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MEMORANDUM EC-Y-046

TO: THE COMMISSION

THRU: Robert B. Koopman
Director, Office of Economics

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FROM: Craig Thomsen
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SUBJECT: Investigation No. TA-201-73: STEEL–Remedy Memorandum

The attached memorandum is provided to assist you in analyzing the record in this investigation. It contains a discussion of economic factors, as well as the results of a quantitative model-based assessment of the effects of imports in the U.S. steel industry.

Confidential business information in the report is identified by brackets, although the public version should be used as the guide for confidentiality.

Attachment

cc: Secretary
Director, Office of Investigations
Director, Office of Industries
General Counsel

CONSIDERATION OF REQUESTED RELIEF

This memorandum contains a discussion of the economic factors that affect the conditions of competition in the U.S. steel market. These factors are used to estimate the likely effects on the U.S. market of the imposition of a quota, tariff, or tariff-rate quota as relief under section 202 of the Trade Act of 1974. The memo discusses the supply and demand conditions in the U.S. steel market and provides estimates of ranges of elasticities of supply, demand, and substitution that are based on the market considerations. A model-based estimation of the likely effects of the import relief requested by the petitioners and of other possible import relief are provided. In addition, this memorandum contains a discussion of section 203(a)(2) considerations.

REQUEST FOR RELIEF

Section 202(e)(1) directs the Commission to address the serious injury, or threat thereof, and be most effective in facilitating efforts of the domestic industry to adjust to import competition. Section 202(e)(2) authorizes the Commission to recommend:

a) an increase in, or the imposition of, any duty on imported articles;
b) a tariff-rate quota on the article;
c) a modification or imposition of any quantitative restriction on the importation of the article into the United States;
d) one or more appropriate adjustment measures, including the provision of trade adjustment assistance under chapter 2; or
e) any combination of the actions described in subparagraphs (a) through (d).

Both tariffs and quotas tend to restrict the quantity of imports and increase the price of imports. In general, the effects of tariffs and quotas can be viewed similarly in that for a given quota level there is an equivalent tariff that will produce the same price and quantity effects as a quota of a specific level.[1] Tariffs tend to be more flexible than quotas in that in the event of changes in supply and demand, imports

[1] Non-binding quotas at levels greater than the quantity demanded at equilibrium will have no effect on the market as firms are allowed to import as much product as they choose without restriction.

are not restricted from the market; they may still enter but must do so at higher prices. Tariffs reduce the supply of imports indirectly by increasing the price of the product in the marketplace. On the other hand, quotas determine the upper limit on the exact amount of imports that can be allowed to enter the market; however, while the maximum quantity of imports is known, price levels are less certain. Thus, with a quota, the supply of the product has a fixed upper bound and price then becomes the only variable that can be changed to accommodate any changes in market conditions once import supply has reached the quota level.

Another distinction between tariffs and quotas is who benefits from the higher import prices. In the case of tariffs, tariff revenues are collected by the government. However, with quotas there is no tariff revenue, therefore, the quota rents (i.e., the higher profits experienced as a result of higher prices) will generally be collected by the foreign producer of the product. The government imposing the restrictions may try to capture some of the quota rents by auctioning import licenses to the highest bidder.[2]

A tariff rate quota (TRQ) is a form of tariff. Under a TRQ, imports under a certain level may enter at a lower tariff level while imports above the level enter at a higher tariff. In general, a TRQ is more flexible than a straight quota because imports can enter at all levels, albeit at a higher tariff rate. Therefore, a TRQ is less restrictive, particularly in the event of changes in supply and/or demand. If, however, the tariff rate for the above-quota imports is sufficiently high to discourage imports from entering above the quota limit, the economic effects of the TRQ will be similar to a quota with the same quantitative limit. Similarly, a TRQ with very low quota levels will have similar economic effects as a tariff set at the higher above-quota rate.

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[2] Section 1102 of the Trade Agreements Act of 1979 (19 U.S.C. 2581) authorizes the President to sell import licenses at public auction in the administration of a quantitative restriction imposed under section 203 of the Trade Act of 1974.

The Commission must also state whether and to what extent its findings and recommendations apply to steel imported from beneficiary Caribbean Basin countries, Andean countries, or from Israel.

A nonlinear comparative static model is used to analyze the effects of remedy options.[3] The purpose of the model is to present changes in prices, quantities, revenues, and welfare and consumer costs in the U.S. steel market as a result of various tariff, quota, or TRQ levels. Inputs used by staff are shown in each of the sections pertaining to the specific type of steel products being modeled. Quantity and value of the domestic and import shipments for 2000 are used. In some cases, imports from Mexico and Canada are treated as "non-target" imports (i.e., imports that are not subject to the remedy) and are not included in "target" import numbers that are used as inputs in determining the effects of the various remedies.[4]

[3] The results presented by staff in this memorandum assume a zero growth rate for the U.S. steel market. However, the model is capable of estimating the effects of remedy options under different growth rate scenarios.

[4] Economic modeling contained in this memo are based on the Commission's majority determinations.

CERTAIN CARBON AND ALLOY FLAT STEEL PRODUCTS

Current Tariffs and Quotas

U.S. imports of certain carbon and alloy flat steel products are subject to import duties as provided for by the HTS. The 2001 column-1 general duty rates and applicable NAFTA duty rates for the subheadings covered by this investigations are as follows:

HTS number	2001 duty rate	
	General	NAFTA[1]
7207.12.00 - Slab	1.3	0.8
7207.20.00 - Slab	1.3	0.8
7224.90.00 - Slab	1.5	1.0
7208.40.30 - Plate	1.8	1.2
7208.51.00 - Plate	1.8	1.2
7208.52.00 - Plate	1.8	1.2
7208.90.00 - Plate	1.5	1.0
7210.90.10 - Plate	2.0	1.3
7211.13.00 - Plate	1.8	1.2
7211.14.00 - Plate and Hot-rolled	1.8	1.2
7225.40.30 - Plate	1.1	0.7
7225.50.60 - Plate	1.7	1.1
7226.91.50 - Plate	1.1	0
7208.10.15 - Hot-rolled	1.5	1.0
7208.10.30 - Hot-rolled	1.8	1.2
7208.25.30 - Hot-rolled	1.8	1.2
7208.25.60 - Hot-rolled	1.5	1.0
7208.27.00 - Hot-rolled	1.5	1.0
7208.36.00 - Hot-rolled	1.8	1.2
7208.37.00 - Hot-rolled	18	1.2

HTS number	2001 duty rate	
	General	NAFTA[1]
7208.38.00 - Hot-rolled	1.5	0.9
7208.39.00 - Hot-rolled	1.5	0.9
7208.40.60 - Hot-rolled	1.5	0.9
7208.53.00 - Hot-rolled	1.5	0.9
7208.54.00 - Hot-rolled	1.5	0.9
7211.19.15 - Hot-rolled	1.7	1.1
7211.19.20 - Hot-rolled	1.7	1.1
7211.19.30 - Hot-rolled	1.0	0.6
7211.19.45 - Hot-rolled	1.5	0.9
7211.19.60 - Hot-rolled	1.5	1.0
7211.19.75 - Hot-rolled	1.5	0.9
7225.30.30 - Hot-rolled	1.1	0.7
7225.30.70 - Hot-rolled	2.8	1.9
7225.40.70 - Hot-rolled	2.8	1.9
7226.91.70 - Hot-rolled	2.8	1.9
7226.91.80 - Hot-rolled	1.9	1.2
7209.15.00 - Cold-rolled	1.5	1.0
7209.16.00 - Cold-rolled	1.5	1.0
7209.17.00 - Cold-rolled	1.5	1.0
7209.18.15 - Cold-rolled	1.5	1.0
7209.18.25 - Cold-rolled	1.0	0.6
7209.18.60 - Cold-rolled	1.5	1.0
7209.25.00 - Cold-rolled	1.5	1.0
7209.26.00 - Cold-rolled	1.5	1.0
7209.27.00 - Cold-rolled	1.5	1.0
7209.28.00 - Cold-rolled	1.5	1.0

HTS number	2001 duty rate	
	General	NAFTA[1]
7209.90.00 - Cold-rolled	1.5	1.0
7210.70.60 - Cold-rolled	2.0	1.3
7211.23.15 - Cold-rolled	1.0	0.6
7211.23.20 - Cold-rolled	1.7	1.1
7211.23.30 - Cold-rolled	1.0	0.6
7211.23.45 - Cold-rolled	0.7	0.4
7211.23.60 - Cold-rolled	1.5	1.0
7211.29.20 - Cold-rolled	1.0	0.6
7211.29.45 - Cold-rolled	0.7	0.4
7211.29.60 - Cold-rolled	1.5	1.0
7211.90.00 - Cold-rolled	1.5	1.0
7225.19.00 - Cold-rolled	1.7	0
7225.50.70 - Cold-rolled	1.2	0.8
7225.50.80 - Cold-rolled	1.2	0.8
7226.19.10 - Cold-rolled	1.7	0
7226.19.90 - Cold-rolled	2.1	0
7226.92.50 - Cold-rolled	1.2	0
7226.92.70 - Cold-rolled	1.5	0
7226.92.80 - Cold-rolled	1.8	0
7210.20.00 - Coated	1.2	0.8
7210.30.00 - Coated	2.0	1.3
7210.41.00 - Coated	2.0	1.3
7210.49.00 - Coated	2.0	1.3
7210.61.00 - Coated	2.0	1.3
7210.69.00 - Coated	2.0	1.3
7210.70.30 - Coated	1.5	1.0

HTS number	2001 duty rate	
	General	NAFTA[1]
7210.70.60 - Coated	2.0	1.3
7210.90.60 - Coated	1.7	1.1
7210.90.90 - Coated	2.0	1.3
7212.20.00 - Coated	2.0	1.3
7212.30.10 - Coated	1.0	0.6
7212.30.30 - Coated	0.7	0.4
7212.30.50 - Coated	2.0	1.3
7212.40.10 - Coated	1.0	0.6
7212.40.50 - Coated	1.5	1.0
7212.50.00 - Coated	2.0	1.3
7212.60.00 - Coated	2.0	1.3
7225.91.00 - Coated	1.7	0
7225.92.00 - Coated	1.7	0
7225.99.00 - Coated	1.7	0
7226.93.00 - Coated	1.9	1.2
7226.94.00 - Coated	1.9	1.2
7226.99.00 - Coated	1.9	1.2
7210.11.00 - Tin	1.0	0.7
7210.12.00 - Tin	1.0	0.7
7210.50.00 - Tin	1.7	1.1
7212.10.00 - Tin	1.0	0.7
[1] The rate of duty for flat steel products imported from Canada for all of the subheadings is zero; the rates listed in this column apply to imports from Mexico.		

