.4; Mitsubishi Motors North America, written submission to the USITC, for Investigation No. 332-452, June 20, 2003, p. 1; AIAM, post-hearing submission to the USITC, for Investigation No. 332-452, June 26, 2003, p. 2; and testimony of Gary Van Handel, Director, Supply Chain Management, Ki, Inc., transcript of Commission hearing, June 20, 2003, p. 739.

**Table 2-4**  
**Number of steel-consuming firms reporting what their firm did or tried to do in response to steel price increases, by industry**

Steel-consuming sector/industry category	Pass on price increase			Absorbed price increase			Shifted production sourcing	
	Success-fully	Unsuccessful-fully	Both <sup>1</sup>	Unchanged operations	Changed operations	Both <sup>1</sup>	Both <sup>1</sup> overseas	Other
<b>Steel-product producers/processors/distributors:</b>								
Distributors .....	36	21	14	15	16	4	4	11
Producers of hot/ cold-rolled or coated product .....	6	5	3	8	4	1	0	2
Welded pipe producers .....	7	8	3	5	3	2	0	2
Bar and wire finishers .....	3	9	1	4	8	0	2	3
Fastener producers .....	1	8	3	6	7	1	1	1
Steel fabricators .....	4	36	20	19	30	9	13	10
<b>Transportation:</b>								
Motor vehicles .....	0	3	0	6	2	0	2	1
Motor vehicle parts .....	3	38	7	27	30	1	8	3
Ships and shipping containers; military .....	1	1	0	0	2	0	0	2
<b>Machinery and equipment:</b>								
Heavy machinery .....	0	2	0	3	8	1	1	1
Power, other machinery .....	0	7	2	11	6	2	3	5
<b>Construction</b> .....	9	10	3	8	4	5	1	3
<b>Containers:</b>								
Steel barrels and cans .....	0	5	3	1	8	0	1	0
<b>Consumer and commercial goods:</b>								
Household appliances .....	1	3	0	1	4	1	3	2
Furniture, hardware, cutlery .....	0	6	0	3	3	2	4	1
Total .....	71	162	59	117	135	29	43	47
<i>Percent of responses<sup>2</sup></i> .....	19	43	15	31	35	8	11	12

<sup>1</sup> Firms that are reported in "Both" are not reported in the other referenced categories.

<sup>2</sup> Firms were able to answer for more than category (e.g., firms could report that they were unsuccessful in passing on the price increase and that they absorbed the price increase without changing operations). Therefore, the percent of responses for each category are based on the total number of firms that provided a response to this question (i.e., 381 firms).

Source: Compiled from data submitted in response to Commission questionnaires.

At the hearing, steel-consuming purchasers testified to increases in the price of steel. Most reported lower profits or price increases to their customers. Two hot-rolled manufacturers reported that they could not negotiate the normal type of cost reduction for increased purchase volumes or relief from their contractual annual sale price decreases required by their customers.<sup>16</sup> A representative from the Hearth, Patio, and Barbeque Association, representing firms in the consumer and commercial goods industries, testified that some of its member companies had seen increased production costs exceeding \$1 million, profit losses of nearly \$1.5 million, and lost contracts to foreign competitors worth \$5 million.<sup>17</sup> Wheatland Tube, a firm in the steel producers, processors, and distributors industry, reported that the differential relief of 30 percent tariffs on flat-rolled forms and 15 percent tariffs on other pipe and tube products imposed a cost-price squeeze, particularly in latter 2002 and early 2003. It predicted that this situation may render the firm unprofitable for the first time since 1984.<sup>18</sup> GR Spring and Stamping, a steel fabricator, stated that the tariffs had placed it in a cost-price squeeze.<sup>19</sup> E&E Manufacturing, a fastener producer, reported that its steel costs increased an average of 34 percent, or \$3.4 million through April 2003.<sup>20</sup> Advanced Transformer Co., a representative of the power machinery sector, testified that it increased its prices to its customers and immediately experienced an 18-percent drop in sales.<sup>21</sup>

### ***Contract Abrogation***

In the steel market, sales are made on both a spot and contract basis. Since the implementation of the steel safeguard measures, some steel-consuming firms have noted that contracts that they had in place were either modified or broken. However, most steel-consuming firms (71 percent) responding to the questionnaire reported that steel suppliers had not modified or abrogated any contracts with their firms since April 1, 2002 (table 2-5). Some industries had a higher percentage of firms reporting that steel suppliers had modified or abrogated contracts: household appliances (56 percent); motor vehicle parts (49 percent); motor vehicles (45 percent); fastener producers (42 percent); furniture, hardware, cutlery (37 percent); steel fabricators (32 percent); and heavy machinery (31 percent).

Steel-consuming firms were also asked to identify any difficulties that they experienced with their suppliers in relation to contract terms (table 2-5). Questionnaire respondents were asked if their suppliers were unable to (1) provide the steel product in a timely manner; (2) meet agreed upon product specifications; (3) meet the agreed upon quantity; (4) meet an increased quantity as specified in the contract; and (5) provide the steel product at the agreed upon price. While firms reported problems in all of the aforementioned areas, the most common response of steel-consuming firms (115) was that suppliers were unable to provide the steel product at the agreed price. The second most cited problem (65 firms) was that steel suppliers were unable to provide the product in a timely manner. A significant number of responding firms (33) also noted that steel suppliers were unable to provide the agreed upon

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<sup>16</sup> Testimony of Chris Dowding, President, Dowding Industries, Inc., transcript of Commission hearing, June 19, 2003, pp. 404-405.

<sup>17</sup> Testimony of Jack Goldman, General Counsel, Director of Government Affairs, HPBA, transcript of Commission hearing, June 20, 2003, pp. 733-734. The HPBA represents manufacturers consuming cold-rolled, plate, hot-rolled, corrosion-resistant, and stainless steel products.

<sup>18</sup> Testimony of Mark Magno, Vice President-Marketing, Wheatland Tube Co., transcript of Commission hearing, June 20, 2003, p. 578.

<sup>19</sup> Testimony of Merle Emery, President, GR Spring & Stamping, Inc., transcript of Commission hearing, June 19, 2003, pp. 407-408.

<sup>20</sup> Testimony of West Smith, President and Owner, E&E Manufacturing Co., Inc., transcript of Commission hearing, June 19, 2003, p. 103.

<sup>21</sup> Testimony of Brian R. Dundon, President, Advanced Transformer Co., transcript of Commission hearing, June 19, 2003, pp. 243-244.



**Table 2-5**

**Number of steel-consuming firms reporting whether and how steel suppliers modified or abrogated contracts after the imposition of the safeguard measures, by industry**

Steel-consuming sector/industry category	Contract modified or abrogated?		Suppliers were unable to provide					Other
	Yes	No	Product in a timely manner	Agreed product specs.	Agreed quantity	Increased quantity <sup>1</sup>	Product at agreed price	
<b>Steel-product producers/processors/distributors</b>								
Distributors . . . . .	13	74	7	2	4	0	9	1
Producers of hot/cold-rolled or coated product . . . . .	4	15	0	0	0	0	3	0
Welded pipe producers . . . . .	4	17	2	3	3	1	3	1
Bar and wire finishers . . . . .	4	16	3	0	1	0	4	0
Fastener producers . . . . .	8	11	3	0	1	1	5	2
Steel fabricators . . . . .	24	51	14	2	6	3	22	2
<b>Transportation:</b>								
Motor vehicles . . . . .	5	6	3	1	4	1	5	0
Motor vehicle parts . . . . .	35	36	18	6	8	2	30	2
Ships and shipping containers; military . . . . .	2	6	1	0	0	0	2	1
<b>Machinery and equipment:</b>								
Heavy machinery . . . . .	5	11	2	0	0	0	5	0
Power, other machinery . . . . .	9	24	2	0	1	0	9	1
<b>Construction</b> . . . . .	6	30	2	0	1	0	6	0
<b>Containers:</b>								
Steel barrels and cans . . . . .	3	9	1	0	0	0	2	1
<b>Consumer and commercial goods:</b>								
Household appliances . . . . .	5	4	3	1	1	0	5	0
Furniture, hardware, cutlery . . . . .	7	12	4	0	3	1	5	0
<b>Total</b> . . . . .	134	322	65	15	33	9	115	11
<i>Percent of responses</i> . . . . .	29	71	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> An increased quantity as specified in the contract.

<sup>2</sup> Firms were able to answer for more than category (e.g., firms could report suppliers were unable to provide the product in a timely manner and that suppliers were unable to meet the agreed upon price). Therefore, the percent of firms responding is not applicable.

Source: Compiled from data submitted in response to Commission questionnaires.

quantity. The largest number of respondents reporting that suppliers did not meet the agreed upon price were in the distributor, fabricator, motor vehicle parts, and power equipment industries. Firms reporting that suppliers were unable to provide the product in a timely manner were most likely to be distributors, fabricators, and motor vehicle parts manufacturers.<sup>22</sup>

<sup>22</sup> A number of written submissions and comments made at the hearing noted that contracts were broken or modified. For example, firms in the motor vehicle parts industry reported that contract abrogation has been a problem since the implementation of the safeguard measures. MEMA written submission to the USITC staff, for Investigation No. 332-452, June 19, 2003, p. 3; Federal-Mogul Corp. written submission to the USITC staff, for Investigation No. 332-452, June 16, 2003, p. 3; testimony of Larry A. Denton, President and Chief Executive Officer, DURA Automotive Systems, Inc., transcript of Commission hearing, June 19, 2003, p. 91-92; testimony of Richard L. Clayton, President, Textron Fastenings Systems, Inc., transcript of Commission hearing, June 19, 2003, p. 100; and testimony of Wes Smith, President, E&E Manufacturing Co., Inc., transcript of Commission hearing, June 19, 2003, p. 103.

In addition, firms in the household appliance industry also reported difficulties. Testimony of Brian Kelly, President, National Refrigeration and Air Conditioning Products, transcript of Commission hearing, June 20, 2003,

Steel-consuming companies also were asked to provide specific information about the contracts that were modified or abrogated since April 1, 2002.<sup>23</sup> The steel products most frequently cited by steel-consuming firms were flat-rolled forms such as hot-rolled, cold-rolled, and coated steel (table 2-6). The most frequently cited problem was that the supplier did not provide the product at the agreed upon price.

**Table 2-6**  
**Number of steel-consuming firms reporting steel suppliers abrogated contracts after the imposition of the safeguard measures, by product**

Steel product	Number of firms	Who abrogated the contract(s)			Supplier did not provide as specified in contract				
		U.S.	Import	Not specified	Product in a timely manner	Agreed product specs.	Agreed quantity	Agreed price	Other
Plate	2	2	0	0	0	0	0	2	0
Hot-rolled	62	51	5	6	11	1	10	47	0
Cold-rolled	64	54	1	9	9	0	6	53	8
Corrosion resistant	27	21	1	4	0	0	4	23	4
Flat <sup>1</sup>	6	6	0	0	0	0	1	5	0
Tin mill	4	2	1	1	0	0	0	4	0
Hot Bar	5	5	1	0	0	0	0	5	0
Cold Bar	4	4	0	0	0	0	0	1	0
Welded pipe	3	3	0	0	0	0	0	3	0
Stainless <sup>2</sup>	4	0	4	0	0	0	0	3	1
Total	181	148	13	20	20	1	21	146	13

<sup>1</sup> Firms reporting contracts involving more than one flat product.

<sup>2</sup> Did not specify which stainless product.

Note.--No firms reported problems with contracts for slab, rebar, or fittings.

Source: Compiled from data submitted in response to Commission questionnaires.

Steel-consuming firms also provided information on any problems that resulted from modified or abrogated contracts. There were about 205 specific problems reported and the majority (143 or 70 percent) of these concerned lower profits experienced by the steel-consuming firm (table 2-7). A number of steel-consuming companies also reported that they experienced lower production (26 instances reported), and lower sales (14 instances reported). Overall, the reported loss in profits due to these problems totaled approximately \$190 million.

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p. 723; William Sutton, President, ARI, written testimony submission to the USITC for Investigation No. 332-452, June 20, 2003, p. 2; and M. Takahashi, President, Sharp Manufacturing Co. of America (SMCA), written submission to the USITC, for Investigation No. 332-452, June 26, 2003, p. 3.

In written submissions and at the hearing, steel producers reported that they did not necessarily agree with the argument that they have modified or abrogated contracts. United States Steel Corp., written submission to the USITC, for Investigation No. 332-452, June 27, 2003, p. 12; testimony of Terry Lisenby, Chief Financial Officer, Nucor Corp., transcript of Commission hearing, June 20, 2003, p. 608 and 619; and testimony of Robert Bussiere, General Manager, Fire Protection Products, Allied Tube and Conduit, transcript of Commission hearing, June 20, 2003, p. 608.

<sup>23</sup> The questionnaire asked responding firms to report information on the product involved, how the contract was modified or abrogated, the problems that resulted from modified or abrogated contracts (e.g., shut downs, layoffs, etc), the source of the steel, and the date that the contract was modified or abrogated. Because of the need to protect the confidentiality of responding firms, much of the specific information cannot be included.

**Table 2-7****Number of steel-consuming firms reporting problems and losses resulting from modified or abrogated contracts after the imposition of the safeguard measures, by product**

<b>Product</b>	<b>Shutdowns</b>	<b>Layoffs</b>	<b>Lower sales</b>	<b>Lower production</b>	<b>Lower profits</b>	<b>Other</b>	<b>Amount lost</b>
Plate .....	0	0	0	0	1	1	\$72,000
Hot-rolled .....	2	5	2	7	51	2	3,720,000
Cold-rolled .....	2	2	7	10	50	6	15,159,000
Corrosion resistant .....	0	1	3	6	21	1	310,300
Flat <sup>1</sup> .....	0	0	0	1	6	0	170,500,000
Tin mill .....	0	0	0	0	4	0	33,371
Hot bar .....	0	0	0	0	4	0	150,000
Cold bar .....	0	0	0	0	3	0	73,000
Welded pipe .....	0	0	1	2	0	0	0
Stainless <sup>2</sup> .....	0	0	1	0	3	0	0
<b>Total .....</b>	<b>4</b>	<b>8</b>	<b>14</b>	<b>26</b>	<b>143</b>	<b>10</b>	<b>190,017,671</b>

<sup>1</sup> Firms reporting contracts involving more than one flat product.

<sup>2</sup> Did not specify which stainless product.

Note.--No firms reported problems with contracts for slab, rebar, or fittings.

Source: Compiled from data submitted in response to Commission questionnaires.

Changes in contracts also were reported in the question asking whether suppliers of domestically produced steel had changed marketing practices since April 1, 2002. A significant number of steel-consuming firms reported that producers had made some changes in contracts (table 2-8). For example, of the 292 firms that reported changes in marketing practices, 112 firms (38 percent) reported that contracts had changed. Most of these firms (92 of 112) reported that the length of period covered by contracts had shortened. Steel-consuming sectors that most frequently reported these changes include motor vehicle parts, fabricators, and distributors. In addition, a number of steel-consuming firms also reported that U.S. steel producers have refused to offer quotes to sell steel; companies in the steel distributors, motor vehicle parts, and fabricator industries accounted for the majority of these responses.

In addition to information submitted in questionnaire responses, steel-consuming purchasers testified at the hearing about changes in contract prices due to the safeguard measures. Several reported instances of contracts being broken and/or renegotiated at higher prices. Caterpillar testified that contracts for purchases of plate (and of hot-rolled and hot bar) were honored through 2002 but that availability was low, so purchasing from service centers was required, at up to a 50-percent increase in prices.<sup>24</sup> Acuity Brands-Lighting Group, a firm in the home appliance industry, testified that all of its price and supply arrangements for cold-rolled steel were broken after the imposition of the safeguard measures. All of their plants purchasing from both the integrated mills and service centers faced price increases of 20 to 30 percent.<sup>25</sup> Textron Fastening Systems, a fastener producer, testified that it had observed broken contracts, with most manufacturers refusing to ship unless their price increases were accepted. In turn, its suppliers (steel distributors) took the same approach.<sup>26</sup> E&E Manufacturing, a fastener producer, reported that its largest steel supplier broke the purchasing contract and raised its prices 40 percent the day after the steel safeguard measures were imposed. GR Spring and Stamping, a steel fabricator, testified that, with the increased cost and decreased supply of steel, service centers have occasionally broken their long-term

<sup>24</sup> Testimony of Dan M. Murphy, Executive Vice President, Global Purchasing Division, Caterpillar Inc., transcript of Commission hearing, June 19, 2003, p. 274.

<sup>25</sup> Testimony of Tom Naramoore, Senior Vice President, Global Sourcing, Acuity Brands Lighting Group, transcript of Commission hearing, June 19, 2003, p. 269.

<sup>26</sup> Testimony of Richard L. Clayton, President, Textron Fastening Systems, Inc., transcript of Commission hearing, June 19, 2003, pp. 99-100.

**Table 2-8**  
**Number of steel-consuming firms reporting that suppliers of U.S.-produced steel changed their marketing practices since April 1, 2002, by industry**

Steel-consuming sector/industry category	Did marketing practices change?		Reported changes in marketing practices									
	Yes	No	Fewer dis- counts	Longer lead times	Spot sales	More	Contract period	Refusal to quote orders	Larger mini- mum orders	Less flexible Delivery times	Product specs.	Other
<b>Steel-product producers/processors/distributors:</b>												
Distributors .....	45	39	29	19	9	8	3	11	15	11	22	10
Producers of hot/ cold-rolled or coated product .....	12	11	6	5	0	2	0	3	1	0	4	2
Welded pipe producers .....	11	10	8	10	1	1	0	1	5	4	9	6
Bar and wire finishers .....	10	9	7	5	1	2	0	1	4	5	5	3
Fastener producers .....	10	9	3	8	0	1	0	5	4	1	7	3
Steel fabricators .....	61	19	30	47	8	11	6	22	20	13	35	20
<b>Transportation:</b>												
Motor vehicles .....	9	2	3	7	0	1	4	2	5	3	5	4
Motor vehicle parts .....	59	17	31	44	8	6	2	25	20	19	35	26
Ships and shipping containers; military .....	3	4	1	3	1	0	0	2	1	0	1	1
<b>Machinery and equipment:</b>												
Heavy machinery .....	8	8	2	3	0	1	1	4	0	1	2	3
Power, other machinery .....	15	17	9	8	0	2	0	4	1	1	5	6
<b>Construction</b> .....	24	14	9	10	1	1	1	4	5	2	8	1
<b>Containers:</b>												
Steel barrels and cans .....	8	3	3	4	1	0	0	1	3	2	3	3
<b>Consumer and commercial goods:</b>												
Household appliances .....	8	2	5	7	3	2	3	3	4	1	5	1
Furniture, hardware, cutlery .....	9	9	6	7	0	2	0	4	3	2	5	3
<b>Total</b> .....	292	173	152	187	33	40	20	92	91	65	151	92

Source: Compiled from data submitted in response to Commission questionnaires.

commitments to supply steel, forcing GR Spring and Stamping to buy from the spot market.<sup>27</sup> Federal Mogul testified that 70 percent of its fixed price contracts were cancelled or broken by their major steel supplier in favor of substantially higher pricing.<sup>28</sup>

### ***Steel Shortages and Availability***

The steel safeguards have caused some shifts in purchasing patterns of steel products (i.e., after the implementation of the safeguard measures, purchases of domestic steel increased and purchases of imported steel decreased). The Commission investigated the extent to which availability was reduced due to the safeguard measures. A significant number of responding firms reported some difficulty in obtaining steel in the quantities or qualities they desired.

Steel-consuming firms were asked if, since April 1, 2002, their firm experienced difficulties obtaining steel in the quantities or in the quality specifications necessary to fulfill their needs. Questionnaire respondents were asked to indicate if their firm experienced (1) changes in quantity, (2) changes in quality, (3) changes in both quantity and quality, or (4) no change. Overall, a little less than half of responding steel-consuming firms (229 of 471 or 49 percent) reported some difficulty in obtaining steel in the quantities or qualities desired (table 2-9). Of those responding affirmatively to this question, 24 percent (111 of 471 firms) reported difficulties in obtaining the desired quantity; 4 percent (19 of 471) reported difficulties in obtaining the necessary qualities; and 24 percent (112 of 471) reported difficulties in obtaining both the quantity and the quality of steel required. The remaining 49 percent of responding steel-consuming firms (229 firms) reported that their firm experienced no change in their ability to obtain steel in the quantities or quality desired. On an industry basis, firms in the fabrication, motor vehicles, motor vehicle parts, steel barrel and cans, and household appliance industries had more firms reporting difficulties in obtaining steel than other industries.<sup>29</sup>

Steel-consuming firms that reported difficulties obtaining steel were asked to provide information describing those difficulties. Approximately 75 percent of those steel-consuming firms that reported difficulties obtaining steel (180 of 242) stated that higher steel prices were the principal difficulty (table 2-9). Distributors, bar finishers, fabricators, and motor vehicle, motor vehicle parts, ships and shipping containers, welded pipe, heavy machinery, and household appliances manufacturers all had at least two-thirds of the responding firms in the industry reporting that the higher prices of steel posed the principal difficulty.

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<sup>27</sup> Testimony of Merle Emery, President, GR Spring & Stamping, Inc., transcript of Commission hearing, June 19, 2003, pp. 407-408.

<sup>28</sup> Testimony of Ramzi Hermiz, Vice President, Global Supply Chain Management, Federal Mogul, transcript of Commission hearing, June 19, 2003, p. 114.

<sup>29</sup> More than half of the responding firms in these industries reported having difficulty obtaining steel after the implementation of the safeguard measures.

Table 2-9

**Number of steel-consuming firms reporting difficulties obtaining steel after the imposition of the safeguard measures, by industry**

<b>Steel-consuming sector/industry category</b>	<b>No change</b>	<b>Only in quantity</b>	<b>Only in quality</b>	<b>In both quality and quantity</b>	<b>Higher prices posed the principle difficulty</b>
<b>Steel-product producers/processors/distributors:</b>					
Distributors . . . . .	52	19	3	18	27
Producers of hot/cold-rolled or coated product . . . . .	13	7	0	3	3
Welded pipe producers . . . . .	8	7	2	3	11
Bar and wire finishers . . . . .	10	1	2	3	6
Fastener producers . . . . .	13	2	0	5	3
Steel fabricators . . . . .	31	25	4	30	44
<b>Transportation:</b>					
Motor vehicles . . . . .	3	2	0	6	6
Motor vehicle parts . . . . .	21	19	4	22	47
Ships and shipping containers; military . . . . .	5	3	0	0	2
<b>Machinery and equipment:</b>					
Heavy machinery . . . . .	11	1	1	2	4
Power, other machinery . . . . .	23	9	0	2	6
<b>Construction</b> . . . . .	24	6	0	5	7
<b>Containers:</b>					
Steel barrels and cans . . . . .	4	2	1	4	3
<b>Consumer and commercial goods:</b>					
Household appliances . . . . .	2	1	1	7	6
Furniture, hardware, cutlery . . . . .	9	7	1	2	5
<b>Total</b> . . . . .	<b>229</b>	<b>111</b>	<b>19</b>	<b>112</b>	<b>180</b>
<i>Percent of responses</i> . . . . .	<i>49</i>	<i>24</i>	<i>4</i>	<i>24</i>	<i>175</i>

<sup>1</sup> This percentage is based on the number of firms reporting that higher prices posed the principal difficulty relative to the total number of firms that reported difficulties obtaining steel after the imposition of the safeguard measures.