The column 1-general duty rates are scheduled for arranged reduction to an eventual rate of "free" by January 1, 2004, as provided for in Presidential Proclamation 6763 which implements the

Uruguay Round concession and as amended by Proclamation 6875 (annexes II and III(a)(2), reflecting Harmonized System changes in the HTS). The rates applicable to imports from Mexico are being reduced annually and are to be eliminated as of January 1, 2003. The rates applicable to imports from Canada already have been decreased to zero. Other special tariff programs provide duty-free entry to eligible products of Israel, of beneficiaries of the Caribbean Basin Economic Recovery Act (CBERA) and Andean Trade preferences Act (ATPA), and of least-developed beneficiary developing countries under the Generalized System of Preferences (GSP).

SUPPLY AND DEMAND CONSIDERATIONS

Domestic Supply

Based on available information (for 2000), certain U.S. flat steel producers are likely to respond to changes in demand with moderate changes in the quantity of shipments of U.S.-produced certain flat steel products to the U.S. market. Supply responsiveness is constrained by relatively low inventories, but is enhanced by depressed capacity utilization and increasing sales to alternate markets (see tabulation).

Product	Capacity Utilization *(percent)*	Export/total shipments *(percent)*	Inventories/total shipments *(percent)*
Slabs	89.0	0.0	4.4
Plate	60.7	3.9	7.2
Hot-rolled	86.4	0.9	3.7
Cold-rolled	83.9	1.0	5.5
Coated	82.2	3.3	10.2
Tin	72.9	5.8	9.9
Source: Compiled from data submitted in response to Commission questionnaires.			

Import Supply

Data provided in foreign producer questionnaires indicate that producers in the countries that export significant quantities of certain flat steel products to the United States are generally operating at relatively high levels of capacity utilization; however, these producers have alternate markets and

inventories that would allow them to respond to changes in the price of certain flat steel products in the U.S. market. Data for 2000 on foreign capacity utilization, exports to the United States as a percent of total shipments, and inventories as a percent of total shipments are presented in the following tabulations for all foreign producers, Canadian producers, and Mexican producers, respectively.

All foreign producers:

Product	Capacity utilization *(percent)*	Exports to the U.S./total shipments *(percent)*	Inventories/total shipments *(percent)*
Slabs	94.6	2.2	2.6
Plate	85.8	1.9	5.9
Hot-rolled	93.0	2.2	3.3
Cold-rolled	88.9	2.0	3.9
Coated	92.7	3.3	7.0
Tin	87.9	3.9	6.9
Source: Compiled from data submitted in response to Commission questionnaires.			

Canadian producers:

Product	Capacity utilization *(percent)*	Exports to the U.S./total shipments *(percent)*	Inventories/total shipments *(percent)*
Slabs	97.8	1.0	8.2
Plate	***	***	***
Hot-rolled	94.1	2.8	4.5
Cold-rolled	80.6	1.5	4.4
Coated	***	***	***
Tin	***	***	***
Source: Compiled from data submitted in response to Commission questionnaires.			

Mexican producers:

Product	Capacity utilization *(percent)*	Exports to the U.S./total shipments *(percent)*	Inventories/total shipments *(percent)*
Slabs	***	***	***
Plate	***	***	***
Hot-rolled	***	***	***
Cold-rolled	***	***	***
Coated	***	***	***
Tin	***	***	***
Source: Compiled from data submitted in response to Commission questionnaires.			

U.S. Demand

Demand Characteristics

Data obtained in this investigation indicate that overall demand for certain flat steel products first increased then decreased during the period for which data were collected. The demand for each of the six flat steel products eligible for relief vary by product, though. Apparent domestic consumption from 1996 to 2000 increased for slab by 4.3 percent, hot-rolled by 9.6 percent, cold-rolled by 9.8 percent, and coated by 16.9 percent. Demand for plate and tin products decreased by 9.0 and 4.9 percent, respectively. Demand for all flat steel products fell in interim 2001, with only cold-rolled and coated products having slightly higher apparent domestic consumption (annualized) than existed in 1996.

Based on available information, the overall demand for flat products will change slightly to moderately in response to changes in the price of flat products. The main factors contributing to this low to moderate degree of price sensitivity are a lack of substitute products, the portion of the final cost of the end-use product (which can vary greatly), demand characteristics, and the fact that demand for flat products is derived from demand for the goods in which they are used, following loosely the business cycle of the economy. The responsiveness of demand to price changes varies by product category. It may be somewhat higher for flat products such as tin mill products, which have more significant

competing substitutes, than a product like slab, which is the main raw material to continue the steelmaking process.

Substitutability of Domestic and Imported Flat Steel Products

The degree of substitution between domestic and imported flat products depends upon relative prices, quality (e.g., grade specifications, flatness, surface condition, strength, tolerance consistency, defect rates, etc.), and conditions of sale (e.g., price discounts, lead times between order and delivery dates, reliability of supply, payment terms, etc.). Based on data discussed in the final injury staff report, staff believes that, while there are some differences in U.S.-produced and imported flat products, overall there is a moderate to high degree of substitution between certain U.S.-produced and imported flat steel products.[5]

Elasticity Estimates[6]

The domestic supply elasticity for flat steel products measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of those products. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced flat steel products.

The U.S. demand elasticity for flat steel products measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of those products. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the cost share of the flat steel products in the production of any downstream products. As noted, there are a large number of end uses of flat steel products; as such, the share of the total cost of the end

[5] Injury phase staff report, pp. FLAT-75-83.

[6] Parties had the opportunity to comment on staff's elasticity estimates; this information can be found in the staff report on pages FLAT-83-84.

products accounted for by these products varies. However, based on available information, the cost component of flat steel products in most of the end uses is moderate. Furthermore, there are few, if any products that can substitute for flat steel products.

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[7] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (availability, sales terms/discounts/promotions, etc.).

Elasticity estimates for specific segments of the flat-rolled steel product industry are given in table FLAT-1.

Table FLAT-1
Elasticity estimates for the domestic market used in modeling of the domestic flat steel industry

Product	Supply elasticity estimate	Demand elasticity estimate	Substitution elasticity estimate
Slabs	2 to 4	-.2 to -.6	4 to 7
Plate	4 to 7	-.2 to -.6	3 to 6
Hot-rolled	3 to 5	-.25 to -.75	3 to 6
Cold-rolled	2 to 4	-.25 to -.75	2.5 to 5
Coated	3 to 5	-.25 to -.75	2 to 4
Tin Mill	4 to 6	-.2 to -.6	2 to 4

Elasticity estimates for foreign supply are likely to range between 10 and 20. This is due to the large number of suppliers worldwide of certain flat-rolled steel products. The elasticity of foreign supply for Canada and Mexico will be closer to the elasticity encountered in the United States. Reasons for this include the level of capacity utilization, inventory levels, the same labor union as in the United States (for Canada) and the proximity of each of these countries to the United States. Table FLAT-2 shows the

[7] The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and U.S. products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.

supply elasticity estimates used in modeling product-specific markets.

Table FLAT-1
Elasticity estimates for the Canadian and Mexican supply used in modeling of the domestic flat steel industry

Product	Canadian supply elasticity estimate	Mexican supply elasticity estimate
Slabs	2 to 4	2 to 4
Plate	4 to 7	4 to 7
Hot-rolled	3 to 5	4 to 6
Cold-rolled	3 to 5	3 to 5
Coated	3 to 5	4 to 6
Tin Mill	3 to 5	5 to 7

The elasticity of substitution, supply, or demand for any combination of flat steel products can be estimated based on the tabulation above.[8] The comprehensive elasticity of substitution between U.S.-produced flat-rolled steel and imported flat-rolled steel for the products grouped by the majority in the injury phase is therefore likely to be in the range of 3 to 6. Likewise, taken as a whole, the domestic supply and U.S. demand elasticity estimates for these certain elements of the flat-rolled steel industry are likely in the range of 3 to 6 and -.3 to -.8, respectively. However, when combining the sectors into one entity for modeling purposes, commercial shipments should be used to avoid double-counting of flat steel products. Also, the elasticities to be used should be increased somewhat, since there is more possibility for interchangeability amongst product groupings and the market as a whole has grown.

Domestic Industry Proposal and Effects

Domestic producers' proposals varied somewhat, but all had a common theme: the imposition of tariffs. Most also supported their proposals with economic modeling. One domestic industry group (i.e., Bethlehem, LTV, National, and USS) submitted an economic model that differs from the Commission's

[8] The results presented herein combine slab, plate, hot-rolled, cold-rolled, and coated products as one industry and tin mill products as a second industry, as per the majority vote of the Commission during the injury phase.

COMPAS model in that it links different market segments attempting to model the vertical integration in the flat-rolled steel industry. This model predicted that a 40-percent tariff (and a $100 per ton minimum price increase) on certain flat-rolled steel would increase the volume of finished flat-rolled steel by 4 percent and its prices by 8 to 12 percent.[9] [10] These producers claim that if the tariff revenue is distributed to the domestic industry, this would be enough to remedy the serious injury caused by imports. Therefore, these domestic producers request that a 40-percent tariff be applied to certain flat steel imports, with a minimum of $100 per ton, as long as this does not push the effective tariff above the statutory 50-percent limit.[11] [12]

The Minimill 201 Coalition also submitted a COMPAS run, but did not submit the elasticity inputs that were used in the calculations in its original modeling submission. It used 2000 and, alternately, interim 2001 data as base periods, assumed no growth, and reported average results for each of the six industry segments. Its assessment was that a maximum tariff of 50 percent on each of the products is necessary to bring the industry back to equilibrium. The digression of the tariff recommended by the Coalition was 2 percentage points per year. Further results and an explanation of its model inputs were contained in its posthearing remedy brief.

Ispat Inland ran the Commission's "target" COMPAS model (a log-linear version of COMPAS) for the hot-rolled, cold-rolled, and coated industries a single point elasticity estimate, data over the last 12 months (i.e., July 2000-June 2001) rather than calendar year 2000, and did not include NAFTA

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[9] Estimated price effects of this model are higher than those in the staff's 40% tariff runs. Factors which may differentiate the results include the linking of the different market segments and different elasticity estimates.

[10] Domestic produers' assumptions on elasticities vary somewhat from staff's estimates - in particular, the elasticity of supply used by the domestic firms is lower and the elasticity of substitution is higher.

[11] In practice, this translates to a 50-percent tariff for steel with a customs value under $200 per ton, $100 per ton for a customs value for imports valued between $200-250 per ton, and 40-percent for imports valued above this. This does not have a large effect on the economic modeling. However, in practice, it would have more of an effect on shipments with a very low average unit value.

[12] While these domestic producers appropriately proposed that the tariff rate be reduced by two percent per year, they have not proposed that the minimum tariff should not be phased down.

countries in the remedy. Ispat Inland suggests that it should generate the same level of profitability that the industry experienced in 1997, and to do so would require a 35-percent tariff on the three products modeled and that the tariff should be decreased by no more than one or two percentage points per year.

The United Steelworkers of America (USWA) included a COMPAS analysis for both tin mill products and the five product segments comprising flat-rolled steel. Its runs suggested that a 50 percent tariff or a stratified tariff beginning at 30 percent and ending at 50 percent, in addition to quotas at the average import levels of July 1994 to June 1997 would go far toward helping the domestic flat steel industry, but still not be enough to solve all its problems. Therefore, in addition, it requested a floor price mechanism, but did not model this. It suggests a phase-down of 7½ percent if a 50 percent tariff is chosen or 5 percent if a stratified tariff is chosen. Full consideration of all domestic parties' recommended remedies are given in table FLAT-3.

Table FLAT-3
Recommendations for remedy options for the domestic flat steel industry, as reported by domestic industry representatives

Party	Product	Remedy Recommendation
Schagrin Associates on behalf of Minimill 201 Coalition	Certain flat-rolled steel products	Four-year tariff, beginning at 50% and declining by 2% each year after the initial year
Dewey, Ballantine and Skadden, Arps on behalf of Bethlehem, LTV, National, and USS	Certain flat-rolled steel products	Tariff of 40% in the first year, provided that all covered imports be subject to a minimum tariff of $100 per ton (not to exceed 50% ad valorem). Tariff rate should be reduced by 2% per year, but minimum should not be reduced. Tariff revenue collected by the Government be returned to the domestic producers, contingent upon industry consolidation and restructuring. In addition, the Commission should recommend that the President vigorously pursue international negotiations aimed at eliminating uneconomic foreign excess capacity and market-distorting practices.
Thompson Coburn on behalf of Ispat Inland	Certain flat-rolled steel products, including hot-rolled, cold-rolled, and coated steel products	Tariff of 35% with the exclusion of Mexico. Tariff rate should be phased down at a rate of 1-2% per year.

Stewart & Stewart on behalf of the United Steel Workers of America	Certain flat-rolled steel products	Tariff of 50%. If the Commission does not recommend a 50% tariff, it should recommend a stratified tariff remedy involving both increased tariffs (ranging from 30% to 50%) and quotas; the proposed tariffs are such that the maximum tariffs are placed on the lowest priced imports (based on average import value in 2000). In addition, USWA states that the Commission should recommend that the President pursue "legislation which would authorize payments of funds to the industry specifically for coverage of the industry's legacy costs." USWA also states that the Commission should recommend that the President request new legislation from Congress that will permit establishment of a floor price on domestic sales of all covered flat rolled steel products. Finally, USWA also states that the Commission should recommend that the President continue with his stated goal of international negotiation to reduce excess global capacity.
Aducci, Mastriani & Schaumberg on behalf of the Association of Cold Rolled Strip Steel Producers	Cold-rolled	Tariff of 40% on all cold-rolled imports regardless of country of origin.

Respondents' Suggested Remedy and Effects

Most respondents have recommended a combination of trade adjustment assistance and international negotiation with an eye toward reducing the burden of global overcapacity. Barring this, most suggested the use of quotas in order to remedy the injury to the domestic firms. A full listing of the remedies requested by respondents is given in table FLAT-4. Some respondents used economic modeling to support their positions.

Table FLAT-4
Recommendations for remedy options for the domestic flat steel industry, as reported by respondents

Party	Product	Remedy Recommendation
Akin, Gump on behalf of Can Manufacturers	Tin mill steel products	Recommends adjustment assistance. If not adjustment assistance, then should have a quota and a short supply mechanism. Also provided some exclusion requests.

Barnes, Richardson on behalf of Swedish, Austrian, and German respondents	Cold-rolled steel	Recommend adjustment assistance and international negotiations. Also note that EU should be excluded because it has not contributed to the import surge. Alternatively, a "value break" should be established to accommodate the assurance of a non-excessive remedy construction.
Bryan Cave on behalf of Emerson Electric	Certain flat-rolled steel products	Recommends a "holistic approach" which incorporates a restructuring of the integrated producers and a comprehensive effort to finance the health care and pension costs of retired steelworkers.
Coudert Brothers on behalf Estonian respondents	Coated	Recommends no relief for Estonian steel, since Estonia was not exporting to the United States or even producing, during the time of injury. If there is a remedy, request Estonia be granted part of the quota, though it has never shipped to U.S.
Czech respondents (Vitkovice Steel)	Plate	Recommend a separate remedy for plate products. Recommend that if a quota is imposed that it be based on average imports over the period of investigation.
David Simon on behalf of Indonesian respondents	Hot-rolled and cold-rolled steel products	Opposes any remedy other than international negotiations and trade adjustment assistance. However, if a remedy is given, recommends a global quota as this is less disruptive. Quota should be based on 1998-2000 period. Recommends doing a thorough economic analysis including downstream industries
David Simon on behalf of Turkish respondents	Hot-rolled and cold-rolled steel	Recommends no remedy on cold-rolled because of prior AD findings. In general, recommends a global quota which is product specific. For cold-rolled steel, the quota should be a "standstill" level (based on 1998-2000 import levels). For hot-rolled, this respondent recommends adjustment assistance first and then international negotiations. These efforts should include direct subsidies to encourage plant closures. Only after this should a quota be considered. Any quota for hot-rolled should be based on the period 1998-2000; if 1998 is distortive, then the quota should be based on 1999-2000 (not 2001).
DeKieffer and Horgan on behalf of Eurofer and European plate producers	Plate	Recommend no remedy for plate products from the EU. Any remedy should be on a product-by-product, country/region specific basis, and a tariff-rate quota on plate is the preferred method to allow imports to continue at historic levels without additional duties. Offered exclusion requests and stated that it was in favor of steel bonds and a futures market for steel products.
DeKieffer and Horgan on behalf of the Free Trade in Steel Coalition (FTSC)	All certain flat-rolled steel products	No import restraints should be enacted. Recommends adjustment assistance, tax benefits, legal facilitation of consolidation, and financial support for the burden of legacy costs.
Dickstein Shapiro on behalf of certain Turkish respondents	Cold-rolled	Cold-rolled should have its own remedy. A more appropriate remedy would be a federal take-over of legacy costs, tied to meaningful reductions in capacity at the highest-cost mills.
European Commission	Certain flat-rolled steel products	Any remedy is unwarrranted since the injury phase of the investigation lacked clarity in determining what the like or directly competitive products are.

Hogan & Hartson on behalf of the Consuming Industry Trade Action Coalition	Certain flat-rolled steel products	Any remedy needs to identify specific companies and workers actually injured. Specific remedy proposals include: government assumption of pension costs, grants to the steel industry to help it attract capital, closing of uncompetitive capacity, and an import surge mechanism (i.e., a quota). Quantitative restrictions, however, should not apply to countries already subject to AD/CVD orders, include a short supply mechanism, and allow for exclusions.
Hunton and Williams on behalf of Canadian producer Dofasco	Tin	This respondent states that a 5-1 vote for Canada for tin mill means that no relief should be granted.
Indian Embassy	Certain flat-rolled steel products	Recommends a quota that is country specific and is based on the last 3 years of imports.
Kalik Lewin on behalf of Ukrainian respondents	Slab, plate	Recommends no relief on slabs because doing so would harm some of the domestic industry. With regard to plate, also recommends no relief and in particular no restriction for Ukraine, which has a suspension agreement in place with the United States for plate. Quotas are preferable to tariffs, and any additional tariffs must be uniform and less than 10 percent.
Kaye Scholer on behalf of Korean respondents	Slab, hot-rolled, cold-rolled, coated, and tin mill	Recommend different remedies for the different products. For slab, Koreans recommend a quota based on current mills' requirements. For hot-rolled, Koreans recommend a quota based on 1998-2000 import levels and have a 6% liberalization each year; this quota should exclude those who re-roll (e.g. USS-POSCO). Should also take into account existing AD/CVD orders. For cold-rolled and corrosion resistant, Koreans recommend a quota based on 1998-2000 import levels and should take into account AD/CVD orders currently in place. For tin mill, Koreans recommend that no relief be given due to the 3-3 tie vote. Koreans also recommend adjustment assistance to reduce U.S. and worldwide capacity. Koreans also request an exclusion for rim cast products. Quotas should be country-specific for the top ten countries, and include an "all other" category.
King & Spalding on behalf of AK Steel, California Steel, Duferco Farrell, and Oregon Steel	Slab	Slab should be treated differently than sheet and plate. Slab restrictions would hurt the domestic industry, particularly in the Western United States so no restrictions should be recommended. If there are restrictions, a three-year TRQ is preferable due to the difficulty in predicting slab requirements. They recommend a rate of zero tariff "in quota" and 15, 10, and 5 percent (for years 1, 2 and 3) "out of quota." Quotas are preferred to tariffs, and quotas or the TRQ should be country-specific and allow for more slab imports in year one than the average amount that entered in 1999-2000. Any quota should have a short supply mechanism.
Kirkland and Ellis on behalf of Chinese respondents	Certain flat-rolled steel products	Recommends a quota based on the 3 year period of 1998-2000; quota should be country and product specific. Respondent also notes that the AD orders on hot-rolled have effectively excluded imports from the market. Any tariff should not be stratified.
Korean Embassy	Certain flat-rolled steel products	Recommends product-specific quotas based on 1998-2000 and an exclusion for imports of USS-POSCO. No relief is necessary for tin. Overcapacity and legacy costs also need to be addressed.