Source: Compiled from data submitted in response to Commission questionnaires.

Steel-consuming firms reported many other problems associated with their inability to obtain steel (table 2-10). Questionnaire responses (of the 457 responding firms) indicate that difficulties in obtaining steel included longer lead times (176 firms reporting), delayed deliveries (169 firms reporting), shortages (132 firms reporting), being put on allocations<sup>30</sup> by their suppliers (120 firms reporting), broken contracts (92 firms reporting), a refusal on the part of domestic steel suppliers to quote to the steel-consuming firm (51 firms), and other changes in existing contracts (18 firms reporting). In terms of industries, fabricators and motor vehicle parts producers, by far, accounted for most of the reported difficulties. Information from the hearing and from written submissions to the Commission confirms

<sup>30</sup> Steel producers, processors, and distributors generally reported at the hearing that they did not place their customers on allocation and were not put on allocation by their suppliers, although some reported delivery delays during the summer of 2002. Testimony of Bob Heltzel, Jr., President, Kenilworth Steel Co., transcript of Commission hearing, June 20, 2003, p. 616; testimony of Stephen Syzmanski, Manager, Sales, Unites States Steel Corporation, transcript of Commission hearing, June 20, 2003, p. 618; testimony of Terry S. Lisenby, Chief Financial Officer, United States Steel Corporation, transcript of Commission hearing, June 20, 2003, p. 618; testimony of Robert Bussiere, General Manager, Fire Protection Products, Allied Tube and Conduit, transcript of Commission hearing, June 20, 2003, p. 620; testimony of Glenn Baker, Vice President, Searing Industries, transcript of Commission hearing, June 20, 2003, p. 620; testimony of Terry Cieslinski, Cold Finish Manager, Nucor Cold Finish, transcript of Commission hearing, June 20, 2003, p. 620; testimony of Scott Wulff, General Manager, Nucor Fasteners, transcript of Commission hearing, June 20, 2003, p. 621; and testimony of Donnell Efferson, Senior Vice President, Commercial, Stupp Corporation, transcript of Commission hearing, June 20, 2003, p. 621.

some industries' difficulties in obtaining steel products; for example, firms in industries such as motor vehicle parts, motor vehicles, household appliances, and furniture, hardware, and cutlery reported difficulties in obtaining steel.<sup>31</sup> On the other hand, firms in other industries, such as construction, and steel producers, reported no difficulties in steel availability.<sup>32</sup>

**Table 2-10**  
**Number of steel-consuming firms reporting difficulties obtaining steel after the imposition of the safeguard measures, by industry**

<b>Steel-consuming sector/industry category</b>	<b>Allocation</b>	<b>Delayed delivery</b>	<b>Longer lead times</b>	<b>Shortage</b>	<b>Broken contract</b>	<b>Other changes in existing contracts</b>	<b>Refusal to quote</b>
<b>Steel-product producers/processors/distributors:</b>							
Distributors .....	18	16	18	9	7	3	9
Producers of hot/cold-rolled or coated product .....	8	6	7	4	6	0	0
Welded pipe producers .....	12	11	12	7	4	0	2
Bar and wire finishers .....	2	2	3	1	1	0	1
Fastener producers .....	6	6	6	6	2	0	1
Steel fabricators .....	22	35	42	32	23	4	13
<b>Transportation:</b>							
Motor vehicles .....	3	7	8	7	6	2	5
Motor vehicle parts .....	21	43	43	34	24	7	11
Ships and shipping containers; military .....	1	3	2	1	1	0	1
<b>Machinery and equipment:</b>							
Heavy machinery .....	2	4	2	2	2	1	0
Power, other machinery .....	5	6	6	4	5	0	1
<b>Construction</b> .....	8	10	9	7	3	0	3
<b>Containers:</b>							
Steel barrels and cans .....	6	8	5	6	1	0	2
<b>Consumer and commercial goods:</b>							
Household appliances .....	3	5	6	6	4	0	1
Furniture, hardware, cutlery ...	3	7	7	6	3	1	1
<b>Total</b> .....	<b>120</b>	<b>169</b>	<b>176</b>	<b>132</b>	<b>92</b>	<b>18</b>	<b>51</b>

Source: Compiled from data submitted in response to Commission questionnaires.

<sup>31</sup> For motor vehicle parts and motor vehicles, MEMA, written submission to the USITC for Investigation No. 332-452, June 27, 2003, p. 2; and Honda of America Manufacturing, Inc., written submission to the USITC for Investigation No. 332-452, July 2, 2003. Also, testimonies of Jeffrey Stoner, Vice President of Worldwide Procurement, ArvinMeritor, Inc., transcript of Commission hearing, June 19, 2003, p. 110; Larry Denton, Chairman, DURA Automotive Systems, Inc., transcript of Commission hearing, June 19, 2003, p. 90; and Ramzi Hermiz, Vice President of Global Supply Chain Management, Federal-Mogul Corp., transcript of Commission hearing, June 19, 2003, p. 115. For household appliances, testimony of Terry L. Bowman, Vice President, Supply Chain Management York Int'l Corp., written submission to the USITC for Investigation No. 332-452, June 20, 2003, p. 1, and transcript of Commission hearing, June 20, 2003, p. 769.

<sup>32</sup> For construction sector, Eastern Industries Corp., written submission to the USITC for Investigation No. 332-452, June 20, 2003, p.1; testimony of Scott Wulff, General Manager, Nucor Corp., transcript of Commission hearing, June 20, 2003, p. 566-567; testimony of Carl Schoenleber, CMC Steel Group, SMI Rebar-South Carolina, transcript of Commission hearing, June 20, 2003, p. 688; and testimony of Robert Hoover, Vice President, Kvaerner Songer, Inc., transcript of Commission hearing, June 20, 2003, pp. 704-705. For steel suppliers, United States Steel Corp., written submission to the USITC for Investigation No. 332-452, June 27, 2003; United Steelworkers of America, written submission to the USITC for Investigation 332-452, June 4, 2003.

Steel-consuming firms that reported difficulties due to their inability to obtain the desired quantity or quality of steel were asked to report the effects of these difficulties on their firm.<sup>33</sup> Overall, as can be seen in table 2-11, the largest number of firms reported reduced profits (158 firms reporting), reduced production (69 firms reporting), failure to meet customer delivery schedule (69 firms reporting), and reduced sales (69 firms reporting). Fabricators and motor vehicle parts producers accounted for most of the steel-consuming firms that reported difficulties.

### ***Ability to Source Required Products or Quality Specifications***

Questionnaire respondents were asked if, since April 1, 2002, certain sizes/grades/types of steel have been available from only a single source that were previously available from multiple sources. Most of the responding firms responded negatively. Those firms responding affirmatively were asked to provide specific information. Overall, only 55 steel-consuming firms provided such information. Of these, 29 (53 percent) reported that, prior to the imposition of the safeguard measures, certain grades/types/sizes of steel were available from import sources, but not domestic sources (table 2-12). Most of these responses related to plate, hot-rolled, and cold-rolled steel. Seventeen firms (31 percent) reported that, before April 1, 2002, certain products were available only from domestic suppliers, but not import sources. After April 1, 2002, a larger number of firms (42 of 55) reported that these certain grades/sizes/types of steel were available from only domestic steel suppliers (not import sources). Of these 42 responding firms, 25 reported domestic-only suppliers of certain grades of hot-rolled and cold-rolled steel. On an industry basis, firms reporting that certain sizes/grades/types of steel have been available from only a single source that were previously available from multiple sources were predominantly in the distributor, welded pipe, fabricator, motor vehicle parts, and heavy machinery industries.

In addition to information obtained from responses to the Commission questionnaire, a few firms in the household appliance industry reported problems in sourcing the quality of product needed since the safeguard measures were implemented.<sup>34</sup> On the other hand, a representative from the furniture, hardware, and cutlery industry group reported that his firm had no problems in sourcing required quality steel since the safeguard measures were implemented.<sup>35</sup>

### ***Lead Times and Delivery Times***

Some steel-consuming firms, particularly steel fabricators and motor vehicles parts manufacturers, also reported increased lead and delivery times. To assess the impact of the safeguard measures on the lead times and delivery times for steel products, the Commission asked steel-consuming firms if the average lead time between placement of orders for steel and delivery of the steel had changed

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<sup>33</sup> Firms were asked to report if the difficulty in obtaining steel resulted in shutdowns, curtailed production, worker layoffs, reduced profits, failure to meet customer delivery schedule (monetary penalties), lost customers, changes in the products produced by the steel-consuming firm to reduce the amount of steel used, changes in investments, changes in location of production, and/or reduced sales.

<sup>34</sup> Joseph M. McGuire, President, AHAM, written testimony submission to the USITC for Investigation No. 332-452, June 20, 2003, p. 4; and M. Takahashi, President, SMCA, written submission to the USITC for Investigation No. 332-452, June 20, 2003 p. 1.

<sup>35</sup> Testimony of Gary Van Handel, Director, Supply Chain Management, Ki, Inc., transcript of Commission hearing, June 20, 2003, p. 771.



Table 2-11

**Reported actions by steel-consuming firms resulting from difficulties obtaining steel, since April 1, 2002, by industry**

Steel-consuming sector/industry category	Short term only <sup>1</sup>	Shut-down	Lower production	Lay-offs	Lower profit	Failure to deliver <sup>2</sup> customer product <sup>3</sup>	Lost customer	Change in investment location <sup>4</sup>	Change in sales	Other
<b>Steel-product producers/processors/distributors:</b>										
Distributors .....	8	0	5	3	18	9	17	1	19	3
Producers of hot/cold-rolled or coated product .....	6	0	3	0	3	1	1	0	2	2
Welded pipe producers .....	5	1	2	0	8	4	6	0	4	0
Bar and wire finishers .....	1	2	4	2	6	3	4	1	3	1
Fastener producers .....	1	1	3	1	4	4	2	0	3	0
Steel fabricators .....	11	3	14	13	37	15	11	1	15	8
<b>Transportation:</b>										
Motor vehicles .....	0	2	2	0	6	0	0	0	0	2
Motor vehicle parts .....	24	5	17	8	44	19	4	1	11	6
Ships and shipping containers; military .....	2	0	1	1	2	1	2	0	1	0
<b>Machinery and equipment:</b>										
Heavy machinery .....	0	0	2	0	3	1	2	0	1	0
Power, other machinery .....	4	0	4	0	5	4	3	1	2	2
<b>Construction</b> .....	3	0	2	0	6	4	2	1	2	0
<b>Containers:</b>										
Steel barrels and cans .....	0	1	1	0	3	3	1	0	1	5
<b>Consumer and commercial goods:</b>										
Household appliances .....	1	0	3	1	6	0	0	0	1	5
Furniture, hardware, cutlery ..	2	1	6	1	7	1	3	0	4	1
<b>Total</b> .....	68	16	69	30	158	69	58	11	69	35

<sup>1</sup> Problem was short term and diminished.<sup>2</sup> Failure to meet customer delivery schedule.<sup>3</sup> Changes in the products produced to reduce steel use.<sup>4</sup> Changes in location of production.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-12**

**Number of steel-consuming firms reporting certain grades available from single source before and after the imposition of the safeguard measures, by product**

Product	Number reporting product	Sources before						Sources after		
		U.S. and imported	U.S. only	Import only	None	Unclear	U.S.	Import	None	
Plate . . . . .	7	0	0	6	1	0	3	1	3	
Hot-rolled . . . . .	15	2	4	8	0	1	13	1	1	
Cold-rolled . . . . .	13	2	2	8	0	1	12	0	1	
Corrosion resistant . . . . .	10	1	5	4	0	0	6	3	1	
Tin mill . . . . .	1	1	0	0	0	0	0	1	0	
Hot bar . . . . .	6	0	5	1	0	0	5	1	0	
Cold bar . . . . .	3	0	1	2	0	0	3	0	0	
Total . . . . .	55	6	17	29	1	2	42	7	6	

Note.--No firms reported for slab, rebar, welded pipe, fittings, stainless bar, stainless rod, or stainless wire.

Source: Compiled from data submitted in response to Commission questionnaires.

since April 1, 2002. The majority of responding steel-consuming firms (289 of 472 or about 61 percent) reported that lead times had not changed during that time period (table 2-13). Of those firms that reported changes in lead times, more reported that lead times increased rather than decreased; about 32 percent (150 of 472) of all steel-consuming firms that responded to this question stated that lead times had increased while 7 percent (33 of 472) reported that lead times had decreased.<sup>36</sup> Five industries had a significant number of firms (relative to the total number of reporting firms in the industry) that reported increases in lead times for delivery of steel. These include fabricators, motor vehicles, motor vehicle parts, furniture, and steel barrels and cans. Further evidence that there has been some lengthening of lead times can be found in steel-consuming firms' responses to the question of whether or not suppliers of domestically produced steel changed their marketing practices since April 1, 2002 (table 2-9). A significant portion of responding firms (about 40 percent) reported longer lead times by suppliers of domestic steel. Industries that reported longer lead times for domestically produced steel include fabricators, motor vehicle parts, distributors, welded pipe, and construction.

Steel-consuming companies were also requested to provide average lead times for delivery of certain steel products before the imposition of the safeguard measures and at the time of the questionnaire. On a product basis, many steel products have had significant increases in the lead time for delivery (table 2-14). For most of the steel products examined, average lead times, prior to the implementation of the safeguard measures ranged from about 30 days to 60 days. Based on questionnaire responses, lead times for delivery of many flat steel forms, such as hot-rolled, cold-rolled, coated sheet and strip, and tin mill forms, increased between 29 and 59 percent. This percentage increase translated into increased lead times of 40 to 76 days for most products. Other products with longer lead times include hot bar (21.8 percent), cold bar (22.5 percent), welded pipe (44.2 percent), stainless bar (33.3 percent), and stainless wire (100 percent). Only three products were reported to have reduced lead times: plate (0.7 percent), rebar (43.5 percent), and stainless rod (10.0 percent).

Information from written submissions to the Commission and from hearing testimony support the data from questionnaire responses. For example, firms in the transportation sector (motor vehicle parts

<sup>36</sup> A number of firms noted that lead times had increased at the beginning of the period and then fallen. These have been included with those reporting that lead times increased. This question asked for only one type of change in lead times (increase or decrease); however, lead times could have fluctuated over the period.

**Table 2-13**

**Number of steel-consuming firms reporting changes in lead times since April 1, 2002, by industry**

<b>Steel-consuming sector/industry category</b>	<b>Increased</b>	<b>Decreased</b>	<b>Unchanged</b>
<b>Steel-product producers/processors/distributors:</b>			
Distributors	14	12	62
Producers of hot/cold-rolled or coated product	3	4	15
Welded pipe producers	7	1	13
Bar and wire finishers	5	2	13
Fastener producers	3	0	17
Steel fabricators	35	5	39
<b>Transportation:</b>			
Motor vehicles	7	0	4
Motor vehicle parts	38	3	36
Ships and shipping containers; military	2	0	6
<b>Machinery and equipment:</b>			
Heavy machinery	4	0	12
Power, other machinery	8	2	22
<b>Construction</b>	7	3	27
<b>Containers:</b>			
Steel barrels and cans	5	1	6
<b>Consumer and commercial goods:</b>			
Household appliances	4	0	5
Furniture, hardware, cutlery	8	0	12
Total	150	33	289
<i>Percent of responses</i>	32	7	61

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-14**

**Changes in lead time before and after the imposition of safeguard measures, by product**

<b>Product</b>	<b>Average lead time before</b>	<b>Current average lead time</b>	<b>Change in lead time</b>
	<i>-----Days-----</i>	<i>-----Days-----</i>	<i>---Percent---</i>
Slab	-	-	-
Plate	42	42	-0.7
Hot-rolled	37	52	+40.0
Cold-rolled	42	54	+29.2
Corrosion resistant	50	70	+41.5
Tin Mill	48	76	+58.8
Hot Bar	55	67	+21.8
Cold Bar	62	76	+22.5
Rebar	47	26	-43.5
Welded pipe	48	70	+44.2
Fittings	-	-	-
Stainless bar	17	22	+33.3
Stainless rod	75	68	-10.0
Stainless wire	30	60	+100.0

Note.--Less than three firms reported for rebar, stainless bar, and stainless wire. None reported for slab or fittings.

Source: Compiled from data submitted in response to Commission questionnaires.

and motor vehicles) and household appliance industries reported difficulties with lead times and delivery after the safeguard measures were introduced.<sup>37</sup> Other industries reported that lead times were longer

<sup>37</sup> Testimony of Scott Meyer, Chairman, MEMA, transcript of Commission hearing, June 19, 2003, p. 82; testimony of Wes Smith, President, E&E Manufacturing Co., Inc., transcript of Commission hearing, June 19, 2003, p. 103; testimony of Layne Gobrogge, Vice President of Marketing, Transpro Inc., transcript of Commission hearing, June 19, 2003, p. 118; and testimony of Richard Clayton, President, Textron Fastening Systems GFS, transcript of Commission hearing, June 19, 2003, p. 100.

immediately after the implementation of the safeguard measures, but lead times have since returned to a more normal period.<sup>38 39</sup>

### *Sourcing of Steel-Containing Products from Overseas*

Steel safeguard measures also could affect steel-consuming industries to the extent that these measures have caused their customers to shift from domestic sourcing of steel-containing products to imports. In general, available information indicates that this shift occurred in only a small number of cases after the implementation of the safeguard measures. Commission questionnaires asked steel-consuming firms whether or not they have shifted to sourcing finished parts or assemblies from overseas as a result of the safeguard measures. Of the 450 responding firms, the majority (399 firms or 89 percent) reported that they did not shift to sourcing finished parts from overseas as a result of the safeguard measures (table 2-15). The 51 steel-consuming firms that reported shifted sourcing were distributed across the specified industries. While 12 fabricators and 11 motor vehicle parts producers reported that they did shift, these firms accounted for about 16 percent of responding firms in each industry.

Commission questionnaires also asked steel-consuming firms to provide information on whether or not their customers have shifted purchases from steel-consuming firms to buying finished parts or assemblies overseas as a result of the safeguard measures. Of the 445 responding firms, the majority (339 firms or 76 percent) reported that their customers did not shift to sourcing finished parts from overseas as a result of the safeguard measures (table 2-15). Industries that had a significant number of firms reporting that their customers had shifted include welded pipe producers (43 percent), bar and wire finishers (42 percent), steel fabricators (37 percent), household appliances (33 percent), and motor vehicle parts (31 percent).

In addition to information from questionnaire respondents, several firms provided comments at the hearing or in written submissions concerning foreign sourcing of steel-consuming products. For example, firms in the furniture and household appliance industries reported the need to outsource steel assemblies and complete products from other countries, as well as the closing of part of a production facility, and the loss of jobs.<sup>40</sup>

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<sup>38</sup> Jack H. Goldman, General Counsel and Director of Government Affairs, HPBA, post-hearing brief to the USITC for Investigation No. 332-452, July 7, 2003, p. 2; and testimony of Gary Van Handel, Director, Supply Chain Management, Ki Inc., transcript of Commission hearing, June 20, 2003, p. 747.

<sup>39</sup> Steel producers, distributors, and processors similarly reported that lead times have fallen to a more normal level after a period of long lead times during the summer of 2002. Testimony of Kevin M. Dempsey, Esquire, Dewey Ballantine, on behalf of National Steel Corporation and United States Steel Corporation, transcript of Commission hearing, June 20, 2003, p. 35; testimony of Alan H. Price, Esquire, Wiley, Rein, and Fielding, on behalf of Nucor Corporation, Long Products Producers Coalition and the Coalition of Steel Consumers, transcript of Commission hearing, June 20, 2003, p. 587; testimony of Robert Bussiere, General Manager, Fire Protection Products, Allied Tube and Conduit, transcript of Commission hearing, June 20, 2003, p. 620; and testimony of Mark Magno, Vice President-Marketing, Wheatland Tube Co., transcript of Commission hearing, June 20, 2003, p. 632.

<sup>40</sup> Testimony of Terry Bowman, Vice President, Supply Chain Management, York Int'l., transcript of Commission hearing, June 20, 2003, p. 719, 721-722, and 760; M. Takahashi, President, SMCA, written submission to the USITC for Investigation No. 332-452, June 26, 2003 p. 3-4; and testimony of Gary Van Handel, Director, Supply Chain Management, Ki, Inc., transcript of Commission hearing, June 20, 2003, p. 739.

Table 2-15

Number of steel-consuming firms reporting a shift to foreign sources after the imposition of the safeguard measures, by industry

Steel-consuming sector/industry category	Steel-consuming firm shifted to sourcing finished parts or assemblies from overseas		Customer shifted to sourcing finished parts or assemblies from overseas		Steel-consuming firm responding shifted production overseas		Other firms shifted production overseas	
	No	Yes	No	Yes	No	Yes	No	Yes
<b>Steel-product producers/processors/distributors:</b>								
Distributors	79	2	61	21	83	2	59	20
Producers of hot/cold-rolled or coated product	21	1	21	1	21	0	17	2
Welded pipe producers	21	0	12	9	21	0	11	8
Bar and wire finishers	18	1	11	8	19	1	7	9
Fastener producers	19	0	13	4	20	0	11	5
Steel fabricators	65	12	47	28	71	10	35	42
<b>Transportation:</b>								
Motor vehicles	9	2	12	0	12	0	8	2
Motor vehicle parts	59	11	48	22	64	8	33	35
Ships and shipping containers; military	5	3	7	1	8	0	6	2
<b>Machinery and equipment:</b>								
Heavy machinery	15	1	15	1	14	1	13	3
Power, other machinery	27	4	28	1	29	3	21	8
<b>Construction</b>	32	2	35	1	36	0	27	7
<b>Containers:</b>								
Steel barrels and cans	10	2	10	2	11	1	9	3
<b>Consumer and commercial goods:</b>								
Household appliances	4	4	6	3	6	3	2	7
Furniture, hardware, cutlery	15	6	13	4	17	4	11	7
<b>Total</b>	399	51	339	106	432	33	270	160
<i>Percent of responses</i>	89	11	76	24	93	7	63	37

Source: Compiled from data submitted in response to Commission questionnaires.

### *Offshore Relocation of U.S. Steel-Consuming Firms*

Steel-consuming firms were asked if the safeguard measures have caused U.S. steel-consuming facilities to be relocated outside of the United States. In general, available data indicates that relatively few firms have made this substantial change. Overall, 93 percent of responding steel-consuming firms (432 of 465) reported that they have not relocated or shifted U.S. production to foreign plants or facilities as a result of the steel safeguard measures (table 2-15).

Questionnaire respondents also were asked to report, to the best of their knowledge, if other firms had relocated U.S. downstream production to foreign plants or facilities as a result of the safeguard measures (table 2-15). The majority of the 430 responding steel-consuming firms (270 or 63 percent) reported that there has been no such relocation or shift. Industries that had a significant number of firms reporting that other firms had relocated or shifted production include bar and wire finishers (56 percent); fabricators (55 percent); motor vehicle parts (51 percent); welded pipe producers (42 percent); and furniture, hardware, cutlery (39 percent).