Manatt, Phelps on behalf of Mexican respondents Hylsa and AHMSA	Plate, hot-rolled, and cold-rolled	Remedy should be on a product-by-product basis, should take into account levels as well as trends, as per the NAFTA, and the recent, representative period to base it on does not have to be three years.
New Zealand Embassy	Certain flat-rolled steel products	No basis for import restrictions exists, but should they be enacted it should be a country-specific quota.
O'Melveny and Meyers on behalf of South Africa and member of the WTO that are developing countries	Plate and hot-rolled steel	Discusses article 9.1 of the WTO which references WTO members which are developing countries. Includes exclusion requests.
Porter Wright on behalf of Kern-Liebers	Cold-rolled steel	Requests an exclusion for seat belt retractor steel based on the fact that the product made in the United States is unavailable in sufficient quantities. Recommends a TRQ which is country specific or a tariff on purchases of less than $1,100 per ton.
Powell, Goldstein on behalf of Indian respondents	Certain flat-rolled products	No remedy should be imposed because of the existing AD/CVD orders. Recommend international negotiations and adjustment assistance. Any import restrictions should be quotas on a product-by-product basis, based on 1998-2000.
Powell, Goldstein on behalf of Russian respondents	Certain flat-rolled steel products	Adopt quotas at the levels that are contained in the existing suspension agreements. If not that recommendation, then requests country-specific quotas based on average import volume during 1998-2000.
Sherman and Sterling on behalf of French, Belgian, and Spanish respondents (Usinor, Arbed, and Aceralia)	Certain flat-rolled steel products	No reason to impose quota or tariff; recommends international negotiations and trade adjustment assistance. If there is a remedy, this respondent recommends a product and country specific quota which exempts niche products. Also recommends that there be no remedy given to slab.
Squire, Sanders on behalf of BP America	Plate	Exclusion request for X-70 and above plate because the United States does not make it.
Steptoe & Johnson on behalf of AvestaPolarit Oy	Cold-rolled	Any remedy should exclude TRC steel.
Steptoe and Johnson on behalf of Eurofer	Certain flat-rolled steel products	Recommends adjustment assistance and international negotiations. Notes that Commission should not recommend increased tariffs as this would not focus on the source of the import surge. This respondent noted that AD/CVD orders have already dealt with the problems. Offered some exclusion requests. Restrictions should only prevent a return to injurious levels.
Thompson Coburn on behalf of Ispat Mexicana	Slab	Recommends that the Commission exclude Mexican slab because the United States does not produce "made-to-order" specialized slab. If not excluded, then recommends a separate slab remedy. Any remedy recommendation should be highly specific.

White and Case on behalf of Mexican respondents IMSA and Zincacero	Coated steel	Respondent argues that imports from Mexico should be excluded. If a single remedy is recommended by the Commission, Mexico should be excluded. A specific remedy should be detailed with respect to Mexico.
White and Case on behalf of Sidor and Siderar	Slab, hot-rolled, cold-rolled, coated, and tin	Favor "remedies that err on the side of being less restrictive and shorter in duration" than those called for by domestic producers. Any remedy needs to be on a product-specific basis. If country-specific, it should be based on a representative period but doesn't preclude countries that have not shipped much before from increasing their shipments.
White and Case on behalf of Guatemalan respondents	Coated steel	Recommends that the Commission exclude CBERA countries for corrosion resistant steel products
Willkie Farr and Gallagher on behalf of Brazilian respondents	Certain flat-rolled steel products	Recommend a quota which includes a short supply provision; quota should be product and country specific and should be based on 1998-2000 import levels and domestic rolling capacity. Respondents requests that there be no restrictions on slab because it is part of the restructuring; however, if there is a remedy on slab, it should be a quota. Any remedy should exclude specialized slab grades. Respondent notes that remedy should take into account existing AD/CVD orders. Respondent states that no import restraints should be placed on tin mill products, only adjustment assistance. On finished products, quotas should be conditional on "concrete restructuring steps" to be taken by the domestic industry.
Willkie Farr and Gallagher on behalf of Japanese respondents	Certain flat-rolled steel products	Recommend adjustment assistance first rather than import restrictions. Quotas based on 1998-2000 would be preferable and should include exclusions. They should be product- and country-specific, should be indexed to U.S. demand growth, and include a short supply mechanism. Notes that AD/CVD orders should be taken into account. This respondent also notes that incentives should be offered to shut down facilities. In particular, any relief should be conditional on further commitments by the domestic industry that "facilitate real adjustment". Offered exclusion requests; respondent notes that these exclusions can be administered by Customs through certifications from foreign producers.
Willkie Farr and Gallagher on behalf of Thai respondents	Plate, hot-rolled, cold-rolled, coated	This respondent states that Thailand is a developing country. It recommends that quotas be used and they should be product and country specific.
Wilmer, Cutler, & Pickering on behalf of BHP (Australia and New Zealand)	Slab, hot-rolled, cold-rolled	Recommend product and country specific quotas based on 1998-2000 import levels with short supply mechanism, and should provide for rapid phase-out of the measures as demand strengthens. Respondent notes that imports of feedstock helped the U.S. industry and should be quota- or tariff-free.

French, Belgian, and Spanish respondents submitted the results of their analysis of the plate market using the Commission's COMPAS model. Using elasticity inputs from an unspecified prior cut-

to-length plate AD/CVD investigation, they concluded that a 50-percent tariff on plate from all countries except Canada would drive between 56 and 81 percent of historical (1996-2000) imports out of the domestic market. Therefore, they suggest country- and product-specific quotas as a remedy.

Japanese respondents also presented COMPAS-based analyses. Based on their assumption of a 15 to 25 percent increase in demand, Japanese respondents estimate that quotas would generate a 2.76 to 4.52 percent increase in domestic price and 16.17 to 27.51 percent increase in domestic revenues for the cold-rolled market. They also performed estimates for the plate, hot-rolled, and coated markets.[13] Respondents used the midpoint of the elasticity estimates presented in the injury phase staff report, and a quota level based on average imports of the 1998-2000 period. Also, analyses were completed that included 5 and 10 percent reductions in domestic capacity (supply), which amounted to higher price increases. Japanese respondents noted that a 15 to 25 percent recovery in steel demand could be as soon as 2003. Further, they ran analyses on the cold-rolled segment incorporating quotas along with 5 and 10 percent declines in worldwide capacity that yielded domestic price increases of 0.84 and 1.65 percent, respectively.

Alternate Remedy Options

Staff has estimated the effects of several different tariff rates on the domestic flat steel industry. Using domestic and import shipment data obtained during this investigation which is presented in table FLAT-5 and elasticities estimated by staff, a summary of the effects of tariff rates of 10 through 50 percent, by 5 percent increments, are presented in tables FLAT-6 to FLAT-11.[14] In this analysis, the quantity and value data utilize the commercial shipments data for 2000 and assume zero growth in the market. Analyses with other assumptions, e.g. demand growth, are available upon request.

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[13] Japanese respondents did not run the COMPAS model on the slab market because they assume that all domestic firms would increase their slab production when imports are restricted. Japanese respondents' posthearing brief, answers to Commissioners' questions, p. 8.

[14] Detailed output which includes all possible combinations of elasticity parameters is available upon request.

Table FLAT-5
Quantity and value inputs used in the economic modeling for certain flat steel products

Input	Slab	Plate	Hot-rolled	Cold-rolled	Coated	Tin
Domestic shipment quantity (*tons*)	432,617	6,023,568	22,996,700	15,363,388	19,282,571	2,926,331
Domestic shipment value (*$1,000*)	$143,205	$2,417,648	$6,658,938	$6,839,493	$10,296,552	$1,723,409
Canadian import quantity (*tons*)	221,355	167,712	459,954	219,104	583,794	91,570
Canadian import value (*$1,000*)	$53,991	$66,527	$163,838	$103,233	$324,057	$58,932
Mexican import quantity (*tons*)	1,635,969	211	335,401	206,291	288,642	39
Mexican import value (*$1,000*)	$381,793	$80	$110,621	$74,674	$170,047	$34
Non-NAFTA import quantity *(tons)*	5,402,489	782,844	6,664,289	2,338,379	1,586,893	488,587
Non-NAFTA import value (*$1,000*)	$1,171,646	$311,815	$1,989,057	$1,109,140	$878,661	$282,624

Table FLAT-12 contains summary data concerning the effect of various tariff levels on the domestic price, quantity, and revenue for each of the market segments. Also included is a weighted-average total for the plate, hot-rolled, cold-rolled, coated segments listed with and without the effects of slab included.