Firms also testified to the Commission about shifting production or purchases. A few firms in the transportation sector reported that they shifted production overseas or have shifted to purchasing steel

from safeguard-exempt countries.<sup>41</sup> Metaldyne reported that it has moved some of its operations to Korea, where it was able to turn less expensive steel into automotive components, and that it shifted 40 percent of its domestic steel purchases to safeguard-exempt countries such as Turkey and Brazil.<sup>42</sup> Similarly, Federal-Mogul reported that it is pursuing alternative sources to fill its steel needs and is currently qualifying steel producers in Turkey.<sup>43</sup> Advance Transformer, an electronics manufacturer, testified that it closed a plant in Monroe, Wisconsin in the fall of 2002, and transferred its remaining requirements offshore.<sup>44</sup>

### *Steel Consumption*

Steel safeguard measures could shift purchasing patterns of steel-consuming firms. Therefore, the questionnaire requested that steel-consuming firms provide information on the quantity and value of their purchases of each steel product covered by the safeguard measures. Data were requested for 2000/01, 2001/02 and 2002/03 and steel-consuming firms were asked to provide data separately for domestic steel, imported steel, and purchases from service centers in which the sources were commingled.<sup>45</sup> In all, 415 steel-consuming firms provided data on the value of their purchases.<sup>46</sup>

Data provided by purchasers responding to the Commission questionnaires indicate some shift in purchases by steel-consuming industries after the implementation of the safeguard measures (table 2-16). Comparing data for the 2001/02 period (prior to the safeguards) to the 2002/03 period (after the safeguards) shows that purchases of domestic steel products (as a percent of total purchases) increased from 65.2 percent to 73.4 percent. Purchases of imported steel declined from 32.5 percent in the 2001/02 period to 23.2 percent in the 2002/03 period.<sup>47</sup>

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<sup>41</sup> Testimony of Layne Gobrogge, Vice President of Marketing, Transpro Inc., transcript of Commission hearing, June 19, 2003, p. 120. However, some firms reported that they were unable to move production overseas. Testimony of Wes Smith, President, E&E Manufacturing Co., Inc., transcript of Commission hearing, June 19, 2003, p. 105; and Douglas E. Kryzwicki, Chief Financial Officer, A. J. Rose Manufacturing Co., transcript of Commission hearing, June 19, 2003, p. 192.

<sup>42</sup> Testimony of Timothy Leuliette, Chairman, President and Chief Executive Officer, Metaldyne, transcript of Commission hearing, June 19, 2003, p. 88-89.

<sup>43</sup> Testimony of Ramzi Hermiz, Vice President of Global Supply Chain Management, Federal-Mogul Corp., transcript of Commission hearing, June 19, 2003, p. 115.

<sup>44</sup> Testimony of Brian R. Dugan, President, Advance Transformer Company, transcript of Commission hearing, June 19, 2003, pp. 277-278.

<sup>45</sup> In addition, steel-consuming firms were asked to provide 2003 data on purchases of imports from countries exempt from the safeguard measures.

<sup>46</sup> Some firms did not provide data separately for each steel product purchased.

<sup>47</sup> The share of purchases of steel accounted for by domestic steel in 2002/03 (73.4 percent) was also higher than it was in 2000/01 (71.3 percent).

**Table 2-16**  
**Shares of quantity of purchases, by source, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>**

Source	2000/01	2001/02	2002/03
	-----Percent-----		
Domestic .....	71.3	65.2	73.4
Imports .....	26.3	32.5	23.2
<i>Subject to safeguard measures</i>	-	-	13.9
<i>Exempt</i>	-	-	9.3
Commingled <sup>2</sup> .....	2.5	2.3	3.4
Total .....	100.0	100.0	100.0

<sup>1</sup> April 1–March 30.

<sup>2</sup> Commingled denotes purchases from distributors in which steel from different sources was commingled.

Source: Compiled from data submitted in response to Commission questionnaires.

In examining any shifts in purchasing patterns on a sectoral basis, the Commission asked steel-consuming firms to report whether or not they had changed purchases of domestic, subject imported, or exempt steel products (table 2-17). As seen in the table, almost one-half of responding firms reported no change in purchases of subject steel imports since April 1, 2002.<sup>48</sup> Thirty-nine percent of the responding firms reported a decline in purchases of subject steel imports with most of these reporting that purchases decreased by more than 20 percent. Forty-seven percent of responding firms reported an increase in domestic purchases while 28 percent reported a decrease in domestic purchases. Most firms (67 percent) reported no change in purchases of exempt imports; 27 percent reported an increase in these purchases.

Based on questionnaire responses, purchases from all sources declined after the safeguard measures were imposed, to below their 2000/01 levels (table 2-18). The largest reported decline was for cold-rolled steel; purchases of cold-rolled steel declined by 35 percent in the year after the safeguard measures were implemented (2002/03) compared to the year before the safeguards (2001/02). Slab and flange purchases also showed significant declines after the safeguard measures were implemented. Purchases of stainless products have declined since April 2000, but most of the decrease occurred before the safeguard measures were implemented. Cold-finished bar purchases also declined significantly with a slightly higher rate of decline after the safeguard measures were implemented. Purchases of six products increased after the safeguard measures, especially purchases of hot-rolled, which increased by 14.8 percent, and welded pipe, which increased by 16.4 percent.

Most of the industries individually reported increased purchases in the period after the safeguard measures were implemented compared with the period before they were implemented (table 2-19). In particular, purchases by producers of hot/cold-rolled or coated forms; bar and wire finishers; and motor vehicle producers increased by 10 percent or more in the year after the safeguard measures. However, total reported purchases declined due to decreases in several higher volume industries including distributors (5.7 percent) and welded pipe producers (1.8 percent).

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<sup>48</sup> While questionnaire data is available for 2003 purchases from countries exempt from the safeguard measures, questionnaire data is not available for purchases from these countries before the safeguard measures were implemented. Therefore, the extent to which firms may have shifted to sources that are exempt from the safeguard measures cannot be determined from overall purchase data.

Table 2-17

Number of steel-consuming firms reporting changes in purchases of domestic, subject import, and exempt imported steel since April 1, 2002, by industry

Industry/source	Decreased (Percent)				Total	No change	Increased (Percent)				Total	
	>20	11-20	6-10	1-5			1-5	6-10	11-20	>20		
<b>Distributors:</b>												
Domestic .....	7	6	3	4	20	22	8	8	13	18	47	
Subject import .....	37	2	7	4	50	29	1	2	2	4	9	
Exempt import .....	11	2	2	0	15	33	6	5	2	15	28	
<b>Producers of hot/cold-rolled or coated product:</b>												
Domestic .....	4	0	0	2	6	7	1	2	1	6	10	
Subject import .....	6	0	2	1	9	7	1	1	0	3	5	
Exempt import .....	1	0	0	0	1	7	0	0	1	6	7	
<b>Welded pipe producers:</b>												
Domestic .....	2	1	2	2	7	5	2	1	0	4	7	
Subject import .....	7	1	0	1	9	7	0	0	0	0	0	
Exempt import .....	0	0	0	0	0	9	1	0	1	5	7	
<b>Bar and wire finishers:</b>												
Domestic .....	1	0	2	0	3	5	2	3	1	6	12	
Subject import .....	4	1	2	0	7	3	2	1	1	4	8	
Exempt import .....	0	0	0	0	0	7	0	2	1	7	10	
<b>Fastener producers:</b>												
Domestic .....	2	3	1	0	6	4	1	3	4	1	9	
Subject import .....	2	2	1	1	6	7	0	1	1	2	4	
Exempt import .....	1	0	0	0	1	11	1	0	1	0	2	
<b>Steel fabricators:</b>												
Domestic .....	9	5	4	9	27	15	6	5	11	15	37	
Subject import .....	14	3	1	1	19	32	2	1	0	2	5	
Exempt import .....	2	0	1	1	4	40	2	2	1	10	15	
<b>Motor vehicles:</b>												
Domestic .....	1	2	1	1	5	3	2	3	2	2	9	
Subject import .....	1	0	0	1	2	7	0	1	0	2	3	
Exempt import .....	1	0	0	0	1	8	0	0	1	1	2	
<b>Motor vehicle parts:</b>												
Domestic .....	3	3	8	2	16	22	10	6	8	11	35	
Subject import .....	7	1	1	2	11	33	4	2	2	3	11	
Exempt import .....	0	0	1	0	1	39	3	0	0	3	6	
<b>Ships and shipping containers; military:</b>												
Domestic .....	0	0	2	1	3	2	0	1	0	0	1	
Subject import .....	0	0	1	0	1	4	0	1	0	0	1	
Exempt import .....	0	0	0	0	0	5	1	0	0	0	1	
<b>Heavy machinery:</b>												
Domestic .....	2	2	2	1	7	3	1	1	1	2	5	
Subject import .....	2	2	1	2	7	7	0	0	0	0	0	
Exempt import .....	1	0	0	1	2	8	1	0	0	0	1	
<b>Power, other Machinery:</b>												
Domestic .....	6	3	1	1	11	11	1	2	3	3	9	
Subject import .....	5	0	1	0	6	14	2	0	0	0	2	
Exempt import .....	1	0	1	0	2	16	3	0	2	1	6	
<b>Construction:</b>												
Domestic .....	1	5	0	3	9	10	3	6	7	2	18	
Subject import .....	7	2	1	0	10	17	0	0	1	1	2	
Exempt import .....	2	0	0	0	2	19	1	2	0	3	6	
<b>Containers:</b>												
Domestic .....	0	0	1	0	1	2	3	1	0	5	9	
Subject import .....	7	0	0	1	8	1	0	0	0	1	1	
Exempt import .....	2	0	0	0	2	4	1	0	0	2	3	

Table continued.



**Table 2-17-Continued**

**Number of steel-consuming firms reporting changes in purchases of domestic, subject import, and excluded imported steel since April 1, 2002, by industry**

Type of producer/source	Decreased (Percent)					No	Increased (Percent)				
	>20	11-20	6-10	1-5	Total change		1-5	6-10	11-20	>20	Total
<b>Household appliances:</b>											
Domestic .....	0	4	0	2	6	1	0	1	1	0	2
Subject import .....	0	0	0	0	0	6	0	0	0	0	0
Exempt import .....	0	0	0	0	0	6	0	0	0	0	0
<b>Furniture, hardware, cutlery:</b>											
Domestic .....	1	3	2	0	6	3	1	1	4	3	9
Subject import .....	2	1	1	0	4	10	1	0	0	0	1
Exempt import .....	2	1	0	0	3	13	0	0	0	0	0
<b>TOTAL:</b>											
Domestic .....	39	37	29	28	133	115	41	44	56	78	219
Subject import .....	101	15	19	14	149	184	13	10	7	22	52
Exempt import .....	24	3	5	2	34	225	20	11	10	53	94

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-18**

**Total quantity of purchases, by product, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>**

Product	2000/01	2001/02	2002/03	Change		
				2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
	-----Short tons-----			-----Percent-----		
Slab .....	5,060,208	5,229,410	4,473,108	(11.6)	3.3	(14.5)
Plate .....	1,183,148	1,081,024	1,167,778	(1.3)	(8.6)	8.0
Hot-rolled .....	10,781,192	8,939,559	10,259,123	(4.8)	(17.1)	14.8
Cold-rolled .....	10,308,699	14,840,618	9,701,706	(5.9)	44.0	(34.6)
Corrosion resistant .....	10,971,314	10,766,548	11,690,207	6.6	(1.9)	8.6
Tin Mill .....	1,429,138	1,388,358	1,345,430	(5.9)	(2.9)	(3.1)
Hot Bar .....	2,743,503	2,411,136	2,615,887	(4.7)	(12.1)	8.5
Cold Bar .....	644,424	467,067	380,690	(40.9)	(27.5)	(18.5)
Rebar .....	1,203,683	1,348,624	1,367,997	13.7	12.0	1.4
Welded pipe .....	933,220	906,554	1,054,914	13.0	(2.9)	16.4
Fittings .....	63,081	71,194	59,448	(5.8)	12.9	(16.5)
Stainless bar .....	39,353	27,208	26,900	(31.6)	(30.9)	(1.1)
Stainless rod .....	297,818	183,803	161,048	(45.9)	(38.3)	(12.4)
Stainless wire .....	364,052	177,494	161,700	(55.6)	(51.2)	(8.9)
Various <sup>2</sup> .....	5,329,342	5,732,758	5,916,087	11.0	7.6	3.2
<b>Total .....</b>	<b>51,352,173</b>	<b>53,571,353</b>	<b>50,382,022</b>	<b>(1.9)</b>	<b>4.3</b>	<b>(6.0)</b>

<sup>1</sup> April 1–March 30.

<sup>2</sup> Various denotes all reported purchases in which firms did not separate data by product purchased.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-19**  
**Total quantity of purchases, by industry, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>**

Industry	2000/01	2001/02	2002/03	Change		
				2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
	-----Short tons-----			-----Percent-----		
<b>Steel-product producers/processors/distributors:</b>						
Distributors . . . . .	11,500,273	10,706,834	10,099,266	(12.2)	(6.9)	(5.7)
Producers of hot/cold-rolled or coated product . . . . .	9,142,212	8,581,347	9,657,615	5.6	(6.1)	12.5
Welded pipe producers . . . . .	4,507,789	4,805,102	4,720,680	4.7	6.6	(1.8)
Bar and wire finishers . . . . .	816,879	651,157	734,919	(10.0)	(20.3)	12.9
Fastener producers . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Steel fabricators . . . . .	1,301,684	1,186,717	1,229,679	(5.5)	(8.8)	3.6
<b>Transportation:</b>						
Motor vehicles . . . . .	11,631,448	10,938,000	12,088,559	3.9	(6.0)	10.5
Motor vehicle parts . . . . .	2,399,900	2,476,939	2,617,026	9.0	3.2	5.7
Ships and shipping containers; military . . . . .	190,387	190,084	190,376	0.0	(0.2)	0.2
<b>Machinery and equipment:</b>						
Heavy machinery . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Power, other machinery . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Construction</b> . . . . .	2,117,247	2,058,408	2,245,519	6.1	(2.8)	9.1
<b>Containers:</b>						
Steel barrels and cans . . . . .	1,676,364	1,679,076	1,707,934	1.9	0.2	1.7
<b>Consumer and commercial goods:</b>						
Household appliances . . . . .	1,199,579	1,587,914	1,614,216	34.6	32.4	1.7
Furniture, hardware, cutlery . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Total</b> . . . . .	51,352,173	53,571,354	50,382,022	-1.9	4.3	-6.0

<sup>1</sup> April 1–March 30.

<sup>2</sup> Data suppressed due to confidentiality.

Source: Compiled from data submitted in response to Commission questionnaires.

While overall steel-consuming purchases shifted toward domestic sources after the safeguard measures, 8 of 15 individual industries showed reduced shares of domestic purchases in the year after the safeguard measures (table 2-20).<sup>49</sup> Although most industries purchased predominantly domestic steel, several industries continued to purchase a significant amount (i.e., at least 40 percent of their total purchases) of imported product in the year after the safeguard.<sup>50</sup> The bar and wire finishers and power and other machinery industries reported an increased share of imports since the safeguard measures; on the other hand, producers of hot/cold-rolled or coated product and fastener producers reported an increased share of domestic purchases since the safeguard measures. In addition, heavy machinery producers shifted purchases from domestic product to commingled product; however, it is not clear if this indicates a large shift away from domestic product or just a change in the source of the product purchased.

<sup>49</sup> These industries include bar and wire finishers, steel fabricators, motor vehicles, motor vehicle parts, ships/shipping containers/military, heavy machinery, construction, and household appliances.

<sup>50</sup> A few industries, in particular heavy machinery, and ships, shipping containers, and military, reported large amounts of purchases from distributors in which sources were commingled.

Table 2-20

Shares of total purchases from domestic sources, imports, and service centers in which sources were commingled<sup>1</sup>, by industry, 2000/01<sup>2</sup>, 2001/02<sup>2</sup>, 2002/03<sup>2</sup>

Industry	Source	2000/01	2001/02	2002/03 <sup>3</sup>
-----Percent-----				
<b>Steel-product producers/processors/distributors:</b>				
Distributors	Commingled . . . . .	0.4	0.7	1.2
	Import . . . . .	30.2	27.9	(8.3) 22.5
	Domestic . . . . .	69.3	71.5	76.3
Producers of hot/cold-rolled or coated product	Commingled . . . . .	0.2	0.3	0.3
	Import . . . . .	59.3	60.3	(12.7) 55.8
	Domestic . . . . .	40.4	39.4	43.9
Welded pipe producers	Commingled . . . . .	0.2	0.5	0.9
	Import . . . . .	8.6	9.1	(2.2) 8.7
	Domestic . . . . .	91.2	90.4	90.4
Bar and wire finishers	Commingled . . . . .	0.7	0.8	0.7
	Import . . . . .	36.4	38.0	(11.0) 41.9
	Domestic . . . . .	62.8	61.2	57.4
Fastener producers	Commingled . . . . .	2.0	2.9	5.4
	Import . . . . .	55.0	55.4	(22.1) 45.4
	Domestic . . . . .	43.0	41.7	49.2
Steel fabricators	Commingled . . . . .	16.1	16.0	15.5
	Import . . . . .	12.5	11.6	(7.0) 13.6
	Domestic . . . . .	71.4	72.4	70.9
<b>Transportation:</b>				
Motor vehicles	Commingled . . . . .	2.0	1.3	2.3
	Import . . . . .	2.5	6.6	(4.2) 6.7
	Domestic . . . . .	95.5	92.0	91.0
Motor vehicle parts	Commingled . . . . .	13.0	12.3	12.6
	Import . . . . .	5.1	4.6	(2.1) 4.7
	Domestic . . . . .	81.9	83.2	82.7
Ships and shipping containers; military	Commingled . . . . .	40.5	38.2	37.3
	Import . . . . .	5.0	3.6	(7.8) 8.6
	Domestic . . . . .	54.5	58.2	54.2
<b>Machinery and equipment:</b>				
Heavy machinery	Commingled . . . . .	8.0	8.2	46.7
	Import . . . . .	14.7	8.4	(1.9) 13.8
	Domestic . . . . .	77.3	83.4	39.5
Power, other machinery	Commingled . . . . .	1.2	0.4	1.7
	Import . . . . .	84.8	95.6	(73.0) 74.2
	Domestic . . . . .	14.0	4.0	24.1
<b>Construction</b>	Commingled . . . . .	4.3	3.5	4.8
	Import . . . . .	3.0	2.6	(0.6) 3.9
	Domestic . . . . .	92.7	93.9	91.3
<b>Containers:</b>				
Steel barrels and cans	Commingled . . . . .	2.0	2.0	1.7
	Import . . . . .	13.4	16.4	(6.4) 12.8
	Domestic . . . . .	84.6	81.6	85.5
<b>Consumer and commercial goods:</b>				
Household appliances	Commingled . . . . .	6.5	9.0	10.2
	Import . . . . .	0.0	0.0	(0.0) 0.0
	Domestic . . . . .	93.5	91.0	89.8
Furniture, hardware, cutlery	Commingled . . . . .	8.5	11.2	13.8
	Import . . . . .	7.4	10.2	(0.0) 7.4
	Domestic . . . . .	84.1	78.6	78.7

<sup>1</sup> Commingled denotes purchases from service centers in which steel from different sources was commingled.

<sup>2</sup> April 1–March 30.

<sup>3</sup> Number in parenthesis is the share of total purchases accounted for by imports from countries exempt from the safeguard measures.

Source: Compiled from data submitted in response to Commission questionnaires.

## ***Sales, Profitability, and Capital Investment***

Data provided by steel-consuming firms<sup>51</sup> indicate that net sales and operating income generally improved in the period after the safeguard measures when compared with the previous period, while capital expenditures declined compared with the previous period but continuing a period-long trend (table 2-21).<sup>52 53</sup> Commercial net sales reported by steel-consuming firms increased by 6.2 percent from \$29.0 billion in 2001/02 to \$30.8 billion in 2002/03; this level of commercial net sales in 2002/03 was slightly higher than the \$30.7 billion in 2000/01. On an industry basis, net sales increased for the majority of steel-consuming industries in the year following the implementation of the safeguard measures after declining in all industries in the previous year; industries that did not have increases in net sales in 2002/03 (compared with the previous year, 2001/02) include heavy machinery, construction, and steel barrels and containers.

The steel product producers/processors/distributors sector experienced larger overall percentage declines in commercial net sales than most other steel-consuming sectors, from 2000/01 to 2001/02, as well as a larger overall percentage increase from 2001/02 to 2002/03 (table 2-21). Sales by producers of hot/cold-rolled or coated product showed the greatest improvement, increasing by 32.1 percent in the year after implementation of the safeguard measures. Most other steel-consuming sectors experienced more moderate increases. Several sectors, including machinery and equipment, construction, steel barrels and containers, and steel distributors, showed declines in sales from 2001/02 to 2002/03.

Operating income, as reported by steel-consuming firms, increased from \$1.9 billion (6.5 percent of net sales) in 2001/02 to \$2.1 billion (6.8 percent of net sales) in 2002/03 (table 2-21). The level of operating income in 2002/03, however, was below the level in 2000/01 (\$2.2 billion, or 7.1 percent of net sales). Almost all steel-consuming industries reported increases in operating income after the implementation of the safeguard measures (2002/03) as compared to the previous year (2001/02); however, for some industries, the level of operating income in 2002/03 was still lower than in 2000/01.

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<sup>51</sup> Usable financial data were received from 171 firms, with 135 firms providing data on capital expenditures. Companies that provided partial data that were not used either provided data on a calendar year basis (6 firms), did not provide data for all three periods (11 firms), did not provide the detail of cost of goods sold (COGS) (6 firms), did not provide the detail of raw materials (26 firms), did not provide selling and general administrative costs (SG&A) (4 firms), and/or provided unrealistic SG&A (1 firm). The data and comments regarding changes due to the safeguard in this section of the report were tabulated only for those companies that were included in the financial tables.

<sup>52</sup> Financial data and capital expenditures were provided by steel-consuming firms using the input forms of slabs; CTL/clad plate; hot-rolled sheet, strip, and coils; cold-rolled sheet and strip, other than GOES; corrosion-resistant and other coated sheet and strip; tin mill products; hot-rolled bar and light shapes; cold-finished bar; rebar; welded tubular product other than OCTG; flanges and fittings; stainless steel bar and light shapes; stainless steel rod; and stainless steel wire.

<sup>53</sup> Detailed financial data by industry are presented in Appendix E. Data for the following industries: motor vehicles; ships, shipping containers, and military; household appliances; and furniture, hardware, and cutlery are confidential and are not shown in the tables. In addition, steel-consuming firms' reported changes in financial operations and capital expenditures resulting from the safeguard measures are confidential for all industries and are not shown in the individual industry tables.

Table 2-21

Summary of commercial net sales, operating income or (loss), and capital expenditures, by industry, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>

Industry category	No. of firms	Change					
		2000/01	2001/02	2002/03	2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----Value (\$1,000)-----			-----Percent-----		
<b>Commercial net sales</b>							
<b>Steel-product producers/processors/distributors:</b>							
Distributors . . . . .	19	1,546,253	1,222,919	1,190,623	-23.0	-20.9	-2.6
Producers of hot/cold-rolled or coated product . . . . .	12	2,376,111	1,828,433	2,415,841	1.7	-23.0	32.1
Welded pipe producers . . . . .	16	2,817,352	2,436,415	2,635,155	-6.5	-13.5	8.2
Bar and wire finishers . . . . .	14	326,637	264,310	272,005	-16.7	-19.1	2.9
Fastener producers . . . . .	9	354,809	321,683	347,052	-2.2	-9.3	7.9
Steel fabricators . . . . .	36	1,156,659	1,034,088	1,047,553	-9.4	-10.6	1.0
<b>Transportation:</b>							
Motor vehicles . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Motor vehicle parts . . . . .	19	2,246,215	2,140,179	2,232,372	-0.6	-4.7	4.3
Ships and shipping containers; military . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Machinery and equipment:</b>							
Heavy machinery . . . . .	4	1,088,166	739,984	731,088	-32.8	-32.0	-1.2
Power, other machinery . . . . .	8	2,382,194	2,220,557	2,368,243	-0.6	-6.8	6.7
<b>Construction . . . . .</b>	17	1,466,920	1,144,501	1,053,705	-28.2	-22.0	-7.9
<b>Containers:</b>							
Steel barrels and cans . . . . .	5	2,164,203	2,116,712	2,030,893	-6.2	-2.2	-4.1
<b>Consumer and commercial goods:</b>							
Household appliances . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Furniture, hardware, cutlery . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Total . . . . .</b>	171	30,661,329	28,994,071	30,788,248	0.4	-5.4	6.2

Table continued.

**Table 2-21—Continued.**  
**Summary of commercial net sales, operating income or (loss), and capital expenditures, by industry,**  
**2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>**

Industry category	No. of firms				Change		
		2000/01	2001/02	2002/03	2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----Value (\$1,000)-----			-----Percent-----		
<b>Operating income or (loss)</b>							
<b>Steel-product producers/processors/distributors:</b>							
Distributors . . . . .	19	35,311	23,585	15,101	-57.2	-33.2	-36.0
Producers of hot/cold-rolled or coated product . . . . .	12	53,150	(47,795)	75,613	42.3	-189.9	258.2
Welded pipe producers . . . . .	16	158,998	20,267	33,393	-79.0	-87.3	64.8
Bar and wire finishers . . . . .	14	12,705	(7,757)	438	-96.6	-161.1	105.6
Fastener producers . . . . .	9	30,976	27,456	29,265	-5.5	-11.4	6.6
Steel fabricators . . . . .	36	76,573	51,763	52,124	-31.9	-32.4	0.7
<b>Transportation:</b>							
Motor vehicles . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Motor vehicle parts . . . . .	19	145,953	139,376	173,532	18.9	-4.5	24.5
Ships and shipping containers; military . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Machinery and equipment:</b>							
Heavy machinery . . . . .	4	55,547	1,701	11,139	-79.9	-96.9	554.9
Power, other machinery . . . . .	8	160,144	128,262	176,425	10.2	-19.9	37.6
<b>Construction</b> . . . . .	17	167,915	10,581	40,977	-75.6	-93.7	287.3
<b>Containers:</b>							
Steel barrels and cans . . . . .	5	135,578	125,757	132,944	-1.9	-7.2	5.7
<b>Consumer and commercial goods:</b>							
Household appliances . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Furniture, hardware, cutlery . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Total</b> . . . . .	171	2,189,241	1,880,399	2,088,860	-4.6	-14.1	11.1

Table continued.

**Table 2-21—Continued.**  
**Summary of commercial net sales, operating income or (loss), and capital expenditures, by industry,**  
**2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>**

Industry category	No. of firms	Change					
		2000/01	2001/02	2002/03	2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----Value (\$1,000)-----			-----Percent-----		
<b>Capital expenditures</b>							
<b>Steel-product producers/processors/distributors:</b>							
Distributors . . . . .	15	20,241	17,287	7,650	-62.2	-14.6	-55.7
Producers of hot/cold-rolled or coated product . . . . .	12	44,507	132,191	34,731	-22.0	197.0	-73.7
Welded pipe producers . . . . .	13	98,496	62,007	76,860	-22.0	-37.0	24.0
Bar and wire finishers . . . . .	9	12,630	23,768	10,400	-17.7	88.2	-56.2
Fastener producers . . . . .	7	4,417	2,314	10,902	146.8	-47.6	371.2
Steel fabricators . . . . .	28	35,122	37,810	17,889	-49.1	7.7	-52.7
<b>Transportation:</b>							
Motor vehicles . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Motor vehicle parts . . . . .	16	137,921	100,895	80,595	-41.6	-26.8	-20.1
Ships and shipping containers; military . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Machinery and equipment:</b>							
Heavy machinery . . . . .	4	15,947	9,591	5,628	-64.7	-39.9	-41.3
Power, other machinery . . . . .	6	110,086	63,310	61,715	-43.9	-42.5	-2.5
<b>Construction</b> . . . . .	13	28,684	16,990	18,092	-36.9	-40.8	6.5
<b>Containers:</b>							
Steel barrels and cans . . . . .	3	36,818	24,581	54,751	48.7	-33.2	122.7
<b>Consumer and commercial goods:</b>							
Household appliances . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Furniture, hardware, cutlery . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Total</b> . . . . .	135	794,656	738,845	706,081	-11.1	-7.0	-4.4

<sup>1</sup> April 1–March 30.

<sup>2</sup> Data suppressed due to confidentiality.

Source: Compiled from data submitted in response to Commission questionnaires.

Operating income reported by firms in the steel product producers/processor/distributor sector displayed larger declines from 2000/01 to 2001/02 than other steel-consuming industries (table 2-21). Almost all industry groups experienced substantial percentage increases in operating income from 2001/02 (the period before the safeguard measures) to 2002/03 (the period after the safeguard measures). The only exception is the steel distributors industry which had a decline in operating income from 2001/02 to 2002/03.

Examination of full financial data for all responding steel-consuming firms indicates some changes in costs over the periods (tables 2-22, 2-23 and 2-24).<sup>54</sup> For example, in the 2002/03 period,

<sup>54</sup> Tables 2-22 through 2-24 show complete financial data and capital expenditures for responding steel-consuming firms. Data in these tables are presented for all reporting steel-consuming firms combined and also separately for steel product producers/processors/distributors and for all other sectors (transportation, machinery and equipment, construction, containers, and consumer and commercial goods) combined.

**Table 2-22**

**Results of operations of steel-consuming firms using the input products of steel covered by the safeguard measures, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>**

Item	2000/01	2001/02	2002/03	Change			Changes <sup>2</sup> Increase Value (\$1,000)
				2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03	
	-----Value (\$1,000)-----			-----Percent-----			
Commercial net sales . . .	30,661,329	28,994,071	30,788,248	0.4	-5.4	6.2	3,152
Cost of goods sold:							
Raw materials:							
Subject input products:							
From U.S. producers	6,553,184	5,906,828	6,215,463	-5.2	-9.9	5.2	76,575
From imports . . . . .	1,678,650	1,136,634	1,427,402	-15.0	-32.3	25.6	(8,823)
Other raw materials . . .	4,311,186	4,184,136	4,170,773	-3.3	-2.9	-0.3	1,683
Total raw materials . .	12,543,019	11,227,598	11,813,639	-5.8	-10.5	5.2	37,047
Direct labor . . . . .	2,236,904	2,214,451	2,324,165	3.9	-1.0	5.0	(2,542)
Other factory costs . . . . .	10,282,303	10,318,133	11,188,287	8.8	0.3	8.4	(5,880)
Total cost of goods sold	25,062,227	23,760,183	25,326,091	1.1	-5.2	6.6	16,199
Gross profit or (loss) . . . . .	5,599,102	5,233,888	5,462,157	-2.4	-6.5	4.4	23,303
SG&A expenses . . . . .	3,409,862	3,353,490	3,373,297	-1.1	-1.7	0.6	(1,077)
Operating income or (loss)	2,189,241	1,880,399	2,088,860	-4.6	-14.1	11.1	20,824
Capital expenditures . . . . .	794,656	738,845	706,081	-11.1	-7.0	-4.4	258
	<b>----Ratio to net sales (percent)----</b>						
Cost of goods sold:							
Raw materials:							
Subject input products:							
From U.S. producers	21.4	20.4	20.2	-1.2	-1.0	-0.2	
From imports . . . . .	5.5	3.9	4.6	-0.8	-1.6	0.7	
Other raw materials . . .	14.1	14.4	13.5	-0.5	0.4	-0.9	
Total raw materials . .	40.9	38.7	38.4	-2.5	-2.2	-0.4	
Direct labor . . . . .	7.3	7.6	7.5	0.3	0.3	-0.1	
Other factory costs . . . . .	33.5	35.6	36.3	2.8	2.1	0.8	
Total cost of goods sold	81.7	81.9	82.3	0.5	0.2	0.3	
Gross profit or (loss) . . . . .	18.3	18.1	17.7	-0.5	-0.2	-0.3	
SG&A expenses . . . . .	11.1	11.6	11.0	-0.2	0.4	-0.6	
Operating income or (loss)	7.1	6.5	6.8	-0.4	-0.7	0.3	
	<b>----Number of firms reporting----</b>						
Operating losses . . . . .	25	39	40				
Data for operations . . . . .	171	171	171				
Data for capital expenditures . . . . .	135	135	133				

<sup>1</sup> April 1–March 30.

<sup>2</sup> These are the changes for each line reported by firms due to safeguard remedies.

Source: Compiled from data submitted in response to Commission questionnaires.



Table 2-23

**Results of operations of U.S. steel-consuming sectors (steel-product producers/processors/distributors),  
2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>**

Item	2000/01	2001/02	2002/03	Change			Changes <sup>2</sup> Increase (Decrease) Value (\$1,000)
				2000/01 to 2002/03	2000/01 to 2000/02	2001/02 to 2002/03	
	-----Value (\$1,000)-----			-----Percent-----			
Commercial net sales . . .	8,577,821	7,107,847	7,908,230	(7.8)	(17.1)	11.3	12,166
Cost of goods sold:							
Raw materials:							
Subject input products:							
From U.S. producers	3,633,740	3,121,493	3,410,413	(6.1)	(14.1)	9.3	24,366
From imports . . . . .	1,290,200	743,606	1,106,158	(14.3)	(42.4)	48.8	1,330
Other raw materials . . .	233,813	234,828	214,504	(8.3)	0.4	(8.7)	(608)
Total raw materials . .	5,157,752	4,099,927	4,731,075	(8.3)	(20.5)	15.4	20,145
Direct labor . . . . .	721,450	692,912	729,255	1.1	(4.0)	5.2	(2,491)
Other factory costs . . . .	1,615,041	1,565,019	1,573,413	(2.6)	(3.1)	0.5	(5,549)
Total cost of goods sold	7,494,244	6,357,859	7,033,743	(6.1)	(15.2)	10.6	4,351
Gross profit or (loss) . . . .	1,083,577	749,988	874,487	(19.3)	(30.8)	16.6	4,966
SG&A expenses . . . . .	715,864	682,469	668,553	(6.6)	(4.7)	(2.0)	251
Operating income or (loss)	367,714	67,520	205,934	(44.0)	(81.6)	205.0	3,765
Capital expenditures . . . . .	215,413	275,378	158,432	(26.5)	27.8	(42.5)	742
	----Ratio to net sales (percent)----						
Cost of goods sold:							
Raw materials:							
Subject input products:							
From U.S. producers	42.4	43.9	43.1	0.8	1.6	-0.8	
From imports . . . . .	15.0	10.5	14.0	-1.1	-4.6	3.5	
Other raw materials . . .	2.7	3.3	2.7	0.0	0.6	-0.6	
Total raw materials . .	60.1	57.7	59.8	-0.3	-2.4	2.1	
Direct labor . . . . .	8.4	9.7	9.2	0.8	1.3	-0.5	
Other factory costs . . . .	18.8	22.0	19.9	1.1	3.2	-2.1	
Total cost of goods sold	87.4	89.4	88.9	1.6	2.1	-0.5	
Gross profit or (loss) . . . .	12.6	10.6	11.1	-1.6	-2.1	0.5	
SG&A expenses . . . . .	8.3	9.6	8.5	0.1	1.3	-1.1	
Operating income or (loss)	4.3	1.0	2.6	-1.7	-3.3	1.7	
	----Number of firms reporting----						
Operating losses . . . . .	18	27	28				
Data for operations . . . . .	106	106	106				
Data for capital expenditures . . . . .	83	84	81				

<sup>1</sup> April 1–March 30.<sup>2</sup> These are the changes for each line reported by firms due to safeguard remedies.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-24**

**Results of operations of U.S. steel-consuming sectors (transportation, machinery and equipment, construction, containers, and consumer and commercial goods), 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, 2002/03<sup>1</sup>**

Item	2000/01	2001/02	2002/03	Change			Change <sup>2</sup> Increase (Decrease) Value (\$1,000)
				2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03	
	-----Value (\$1,000)-----			-----Percent-----			
Commercial net sales . . .	22,083,508	21,886,224	22,880,018	3.6	(0.9)	4.5	(9,014)
Cost of goods sold:							
Raw materials:							
Subject input products:							
From U.S. producers	2,919,444	2,785,335	2,805,050	(3.9)	(4.6)	0.7	52,209
From imports . . . . .	388,450	393,028	321,245	(17.3)	1.2	(18.3)	(10,154)
Other raw materials . . .	4,077,373	3,949,308	3,956,269	(3.0)	(3.1)	0.2	2,291
Total raw materials . .	7,385,267	7,127,671	7,082,564	(4.1)	(3.5)	(0.6)	16,902
Direct labor . . . . .	1,515,454	1,521,539	1,594,910	5.2	0.4	4.8	(51)
Other factory costs . . . . .	8,667,262	8,753,114	9,614,874	10.9	1.0	9.8	(331)
Total cost of goods sold	17,567,983	17,402,324	18,292,348	4.1	(0.9)	5.1	11,848
Gross profit or (loss) . . . . .	4,515,525	4,483,900	4,587,670	1.6	(0.7)	2.3	18,337
SG&A expenses . . . . .	2,693,998	2,671,021	2,704,744	0.4	(0.9)	1.3	(1,328)
Operating income or (loss)	1,821,527	1,812,879	1,882,926	3.4	(0.5)	3.9	17,059
Capital expenditures . . . . .	579,243	463,467	547,649	(5.5)	(20.0)	18.2	(484)
	----Ratio to net sales (percent)----						
Cost of goods sold:							
Raw materials:							
Subject input products:							
From U.S. producers	13.2	12.7	12.3	-1.0	-0.5	-0.5	
From imports . . . . .	1.8	1.8	1.4	-0.4	0.0	-0.4	
Other raw materials . . .	18.5	18.0	17.3	-1.2	-0.4	-0.8	
Total raw materials . .	33.4	32.6	31.0	-2.5	-0.9	-1.6	
Direct labor . . . . .	6.9	7.0	7.0	0.1	0.1	0.0	
Other factory costs . . . . .	39.2	40.0	42.0	2.8	0.7	2.0	
Total cost of goods sold	79.6	79.5	79.9	0.4	0.0	0.4	
Gross profit or (loss) . . . . .	20.4	20.5	20.1	-0.4	0.0	-0.4	
SG&A expenses . . . . .	12.2	12.2	11.8	-0.4	0.0	-0.4	
Operating income or (loss)	8.2	8.3	8.2	0.0	0.0	-0.1	
	----Number of firms reporting----						
Operating losses . . . . .	7	12	12				
Data for operations . . . . .	65	65	65				
Data for capital expenditures . . . . .	52	51	52				

<sup>1</sup> April 1–March 30.

<sup>2</sup> These are the changes for each line reported by firms due to safeguard remedies.

Source: Compiled from data submitted in response to Commission questionnaires.

purchases of subject domestically produced steel inputs increased to \$6.2 billion (20.2 percent of net sales) from \$5.9 billion (20.4 percent of net sales) in the 2001/02 period. The level of input costs in 2002/03, however, was still below the level in 2000/01 which was \$6.6 billion (21.4 percent of net sales) (table 2-8). Similar trends are apparent for purchases of subject imported steel inputs. In 2002/03, purchases of subject imported steel inputs increased to \$1.4 billion (4.6 percent of net sales) from \$1.1 billion (3.9 percent of net sales); despite the increase in 2002/03, the level of these costs in that year was still lower than they were in 2001/02 (\$1.7 billion).

Data submitted by steel-consuming firms on capital expenditures indicate declines over the period (table 2-22). In 2002/03, capital expenditures were 4.4 percent lower than in the 2001/02 period (\$706.1 million in 2002/03 compared to \$738.8 million in 2001/02) and 11.1 percent lower than the \$794.7 million in the 2000/01 period. Capital expenditures fell for 8 of 12 steel-consuming industries in the year after the safeguard measures were implemented. Comparing capital expenditures for the steel product sectors with all other steel-consuming sectors reveals that capital expenditures declined less for the steel product sectors than for the other steel-consuming sectors from the 2000/01 to the 2001/02 period (tables 2-23 and 2-24). Three of the six sectors reported increased capital expenditures.<sup>55</sup> Two of these three categories (producers of hot-rolled/cold-rolled/coated product and bar finishers) showed greatly increased capital expenditures from 2000/01 to 2001/02; capital expenditures for these 2 sectors then declined from 2001/02 to 2002/03 to levels below those in 2000/01. Percentage changes between 2001/02 and 2002/03 reveal that capital expenditures declined for four of the six categories in both the steel product sectors and other steel-consuming sectors. The largest percentage declines in capital expenditures typically occurred in the steel product producer/processor/distributor sectors. Categories that experienced the largest increase in capital expenditures after the safeguard measures were implemented were fastener producers (steel products sector) followed by steel barrels and cans (container sector).

Steel-consuming firms were asked to report what portion of any changes in net sales, operating income, or capital expenditures were due to the safeguard measures; however, many firms did not respond to the question (tables 2-25, 2-26, and 2-27). Of those firms that did provide information, most were unable to quantify any changes or stated that there were no changes. Twenty-one of 171 firms reported an aggregate increase of \$3.2 million in commercial net sales and 22 firms reported an aggregate rise of \$20.8 million in operating income due to the safeguard measures. Thirty-six out of 171 firms reported an aggregate increase of \$76.6 million in spending on subject raw material from U.S. producers while 20 firms reported an aggregate decrease of \$8.8 million in spending on subject raw material from imports due to the safeguard measures.

Publicly available data on corporate profits for selected industries indicates that profits declined by 92 percent among major steel-consuming industry groups from 2000/01 to 2001/02, falling from \$50.7 billion to \$4.1 billion (table 2-28). These profits then increased by approximately 475 percent from \$4.1 billion in 2001/02 to \$23.3 billion in 2002/03. Despite the large increase in the last period, corporate profits were still lower in 2002/03 as compared with 2000/01.

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<sup>55</sup> See Appendix E for financial data on a sectoral basis.

**Table 2-25**

**Number of steel-consuming firms reporting changes due to safeguard measures, by type of response**

Response	Net Sales	Operating Income	Capital Expenditures	Subject input	Subject input
				products from U.S. producers	products from imports
-----Number of firms reporting-----					
<b>Decrease:</b>					
Quantified .....	12	16	5	7	9
Did not quantify .....	3	3	1	1	2
<b>Increase:</b>					
Quantified .....	8	7	2	30	11
Did not quantify .....	3	1	1	12	4
No change .....	29	29	31	23	16
Did not know change ...	6	4	6	4	4
Other response .....	<sup>1</sup> 15	<sup>2</sup> 14	<sup>3</sup> 12	<sup>5</sup> 16	<sup>7</sup> 10
No response .....	95	97	<sup>4</sup> 113	<sup>6</sup> 78	<sup>8</sup> 115
<b>Total .....</b>	<b>171</b>	<b>171</b>	<b>171</b>	<b>171</b>	<b>171</b>

<sup>1</sup> The respondents reported the following information: Four indicated they could not quantify the data, seven indicated not available, one indicated undetermined, one indicated very poor business conditions, one indicated a minimal effect, and one indicated that there were fewer new jobs and they were less competitive globally.

<sup>2</sup> The respondents reported the following information: Seven firms indicated not available, one indicated undetermined, one indicated a minimal effect, four indicated that they could not quantify the data, and one indicated that it would have been worse without remedy.

<sup>3</sup> The respondents reported the following information: Seven indicated not available, four indicated they could not quantify the data and one indicated undetermined.

<sup>4</sup> A total of 27 firms had reported no capital expenditures.

<sup>5</sup> The respondents reported the following information: Seven firms indicated not available, four indicated that they could not quantify the data, one indicated increased cost per ton, one indicated base material cost increase by thirty percent, one indicated an increase of 31 percent, one indicated undetermined, and one indicated a minimal effect.

<sup>6</sup> Three firms had reported no U.S. products.

<sup>7</sup> The respondents reported the following information: Four indicated that they could not quantify the data, four indicated not available, one indicated increased volume, and one indicated undetermined.

<sup>8</sup> A total of 70 firms had reported no imports.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-26**  
**Number of steel-product producers/processors/distributors reporting changes due to safeguard measures,**  
**by type of response**

<b>Response</b>	<b>Net Sales</b>	<b>Operating Income</b>	<b>Capital Expenditures</b>	<b>Subject input products from U.S. producers</b>	<b>Subject input products from imports</b>
	-----Number of firms reporting-----				
<b>Decrease:</b>					
Quantified .....	7	11	2	4	6
Did not quantify .....	2	1	0	0	0
<b>Increase:</b>					
Quantified .....	6	4	2	16	7
Did not quantify .....	1	0	0	9	3
No change .....	14	16	17	12	12
Did not know change ...	4	4	4	3	4
Other response .....	<sup>1</sup> 12	<sup>2</sup> 10	<sup>3</sup> 10	<sup>5</sup> 12	<sup>7</sup> 9
No response .....	60	60	<sup>4</sup> 71	<sup>6</sup> 50	<sup>8</sup> 65
<b>Total .....</b>	<b>106</b>	<b>106</b>	<b>106</b>	<b>106</b>	<b>106</b>

<sup>1</sup> The respondents reported the following information: Three indicated they could not quantify the data, six indicated not available, one indicated undetermined, one indicated very poor business conditions, and one indicated that there were fewer new jobs and less competitive globally ones.

<sup>2</sup> The respondents reported the following information: Six firms indicated not available, one indicated undetermined, and three indicated that they could not quantify the data.

<sup>3</sup> The respondents reported the following information: Six indicated not available, three indicated they could not quantify the data, and one indicated undetermined.

<sup>4</sup> A total of 16 firms had reported no capital expenditures.

<sup>5</sup> The respondents reported the following information: Six indicated not available, three indicated that they could not quantify the data, one indicated increased cost per ton, one indicated an increase of 31 percent, and one indicated undetermined.

<sup>6</sup> Two firms had reported no U.S. products.