Table FLAT-6
Slab: Summary effects of different tariff levels

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	10 percent	15 percent	20 percent	25 percent	30 percent
Domestic price	3.3 to 6.2	4.8 to 9.3	6.4 to 12.3	7.8 to 15.1	9.2 to 18.1
Domestic quantity	8.7 to 21.8	13.1 to 33.5	17.4 to 45.7	21.7 to 58.3	25.9 to 71.3
Domestic revenue	13.4 to 28.0	20.2 to 43.5	27.2 to 60.0	34.2 to 77.5	41.3 to 95.9
Non-NAFTA import price	8.3 to 8.9	12.4 to 13.4	16.5 to 17.8	20.6 to 22.2	24.6 to 26.7
Non-NAFTA import quantity	-8.5 to -3.5	-12.4 to -5.1	-16.2 to -6.7	-19.8 to -8.2	-23.2 to -9.7
Canadian import price	3.3 to 6.2	4.8 to 9.3	6.4 to 12.3	7.8 to 15.1	9.2 to 18.1
Canadian import quantity	8.7 to 21.8	13.1 to 33.5	17.4 to 45.7	21.7 to 58.3	25.9 to 71.3
Mexican import price	7.4 to 8.6	11.1 to 12.8	14.7 to 17.0	18.3 to 21.2	21.8 to 25.4
Mexican import quantity	-4.8 to -1.8	-7.0 to -2.6	-9.1 to -3.4	-11.1 to -4.2	-13.1 to -5.0
Covered import share	89.3 to 90.4	88.0 to 89.9	86.7 to 89.3	85.4 to 88.7	83.9 to 88.2
Net welfare effects ($1,000)	(527) to 7,820	(3,372) to 8,201	(8,146) to 6,540	(16,446) to 3,032	(26,918) to (2,154)

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	35 percent	40 percent	45 percent	50 percent	
Domestic price	10.6 to 20.9	11.9 to 23.7	13.2 to 26.5	14.5 to 29.2	
Domestic quantity	30.1 to 84.7	34.3 to 98.5	38.4 to 112.7	42.5 to 127.2	
Domestic revenue	48.4 to 115.3	55.6 to 135.7	62.9 to 156.9	70.2 to 179.0	
Non-NAFTA import price	28.7 to 31.1	32.7 to 35.5	36.9 to 39.9	40.6 to 44.3	
Non-NAFTA import quantity	-26.6 to -11.2	-29.8 to -12.6	-32.8 to -13.9	-35.8 to -15.2	
Canadian import price	10.6 to 20.9	11.9 to 23.7	13.2 to 26.5	14.5 to 29.2	
Canadian import quantity	30.1 to 84.7	34.3 to 98.5	38.4 to 112.7	42.5 to 127.2	
Mexican import price	25.3 to 29.5	28.8 to 33.6	32.2 to 37.7	35.6 to 41.8	
Mexican import quantity	-15.1 to -5.8	-17.0 to -6.5	-18.9 to -7.3	-20.8 to -8.0	
Covered import share	82.5 to 87.6	80.9 to 87.0	79.3 to 86.5	77.6 to 85.9	
Net welfare effects ($1,000)	(39,425) to (8,866)	(53,836) to (16,571)	(70,033) to (23,012)	(87,899) to (30,263)	

[1] The estimated domestic producers' and import price, quantity, and revenue effects resulting from the specific tariff level are measured as the percentage increases from actual levels in 2000. The welfare effects are the levels that are estimated to result from the specific tariff level. The ranges of estimated effects are based on different combinations of elasticity estimates.

Table FLAT-7
Plate: Summary effects of different tariff levels

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	10 percent	15 percent	20 percent	25 percent	30 percent
Domestic price	0.2 to 0.7	0.3 to 1.0	0.4 to 1.2	0.5 to 1.4	0.6 to 1.6
Domestic quantity	1.4 to 3.5	2.0 to 4.9	2.6 to 6.1	3.1 to 7.1	3.6 to 8.0
Domestic revenue	1.8 to 4.1	2.6 to 5.6	3.3 to 7.0	3.9 to 8.2	4.6 to 9.2
Non-NAFTA import price	5.9 to 7.9	8.8 to 11.8	11.6 to 15.7	14.4 to 19.6	17.1 to 23.4
Non-NAFTA import quantity	-29.7 to -16.0	-40.7 to -22.6	-49.7 to -28.6	-57.1 to -33.9	-63.3 to -38.7
Canadian import price	0.2 to 0.7	0.3 to 1.0	0.4 to 1.2	0.5 to 1.4	0.6 to 1.6
Canadian import quantity	1.4 to 3.5	2.0 to 4.9	2.6 to 6.1	3.1 to 7.1	3.6 to 8.0
Mexican import price	4.3 to 6.8	6.3 to 10.1	8.2 to 13.4	10.1 to 16.6	11.9 to 19.8
Mexican import quantity	-22.8 to -12.7	-31.8 to -18.1	-39.5 to -23.0	-46.1 to -27.5	-51.9 to -31.6
Covered import share	7.9 to 9.5	6.78.7	5.7 to 8.0	4.9 to 7.4	4.2 to 6.9
Net welfare effects ($1,000)	111 to 3,894	(2,361) to 3,167	(6,052) to 1,262	(10,521) to (1,394)	(15,523) to (4,095)

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	35 percent	40 percent	45 percent	50 percent	
Domestic price	0.7 to 1.8	0.7 to 1.9	0.8 to 2.1	0.9 to 2.2	
Domestic quantity	4.1 to 8.7	4.5 to 9.3	4.9 to 9.9	5.2 to 10.4	
Domestic revenue	5.1 to 10.0	5.6 to 10.7	6.1 to 11.4	6.6 to 11.9	
Non-NAFTA import price	19.7 to 27.2	22.4 to 31.1	25.0 to 34.9	27.5 to 38.6	
Non-NAFTA import quantity	-68.5 to -43.0	-72.8 to -46.9	-76.4 to -50.4	-79.5 to -53.6	
Canadian import price	0.7 to 1.8	0.7 to 1.9	0.8 to 2.1	0.9 to 2.2	
Canadian import quantity	4.1 to 8.7	4.5 to 9.3	4.9 to 9.9	5.2 to 10.4	
Mexican import price	13.7 to 23.0	15.4 to 26.1	17.1 to 29.2	18.8 to 32.2	
Mexican import quantity	-56.9 to -35.3	-61.3 to -38.7	-65.1 to -41.9	-68.4 to -44.8	
Covered import share	3.6 to 6.4	3.1 to 6.0	2.7 to 5.6	2.3 to 5.2	
Net welfare effects ($1,000)	(20,880) to (7,277)	(26,463) to (10,852)	(32,178) to (14,747)	(37,960) to (18,903)	

[1] The estimated domestic producers' and import price, quantity, and revenue effects resulting from the specific tariff level are measured as the percentage increases from actual levels in 2000. The welfare effects are the levels that are estimated to result from the specific tariff level. The ranges of estimated effects are based on different combinations of elasticity estimates.

Table FLAT-8
Hot-rolled: Summary effects of different tariff levels

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	10 percent	15 percent	20 percent	25 percent	30 percent
Domestic price	0.6 to 1.7	0.9 to 2.5	1.1 to 3.1	1.3 to 3.7	1.6 to 4.3
Domestic quantity	2.5 to 6.8	3.6 to 9.7	4.6 to 12.3	5.6 to 14.6	6.5 to 16.6
Domestic revenue	3.3 to 8.3	4.8 to 11.8	6.2 to 14.9	7.5 to 17.7	8.8 to 20.2
Non-NAFTA import price	6.3 to 8.0	9.4 to 12.0	12.4 to 15.9	15.3 to 19.8	18.2 to 23.8
Non-NAFTA import quantity	-25.9 to -13.5	-36.0 to -19.3	-44.6 to -24.6	-39.5 to -23.9	-58.3 to -33.8
Canadian import price	0.6 to 1.7	0.9 to 2.5	1.1 to 3.1	1.3 to 3.7	1.6 to 4.3
Canadian import quantity	2.5 to 6.8	3.6 to 9.7	4.6 to 12.3	5.6 to 14.6	6.5 to 16.6
Mexican import price	4.9 to 6.9	7.3 to 10.2	9.5 to 13.6	11.7 to 16.8	13.8 to 20.0
Mexican import quantity	-18.6 to -10.8	-26.4 to -15.5	-33.3 to -19.9	-39.5 to -23.9	-45.0 to -27.7
Covered import share	17.4 to 20.0	15.1 to 18.7	13.1 to 17.5	11.4 to 16.4	10.0 to 15.4
Net welfare effects ($1,000)	2,080 to 24,777	(10,941) to 21,730	(32,418) to 11,324	(59,642) to (4,265)	(90,862) to (20,320)

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	35 percent	40 percent	45 percent	50 percent	
Domestic price	1.7 to 4.7	1.9 to 5.2	2.1 to 5.5	2.2 to 5.9	
Domestic quantity	7.3 to 18.4	8.1 to 19.9	8.9 to 21.3	9.6 to 22.6	
Domestic revenue	9.9 to 22.4	11.0 to 24.4	12.0 to 26.1	13.0 to 27.7	
Non-NAFTA import price	21.0 to 27.6	23.8 to 31.5	26.5 to 35.4	29.2 to 39.2	
Non-NAFTA import quantity	-63.7 to -37.9	-68.3 to -41.6	-72.2 to -45.0	-75.6 to -48.1	
Canadian import price	1.7 to 4.7	1.9 to 5.2	2.9 to 7.7	2.2 to 5.9	
Canadian import quantity	7.3 to 18.4	8.1 to 19.9	12.4 to 31.1	9.6 to 22.6	
Mexican import price	15.8 to 23.2	17.7 to 26.3	19.6 to 29.4	21.5 to 32.5	
Mexican import quantity	-49.9 to -31.1	-54.3 to -34.3	-58.2 to -37.3	-61.7 to -40.0	
Covered import share	8.7 to 14.5	7.7 to 13.6	6.7 to 12.8	5.9 to 12.1	
Net welfare effects ($1,000)	(124,936) to (39,591)	(160,986) to (60,840)	(198,350) to (84,334)	(236,513) to (109,746)	

[1] The estimated domestic producers' and import price, quantity, and revenue effects resulting from the specific tariff level are measured as the percentage increases from actual levels in 2000. The welfare effects are the levels that are estimated to result from the specific tariff level. The ranges of estimated effects are based on different combinations of elasticity estimates.