<sup>7</sup> The respondents reported the following information: Three indicated that they could not quantify the data, four indicated not available, one indicated increased volume, and one indicated undetermined.

<sup>8</sup> A total of 33 firms had reported no imports.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-27**

**Number of firms in selected U.S. steel-consuming sectors (transportation, machinery and equipment, construction, containers, and consumer and commercial goods) reporting changes due to safeguard remedies, by type of response**

Response	Net Sales	Operating Income	Capital Expenditures	Subject input	Subject input
				products from U.S. producers	products from imports
-----Number of firms reporting-----					
<b>Decrease:</b>					
Quantified . . . . .	5	5	3	3	3
Did not quantify . . . . .	1	2	1	1	2
<b>Increase:</b>					
Quantified . . . . .	2	3	0	14	4
Did not quantify . . . . .	2	1	1	3	1
No change . . . . .	15	13	14	11	4
Did not know change . . . . .	2	0	2	1	0
Other response . . . . .	<sup>1</sup> 3	<sup>2</sup> 4	<sup>3</sup> 2	<sup>5</sup> 4	<sup>7</sup> 1
No response . . . . .	35	37	<sup>4</sup> 2	<sup>6</sup> 28	<sup>8</sup> 50
<b>Total . . . . .</b>	<b>65</b>	<b>65</b>	<b>65</b>	<b>65</b>	<b>65</b>

<sup>1</sup> The respondents reported the following information: One indicated it could not quantify the data, one indicated the data were not available, and one indicated that there was a minimal effect.

<sup>2</sup> The respondents reported the following information: One firms indicated the data were not available, one indicated that it would have been worse without remedy, one indicated that there was a minimal effect, and one indicated that it could not quantify the data.

<sup>3</sup> The respondents reported the following information: One indicated the data were not available, and one indicated it could not quantify the data.

<sup>4</sup> A total of 11 firms had reported no capital expenditures.

<sup>5</sup> The respondents reported the following information: One indicated the data were not available, one indicated that it could not quantify the data, one indicated base material cost increased by thirty percent, and one indicated that there was a minimal effect.

<sup>6</sup> One firm had reported no U.S. products.

<sup>7</sup> The respondents reported the following information: One indicated that it could not quantify the data.

<sup>8</sup> A total of 37 firms had reported no imports.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-28**

**Corporate profits by primary steel-consuming industry group, seasonally adjusted annual rates, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>**

Industry <sup>2</sup>	Reported data (April to March)		
	2000/01	2001/02	2002/03
-----Billion dollars-----			
Primary metal industries . . . . .	-0.4	-0.6	1.7
Fabricated metal products . . . . .	13.2	7.8	6.0
Industrial machinery and equipment . . . . .	13.7	-4.2	-1.4
Electronic and other electric equipment . . . . .	4.9	-5.1	4.5
Motor vehicles and equipment . . . . .	-4.4	-10.4	-3.8
Other durable goods . . . . .	23.5	16.6	16.4
<b>Total . . . . .</b>	<b>50.7</b>	<b>4.1</b>	<b>23.3</b>

<sup>1</sup> April 1–March 30.

<sup>2</sup> Data are based on the 1987 Standard Industrial Classifications (SIC) codes.

Source: Official statistics of the U.S. Department of Commerce, Bureau of Economic Analysis, *National Income and Product*, "Table 6.16C: Corporate Profits by Industry Group."

Public data for revenues, operating costs, and income (loss) from operations for the major steel-consuming industry groups between 2001/02 and 2002/03 are presented in table 2-29. Revenues remained essentially unchanged during this time frame, with industry groups that experienced increased revenues offsetting those groups that experienced decreased revenues. Revenues increased for steel products producers/processors/distributors, transportation equipment, and miscellaneous manufactures while revenues decreased for machinery and equipment and consumer and commercial goods. Operating income increased during this time period for all major industry groups, with transportation equipment and machinery and equipment showing the largest increases.

In addition to data from questionnaires and public sources, witnesses from various industry categories (transportation, machinery and equipment, metal forming, and consumer and commercial goods) reported that sales and profitability have been negatively affected by the imposition of steel safeguard tariffs.<sup>56</sup> Some witnesses from the transportation, machinery and equipment, and metal forming industries also testified the steel safeguards reduced capital investment.<sup>57</sup>

### ***Employment, Wages, and Productivity***

Reported employment (as measured by hours worked and number of workers)<sup>58</sup> in steel-consuming industries was relatively flat or declined slightly in the year after the safeguard measures were implemented (2002/03) as compared to the year prior to the safeguards (2001/02) continuing a period-long trend (table 2-30).<sup>59</sup> Both wages (per hour and per worker) and productivity increased over all three years.

While hours worked and total wages paid to workers increased in the year after the safeguard measures were implemented (2002/03), they were still below the levels in the year before the safeguard measures (2000/01). The number of PRWs decreased overall (from 2000/01 to 2002/03), with a greater decline in the year before the safeguard measures were implemented (2000/01 to 2001/02) than in the year after the safeguard measures were implemented (2001/02 to 2002/03).

Only a relatively small number of all questionnaire respondents provided information regarding what portion of changes in employment and/or wages was due to the safeguard measures (table 2-31).<sup>60</sup>

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<sup>56</sup> Testimony of Richard Clayton, President of Textron Fastening Systems, transcript of Commission hearing, June 19, 2003, p. 113; testimony of Doug Krzywicki, Chief Financial Officer of A.J. Rose Manufacturing Co., transcript of Commission hearing, June 19, 2003, p. 138; testimony of Pat Thompson, Chief Executive Officer of Trans-Matic, transcript of Commission hearing, June 19, 2003, p. 444; testimony of Teresa Amman, Director of the Supply Management Team for Su-dan Corp., transcript of Commission hearing, June 19, 2003, p. 451; and testimony of Woody Sutton, President of the Air Conditioning and Refrigeration Institute, transcript of Commission hearing, June 20, 2003, p. 726.

<sup>57</sup> Testimony of Doug Krzywicki, Chief Financial Officer, A.J. Rose Manufacturing Co., transcript of Commission hearing, June 19, 2003, p. 137; testimony of Ken Cather of Imports Int'l, transcript of Commission hearing, June 19, 2003, p. 357; and testimony of Teresa Amman, Director of the Supply Management Team for Sudan Corp., transcript of Commission hearing, June 19, 2003, p. 451.

<sup>58</sup> Workers are defined as production and related workers (PRWs).

<sup>59</sup> Almost half of questionnaire respondents provided useable data regarding employment and wages. Only data for those firms that reported data for the 3 requested years were used.

<sup>60</sup> With regard to number of PRWs, 134 of 222 firms did not answer or reported that they did not know. For hours worked, 128 of 221 firms did not answer or reported that they did not know. With regard to wages paid to PRWs, 138 of 223 did not answer or reported that they did not know.

Table 2-29

Steel-consuming industries: Net sales and operating income, 2001/02<sup>1</sup> and 2002/03<sup>1</sup>

NAICS codes	Industry group	2001/02	2002/03	Change
				2001/02 to 2002/03
		-----Million dollars-----		Percent
<b>Steel-products producers, processors, and distributors:</b>				
3311				
3312	Iron, steel, and ferroalloys:			
	Net sales, receipts, and operating revenues	56,639	57,900	2.2
	Depreciation, depletion, and amortization	3,123	2,951	-5.5
	COGS, SG&A, and all other operating costs and expenses	54,475	55,020	1.0
	Income (or loss) from operations	-959	-71	-92.6
	Income (or loss) from operations to net sales ( <i>percent</i> )	-1.7	-0.1	( <sup>2</sup> )
332	<b>Fabricated metal products:</b> <sup>3</sup>			
	Net sales, receipts, and operating revenues	197,384	203,293	3.0
	Depreciation, depletion, and amortization	7,229	7,102	-1.8
	COGS, SG&A, and all other operating costs and expenses	178,022	182,906	2.7
	Income (or loss) from operations	12,133	13,285	9.5
	Income (or loss) from operations to net sales ( <i>percent</i> )	6.1	6.5	( <sup>2</sup> )
<b>Transportation equipment:</b>				
3361				
3362				
3363	<b>Motor vehicles and parts:</b>			
	Net sales, receipts, and operating revenues	521,914	554,082	6.2
	Depreciation, depletion, and amortization	16,621	17,429	4.9
	COGS, SG&A, and all other operating costs and expenses	512,535	532,929	4.0
	Income (or loss) from operations	-7,242	3,724	-151.4
	Income (or loss) from operations to net sales ( <i>percent</i> )	-1.4	0.7	( <sup>2</sup> )
3364	<b>Aerospace products and parts:</b>			
	Net sales, receipts, and operating revenues	169,486	158,920	-6.2
	Depreciation, depletion, and amortization	3,795	3,591	-5.4
	COGS, SG&A, and all other operating costs and expenses	153,287	143,555	-6.3
	Income (or loss) from operations	12,404	11,774	-5.1
	Income (or loss) from operations to net sales ( <i>percent</i> )	7.3	7.4	-2.0
<b>Machinery and equipment:</b>				
<b>Machinery:</b>				
333				
	Net sales, receipts, and operating revenues	258,655	252,409	-2.4
	Depreciation, depletion, and amortization	10,418	10,079	-3.3
	COGS, SG&A, and all other operating costs and expenses	237,318	229,004	-3.5
	Income (or loss) from operations	10,919	13,326	22.0
	Income (or loss) from operations to net sales ( <i>percent</i> )	4.2	5.3	( <sup>2</sup> )
3341	<b>Computer and peripheral equipment:</b>			
	Net sales, receipts, and operating revenues	149,025	138,408	-7.1
	Depreciation, depletion, and amortization	6,753	6,257	-7.3
	COGS, SG&A, and all other operating costs and expenses	143,792	131,277	-8.7
	Income (or loss) from operations	-1,520	874	-157.5
	Income (or loss) from operations to net sales ( <i>percent</i> )	-1.0	0.6	( <sup>2</sup> )
3342	<b>Communications equipment:</b>			
	Net sales, receipts, and operating revenues	105,838	85,741	-19.0
	Depreciation, depletion, and amortization	6,393	5,227	-18.2
	COGS, SG&A, and all other operating costs and expenses	123,961	84,135	-32.1
	Income (or loss) from operations	-24,516	-3,621	-85.2
	Income (or loss) from operations to net sales ( <i>percent</i> )	-23.2	-4.2	( <sup>2</sup> )

Table continued.



**Table 2-29—Continued**  
**Steel-consuming industries: Net sales and operating income, 2001/02<sup>1</sup> and 2002/03<sup>1</sup>**

NAICS codes	Industry group	2001/02 -----Million dollars-----	2002/03	Change
				2001/02 to 2002/03 Percent
3343				
3344				
3345				
3346	<b>All other electronic equipment:</b>			
	Net sales, receipts, and operating revenues . . . . .	216,817	217,730	0.4
	Depreciation, depletion, and amortization . . . . .	15,405	15,229	-1.1
	COGS, SG&A, and all other operating costs and expenses . . . . .	209,225	202,621	-3.2
	Income (or loss) from operations . . . . .	-7,813	-120	-98.5
	Income (or loss) from operations to net sales ( <i>percent</i> ) . . . . .	-3.6	-0.1	( <sup>2</sup> )
335	<b>Electrical equipment, appliances, and components:</b>			
	Net sales, receipts, and operating revenues . . . . .	176,827	181,748	2.8
	Depreciation, depletion, and amortization . . . . .	5,566	5,539	-0.5
	COGS, SG&A, and all other operating costs and expenses . . . . .	154,176	156,829	1.7
	Income (or loss) from operations . . . . .	17,085	19,380	13.4
	Income (or loss) from operations to net sales ( <i>percent</i> ) . . . . .	9.7	10.7	( <sup>2</sup> )
	<b>Consumer and commercial goods:</b>			
337	<b>Furniture and related products:</b>			
	Net sales, receipts, and operating revenues . . . . .	57,197	55,115	-3.6
	Depreciation, depletion, and amortization . . . . .	1,479	1,500	1.4
	COGS, SG&A, and all other operating costs and expenses . . . . .	52,523	50,126	-4.6
	Income (or loss) from operations . . . . .	3,195	3,489	9.2
	Income (or loss) from operations to net sales ( <i>percent</i> ) . . . . .	5.6	6.3	( <sup>2</sup> )
	<b>Other:</b>			
339	<b>Miscellaneous manufactures:</b>			
	Net sales, receipts, and operating revenues . . . . .	96,532	107,777	11.6
	Depreciation, depletion, and amortization . . . . .	3,553	3,800	7.0
	COGS, SG&A, and all other operating costs and expenses . . . . .	84,588	92,915	9.8
	Income (or loss) from operations . . . . .	8,391	11,062	31.8
	Income (or loss) from operations to net sales ( <i>percent</i> ) . . . . .	8.7	10.3	( <sup>2</sup> )

<sup>1</sup> April 1–March 31.

<sup>2</sup> Not applicable.

<sup>3</sup> Includes both ferrous and nonferrous metals.

Source: Official statistics of the U.S. Census Bureau, *Quarterly Financial Report for Manufacturing, Mining, and Trade Corporations*, Series QFR, "Income Statements for Corporations in NAICS Manufacturing Industry Groups."

**Table 2-30**  
**Employment, wages, and productivity, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>**

Item	2000/01	2001/02	2002/03	Change			Changes due to safeguard <sup>2</sup>
				2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03	
				-----Percent-----			
Hours worked (1,000 hours) . . . . .	202,410	179,552	180,121	-11.0	-11.3	0.3	(348)
Number of PRWs <sup>3</sup> . . . . .	96,923	90,943	88,180	-9.0	-6.2	-3.0	(228)
Wages paid to PRWs <sup>3</sup> (1,000 dollars) . . . . .	3,738,458	3,545,375	3,669,732	-1.8	-5.2	3.5	(13,219)
Productivity (value added <sup>4</sup> per hour) . . . . .	80.60	86.50	90.80	7.4	4.9	12.7	( <sup>5</sup> )
Productivity (value added <sup>4</sup> per worker) . . . . .	164,370	166,398	181,205	1.2	8.9	10.2	( <sup>5</sup> )
Wages (per hour) . . . . .	18.47	19.75	20.37	10.3	6.9	3.2	( <sup>5</sup> )
Wages (per worker) . . . . .	38,570	38,980	41,620	7.9	1.1	6.8	( <sup>5</sup> )

<sup>1</sup> April 1–March 30.

<sup>2</sup> Steel-consuming firms were asked to report any increase or (decrease) in average number of PRWs, hours worked by PRWs, and wages paid to PRWs due to the safeguard measures. Numbers in this column represent totals reported by all responding steel-consuming firms.

<sup>3</sup> Production and related workers.

<sup>4</sup> Productivity based on reported *net sales and employment*. Data was only used that was reported by firms that provided both financial and employment data.

<sup>5</sup> Not reported.

Source: Compiled from data submitted in response to Commission questionnaires.

**Table 2-31**  
**Number of firms responding to question regarding changes resulting from steel safeguards, by type of response<sup>1</sup>**

Response	Average number of PRWs <sup>2</sup>	Hours worked by PRWs <sup>2</sup>	Wages paid to PRWs <sup>2</sup>
<b>Decrease</b>			
Quantified . . . . .	10	12	8
Did not quantify . . . . .	7	10	3
Subtotal . . . . .	17	22	11
<b>Increase</b>			
Quantified . . . . .	9	10	8
Did not quantify . . . . .	3	2	5
Subtotal . . . . .	12	12	13
No change . . . . .	59	59	61
No answer/don't know . . . . .	134	128	138
<b>Total</b> . . . . .	<b>222</b>	<b>221</b>	<b>223</b>

<sup>1</sup> This table only includes responses of firms that filled out some or all of the data concerning trade related information.

<sup>2</sup> Production and related workers.

Source: Compiled from data submitted in response to Commission questionnaires.

Approximately two-thirds of firms providing information reported no changes in the number of PRWs (59 of 88), hours worked by workers (59 of 93 firms), and wages paid to workers (61 of 85). Twenty-two firms indicated that the safeguard measures caused a decline in hours worked and 11 indicated a decline in wages. Based on the limited responses, steel-consuming firms reported that about 8.3 percent of the decline in the number of workers was related to the imposition of the safeguard measures. The overall trends showed an increase in hours worked and wages in the year after the safeguard measures were implemented.

Information on cost of production, employment, and wage data was also gathered on an industry basis and is presented for nine industries; data for the remaining 6 industries cannot be shown due to the small number of firms responding. Value-added per hour of labor, a measure of productivity, increased in seven of the nine industries in the year following the imposition of the safeguard measures (table 2-32). Most industries showed increased wages after the safeguards were implemented. Exceptions are bar and wire finishers, which showed a decline in wages, and construction, which showed an increase in wages per hour but a decrease in wages per worker. Trends for employment were mixed, with most industries showing an increase in hours worked but a decline in the number of workers. The heavy machinery and construction industries showed significant declines in both hours worked and number of workers with the declines in the heavy machinery sector occurring both before and after the safeguard measures, while the decline in the construction sector occurred after the safeguard.

Publicly available data show a more pronounced trend of falling employment than the questionnaire data suggest (table 2-33). The public data on employment indicate declines in most industries between 2000/01 and 2001/02, and between 2001/02 and 2002/03. The sectors with the largest declines included metal working machinery and electrical equipment, both with over 21 percent reductions in employment over the 3-year period. For the 3-year period, only one sector, construction, did not show employment declining by 10 percent or more; employment in the construction sector fell by about 6 percent. The data do not indicate that overall employment declined more rapidly after the safeguards were implemented than previously, as percentage declines from 2000/01 to 2001/02 were larger than percentage declines from 2001/02 to 2002/03.<sup>61</sup>

Data available from public sources indicates that the wage rate increased in most industries between 2000/01 and 2002/03 (table 2-34); declines were evidenced in construction machinery, and motors and generators. Between 2001/2 and 2002/3, wages also fell in the construction machinery; electrical motors and generators, electric relay and industrial control, and construction plate work industries.

In addition to data from questionnaires and public sources, witnesses from various industry categories (transportation, machinery and equipment, metal forming, and consumer and commercial goods) reported that the imposition of steel safeguard measures has negatively affected employment.<sup>62</sup> Some witnesses from the metal forming and consumer and commercial goods industries also testified that the imposition of steel safeguard measures has reduced productivity.<sup>63</sup>

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<sup>61</sup> As shown in table 2-32, of the industries included in the questionnaire data, only 4 had larger employment declines as a percentage, following the safeguard measures than earlier.

<sup>62</sup> Testimony of Richard Clayton, President of Textron Fastening Systems, transcript of Commission hearing, June 19, 2003, p. 113; testimony of Doug Krzywicki, Chief Financial Officer, A.J. Rose Manufacturing Co., transcript of Commission hearing, June 19, 2003, p. 137; testimony of Ken Cather of Imports International, transcript of Commission hearing, June 19, 2003, p. 356; testimony of Roland Martel, President of the North American Automotive Components Businesses of Illinois Tool Works, transcript of Commission hearing, June 19, 2003, p. 423; and testimony of Woody Sutton, President of the Air Conditioning and Refrigeration Institute, transcript of Commission hearing, June 20, 2003, p. 726.

<sup>63</sup> Testimony of Roland Martel, President of the North American Automotive Components Businesses of Illinois Tool Works, transcript of Commission hearing, June 19, 2003, p. 423; and testimony of Woody Sutton, President of the Air Conditioning and Refrigeration Institute, transcript of Commission hearing, June 20, 2003, p. 726.

**Table 2-32**  
**Employment, wages, and productivity, by industry, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>**

Steel consuming sector/industry category	Item	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
					-----Percent-----		
<b>Distributors</b>	Hours worked (1,000 hours) .....	1,423	1,242	1,316	-7.5	-12.7	6.0
	Number of PRWs .....	665	594	576	-13.4	-10.7	-3.0
	Wages paid to PRWs (1,000 dollars) .....	17,324	15,726	17,034	-1.7	-9.2	8.3
	Productivity (value added <sup>2</sup> per hour) .....	383.7	387.4	394.0	2.7	0.9	1.7
	Productivity (value added <sup>2</sup> per worker) .....	838,673	860,816	852,395	1.6	2.6	-1.0
	Wages (per hour) .....	12.17	12.66	12.94	6.3	4.0	2.2
	Wages (per worker) .....	26,050	26,470	29,570	13.5	1.6	11.7
<b>Producers of hot/cold-rolled or coated product</b>	Hours worked (1,000 hours) .....	125,383	113,718	115,508	-7.9	-9.3	1.6
	Number of PRWs .....	59,436	58,165	56,481	-5.0	-2.1	-2.9
	Wages paid to PRWs (1,000 dollars) .....	2,376,711	2,363,181	2,482,365	4.4	-0.6	5.0
	Productivity (value added <sup>2</sup> per hour) .....	8.0	7.4	9.7	21.4	-7.1	30.7
	Productivity (value added <sup>2</sup> per worker) .....	16,075	13,833	19,055	18.5	-13.9	37.8
	Wages (per hour) .....	18.96	20.78	21.49	13.3	9.6	3.4
	Wages (per worker) .....	39,990	40,630	43,950	9.9	1.6	8.2
<b>Welded pipe producers</b>	Hours worked (1,000 hours) .....	6,922	7,208	7,094	2.5	4.1	-1.6
	Number of PRWs .....	3,156	3,126	3,375	6.9	-1.0	8.0
	Wages paid to PRWs (1,000 dollars) .....	126,240	130,273	147,737	17.0	3.2	13.4
	Productivity (value added <sup>2</sup> per hour) .....	111.8	103.9	104.6	-6.5	-7.1	0.6
	Productivity (value added <sup>2</sup> per worker) .....	245,270	239,610	219,813	-10.4	-2.3	-8.3
	Wages (per hour) .....	18.24	18.07	20.83	14.2	-0.9	15.3
	Wages (per worker) .....	40,000	41,670	43,770	9.4	4.2	5.0
<b>Bar and wire finishers</b>	Hours worked (1,000 hours) .....	1,556	1,247	1,318	-15.3	-19.9	5.7
	Number of PRWs .....	713	643	610	-14.4	-9.8	-5.1
	Wages paid to PRWs (1,000 dollars) .....	22,715	32,451	20,081	-11.6	42.9	-38.1
	Productivity (value added <sup>2</sup> per hour) .....	275.4	236.8	265.5	-3.6	-14.0	12.1
	Productivity (value added <sup>2</sup> per worker) .....	554,165	464,251	534,894	-3.5	-16.2	15.2
	Wages (per hour) .....	14.59	26.03	15.24	4.5	78.4	-41.5
	Wages (per worker) .....	31,860	50,470	32,920	3.3	58.4	-34.8

Table continued.

**Table 2-32—Continued**  
**Employment, wages, and productivity, by industry, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>**

Steel consuming sector/industry category	Item	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
					-----Percent-----		
<b>Fastener producers</b>	Hours worked (1,000 hours) .....	1,228	1,138	1,175	-4.3	-7.3	3.3
	Number of PRWs .....	627	570	550	-12.3	-9.1	-3.5
	Wages paid to PRWs (1,000 dollars) .....	24,521	22,980	24,946	1.7	-6.3	8.6
	Productivity (value added <sup>2</sup> per hour) .....	267.9	262.2	255.9	-4.5	-2.1	-2.4
	Productivity (value added <sup>2</sup> per worker) .....	525,353	532,366	567,781	8.1	1.3	6.7
	Wages (per hour) .....	19.97	20.19	21.23	6.3	1.1	5.2
	Wages (per worker) .....	39,110	40,320	45,360	16.0	3.1	12.5
<b>Steel fabricators</b>	Hours worked (1,000 hours) .....	2,174	2,005	2,035	-6.4	-7.8	1.5
	Number of PRWs .....	1,461	1,283	1,306	-10.6	-12.2	1.8
	Wages paid to PRWs (1,000 dollars) .....	30,298	27,593	29,062	-4.1	-8.9	5.3
	Productivity (value added <sup>2</sup> per hour) .....	320.1	302.6	301.3	-5.9	-5.5	-0.4
	Productivity (value added <sup>2</sup> per worker) .....	454,395	454,253	451,526	-0.6	0.0	-0.6
	Wages (per hour) .....	13.94	13.76	14.28	2.5	-1.3	3.8
	Wages (per worker) .....	20,740	21,510	22,250	7.3	3.7	3.4
<b>Motor vehicle parts</b>	Hours worked (1,000 hours) .....	4,994	4,878	4,914	-1.6	-2.3	0.7
	Number of PRWs .....	2,430	2,354	2,343	-3.6	-3.1	-0.5
	Wages paid to PRWs (1,000 dollars) .....	86,724	77,269	83,239	-4.0	-10.9	7.7
	Productivity (value added <sup>2</sup> per hour) .....	263.3	270.2	290.7	10.4	2.6	7.6
	Productivity (value added <sup>2</sup> per worker) .....	575,935	567,493	608,117	5.6	-1.5	7.2
	Wages (per hour) .....	17.27	15.84	16.94	-2.5	-8.3	6.9
	Wages (per worker) .....	35,690	32,820	35,530	-0.4	-8.0	8.3
<b>Heavy machinery</b>	Hours worked (1,000 hours) .....	3,072	2,254	1,802	-41.3	-26.6	-20.1
	Number of PRWs .....	1,772	1,345	1,027	-42.0	-24.1	-23.6
	Wages paid to PRWs (1,000 dollars) .....	49,164	39,395	34,250	-30.3	-19.9	-13.1
	Productivity (value added <sup>2</sup> per hour) .....	291.7	187.5	282.7	-3.1	-35.7	50.7
	Productivity (value added <sup>2</sup> per worker) .....	495,042	297,016	492,574	-0.5	-40.0	65.8
	Wages (per hour) .....	16.00	17.48	19.01	18.8	9.3	8.8
	Wages (per worker) .....	27,740	29,290	33,350	20.2	5.6	13.9

Table continued.

**Table 2-32--Continued**  
**Employment, wages, and productivity, by industry, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>**

Steel consuming sector/industry category	Item	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
					-----Percent-----		
<b>Construction</b>	Hours worked (1,000 hours) .....	731	732	629	-14.0	0.1	-14.1
	Number of PRWs .....	331	335	310	-6.3	1.2	-7.5
	Wages paid to PRWs (1,000 dollars) .....	13,122	12,586	10,988	-16.3	-4.1	-12.7
	Productivity (value added <sup>2</sup> per hour) .....	693.20	583.58	593.18	-14.4	-15.8	1.6
	Productivity (value added <sup>2</sup> per worker) .....	1,530,909	1,275,158	1,203,590	-21.4	-16.7	-5.6
	Wages (per hour) .....	17.95	17.19	17.47	-2.7	-4.2	1.6
	Wages (per worker) .....	39,640	37,570	35,450	-10.6	-5.2	-5.6

<sup>1</sup> April 1--March 30.

<sup>2</sup> Net sales receipts and operating revenues less total raw material costs.

Notes.--PRWs are production and related workers. Productivity based on reported *net sales and employment*. Data were only included for firms that provided both financial and employment data.

Source: Compiled from data submitted in response to Commission questionnaires.

Table 2-33

Steel-consuming industries: Production workers, not seasonally adjusted, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

NAICS codes	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----1,000s-----			-----Percent-----		
<b>Steel-products producers, processors, and distributors:</b>							
<b>Iron and steel products:</b>							
3311	Iron and steel mills and ferroalloys . . .	104	91	83	-20.5	-13.0	-8.6
33121	Iron and steel pipe and tube from purchased steel . . . . .	24	22	20	-15.5	-8.3	-7.8
33122	Rolling and drawing of purchased steel . . . . .	33	30	28	-15.5	-10.9	-5.1
	Total . . . . .	161	142	131	-18.7	-11.9	-7.8
<b>Fabricated metal products:</b>							
332111	Iron and steel forging . . . . .	22	20	19	-12.1	-7.0	-5.5
332116	Metal stamping . . . . .	56	47	45	-19.8	-15.0	-5.7
3326	Spring and wire products . . . . .	65	58	55	-15.3	-10.1	-5.7
332721	Precision turned products . . . . .	42	37	34	-19.0	-13.3	-6.5
332722	Bolts, nuts, screws, rivets, and washers . . . . .	40	36	34	-16.3	-11.3	-5.6
3328	Metal coating, engraving, and heat treating . . . . .	142	126	115	-19.2	-11.4	-8.8
	Total . . . . .	367	324	302	-17.8	-11.7	-7.0
	Sector total . . . . .	528	466	433	-18.1	-11.7	-7.2
<b>Transportation:</b>							
<b>Motor vehicles:</b>							
3361	Automobiles and light trucks . . . . .	206	200	197	-4.2	-3.0	-1.3
33612	Heavy duty trucks . . . . .	42	31	25	-40.3	-26.6	-18.7
	Total . . . . .	248	231	222	-10.3	-7.0	-3.6
3362	<b>Motor vehicle bodies and trailers:</b>						
336211	Motor vehicle bodies . . . . .	63	56	53	-16.0	-10.3	-6.3
336212	Truck trailers . . . . .	30	22	22	-28.0	-25.8	-2.9
336213	Motor homes <sup>2</sup> . . . . .	17	14	15	-9.3	-18.0	10.6
336214	Travel trailers and campers . . . . .	30	30	33	6.8	-2.7	9.7
	Total . . . . .	140	122	122	-12.8	-12.9	0.1
3363	<b>Motor vehicle parts:</b>						
33631	Gasoline engines and parts . . . . .	81	75	72	-11.0	-6.8	-4.4
33632	Electric equipment . . . . .	102	94	86	-16.1	-8.6	-8.2
33633	Steering and suspension parts . . . . .	45	41	39	-14.0	-8.9	-5.6
33634	Brake systems <sup>2</sup> . . . . .	40	37	34	-14.7	-8.2	-7.1
33635	Power train components . . . . .	88	80	76	-13.7	-9.0	-5.1
33636	Seating and interior trim . . . . .	55	51	50	-8.8	-8.0	-0.9
33637	Metal stampings . . . . .	98	90	87	-11.0	-8.3	-2.9
33639	Other parts . . . . .	158	147	141	-10.7	-7.5	-3.5
	Total . . . . .	667	613	585	-12.3	-8.1	-4.6
3364	Aerospace products and parts . . . . .	247	239	214	-13.3	-3.0	-10.6
3366	Ships and boat building . . . . .	121	116	116	-4.2	-4.2	0.0
	Sector total . . . . .	1,423	1,321	1,259	-11.5	-7.2	-4.7
<b>Machinery and equipment:</b>							
3331	<b>Agricultural, construction, and mining machinery:</b>						
33311	Agricultural machinery . . . . .	61	58	54	-11.1	-6.0	-5.4
33312	Construction machinery . . . . .	53	44	41	-22.1	-15.9	-7.4
33313	Mining and oil and gas field machinery <sup>2</sup> . . . . .	39	41	37	-3.9	5.6	-9.0
	Total . . . . .	152	143	133	-13.1	-6.5	-7.0
3332	Industrial machinery . . . . .	96	81	70	-27.0	-15.8	-13.3
3333	Commercial and service industry machinery . . . . .	85	81	77	-9.7	-5.1	-4.9

Table continued.

Table 2-33—Continued

Steel-consuming industries: Production workers, not seasonally adjusted, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

NAICS codes	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
				-----1,000s-----	-----Percent-----		
3334	Heating, ventilating, and air conditioning, and commercial refrigeration equipment .....	143	126	115	-19.5	-12.2	-8.3
3335	<b>Metalworking machinery:</b>						
333511	Industrial molds .....	40	36	33	-18.1	-10.7	-8.3
333512	Metal cutting and forming machine tools .....	34	29	27	-22.9	-14.7	-9.7
333514	Special tools, dies, jigs, and fixtures ..	77	69	61	-20.4	-10.1	-11.5
333515							
333516	Miscellaneous metalworking machinery .....	38	32	27	-27.8	-16.0	-14.1
333518	Total .....	190	167	149	-21.8	-12.2	-11.0
3336	<b>Turbine and power transmission equipment:</b>						
333611	Turbine and turbine generator sets ...	13	14	13	0.1	4.7	-4.4
333612							
333613	Power transmission and miscellaneous engines .....	65	57	52	-19.4	-11.8	-8.6
333618	Total .....	78	71	65	-16.1	-9.0	-7.8
3339	<b>Other general purpose machinery:</b>						
33391	Pumps and compressors .....	34	32	30	-12.5	-5.5	-7.4
33392	Material handling equipment .....	64	56	50	-22.0	-12.0	-11.4
33399	All other general purpose machinery ..	112	99	91	-19.3	-11.6	-8.7
	Total .....	210	187	170	-19.0	-10.7	-9.3
334	<b>Computer and electronic products:</b>						
3341	Computer and peripheral equipment ...	114	100	96	-15.9	-12.7	-3.6
3342	Communications equipment .....	114	96	83	-27.4	-15.3	-14.3
3343	Audio and video equipment .....	30	25	23	-22.9	-17.1	-7.1
3345	Electronic instruments .....	219	207	192	-12.4	-5.3	-7.5
	Total .....	477	428	394	-17.5	-10.2	-8.1
3351	Electric lighting equipment .....	62	55	50	-18.5	-11.1	-8.3
3353	<b>Electrical equipment:</b>						
335311	Power, distribution, and specialty transformers <sup>2</sup> .....	25	22	18	-26.7	-13.9	-14.9
335312	Motors and generators .....	54	47	43	-20.5	-13.2	-8.4
335313	Switchgear and switchboard apparatus .....	32	29	26	-19.5	-10.5	-10.1
335314	Relay and industrial controls .....	33	29	26	-21.7	-10.0	-13.0
	Total .....	144	127	113	-21.6	-12.0	-11.0
3359	Batteries and other electrical equipment and components .....	138	121	103	-25.5	-12.4	-14.9
3391	Medical equipment and supplies .....	207	205	203	-2.0	-1.0	-1.0
	Sector total .....	1,983	1,791	1,641	-17.2	-9.7	-8.3
<b>Construction:</b>							
<b>Nonresidential construction:</b>							
23621	Industrial buildings .....	167	158	148	-10.9	-5.4	-5.9
23622	Commercial buildings .....	426	424	400	-6.3	-0.6	-5.7
23711	Water and sewer systems .....	146	148	144	-1.5	1.1	-2.6
23712	Oil and gas pipelines .....	64	68	65	1.8	6.4	-4.3
23713	Power and communication systems ...	122	118	100	-17.5	-3.3	-14.7
2373	Highways, streets, and bridges .....	273	286	277	1.3	4.6	-3.1
2379	Other heavy construction .....	95	99	94	-0.6	4.3	-4.6
	Total .....	1,293	1,300	1,228	-5.0	0.5	-5.5

Table continued.



Table 2-33—Continued

Steel-consuming industries: Production workers, not seasonally adjusted, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

NAICS codes	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----1,000s-----			-----Percent-----		
<b>Construction products:</b>							
332311	Prefabricated metal buildings and components .....	22	20	20	-9.7	-7.5	-2.4
332312	Fabricated structural metal products ..	72	71	67	-7.5	-1.2	-6.4
332313	Plate work .....	41	39	37	-8.7	-4.6	-4.3
33232	Ornamental and architectural metal products .....	183	172	162	-11.6	-6.1	-5.9
	Total .....	318	303	286	-10.2	-4.9	-5.6
	Sector total .....	1,611	1,602	1,514	-6.0	-0.5	-5.5
<b>Consumer and commercial goods:</b>							
3352	Household appliances .....	87	85	81	-6.8	-1.6	-5.2
<b>Furniture, cases, partitions, shelving, and lockers:</b>							
337124							
337125							
337127	Miscellaneous household and						
337129	institutional furniture .....	45	42	39	-13.6	-6.8	-7.2
337214	Office furniture and fixtures, except wood <sup>3</sup> .....	30	25	20	-33.2	-17.5	-19.1
337215	Showcases, partitions, shelving, and lockers .....	68	61	54	-20.1	-10.3	-10.9
	Total .....	143	120	113	-20.8	-10.7	-11.3
3322	Cutlery and hand tools .....	61	52	48	-21.9	-15.3	-7.8
3325	Hardware .....	38	34	31	-17.7	-11.1	-7.5
33995	Signs .....	48	46	46	-3.9	-4.0	0.1
	Sector total .....	377	345	319	-15.3	-8.5	-7.4
<b>Other:</b>							
3324	Boilers, tanks, and containers .....	82	78	73	-11.5	-4.9	-7.0
	Total, all sectors .....	6,004	5,603	5,240	-12.7	-6.7	-6.5

<sup>1</sup> April 1–March 31.

<sup>2</sup> Calculated from difference of sum of reported data from reported total.

<sup>3</sup> Calculated as difference between sum of wood office furniture and custom wood work and millwork (337211 and 337212) and showcases, partitions, shelving, and lockers (337215) from office furniture and fixtures (3372).

Source: Official statistics of the U.S. Bureau of Labor, *Employment, Hours, and Earnings*, National (CE), Series 18 and 19.

Table 2-34

Steel-consuming industries: Average hourly earnings (not excluding overtime), not seasonally adjusted, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

NAICS codes	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----Dollars-----			-----Percent-----		
<b>Steel-products producers, processors, and distributors:</b>							
<b>Iron and steel products:</b>							
3311	Iron and steel mills and ferroalloys . . . .	21.12	21.57	22.58	6.9	2.1	4.7
33121	Iron and steel pipe and tube from purchased steel . . . . .	14.05	14.63	15.25	8.5	4.1	4.2
33122	Rolling and drawing of purchased steel . . . . .	15.78	16.44	16.95	7.4	4.2	3.1
	Total . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Fabricated metal products:</b>							
332111	Iron and steel forging . . . . .	15.38	15.94	16.62	8.1	3.7	4.3
332116	Metal stamping . . . . .	13.96	14.28	14.57	4.4	2.3	2.0
3326	Spring and wire products . . . . .	13.19	13.49	13.56	2.7	2.3	0.5
332721	Precision turned products . . . . .	14.00	14.65	14.85	6.1	4.6	1.4
332722	Bolts, nuts, screws, rivets, and washers . . . . .	14.14	14.71	15.62	10.4	4.0	6.2
3328	Metal coating, engraving, and heat treating . . . . .	12.10	12.62	12.95	7.0	4.3	2.6
	Total . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
	Sector total . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Transportation:</b>							
<b>Motor vehicles:</b>							
3361	Automobiles and light trucks . . . . .	25.36	26.64	28.07	10.7	5.0	5.4
33612	Heavy duty trucks . . . . .	22.06	22.71	23.42	6.1	2.9	3.1
	Total . . . . .	24.81	26.13	27.57	11.1	5.3	5.5
<b>Motor vehicle bodies and trailers:</b>							
336211	Motor vehicle bodies . . . . .	17.03	17.16	18.35	7.7	0.7	6.9
336212	Truck trailers . . . . .	12.87	12.89	13.21	2.6	0.2	2.4
336213	Motor homes . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
336214	Travel trailers and campers . . . . .	12.59	12.89	13.41	6.5	2.3	4.0
	Total . . . . .	15.04	15.18	15.65	4.0	0.9	3.1
<b>Motor vehicle parts:</b>							
33631	Gasoline engines and parts . . . . .	19.05	20.08	21.81	14.5	5.4	8.6
33632	Electric equipment . . . . .	14.83	15.62	17.09	15.3	5.3	9.4
33633	Steering and suspension parts . . . . .	22.37	22.97	24.84	11.1	2.7	8.2
33634	Brake systems . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
33635	Power train components . . . . .	22.64	23.42	25.49	12.6	3.4	8.8
33636	Seating and interior trim . . . . .	13.66	14.01	15.14	10.8	2.6	8.0
33637	Metal stampings . . . . .	19.83	20.91	22.30	12.5	5.4	6.6
33639	Other parts . . . . .	14.68	15.27	16.45	12.0	4.0	7.8
	Total . . . . .	17.91	18.58	20.11	12.3	3.8	8.2
3364	Aerospace products and parts . . . . .	20.72	21.53	22.16	6.9	3.9	3.0
3366	Ships and boat building . . . . .	14.99	15.56	15.67	4.5	3.8	0.7
	Sector total . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Machinery and equipment:</b>							
<b>Agricultural, construction, and mining machinery:</b>							
3331	Agricultural machinery . . . . .	13.48	13.99	14.05	4.2	3.7	0.5
33312	Construction machinery . . . . .	14.95	15.19	14.86	-0.6	1.6	-2.2
33313	Mining and oil and gas field machinery . . . . .	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
	Total . . . . .	14.27	14.49	14.43	1.1	1.5	-0.4
3332	Industrial machinery . . . . .	15.89	16.01	16.52	4.0	0.8	3.2
3333	Commercial and service industry machinery . . . . .	16.56	16.93	17.72	7.0	2.2	4.7

Table continued.

Table 2-34—Continued

Steel-consuming industries: Average hourly earnings (not excluding overtime), not seasonally adjusted, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

NAICS codes	Description	2000/01	2001/02	2002/03	Change					
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03			
				-----Dollars-----			-----Percent-----			
3334	Heating, ventilating, and air conditioning, and commercial refrigeration equipment .....	13.18	13.50	13.81	4.8	2.5	2.3			
3335	<b>Metalworking machinery:</b>									
333511	Industrial molds .....	17.25	17.50	17.71	2.7	1.5	1.2			
333512	Metal cutting and forming machine tools .....	16.90	17.02	17.22	1.9	0.7	1.2			
333514	Special tools, dies, jigs, and fixtures ..	16.59	17.27	17.69	6.6	4.1	2.4			
333515										
333516	Miscellaneous metalworking machinery .....	16.40	16.22	17.07	4.1	-1.1	5.2			
333518	Total .....	16.75	17.07	17.49	4.5	1.9	2.5			
3336	<b>Turbine and power transmission equipment:</b>									
333611	Turbine and turbine generator sets .....	21.15	21.85	22.47	6.3	3.3	2.8			
333612										
333613	Power transmission and miscellaneous engines .....	16.14	16.35	16.82	4.2	1.3	2.9			
333618	Total .....	16.95	17.43	17.95	5.9	2.9	3.0			
3339	<b>Other general purpose machinery:</b>									
33391	Pumps and compressors .....	15.91	16.08	16.87	6.0	1.1	4.9			
33392	Material handling equipment .....	13.85	14.06	14.52	4.9	1.5	3.3			
33399	All other general purpose machinery .....	14.86	15.42	15.91	7.1	3.8	3.2			
	Total .....	14.72	15.14	15.68	6.5	2.9	3.6			
334	<b>Computer and electronic products:</b>									
3341	Computer and peripheral equipment .....	18.38	19.41	19.58	6.5	5.6	0.9			
3342	Communications equipment .....	14.45	15.27	15.97	10.5	5.7	4.6			
3343	Audio and video equipment .....	11.63	11.99	14.35	23.5	3.1	19.7			
3345	Electronic instruments .....	15.94	16.39	16.76	5.2	2.8	2.3			
	Total .....	14.81	15.71	16.31	10.1	6.1	3.8			
3351	Electric lighting equipment .....	11.95	12.67	13.50	13.0	6.0	6.6			
3353	<b>Electrical equipment:</b>									
335311	Power, distribution, and specialty transformers .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )			
335312	Motors and generators .....	12.29	12.87	12.69	3.2	4.6	-1.4			
335313	Switchgear and switchboard apparatus .....	14.90	15.49	15.90	6.8	4.0	2.7			
335314	Relay and industrial controls .....	15.18	16.04	15.31	0.8	5.7	-4.6			
	Total .....	13.50	14.23	14.16	4.9	5.4	-0.5			
3359	Batteries and other electrical equipment and components .....	13.77	14.24	14.48	5.1	3.4	1.7			
3391	Medical equipment and supplies .....	12.81	13.28	13.75	7.4	3.7	3.6			
	Sector total .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )			
<b>Construction:</b>										
<b>Nonresidential construction:</b>										
23621	Industrial buildings .....	18.17	18.32	19.00	4.6	0.8	3.7			
23622	Commercial buildings .....	18.36	18.67	19.47	6.0	1.7	4.3			
23711	Water and sewer systems .....	16.59	16.88	17.56	5.9	1.8	4.0			
23712	Oil and gas pipelines .....	15.56	15.94	16.71	7.4	2.5	4.8			
23713	Power and communication systems .....	16.52	16.94	17.82	7.8	2.5	5.2			
2373	Highways, streets, and bridges .....	18.22	18.55	19.13	5.0	1.8	3.1			
2379	Other heavy construction .....	16.25	17.14	18.54	14.1	5.5	8.2			
	Total .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )			

Table continued.

Table 2-34—Continued

Steel-consuming industries: Average hourly earnings (not excluding overtime), not seasonally adjusted, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

NAICS codes	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----Dollars-----			-----Percent-----		
<b>Construction products:</b>							
332311	Prefabricated metal buildings and components .....	13.14	13.37	13.42	2.1	1.8	0.4
332312	Fabricated structural metal products ...	13.60	14.05	14.60	7.3	3.3	3.9
332313	Plate work .....	14.59	14.82	14.74	1.0	1.5	-0.5
33232	Ornamental and architectural metal products .....	13.26	13.70	14.21	7.1	3.3	3.7
	Total .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
	Sector total .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Consumer and commercial goods:</b>							
3352	Household appliances .....	13.54	13.55	13.59	0.4	0.1	0.3
<b>Furniture, cases, partitions, shelving, and lockers:</b>							
337124							
337125							
337127	Miscellaneous household and						
337129	institutional furniture .....	11.12	11.60	12.04	8.3	4.3	3.8
337214	Office furniture, except wood .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
337215	Showcases, partitions, shelving, and lockers .....	11.81	12.17	12.75	8.0	3.0	4.8
	Total .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
3322	Cutlery and hand tools .....	13.41	14.02	14.83	10.6	4.5	5.8
3325	Hardware .....	12.97	13.50	13.66	5.3	4.0	1.2
33995	Signs .....	12.42	13.36	13.89	11.8	7.6	3.9
	Sector total .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Other:</b>							
3324	Boilers, tanks, and containers .....	15.10	15.71	16.48	9.2	4.1	4.9
	Total, all sectors .....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )

<sup>1</sup> April 1–March 31.<sup>2</sup> Not available.