Table FLAT-9
Cold-rolled: Summary effects of different tariff levels

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	10 percent	15 percent	20 percent	25 percent	30 percent
Domestic price	0.4 to 1.4	0.5 to 2.0	0.7 to 2.5	0.8 to 3.0	1.0 to 3.4
Domestic quantity	1.1 to 3.7	1.7 to 5.2	2.1 to 6.6	2.6 to 7.8	3.0 to 8.8
Domestic revenue	1.7 to 4.6	2.5 to 6.6	3.2 to 8.3	3.9 to 9.8	4.5 to 11.2
Non-NAFTA import price	6.4 to 8.1	9.6 to 12.2	12.7 to 16.2	15.7 to 20.2	18.7 to 24.2
Non-NAFTA import quantity	-25.4 to -13.2	-35.2 to -18.8	-43.5 to -23.9	-50.6 to -28.6	-56.6 to -32.8
Canadian import price	0.3 to 1.2	0.5 to 1.7	0.6 to 2.2	0.7 to 2.6	0.8 to 3.0
Canadian import quantity	1.4 to 4.2	2.0 to 5.9	2.6 to 7.4	3.2 to 8.8	3.7 to 10.0
Mexican import price	4.4 to 6.6	6.4 to 9.9	8.4 to 13.1	10.3 to 16.3	12.2 to 19.4
Mexican import quantity	-17.4 to -9.6	-24.6 to -13.8	-31.0 to -17.7	-36.8 to -21.3	-41.9 to -24.6
Covered import share	10.7 to 12.3	9.3 to 11.5	8.2 to 10.8	7.2 to 10.2	6.4 to 9.6
Net welfare effects ($1,000)	1,717 to 14,830	(5,008) to 13,468	(16,633) to 7,962	(31,468) to (704)	(48,562) to (9,219)

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	35 percent	40 percent	45 percent	50 percent	
Domestic price	1.1 to 3.8	1.2 to 4.2	1.3 to 4.5	1.4 to 4.8	
Domestic quantity	3.4 to 9.8	3.8 to 10.6	4.1 to 11.4	4.4 to 12.0	
Domestic revenue	5.1 to 12.4	5.7 to 13.4	6.2 to 14.4	6.7 to 15.3	
Non-NAFTA import price	21.7 to 28.2	24.6 to 32.2	27.4 to 36.1	30.3 to 40.0	
Non-NAFTA import quantity	-61.8 to -36.7	-66.3 to -40.2	-70.1 to -43.5	-73.4 to -46.5	
Canadian import price	0.9 to 3.3	1.0 to 3.6	1.1 to 3.9	1.2 to 4.1	
Canadian import quantity	4.2 to 11.1	4.6 to 12.0	5.1 to 12.9	5.5 to 13.6	
Mexican import price	14.0 to 22.5	15.7 to 25.5	17.4 to 28.5	19.1 to 31.5	
Mexican import quantity	-46.5 to -27.7	-50.6 to -30.6	-54.3 to -33.3	-57.6 to -35.8	
Covered import share	5.6 to 9.0	5.0 to 8.5	4.5 to 8.1	4.0 to 7.7	
Net welfare effects ($1,000)	(67,306) to (19,517)	(87,239) to (31,105)	(108,004) to (43,835)	(129,335) to (57,642)	

[1] The estimated domestic producers' and import price, quantity, and revenue effects resulting from the specific tariff level are measured as the percentage increases from actual levels in 2000. The welfare effects are the levels that are estimated to result from the specific tariff level. The ranges of estimated effects are based on different combinations of elasticity estimates.

Table FLAT-10
Coated: Summary effects of different tariff levels

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	10 percent	15 percent	20 percent	25 percent	30 percent
Domestic price	0.1 to 0.5	0.2 to 0.8	0.3 to 1.0	0.3 to 1.2	0.4 to 1.3
Domestic quantity	0.6 to 2.0	0.9 to 2.8	1.1 to 3.6	1.4 to 4.2	1.6 to 4.8
Domestic revenue	0.8 to 2.4	1.2 to 3.4	1.5 to 4.3	1.8 to 5.1	2.1 to 5.8
Non-NAFTA import price	6.6 to 8.3	9.9 to 12.4	13.1 to 16.6	16.3 to 20.7	19.4 to 24.7
Non-NAFTA import quantity	-23.4 to -12.3	-32.5 to -17.6	-40.3 to -22.4	-46.9 to -26.7	-52.7 to -30.7
Canadian import price	0.1 to 0.5	0.2 to 0.8	0.3 to 1.0	0.3 to 1.2	0.4 to 1.3
Canadian import quantity	0.6 to 2.0	0.9 to 2.8	1.1 to 3.6	1.4 to 4.2	1.6 to 4.8
Mexican import price	5.0 to 7.2	7.4 to 10.8	9.8 to 14.3	12.1 to 17.8	14.3 to 21.2
Mexican import quantity	-18.1 to -10.4	-25.5 to -14.9	-32.0 to -19.0	-37.8 to -22.8	-42.8 to -26.3
Covered import share	6.7 to 7.6	6.0 to 7.2	5.3 to 6.8	4.7 to 6.4	4.3 to 6.1
Net welfare effects ($1,000)	2,204 to 13,681	(2,432) to 12,964	(11,625) to 8,669	(23,460) to 1,593	(37,320) to (5,494)

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	35 percent	40 percent	45 percent	50 percent	
Domestic price	0.4 to 1.5	0.5 to 1.6	0.5 to 1.8	0.6 to 1.9	
Domestic quantity	1.8 to 5.3	2.0 to 5.8	2.2 to 6.2	2.4 to 6.6	
Domestic revenue	2.4 to 6.4	2.7 to 7.0	2.9 to 7.5	3.2 to 8.0	
Non-NAFTA import price	22.5 to 28.8	25.6 to 32.9	28.6 to 36.9	31.6 to 41.0	
Non-NAFTA import quantity	-57.6 to -34.3	-62.0 to -37.7	-65.7 to -40.7	-69.0 to -43.6	
Canadian import price	0.4 to 1.5	0.5 to 1.6	0.5 to 1.8	0.6 to 1.9	
Canadian import quantity	1.8 to 5.3	2.0 to 5.8	2.2 to 6.2	2.4 to 6.6	
Mexican import price	16.5 to 24.6	18.7 to 28.0	20.8 to 31.4	22.9 to 34.7	
Mexican import quantity	-47.4 to -29.5	-51.4 to -32.5	-55.0 to -35.2	-58.3 to -37.8	
Covered import share	3.8 to 5.7	3.5 to 5.5	3.1 to 5.2	2.8 to 5.0	
Net welfare effects ($1,000)	(52,724) to (13,716)	(69,302) to (23,231)	(86,759) to (33,850)	(104,873) to (45,414)	

[1] The estimated domestic producers' and import price, quantity, and revenue effects resulting from the specific tariff level are measured as the percentage increases from actual levels in 2000. The welfare effects are the levels that are estimated to result from the specific tariff level. The ranges of estimated effects are based on different combinations of elasticity estimates.

Table FLAT-11
Tin: Summary effects of different tariff levels

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	10 percent	15 percent	20 percent	25 percent	30 percent
Domestic price	0.2 to 0.7	0.3 to 1.0	0.4 to 1.2	0.5 to 1.4	0.6 to 1.7
Domestic quantity	1.1 to 3.2	1.7 to 4.6	2.1 to 5.8	2.6 to 6.9	3.0 to 7.8
Domestic revenue	1.4 to 3.7	2.1 to 5.3	2.7 to 6.8	3.3 to 8.0	3.8 to 9.2
Non-NAFTA import price	6.6 to 8.2	9.9 to 12.3	13.1 to 16.4	16.3 to 20.8	19.4 to 24.4
Non-NAFTA import quantity	-22.0 to -11.6	-30.7 to -16.6	-38.3 to -21.1	-44.8 to -25.3	-50.5 to -29.1
Canadian import price	0.2 to 0.8	0.4 to 1.1	0.5 to 1.4	0.6 to 1.7	0.6 to 1.9
Canadian import quantity	1.0 to 3.0	1.5 to 4.2	1.9 to 5.3	2.3 to 6.3	2.7 to 7.2
Mexican import price	0.2 to 0.6	0.3 to 0.9	0.4 to 1.1	0.4 to 1.3	0.5 to 1.5
Mexican import quantity	1.2 to 3.4	1.8 to 4.8	2.3 to 6.1	2.8 to 7.3	3.2 to 8.3
Covered import share	11.0 to 12.4	9.7 to 11.7	8.7 to 11.0	7.8 to 10.5	7.0 to 9.9
Net welfare effects ($1,000)	(3) to 2,635	(1,837) to 2,078	(4,551) to 616	(7,949) to (1,136)	(11,893) to (3,096)

U.S. industry effects[1] *(In percent unless otherwise noted)*	Tariff rate				
	35 percent	40 percent	45 percent	50 percent	
Domestic price	0.6 to 1.8	0.7 to 2.0	0.8 to 2.2	0.8 to 2.3	
Domestic quantity	3.4 to 8.7	3.8 to 9.5	4.2 to 10.3	4.5 to 10.9	
Domestic revenue	4.3 to 10.3	4.8 to 11.2	5.3 to 12.1	5.7 to 12.8	
Non-NAFTA import price	22.5 to 28.5	25.6 to 32.5	28.6 to 36.5	31.6 to 40.5	
Non-NAFTA import quantity	-55.5 to -32.6	-59.8 to -35.8	-63.7 to -38.8	-67.0 to -41.6	
Canadian import price	0.7 to 2.1	0.8 to 2.3	0.9 to 2.5	1.0 to 2.7	
Canadian import quantity	3.1 to 8.1	3.4 to 8.8	3.8 to 9.5	4.1 to 10.1	
Mexican import price	0.6 to 1.6	0.6 to 1.8	0.7 to 1.9	0.7 to 2.1	
Mexican import quantity	3.7 to 9.3	4.1 to 10.1	4.5 to 10.9	4.9 to 11.6	
Covered import share	6.3 to 9.4	5.7 to 9.0	5.1 to 8.6	4.7 to 8.2	
Net welfare effects ($1,000)	(16,252) to (5,446)	(20,921) to (8,129)	(25,825) to (11,099)	(30,906) to (14,313)	

[1] The estimated domestic producers' and import price, quantity, and revenue effects resulting from the specific tariff level are measured as the percentage increases from actual levels in 2000. The welfare effects are the levels that are estimated to result from the specific tariff level. The ranges of estimated effects are based on different combinations of elasticity estimates.