Source: Official statistics of the U.S. Census Bureau, Employment, Hours, and Earnings, National (CE), Series 29 and 30.

Another way in which the effect of these changes can be assessed is through the use of economic modeling. Using monthly industry data between January 2000 and December 2002, Francois and Baughman (2003) estimate that increases in the price of hot-rolled and cold-rolled steel between January 2002 and December 2002, caused employment to decrease by about 1.0 percent or about 50,000 workers for a narrow definition of steel-consuming sectors and by about 1.4 percent or 197,000 workers for a broader definition of steel-consuming industries.<sup>64</sup> On a percentage change basis, the decline in

<sup>64</sup> The authors use a *simple* average of the price of cold rolled and hot rolled steel from producer price indices. Their narrow definition of the steel-consuming industries includes the following Standard Industrial Classification (SIC) categories: metal fabrication (SIC 34), industrial machinery and equipment (SIC 35), and transportation equipment (SIC 37). In addition to the industries in their narrow definition, their broad definition includes electric distribution equipment (SIC 361), electrical industrial apparatus (SIC 362), household appliances (SIC 363); electric lighting and wiring equipment (SIC 364), chemical and related products (SIC 28), tires (SIC 301), petroleum refining (SIC 291), and nonresidential construction (SIC 15-17 minus SIC 152). Joseph Francois and Laura M. Baughman, "The Unintended Consequences of U.S. Steel Import Tariffs: A Quantification of the Impact During 2002." Paper prepared for the CITAC Foundation, Feb. 4, 2003, found at internet address <http://www.tradepartnership.com/pdf/jobstudy2002.pdf>, retrieved Apr. 24, 2003.

employment in their broader definition of steel-consuming industries is about half of the 3.0 percent decline in number of workers from questionnaire responses in table 2-30 for 2003 and about one fifth of the 6.5 percent decline in the overall number of workers in steel-consuming industries as reported by BLS in table 2-33 for 2003.<sup>65</sup>

Francois and Baughman also estimate that the decrease in employment represents almost \$4 billion in lost wages from February to November 2002.<sup>66</sup> As seen in table 2-30, overall wages for steel-consuming industries increased by 3.5 percent in 2003 following the long term trend of increasing wages.

It is important to note that although Francois and Baughman estimate the impact of the change in the price of steel, they did not specify what part of this impact was due specifically to the steel safeguard measures. The model results reported above are estimates based on specific assumptions which simplify the analysis. The reported point estimates mask considerable variations in the range of plausible estimates implied by the statistical analysis.<sup>67</sup> In a separate paper, Morici (2003) points out that employment for industries in Francois and Baughman's broad definition of steel-consuming industries actually *increased* by almost 53,000 between March 2002 and December 2002 and that during the same period in 2001, employment fell by about 281,000.<sup>68</sup>

## **International Competitive Factors**

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### ***Differences in U.S. and Foreign Steel Prices***

Many steel-consuming firms have claimed that the safeguard measures and subsequent increases in the price of steel have made them less competitive with foreign competitors. In general, available information indicates that U.S. prices were higher than prices in foreign markets both before and after the implementation of the safeguard measures. Overall, more firms reported that U.S. prices were higher than the foreign prices after the implementation of the safeguards than before.

To obtain information on differences between U.S. and foreign steel prices, questionnaire respondents were asked to report how the price of steel purchased by their firm compared with the price of steel purchased by steel-consuming firms located in other countries. Firms were asked to comment on this for two periods, from April 1, 2000 to March 31, 2002 and from April 1, 2002 to March 31, 2003.

Of the 292 responding steel-consuming firms, 58 percent (169 firms) reported that prices for steel in the United States were higher than in other countries between April 1, 2000, to March 31, 2002. Approximately 35 percent of responding firms (102 of 292) reported that prices of steel in the United States were the same as those in other countries in that time period; the remaining 7 percent of responding firms stated that U.S. prices were lower (table 2-35). Eleven of the 15 specified industries had

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<sup>65</sup> Note that trends for the questionnaire and BLS data are for a slightly different period, April 2002-April 2003, compared to the January 2002 to December 2002 period used by Francois and Baughman.

<sup>66</sup> This estimate assumes that the unemployed workers located similarly-paid employment within 4 weeks.

<sup>67</sup> See Appendix F for more detailed discussion of their model's assumptions and limitations.

<sup>68</sup> Peter Morici, "An Assessment of Steel Import Relief Under Section 201 After One Year," Mar. 2003, p. 29, found at <http://www.steel.org/images/pdfs/MoriciPaper2003.pdf>, retrieved Apr. 1.

Table 2-35

Number of steel-consuming firms reporting differences between steel prices within the U.S. compared to prices outside the U.S. between April 1, 2000 and March 31, 2002, by industry<sup>1</sup>

Steel-consuming sector/industry category	U.S. prices were higher	U.S. and foreign prices were the same	U.S. prices were lower	Percent U.S. prices					
				were higher			were lower		
				>20	11-20	1-10	1-10	11-20	>20
<b>Steel-product producers/processors/distributors:</b>									
Distributors	28	19	6	2	14	12	2	4	0
Producers of hot/cold-rolled or coated product	17	8	3	0	15	2	1	2	0
Welded pipe producers	11	3	0	1	2	8	0	0	0
Bar and wire finishers	13	2	0	1	6	5	0	0	0
Fastener producers	6	6	0	2	1	3	0	0	0
Steel fabricators	34	19	1	3	16	13	0	1	0
<b>Transportation:</b>									
Motor vehicles	5	3	1	1	1	3	1	0	0
Motor vehicle parts	31	17	2	3	10	16	1	1	0
Ships and shipping containers; military	2	2	1	0	0	1	0	1	0
<b>Machinery and equipment:</b>									
Heavy machinery	5	2	2	0	4	2	1	0	1
Power, other machinery	9	8	1	2	2	4	1	0	0
Construction	8	5	1	1	1	6	0	1	0
<b>Containers:</b>									
Steel barrels and cans	6	2	0	1	1	3	0	0	0
<b>Consumer and commercial goods:</b>									
Household appliances	2	1	2	0	0	2	2	0	0
Furniture, hardware, cutlery	4	5	1	0	1	3	1	0	0
Total	181	102	21	17	74	83	10	10	1

<sup>1</sup> Firms were asked in separate questions to indicate (1) whether prices were higher, lower, or the same and (2) by what percentage did prices differ. Since some firms only responded to one of the questions, the number of firms reporting that U.S. prices were higher or lower may not equal the number that reported that prices were a certain percentage higher or lower.

Source: Compiled from data submitted in response to Commission questionnaires.

at least 50 percent of responding firms reporting that U.S. prices were higher than prices in other countries between April 1, 2000 and March 31, 2002.<sup>69</sup>

Steel-consuming firms that reported differences between U.S. and foreign steel prices from April 1, 2000 to March 31, 2002 were asked to quantify the differences.<sup>70</sup> Overall, of those steel-consuming firms reporting that U.S. prices were higher than those in foreign markets, 49 percent reported that U.S. prices were 1 to 10 percent higher and 44 percent reported that U.S. prices were 11 to 20 percent higher than foreign market prices (table 2-35). Seventeen steel-consuming firms (about 10 percent) reported that U.S. steel prices were higher by 21 percent or more than prices in foreign markets; of these, 35 percent (6) were in the fabricator and motor vehicle parts industries. Steel-consuming firms in the distributor, fastener, and power and other equipment industries also reported U.S. prices were higher by more than 20 percent than the foreign market prices. Of those reporting that U.S. prices were higher by 11 to 20 percent relative to prices in foreign markets, firms in the distributor, producer of hot/cold/coated steel forms, and

<sup>69</sup> These include distributors, producers of hot/cold/coated steel forms, welded pipe producers, bar finishers, fastener producers, fabricators, motor vehicles, motor vehicle parts, heavy machinery, construction, and steel barrels and cans.

<sup>70</sup> Questionnaire respondents were asked to indicate whether U.S. prices were 1 to 10 percent higher, 11-20 percent higher, 21 percent or more higher, 1 to 10 percent lower, 11-20 percent lower, or 21 percent or more lower.

motor vehicle parts industries were the most frequent responders, collectively accounting for 75 percent of the total number of firms reporting this price differential. Of those firms reporting that U.S. prices were between 1 and 10 percent higher than steel prices in foreign markets, firms in the motor vehicle parts, fabricators, and distributors markets accounted for the majority of responses.<sup>71</sup>

Steel-consuming firms also were asked to provide information on differences between steel prices in the U.S. and foreign markets since April 1, 2002. Overall, most of the responding steel-consuming firms (189 of 281) reported that since April 1, 2002, U.S. prices for steel were higher than prices in foreign markets (table 2-36). The percentage of steel-consuming firms reporting that U.S. prices were higher than prices in foreign markets after the safeguard measures were put in place was higher (67 percent) than the number of firms reporting the same fact before the safeguard measures (58 percent). About 14 percent of responding steel-consuming firms (38 firms) reported that U.S. prices were lower than in other countries after April 1, 2002, while 19 percent (54 firms) reported that prices in the U.S. market were the same as those in foreign markets. On an industry basis, those industries that accounted for most of the responses that U.S. prices were higher than prices in foreign markets were in the fabricator (37 firms reporting), motor vehicle parts (41 firms reporting), and the distributor (29 firms reporting) markets. In all but one of the 15 industries examined, more than half of the responding firms reported that U.S. prices for steel were higher than prices in foreign markets since April 1, 2002.<sup>72</sup> Of those firms reporting that prices for steel in the U.S. market were the same as those in foreign markets, a significant number were distributors (12 firms), fabricators (8 firms), and power and other equipment producers (8 firms).

Steel-consuming firms that reported the U.S. prices were higher than foreign prices since the safeguard measures were implemented were fairly evenly split with regard to the level of price differentials (table 2-36). Of the 178 responding firms, 33 percent reported that U.S. prices were 1 to 10 percent higher than foreign prices; 37 percent reported that U.S. prices were 11 to 20 percent higher; and 30 percent reported that U.S. prices were more than 20 percent higher.<sup>73</sup> Firms in the fabrication and motor vehicle parts industries accounted for most (62 percent) of those firms reporting that U.S. prices were more than 20 percent higher than prices in foreign countries. Of the 66 responding firms reporting that U.S. prices were 11 to 20 percent higher than prices in foreign countries after the safeguard measures were enacted, firms that accounted for a significant number of those responses included fabricators (14 firms); motor vehicle parts (14 firms); distributors (9); bar and wire finishers (6 firms); and power, other machinery producers (5). For those reporting that U.S. prices were 1-10 percent higher than prices in foreign markets, firms in the distributor and motor vehicle parts industries accounted for a large number of the total responses.

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<sup>71</sup> Fewer firms (21) reported that U.S. prices were lower than prices in foreign markets during April 1, 2000 to March 31, 2002; 48 percent of these reported that U.S. prices were 1 to 10 percent lower; 48 percent reported that U.S. prices were 11-20 percent lower; and about 5 percent reported that U.S. prices were 21 percent or more lower.

<sup>72</sup> In comparison, 11 of 15 industries had more than 50 percent of responding firms reporting the U.S. prices for steel were higher than prices of steel in foreign markets prior to the imposition of the safeguard measures.

<sup>73</sup> Compared with the information on price differentials before the safeguard measures were implemented, more firms reported that U.S. prices were more than 20 percent higher than foreign prices after the safeguard measures were put in place.

Table 2-36

Number of steel-consuming firms reporting differences between steel prices within the U.S. compared to prices outside the U.S. since April 1, 2002, by industry<sup>1</sup>

Steel-consuming sector/industry category	U.S. prices were higher	U.S. and foreign prices were the same	U.S. prices were lower	Percent U.S. prices were higher			Percent U.S. prices were lower		
				>20	11-20	1-10	1-10	11-20	>20
<b>Steel-product producers/processors/distributors:</b>									
Distributors .....	29	12	8	2	9	17	5	2	0
Producers of hot/cold-rolled or coated product .....	5	4	4	0	3	3	2	1	0
Welded pipe producers .....	10	0	5	5	3	2	1	0	2
Bar and wire finishers .....	11	3	1	0	6	4	1	0	0
Fastener producers .....	7	4	1	3	3	1	0	0	0
Steel fabricators .....	37	8	8	17	14	4	6	2	0
<b>Transportation:</b>									
Motor vehicles .....	7	1	0	1	1	4	0	0	0
Motor vehicle parts .....	41	3	3	16	14	9	2	1	0
Ships and shipping containers; military .....	4	1	0	0	1	2	0	0	0
<b>Machinery and equipment:</b>									
Heavy machinery .....	6	1	1	1	2	3	1	0	0
Power, other machinery .....	10	8	2	2	5	2	1	1	0
<b>Construction</b> .....	6	6	2	1	1	4	2	0	0
<b>Containers:</b>									
Steel barrels and cans .....	5	0	2	1	2	1	1	1	0
<b>Consumer and commercial goods:</b>									
Household appliances .....	5	0	0	1	1	2	0	1	0
Furniture, hardware, cutlery .....	6	3	1	3	1	1	1	0	0
<b>Total</b> .....	<b>189</b>	<b>54</b>	<b>38</b>	<b>53</b>	<b>66</b>	<b>59</b>	<b>23</b>	<b>9</b>	<b>2</b>

<sup>1</sup> Firms were asked in separate questions to indicate (1) whether prices were higher, lower, or the same and (2) by what percentage did prices differ. Since some firms only responded to one of the questions, the number of firms reporting that U.S. prices were higher or lower may not equal the number that reported that prices were a certain percentage higher or lower.

Source: Compiled from data submitted in response to Commission questionnaires.

Most of the 34 steel-consuming firms (68 percent) reporting that U.S. steel prices were lower than prices in foreign markets since April 1, 2002, stated that U.S. prices were 1 to 10 percent lower (table 2-36). Twenty-six percent of these responding firms reported that U.S. prices were 11 to 20 percent lower while only 6 percent reported that U.S. prices were more than 20 percent lower than prices in foreign markets after April 1, 2002.

Questionnaire respondents also were asked to indicate how prices of similar grades/types/sizes of steel from different country sources have changed since April 1, 2002.<sup>74</sup> Respondents indicated that prices for U.S. produced steel and steel from foreign sources all increased since April 1, 2002 (table 2-37) with average price increases ranging from 5.5 percent to 22.2 percent.

<sup>74</sup> Questionnaire respondents were asked to identify the country source, to note whether the price increased, decreased, or stayed the same, and to estimate the rate of change. The percentage numbers noted in the text represent simple averages of the responses.



**Table 2-37****Change in U.S. prices (simple average) of purchased steel products since April 1, 2002, by country of origin**

<b>Country</b>	<b>Percentage price change</b>
United States	+12.8
Brazil	+21.9
Canada	+14.9
China	+12.8
France	+14.3
Germany	+12.9
India	+8.2
Italy	+8.9
Japan	+14.9
Korea	+18.0
Mexico	+13.6
Netherlands	+20.5
Russia	+18.3
Spain	+11.3
Sweden	+5.5
Taiwan	+12.8
Turkey	+22.2
UK	+7.5

Source: Compiled from data submitted in response to Commission questionnaires.

Figures 2-14 to 2-16 compare steel prices in various U.S. and foreign markets for several types of steel subject to safeguard measures. Although prices for these types of steel were generally greater in U.S. markets than in foreign markets in March 2002 and October 2002, the latest available data for May 2003 indicate that prices in the U.S. market may be higher, lower, or about the same as those in foreign markets depending on the markets being compared.<sup>75</sup>

Prices in the west coast market for cold-rolled and hot-dipped galvanized sheet were the highest of any market in May 2003, while the price for hot-rolled sheet in the west coast market was slightly lower than prices in all foreign markets except for Asia. Also, with the exception of the Asian markets, prices for three of these products in the midwest and gulf coast markets were lower than prices in other markets. However, prices in all foreign markets rose relative to all three of the U.S. markets for all three products between March 2002 and May 2003 and between October 2002 and May 2003.

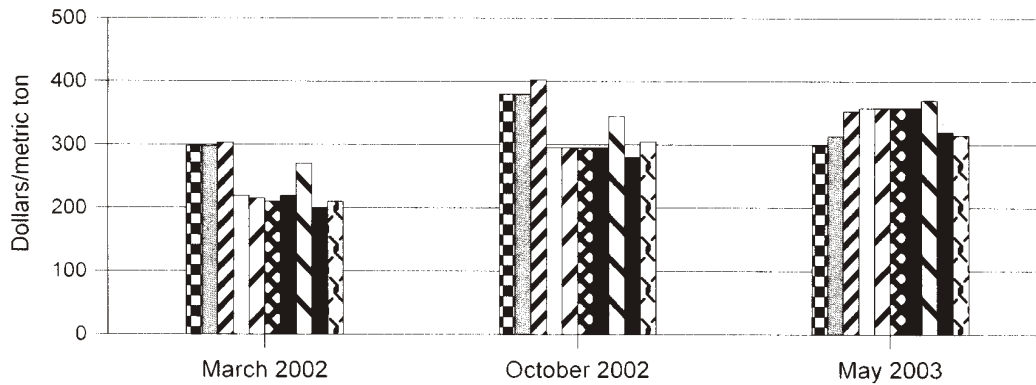
### ***Changes in Imports and Exports of Steel Containing Products***

In order to report on the impact of differences in steel costs on trade in steel-containing products, questionnaire respondents were asked if they had lost sales to foreign competitors because of increased costs of steel. Eighty-two steel-consuming firms (including 30 fabricators, 11 motor vehicle parts producers, 10 distributors, 9 welded pipe producers, 6 bar finishers, and 5 fastener producers) reported that they had lost sales to foreign competitors (table 2-38).

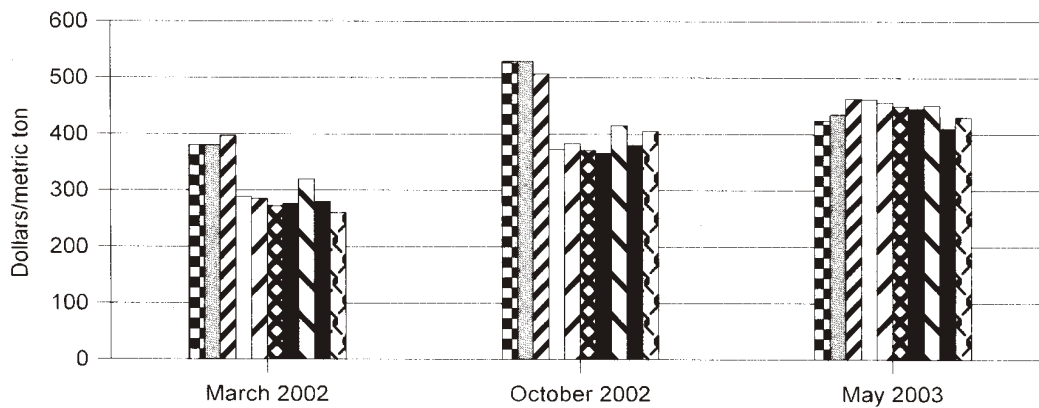
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<sup>75</sup> As these price comparisons are converted to U.S. dollars, some of the observed price increases in foreign markets between March 2002 and May 2002 may be the result of the depreciation of the U.S. dollar during this period. The U.S. dollar depreciated by about 18 percent against the Euro, about 8 percent against the British pound, and about 6 percent against the Japanese yen between March 2002 and May 2003. CRU Group, Steel Sheet Products, *CRU Monitor* (various months).

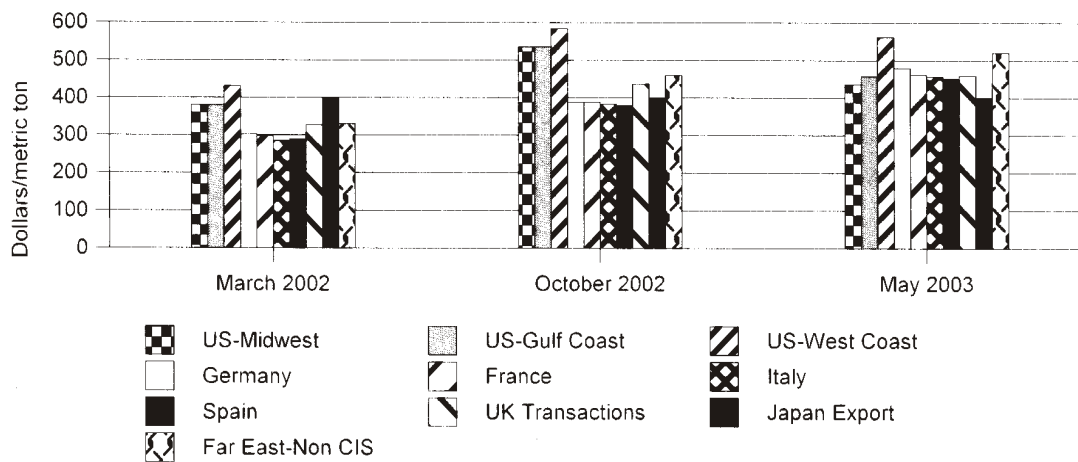
**Figure 2-14**  
**Prices of hot-rolled coiled sheet**



**Figure 2-15**  
**Prices of cold-rolled coiled sheet**



**Figure 2-16**  
**Prices of hot-dipped galvanized coiled sheet**



- |  |                  |  |                 |  |               |
|--|------------------|--|-----------------|--|---------------|
|  | US-Midwest       |  | US-Gulf Coast   |  | US-West Coast |
|  | Germany          |  | France          |  | Italy         |
|  | Spain            |  | UK Transactions |  | Japan Export  |
|  | Far East-Non CIS |  |                 |  |               |

Source: CRU Group, Steel Sheet Products, *CRU Monitor* (various months).

Table 2-38

## Lost sales after the imposition of the safeguard measures reported by steel-consuming firms, by industry

Steel-consuming sector/industry category	Number of firms reporting lost sales	Dollar value of lost sales	Share of lost sales/net sales <sup>1</sup> --Percent--	Dollar value of steel in end product	Amount of steel --Short tons--
<b>Steel-product producers/processors/distributors:</b>					
Distributors	10	13,832,500	0.5	4,875,002	19,350
Producers of hot/cold-rolled or coated product	2	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Welded pipe producers	9	60,033,000	1.4	27,455,000	60,911
Bar and wire finishers	6	14,050,000	4.1	10,508,000	6,671
Fastener producers	5	4,125,000	0.3	1,385,500	8,510
Steel fabricators	30	91,296,016	2.7	41,273,393	75,116
<b>Transportation</b>					
Motor vehicles	-	-	-	-	-
Motor vehicle parts	11	68,506,000	2.8	29,204,260	58,173
Ships and shipping containers; military	1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Machinery and equipment:</b>					
Heavy machinery	1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Power, other machinery	1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Construction</b>	1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Containers:</b>					
Steel barrels and cans	1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Consumer and commercial goods:</b>					
Household appliances	1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Furniture, hardware, cutlery	1	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
<b>Total</b>	<b>82</b>	<b>339,951,516</b>	<b>0.6</b>	<b>225,553,155</b>	<b>1,106,018</b>

<sup>1</sup> Data in this column is based only on firms that reported financial data.

<sup>2</sup> Data suppressed due to confidentiality.

Source: Compiled from data submitted in response to Commission questionnaires.

Steel-consuming firms also were asked to provide specific information on their reported lost sales, including the value of the lost sale, the value of the steel in the end product, and the quantity of steel in the end product (table 2-38). For all reporting industries, reported lost sales totaled approximately \$340 million. Industries with the largest dollar amount of reported lost sales include fabricators (\$91.3 million), motor vehicle parts (\$68.5 million), welded pipe (\$60 million), household appliances (\$35.8 million), and distributors (\$13.8 million).

Imports of steel-containing products declined about 9.0 percent from 2000/01 to 2001/02 but they increased by about 6 percent the year after the safeguards were implemented (2001/02 to 2002/03) (table 2-39). Exports of these products declined steadily from 2000/01 to 2002/03, falling about 11 percent from 2000/01 to 2001/02 and then an additional 3 percent the year after the safeguards were implemented (2001/02 to 2002/03) (table 2-40). Except for a few industries, such as motor vehicles, metal cutting and forming, pipe, and bar producers, the growth in imports of steel-containing products was greater than the growth in exports in the year after the safeguards.

Table 2-39

**Steel consumers: U.S. imports for consumption, customs value, constructed years, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>**

Industry Group <sup>2</sup>	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----Million dollars-----			-----Percent-----		
<b>Steel products producers, processors, and distributors:</b>							
MM025B	Plates, sheets, and strips of carbon and alloy steels	4,745	3,462	3,939	(17.0)	(27.0)	13.8
MM025L	Pipes and tubes of carbon and alloy steels	2,233	2,422	2,083	(6.7)	8.5	(14.0)
( <sup>3</sup> )	Bars, cold-worked, of carbon or alloy steels	71	62	46	(35.1)	(12.7)	(24.6)
MM025J	Wire of stainless steels	111	94	91	(17.7)	(15.3)	(3.6)
( <sup>3</sup> )	Industrial fasteners	2,258	1882	2,163	(4.2)	(16.7)	14.9
( <sup>3</sup> )	Steel forgings and stampings	151	181	219	44.9	19.9	21.4
	Total	9,599	8,104	8,542	(10.7)	(15.6)	5.4
<b>Transportation equipment:</b>							
ET009	Motor vehicles	128401	127067	133,702	4.1	(1.0)	5.2
ET010	Certain motor-vehicle parts	24446	24358	28,810	17.9	(0.4)	18.3
MM067	Seats for motor vehicles and aircraft	3138	3355	4,123	31.4	6.9	22.9
MM069	Pumps for motor vehicles	854	798	947	10.9	(6.6)	18.8
ET002	Internal combustion piston engines, other than for aircraft	15,095	13,484	15,450	2.3	(10.7)	14.6
ET013	Aircraft, spacecraft, and related equipment	19597	21139	16,355	(16.5)	7.9	(22.6)
ET014	Ships, tugs, pleasure boats, and similar vessels	1,287	1,321	1,480	15.0	2.6	12.0
ET008	Rail locomotives and rolling stock	1811	1114	1,068	(41.0)	(38.5)	(4.1)
ET011	Motorcycles, mopeds, and parts	2691	2886	2,990	11.1	7.2	3.6
ET012	Miscellaneous vehicles and transportation-related equipment	2,968	2,386	2,907	(2.1)	(19.6)	21.8
	Total	200,287	197,907	207,832	3.8	(1.2)	5.0
<b>Machinery and equipment:</b>							
<b>Agricultural, construction, mining, and materials handling equipment:</b>							
MM078	Farm and garden machinery and equipment	3,753	3,541	4,053	8.0	(5.6)	14.5
ET004	Construction and mining equipment	5,621	5,060	5,421	(3.5)	(10.0)	7.2
ET003	Forklift trucks and similar industrial vehicles	1,696	1,260	1,305	(23.1)	(25.7)	3.6
	Total	11,070	9,861	10,780	(2.6)	(10.9)	9.3
<b>Industrial machinery and equipment:</b>							
MM070	Pumps for liquids	1811	1772	1,951	7.7	(2.2)	10.1
MM071	Air-conditioning equipment and parts	6,450	5,952	7,004	8.6	(7.7)	17.7
MM072	Industrial thermal-processing equipment and furnaces	1,730	1,584	1,718	(0.7)	(8.4)	8.4
MM074	Centrifuges, filtering and purifying equipment	2,134	2,245	2,452	14.9	5.2	9.2
MM075	Wrapping, packaging, and can-sealing machinery	1,251	1,295	1,329	6.2	3.5	2.6
MM076	Scales and weighing machinery	299	272	306	2.4	(9.0)	12.3
MM077	Mineral processing machinery	679	576	567	(16.5)	(15.2)	(1.7)
MM079	Industrial food-processing and related machinery	533	540	583	9.5	1.3	8.0
MM080	Pulp, paper, and paperboard machinery	1,217	897	758	(37.7)	(26.3)	(15.5)
MM081	Printing and related machinery	2,106	1,759	2,618	24.3	(16.5)	48.8
MM082	Textile machinery	1805	1278	1,350	(25.2)	(29.2)	5.7
MM087	Semiconductor manufacturing equipment and robotics	5,656	3,900	3,839	(32.1)	(31.0)	(1.6)

Table continued.

Table 2-39—Continued

Steel consumers: U.S. imports for consumption, customs value, constructed years, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

Industry Group <sup>2</sup>	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
				-----Million dollars-----			
				-----Percent-----			
MM088	Taps, cocks, valves, and similar devices . . . . .	5,085	4,724	5,366	5.5	(7.1)	13.6
MM093	Portable electric handtools . . . . .	1,183	1,182	1,518	28.4	(0.1)	28.5
MM094	Nonelectrically powered handtools and parts . . . . .	926	883	974	5.2	(4.6)	10.3
MM096	Welding and soldering equipment . . . . .	836	725	817	(2.3)	(13.3)	12.8
MM098	Miscellaneous machinery . . . . .	7,326	6,109	5,932	(19.0)	(16.6)	(2.9)
	Total . . . . .	41,026	35,693	39,081	(4.7)	(13.0)	9.5
<b>Metalworking and non-metalworking machinery and tools:</b>							
MM083	Metal rolling mills . . . . .	241	168	188	(22.1)	(30.3)	11.8
MM084	Metal cutting machine tools and machine tool accessories . . . . .	4,232	2,973	2,613	(38.3)	(29.8)	(12.1)
MM085	Metal forming machine tools . . . . .	1,539	1,147	858	(44.2)	(25.5)	(25.2)
MM086	Non-metalworking machine tools . . . . .	1,543	1,183	1,282	(16.9)	(23.3)	8.4
MM099	Molds and molding machinery . . . . .	3,500	2,675	3,148	(10.0)	(23.6)	17.7
	Total . . . . .	11,055	8,147	8,090	(26.8)	(26.3)	(0.7)
<b>Turbines, generators, motors, and power-transmission equipment:</b>							
	Boilers, turbines, and related machinery . . . . .	950	1,394	1,275	34.2	46.7	(8.5)
MM091	Electric motors, generators, and related equipment . . . . .	6,808	7,569	7,047	3.5	11.2	(6.9)
ET015	Motors, engines, except internal combustion, aircraft, or electric . . . . .	780	756	722	(7.4)	(3.1)	(4.4)
MM089	Mechanical power transmission equipment . . . . .	2,131	1,901	2,104	(1.3)	(10.8)	10.7
	Total . . . . .	10,669	11,619	11,148	4.5	8.9	(4.1)
<b>Computers and certain other electronic products:</b>							
ET035	Computers, peripherals, and parts . . . . .	90,285	72,367	75,507	(16.4)	(19.8)	4.3
ET016	Office machines . . . . .	1,951	1,666	1,484	(23.9)	(14.6)	(10.9)
ET017	Telephone and telegraph apparatus . . . . .	32,906	25,697	28,742	(12.7)	(21.9)	11.8
ET018	Consumer electronics, except televisions . . . . .	21,607	19,507	21,288	(1.5)	(9.7)	9.1
ET021	Navigational instruments and remote control apparatus . . . . .	1,771	1,762	1,939	9.5	(0.5)	10.0
ET022	Television receivers and video monitors . . . . .	7,954	8,877	10,565	32.8	11.6	19.0
ET023	Radio and television broadcasting equipment . . . . .	7,334	5,474	4,903	(33.2)	(25.4)	(10.4)
ET024	Electric sound and visual signaling apparatus . . . . .	2,344	1,849	1,801	(23.2)	(21.1)	(2.6)
ET039	Photographic cameras and equipment . . . . .	4,931	3,300	2,964	(39.9)	(33.1)	(10.2)
ET040	Medical goods . . . . .	9,502	11,370	13,872	46.0	19.7	22.0
ET042	Drawing, drafting, and calculating instruments . . . . .	239	181	205	(14.2)	(24.3)	13.0
ET043	Measuring, texting, and controlling instruments . . . . .	12,153	11,332	11,910	2.0	(6.8)	5.1
	Total . . . . .	192,978	163,382	175,181	(9.2)	(15.3)	7.2
<b>Electrical equipment:</b>							
MM092	Electrical transformers, static converters, and indicators . . . . .	6,308	4,707	4,744	(24.8)	(25.4)	0.8
ET007	Ignition, starting, lighting, and other electrical equipment . . . . .	3,058	3,070	3,624	18.5	0.4	18.0
ET006	Primary cells and batteries and electric storage batteries . . . . .	2,601	2,283	2,188	(15.9)	(12.2)	(4.1)

Table continued.

Table 2-39—Continued

Steel consumers: U.S. imports for consumption, customs value, constructed years, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

Industry Group <sup>2</sup>	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----Million dollars-----			-----Percent-----		
ET027	Circuit apparatus exceeding 1,000 volts .....	408	350	311	(23.9)	(14.2)	(11.3)
ET028	Circuit apparatus not exceeding 1,000 volts .....	6,841	4,841	5,022	(26.6)	(29.2)	3.7
ET029	Circuit apparatus assemblies .....	2,644	2,495	2,635	(0.3)	(5.6)	5.6
ET030	Parts of circuit assemblies .....	1,234	1,051	1,105	(10.5)	(14.8)	5.1
	Total .....	23,094	18,797	19,629	(15.0)	(18.6)	4.4
	Sector total .....	289,892	247,500	263,909	(9.0)	(14.6)	6.6
<b>Containers:</b>							
MM029	Metallic containers .....	541	613	630	16.5	13.3	2.8
<b>Consumer and commercial goods:</b>							
MM073A	Major household appliances and parts ..	1,618	2,159	2,507	55.0	33.4	16.1
( <sup>3</sup> )	Metal furniture .....	2,326	2,126	2,437	4.8	(8.6)	14.7
MM045	Certain builders' hardware .....	2,014	1,950	2,256	12.0	(3.2)	15.7
MM043	Certain cutlery, sewing implements, and related products .....	901	849	953	5.8	(5.8)	12.2
MM044	Table flatware and related products .....	513	434	495	(3.5)	(15.4)	13.9
( <sup>3</sup> )	Cookware, steel not stainless .....	433	422	518	19.7	(2.5)	22.8
MM042	Non-powered handtools .....	3,147	2,914	3,466	10.1	(7.4)	18.9
	Total .....	10,951	10,854	12,631	15.3	(0.9)	16.4
Total, all sectors .....		511,240	464,977	493,543	(3.5)	(9.0)	6.1

<sup>1</sup> April 1–March 31.

<sup>2</sup> For trade-monitoring purposes, the USITC assigns U.S. Harmonized Tariff Schedule (HTS) import headings/subheadings, and the corresponding Schedule B export categories, to industry/commodity groups and subgroups.

<sup>3</sup> Compiled from individual HTS subheadings.

Source: Official statistics of the U.S. Department of Commerce.

Table 2-40

Steel consumers: U.S. domestic exports, FAS value, constructed years, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

Industry Group <sup>2</sup>	Description	2000/01	2001/02	2002/03	Change		
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03
		-----Million dollars-----			-----Percent-----		
<b>Steel products producers, processors, and distributors:</b>							
MM025B	Plates, sheets, and strips of carbon and alloy steels	2,027	1,854	1,963	(3.2)	(8.5)	5.8
MM025L	Pipes and tubes of carbon and alloy steels	958	1,018	977	1.9	6.3	(4.0)
( <sup>3</sup> )	Bars, cold-worked, of carbon or alloy steels	62	48	52	(17.1)	(22.6)	8.9
MM025J	Wire of stainless steels	65	69	63	(3.9)	6.2	(9.2)
( <sup>3</sup> )	Industrial fasteners, steel	1,510	1,315	1,381	(8.5)	(12.9)	5.1
( <sup>3</sup> )	Steel forgings and stampings	326	280	264	(19.1)	(14.1)	(5.5)
	Total	4,950	4,583	4,700	(5.1)	(7.4)	2.5
<b>Transportation equipment:</b>							
ET009	Motor vehicles	21,811	23,577	27,102	24.3	8.1	15.0
ET010	Certain motor-vehicle parts	28,259	26,118	26,608	(5.8)	(7.6)	1.9
MM067	Seats for motor vehicles and aircraft	1,790	1,879	1,462	(18.3)	5.0	(22.2)
MM069	Pumps for motor vehicles	680	631	698	2.7	(7.2)	10.7
ET002	Internal combustion piston engines, other than for aircraft	13,349	12,385	13,250	(0.7)	(7.2)	7.0
ET013	Aircraft, spacecraft, and related equipment	41,454	41,576	40,665	(1.9)	0.3	(2.2)
ET014	Ships, tugs, pleasure boats, and similar vessels	1,037	1,940	1,165	12.4	87.1	(39.9)
ET008	Rail locomotives and rolling stock	1,375	1,242	1,116	(18.9)	(9.7)	(10.1)
ET011	Motorcycles, mopeds, and parts	607	741	810	33.6	22.1	9.4
ET012	Miscellaneous vehicles and transportation-related equipment	2,861	2,651	2,830	(1.1)	(7.3)	6.7
	Total	113,223	112,739	115,706	2.2	(0.4)	2.6
<b>Machinery and equipment:</b>							
<b>Agricultural, construction, mining, and materials handling equipment:</b>							
MM078	Farm and garden machinery and equipment	4,873	4,564	4,818	(1.1)	(6.3)	5.6
ET004	Construction and mining equipment	9,622	9,668	9,512	(1.1)	0.5	(1.6)
ET003	Forklift trucks and similar industrial vehicles	1,339	1,291	1,048	(21.7)	(3.6)	(18.8)
	Total	15,834	15,524	15,378	(2.9)	(2.0)	(0.9)
<b>Industrial machinery and equipment:</b>							
MM070	Pumps for liquids	2,550	2,488	2,406	(5.6)	(2.4)	(3.3)
MM071	Air-conditioning equipment and parts	6,000	5,442	5,357	(10.7)	(9.3)	(1.6)
MM072	Industrial thermal-processing equipment and furnaces	2,746	2,297	2,034	(25.9)	(16.4)	(11.4)
MM074	Centrifuges, filtering and purifying equipment	3,240	2,913	3,088	(4.7)	(10.1)	6.0
MM075	Wrapping, packaging, and can-sealing machinery	790	659	641	(18.8)	(16.6)	(2.7)
MM076	Scales and weighing machinery	188	150	164	(12.4)	(20.2)	9.5
MM077	Mineral processing machinery	618	538	487	(21.1)	(12.9)	(9.5)
MM079	Industrial food-processing and related machinery	620	571	600	(3.1)	(7.9)	5.0
MM080	Pulp, paper, and paperboard machinery	728	657	581	(20.3)	(9.8)	(11.6)
MM081	Printing and related machinery	1,547	1,157	1,165	(24.7)	(25.2)	0.7
MM082	Textile machinery	971	866	869	(10.5)	(10.8)	0.4
MM087	Semiconductor manufacturing equipment and robotics	15,067	6,440	7,860	(47.8)	(57.3)	22.0
MM088	Taps, cocks, valves, and similar devices	3,353	3,255	3,221	(3.9)	(2.9)	(1.0)

Table continued.

Table 2-40—Continued

Steel consumers: U.S. domestic exports, FAS value, constructed years, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

Industry Group <sup>2</sup>	Description				Change			
		2000/01	2001/02	2002/03	2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03	
			-----Million dollars-----			-----Percent-----		
MM093	Portable electric handtools . . . . .	359	265	211	(41.1)	(26.2)	(20.4)	
MM094	Nonelectrically powered handtools and parts . . . . .	577	518	570	(1.3)	(10.2)	10.0	
MM096	Welding and soldering equipment . . . .	971	659	620	(36.2)	(32.1)	(5.9)	
MM098	Miscellaneous machinery . . . . .	8,064	7,142	6,237	(22.7)	(11.4)	(12.7)	
	Total . . . . .	48,388	36,018	36,112	(25.4)	(25.6)	0.3	
<b>Metalworking and non-metalworking machinery and tools:</b>								
MM083	Metal rolling machines . . . . .	171	186	186	9.1	8.8	0.1	
MM084	Metal cutting machine tools and machine tool accessories . . . . .	2,336	1,639	1,663	(28.8)	(29.8)	1.4	
MM085	Metal forming machine tools . . . . .	873	691	666	(23.7)	(20.8)	(3.6)	
MM086	Non-metalworking machine tools . . . . .	1,106	686	773	(30.1)	(38.0)	12.6	
MM099	Molds and molding machinery . . . . .	2,068	1,664	1,598	(22.7)	(19.5)	(4.0)	
	Total . . . . .	6,554	4,867	4,886	(25.5)	(25.7)	0.4	
<b>Turbines, generators, motors, and power-transmission equipment:</b>								
MM090	Boilers, turbines, and related machinery . . . . .	1,116	1,113	921	(17.4)	(0.3)	(17.2)	
MM091	Electric motors, generators, and related equipment . . . . .	3,858	4,614	3,815	(1.1)	19.6	(17.3)	
ET015	Motors, engines, except internal combustion, aircraft, or electric . . . . .	482	494	498	3.5	2.5	1.0	
MM089	Mechanical power transmission equipment . . . . .	994	922	976	(1.8)	(7.2)	5.9	
	Total . . . . .	6,450	7,143	6,211	(3.7)	10.7	(13.0)	
<b>Computers and certain other electronic products:</b>								
ET035	Computers, peripherals, and parts . . . .	46,108	34,382	28,985	(37.1)	(25.4)	(15.7)	
ET016	Office machines . . . . .	1,096	984	799	(27.1)	(10.2)	(18.8)	
ET017	Telephone and telegraph apparatus . . .	20,026	15,522	12,046	(39.8)	(22.5)	(22.4)	
ET018	Consumer electronics, except televisions . . . . .	2,995	2,710	2,553	(14.8)	(9.5)	(5.8)	
ET021	Navigational instruments and remote control apparatus . . . . .	2,770	3,025	2,922	5.5	9.2	(3.4)	
ET022	Television receivers and video monitors . . . . .	1,189	1,266	1,119	(5.8)	6.5	(11.6)	
ET023	Radio and television broadcasting equipment . . . . .	2,617	2,064	1,280	(51.1)	(21.1)	(38.0)	
ET024	Electric sound and visual signaling apparatus . . . . .	877	956	1,025	16.9	9.0	7.2	
ET039	Photographic cameras and equipment . .	1,816	1,592	1,059	(41.7)	(12.3)	(33.5)	
ET040	Medical goods . . . . .	13,845	15,042	15,297	10.5	8.6	1.7	
ET042	Drawing, drafting, and calculating instruments . . . . .	391	382	376	(3.9)	(2.3)	(1.6)	
ET043	Measuring, texting, and controlling instruments . . . . .	16,903	14,977	14,338	(15.2)	(11.4)	(4.3)	
	Total . . . . .	110,633	92,903	81,800	(26.1)	(16.0)	(12.0)	
<b>Electrical equipment:</b>								
MM092	Electrical transformers, static converters, and indicators . . . . .	2,931	2,103	1,774	(39.5)	(28.3)	(15.6)	
ET007	Ignition, starting, lighting, and other electrical equipment . . . . .	1,919	1,815	1,894	(1.3)	(5.4)	4.3	
ET006	Primary cells and batteries and electric storage batteries . . . . .	2,699	2,079	1,827	(32.3)	(23.0)	(12.1)	
ET027	Circuit apparatus exceeding 1,000 volts . . . . .	686	590	540	(21.2)	(14.0)	(8.4)	

Table continued.



Table 2-40—Continued

Steel consumers: U.S. domestic exports, FAS value, constructed years, 2000/01<sup>1</sup>, 2001/02<sup>1</sup>, and 2002/03<sup>1</sup>

Industry Group <sup>2</sup>	Description	2000/01	2001/02	2002/03	Change				
					2000/01 to 2002/03	2000/01 to 2001/02	2001/02 to 2002/03		
				-----Million dollars-----			-----Percent-----		
ET028	Circuit apparatus not exceeding 1,000 volts . . . . .	6,247	4,626	4,458	(28.6)	(25.9)	(3.6)		
ET029	Circuit apparatus assemblies . . . . .	1,361	1,090	1,142	(16.1)	(19.9)	4.7		
ET030	Parts of circuit assemblies . . . . .	1,874	1,451	1,649	(12.0)	(22.6)	13.7		
	Total . . . . .	17,718	13,753	13,284	(25.0)	(22.4)	(3.4)		
	Sector total . . . . .	205,577	170,207	157,672	(23.3)	(17.2)	(7.4)		
<b>Containers:</b>									
MM029	Metallic containers . . . . .	703	651	656	(6.6)	(7.4)	0.9		
<b>Consumer and commercial goods:</b>									
MM073A	Major household appliances and parts . . . . .	1,738	1,682	1,573	(9.5)	(3.2)	(6.5)		
( <sup>3</sup> )	Metal furniture . . . . .	875	619	534	(39.0)	(29.3)	(13.7)		
MM045	Certain builders' hardware . . . . .	1,090	926	908	(16.6)	(15.0)	(1.9)		
MM043	Certain cutlery, sewing implements, and related products . . . . .	564	528	562	(0.4)	(6.4)	6.4		
MM044	Table flatware and related products . . . . .	26	28	28	7.9	7.7	(1.0)		
( <sup>3</sup> )	Cookware, steel not stainless . . . . .	35	30	29	(17.9)	(14.3)	(5.6)		
MM042	Non-powered handtools . . . . .	2,332	2,011	2,034	(12.8)	(13.8)	1.1		
	Total . . . . .	6,660	5,825	5,668	(14.9)	(12.5)	(2.7)		
Total, all sectors . . . . .		331,112	294,005	284,402	(14.1)	(11.2)	(3.3)		

<sup>1</sup> April 1–March 31.

<sup>2</sup> For trade-monitoring purposes, the USITC assigns U.S. Harmonized Tariff Schedule (HTS) import headings/subheadings, and the corresponding Schedule B export categories, to industry/commodity groups and subgroups.

<sup>3</sup> Compiled from individual HTS subheadings.

Source: Official statistics of the U.S. Department of Commerce.