Table FLAT-12
Summary of domestic price and quantity effects of differing tariff levels, in percent

Tariff level and effect	Slab	Plate	Hot-rolled	Cold-rolled	Coated	Tin	Total[1] (slab out)	Total[1] (slab in)
10% Price	3.3 to 6.2	0.2 to 0.7	0.6 to 1.7	0.4 to 1.4	0.1 to 0.5	0.2 to 0.7	0.1 to 0.7	0.1 to 0.7
Quantity	8.7 to 21.8	1.4 to 3.5	2.5 to 6.8	1.1 to 3.7	0.6 to 2.0	1.1 to 3.2	1.5 to 4.3	1.5 to 4.4
Revenue	13.4 to 28.0	1.8 to 4.1	3.3 to 8.3	1.7 to 4.6	0.8 to 2.4	1.4 to 3.7	1.8 to 4.6	1.8 to 4.8
15% Price	4.8 to 9.3	0.3 to 1.0	0.9 to 2.5	0.5 to 2.0	0.2 to 0.8	0.3 to 1.0	0.1 to 1.0	0.1 to 1.1
Quantity	13.1 to 33.5	2.0 to 4.9	3.6 to 9.7	1.7 to 5.2	0.9 to 2.8	1.7 to 4.6	2.2 to 6.1	2.2 to 6.3
Revenue	20.2 to 43.5	2.6 to 5.6	4.8 to 11.8	2.5 to 6.6	1.2 to 3.4	2.1 to 5.3	2.6 to 6.6	2.7 to 6.8
20% Price	6.4 to 12.3	0.4 to 1.2	1.1 to 3.1	0.7 to 2.5	0.3 to 1.0	0.4 to 1.2	0.2 to 1.3	0.2 to 1.4
Quantity	17.4 to 45.7	2.6 to 6.1	4.6 to 12.3	2.1 to 6.6	1.1 to 3.6	2.1 to 5.8	2.8 to 7.7	2.9 to 7.9
Revenue	27.2 to 60.0	3.3 to 7.0	6.2 to 14.9	3.2 to 8.3	1.5 to 4.3	2.7 to 6.8	3.3 to 8.3	3.5 to 8.6
25% Price	7.8 to 15.1	0.5 to 1.4	1.3 to 3.7	0.8 to 3.0	0.3 to 1.2	0.5 to 1.4	0.2 to 1.6	0.2 to 1.6
Quantity	21.7 to 58.3	3.1 to 7.1	5.6 to 14.6	2.6 to 7.8	1.4 to 4.2	2.6 to 6.9	3.4 to 9.1	3.5 to 9.4
Revenue	34.2 to 77.5	3.9 to 8.2	7.5 to 17.7	3.9 to 9.8	1.8 to 5.1	3.3 to 8.0	4.0 to 9.8	4.2 to 10.2
30% Price	9.2 to 18.1	0.6 to 1.6	1.6 to 4.3	1.0 to 3.4	0.4 to 1.3	0.6 to 1.7	0.3 to 1.8	0.3 to 1.9
Quantity	25.9 to 71.3	3.6 to 8.0	6.5 to 16.6	3.0 to 8.8	1.6 to 4.8	3.0 to 7.8	3.9 to 10.3	4.0 to 10.7
Revenue	41.3 to 95.9	4.6 to 9.2	8.8 to 20.2	4.5 to 11.2	2.1 to 5.8	3.8 to 9.2	4.7 to 11.2	4.9 to 11.6
35% Price	10.6 to 20.9	0.7 to 1.8	1.7 to 4.7	1.1 to 3.8	0.4 to 1.5	0.6 to 1.8	0.3 to 2.0	0.3 to 2.1
Quantity	30.1 to 84.7	4.1 to 8.7	7.3 to 18.4	3.4 to 9.8	1.8 to 5.3	3.4 to 8.7	4.4 to 11.4	4.6 to 11.9
Revenue	48.4 to 115.3	5.1 to 10.0	9.9 to 22.4	5.1 to 12.4	2.4 to 6.4	4.3 to 10.3	5.3 to 12.4	5.5 to 12.9

Continued on next page.

Table FLAT-12-Continued
Summary of domestic price, quantity, and revenue effects of differing tariff levels

Tariff level and effect	Slab	Plate	Hot-rolled	Cold-rolled	Coated	Tin	Total[1] (slab out)	Total[1] (slab in)
40% Price	11.9 to 23.7	0.7 to 1.9	1.9 to 5.2	1.2 to 4.2	0.5 to 1.6	0.7 to 2.0	0.3 to 2.2	0.4 to 2.3
Quantity	34.3 to 98.5	4.5 to 9.3	8.1 to 19.9	3.8 to 10.6	2.0 to 5.8	3.8 to 9.5	4.9 to 12.4	5.1 to 13.0
Revenue	55.6 to 135.7	5.6 to 10.7	11.0 to 24.4	5.7 to 13.4	2.7 to 7.0	4.8 to 11.2	5.9 to 13.4	6.1 to 14.1
45% Price	13.2 to 26.5	0.8 to 2.1	2.1 to 5.5	1.3 to 4.5	0.8 to 2.2	0.8 to 2.2	0.4 to 2.4	0.4 to 2.5
Quantity	38.4 to 112.7	4.9 to 9.9	8.9 to 21.3	4.1 to 11.4	4.2 to 10.3	4.2 to 10.3	5.3 to 13.3	5.5 to 13.9
Revenue	62.9 to 156.9	6.1 to 11.4	12.0 to 26.1	6.2 to 14.4	5.3 to 12.1	5.3 to 12.1	6.4 to 14.4	6.7 to 15.2
50% Price	14.5 to 29.2	0.9 to 2.2	2.2 to 5.9	1.4 to 4.8	0.8 to 2.3	0.8 to 2.3	0.4 to 2.5	0.4 to 2.7
Quantity	42.5 to 127.2	5.2 to 10.4	9.6 to 22.6	4.4 to 12.0	4.5 to 10.9	4.5 to 10.9	5.7 to 14.0	6.0 to 14.8
Revenue	70.2 to 179.0	6.6 to 11.9	13.0 to 27.7	6.7 to 15.3	5.7 to 12.8	5.7 to 12.8	6.9 to 15.3	7.2 to 16.1

[1] Totals do not include tin.

CONSIDERATIONS UNDER SECTION 203(a)(2)

Adjustment Assistance and Worker Retraining

According to information on the Department of Labor's website, workers from several firms that produce flat steel products have been certified for adjustment assistance.[15] Firms listed include LTV Steel, Thompson Steel Company, North Star Steel, WCI Steel, Inc., Geneva Steel, National Steel Corporation, Allegheny Ludlum Steel, ans United States Steel LLC.

[15] See Department of Labor's website at *wdsc.doleta.gov/trade_act/taa*. In addition, staff has attempted to contact the Department of Commerce to obtain information on firms that have been certified for adjustment assistance but to date has not received the information. To the extent that additional information becomes available, it will be forwarded to the Commission.

Positive Adjustment to Import Competition

Domestic producers Bethlehem, LTV, National, and United States Steel submitted an adjustment plan in their remedy prehearing brief on October 29, 2001. In the adjustment plan, these firms state that domestic flat steel producers intend to make different types of competitive adjustments if relief is granted; however, most of the adjustments fall into three general categories: restoring financial stability, investment in facilities and equipment which includes developing new products and markets, and pursuing market-based consolidation and rationalization. Domestic producers also state that the industry would be helped by public policy measures such as legacy cost relief, tax incentives such as providing relief for acquiring companies or incentives to liquidate or sell capacity, and improved unfair trade law enforcement.

Restoring the financial health of the steel industry, domestic producers state, will reduce the overall manufacturing costs of producing flat steel products through lower debts and, accordingly, improved cash flow in the future. With regard to new investment in facilities and equipment, these firms state that the revenue generated from the remedy will allow domestic producers to replace or rebuild aging equipment, enhance productivity and efficiency, improve product quality, reduce defects, and become more environmentally sound. These producers report that temporary import relief would also allow domestic flat steel producers to continue to invest in new markets or products such as the Ultra Light Steel Autobody and light weight steel framing for homebuilders, which have been threatened by the current injury experienced by the domestic industry. Finally, these domestic producers seek to "pursue steps to rationalize and consolidate within the industry, where dictated by market forces."[16] Specifically, efficiency-enhancing restructuring could take place through operating synergies, enhanced asset utilization, transportation savings, increased cross-selling, increased access to technology, input cost

[16] Remedy prehearing brief of Dewey Ballantine and Skadden, Arps, p. 21.

savings, administrative savings, and one-time benefits such as rationalization ("where redundant capabilities can be eliminated").[17]

The domestic 201 Minimill Coalition also submitted an adjustment plan. It calls for investment plans of between $2.3-2.6 billion over 4 years of relief and includes individual firm plans. Also, the adjustment plan contains research proposals for improving steelmaking efficiency and quality, including iron unit supply, and steel manufacturing process, as well as conducting environmental studies and studies on how to increase services.

Ispat Inland's adjustment plan contains a commitment to improving competitiveness through rationalization of resources, notes that it plans to undertake investment and improvements, and proposes that the government support legislative changes to induce consolidations (through more favorable tax treatment for acquisition of firms with operating losses and their legacy costs and limiting environmental risks) and promote growth after consolidations (via exemptions from Alternative Minimum Tax and tax credits for investment in new technologies).

[17] Ibid., p. 23

CARBON AND ALLOY LONG PRODUCTS

CONSIDERATION OF REQUESTED RELIEF

This section contains a discussion of the economic factors that affect the conditions of competition in the U.S. markets for hot-rolled bar and light shapes (hot bar), cold-finished bar (cold bar), and concrete reinforcing bar (rebar). These factors are used to estimate the likely effects on the U.S. market of the imposition of a quota, tariff, or tariff-rate quota as relief under section 202 of the Trade Act of 1974. This section discusses the supply and demand conditions in the U.S. bar products markets and provides estimates of ranges of elasticities of supply, demand, and substitution that are based on the market considerations. A model-based estimation of the likely effects of the import relief requested by the petitioners and of other possible import relief are provided. In addition, this section contains a discussion of section 203(a)(2) considerations.

The Commission must also state whether and to what extent its findings and recommendations apply to bar products imported from beneficiary Caribbean Basin countries, Andean countries, or from Israel. Over the period examined, there have been low levels of imports of hot bar from Belize, the Dominican Republic, El Salvador, Guatemala, and Trinidad and Tobago. These are beneficiary countries of the Caribbean Basin Economic Recovery Act (CBERA). There have also been imports of hot bar from Columbia and Peru under the Andean Trade Preference Act (ATPA), and imports of hot bar from Israel. There have been low levels of imports of cold bar from Colombia, and rebar from El Salvador and Trinidad and Tobago. See table LONG-1 for the import value of hot bar, cold bar, and rebar from Andean countries, Carribean Basin countries, and Israel in year 2000.

Table LONG-1
Landed value of imports of bar products from Andean countries, Carribean Basin countries, and from Israel in year 2000

Country	Hot bar	Cold bar	Rebar
	thousands of dollars		
Colombia	79	991	0
Peru	(1)	0	0
Belize	(1)	0	0
Dominican Republic	(1)	0	(1)
El Salvador	6	0	700
Guatemala	62	0	0
Trinidad and Tobago	62	(1)	4
Israel	117	0	(1)

[1] Less than $500

A nonlinear comparative static model is used to analyze the effects of remedy options.[20] The purpose of the model is to present changes in prices, quantities, revenues, and welfare and consumer costs in the U.S. long steel products markets as a result of various tariff, quota, or TRQ levels. Inputs used by staff are shown in table LONG-2. Quantity and value of the domestic and import shipments for 2000 are used.

[20] The results presented by staff in this memorandum assume a zero growth rate for the U.S. long steel products markets. However, the model is capable of estimating the effects of remedy options under different growth rate scenarios.

Table LONG-2
Inputs used in the economic modeling for hot bar, cold bar, and rebar

Input	Range or value		
	Hot bar	Cold bar	Rebar
Quantity of domestic shipments (*short tons*)	8,701,535	1,325,848	6,442,689
Value of domestic shipments (*$1,000*)	3,465,559	888,901	1,735,051
Quantity of non-NAFTA imports (*short tons*)	1,214,149 [1]	233,940 [2]	1,616,111 [3]
Value of non-NAFTA imports (*$1,000*)	580,950 [1]	177,297 [2]	347,441 [3]
Quantity of Canadian imports (*short tons*)	1,154,173	80,348	1,996
Value of Canadian imports (*$1,000*)	463,419	65,415	932
Quantity of Mexican imports (short tons)	163,086	670	51,723
Value of Mexican imports (*$1,000*)	58,921	381	13,858

[1] Includes imports from ATPA and CBERA countries, and from Israel. The quantity of imports from ATPA countries, CBERA countries, and Israel in 2000 was 82 short tons, 297 short tons, and 67 short tons, respectively. The value of imports was 79, 130, and 117 thousand dollars.
[2] Includes imports from ATPA countries of 1,462 short tons, with a landed value of $991,000.
[3] Includes imports from CBERA countries of 1,751 short tons with a landed value of $704,000.

For hot bar and cold bar, imports from Mexico are treated as "non-target" imports (i.e., imports that are not subject to the remedy) and are not included in "target" import numbers that are used as inputs in determining the effects of the various remedies. For rebar, imports from both Canada and Mexico are treated as "non-target" imports. The effects of various tariffs are shown with certain specialty products (suggested by parties) included in the "target" imports.[21]

[21] At the injury determination phase of this investigation, a majority of Commissioners made a negative determination with regard to imports of hot bar and cold bar from Mexico (i.e., they determined that imports from Mexico were not the cause of nor were they contributing to any serious injury of the domestic industry), and a negative determination with respect to imports of rebar from both Canada and Mexico. With regard to the specialty products that parties have requested be excluded from any remedy, the Commission has made no determination on whether they will be included or excluded; once data on the quantity and value of any exclusions becomes available, the effects of various remedies on the industry can be estimated with the specialty products excluded from the import levels.

Current Tariffs and Quotas

U.S. imports of long steel products are subject to import duties as provided for by the HTS. The 2001 column-1 general duty rates and applicable NAFTA duty rates for the subheadings covered by this investigations are presented in table LONG-3

Table LONG-3
General and NAFTA duty rates for bar products, 2001

HTS number	2001 duty rate	
	General	NAFTA[1]
Hot-rolled bar and light shapes		
7213.20.00, 7213.99.00	0.6%	0.3%
7214.10.00, 7214.30.33, 7214.91.00, 7214.99.00, 7227.20.00, 7227.90.60	1.4%	0.9%
7214.90.10	1.0%	0.6%
7215.90.50	2.2%	0.0%
7216.10.00, 7216.21.00, 7216.22.00, 7216.50.00	0.3%	0.1%
7216.61.00, 7216.69.00	1.5%	0.0%
7216.91.00, 7216.99.00, 7227.90.20	1.3%	0.8%
7227.90.10, 7228.70.30	0.6%	0.4%
7228.20.10, 7228.30.20, 7228.30.80, 7228.40.00, 7228.60.60	1.8%	1.2%
7228.60.10	3.2%	2.1%
7228.70.60	1.6%	1.0%
7228.80.00	1.7%	0.0%
Cold-finished bar		
7215.10.00, 7215.50.00, 7215.90.30, 7228.20.50, 7228.50.50, 7228.60.80	2.2%	1.5%
7228.50.10	3.2%	2.1%
Rebar		
7213.10.00, 7214.20.00	1.5%	0.9%

[1] The rate of duty for long steel products imported from Canada for all of the subheadings is free; the rates listed in this column apply to imports from Mexico.

The column 1-general duty rates are scheduled for arranged reduction to an eventual rate of "free" by January 1, 2004, as provided for in Presidential Proclamation 6763 which implements the Uruguay Round concession and as amended by Proclamation 6875 (annexes II and III(a)(2), reflecting

Harmonized System changes in the HTS). The rates applicable to imports from Mexico are being reduced annually and are to be eliminated as of January 1, 2003. Other special tariff programs provide duty-free entry to eligible products of Israel, of beneficiaries of the Caribbean Basin Economic Recovery Act (CBERA) and Andean Trade preferences Act (ATPA), and of least-developed beneficiary developing countries under the Generalized System of Preferences (GSP).

SUPPLY AND DEMAND CONSIDERATIONS

Domestic Supply

Based on available information (for 2000), U.S. steel long products producers are likely to respond to changes in demand with moderate changes in the quantity of shipments of U.S.-produced steel long products to the U.S. market. The main factors contributing to the moderate responsiveness of supply are relatively high levels of capacity utilization, the lack of alternate markets, and the lack of large inventories (see table LONG-4).

Table LONG-4
Factors affecting domestic producers' supply to the U.S. market

Product	Capacity Utilization	Export shipments	Inventories
	(percent)	*(percent)*	*(percent)*
Hot bar	70.0	3.9	16.4
Cold bar	45.0[22]	1.7	17.2
Rebar	68.5	2.4	9.8

[22] ***, a domestic producer of hot-rolled and cold-finished bar, reported that its capacity to produce cold-finished bar is equal to its capacity to produce hot-rolled bar. *** capacity utilization for cold-finished bar in 2000 was *** percent. The capacity utilization of domestic producers other than *** in 2000 was *** percent. In its prehearing brief, the European Confederation of Iron and Steel Industries (EUROFER) objected that including reported capacity and production data for *** lowered the calculated capacity utilization for domestic cold bar producers, making it appear that domestic producers would be more responsive to a change in the U.S. price of cold-finished bar. Staff contacted *** and verified that the capacity was as reported. However, given the wide range of manufacturing processes that can be classified as cold-finishing, *** capacity to finish its hot bar products could not necessarily be used to increase production of other cold-finished bar products.

Import Supply

Average capacity utilization for responding foreign producers in the years 1996-2000 ranged from 74.3 percent to 79.4 percent for hot bar, from 75.2 percent to 84.3 percent for cold bar, and from 81.7 percent to 86.5 percent for rebar[23] These producers have alternate markets that would allow them to respond to changes in the price of steel long products in the U.S. market (Table LONG-5). The ability of foreign producers and exporters to alter export shipments in response to price changes is illustrated by changes in export shipments over time; see Tables LONG-6-8.

Table LONG-5
Factors affecting responding foreign producers' supply to the U.S. market

Product	Capacity Utilization	Export shipments to the United States / total shipments	Inventories / total shipments
	(percent)	*(percent)*	*(percent)*
Hot bar			
Canada	76.8	33.0	12.1
Mexico	76.5	15.0	4.3
All imports	79.4	6.4	6.0
Cold bar			
Canada	74.8	46.7	1.6
Mexico	***	***	***
All imports	84.3	6.2	7.4
Rebar			
Canada	26.6	0.0	7.3
Mexico	64.4	1.5	11.0
All imports	86.5	4.5	4.7

[23] The numbers discussed in this section refer to data compiled from responses of producers in the following countries: Hot bar – Argentina, Brazil, Canada, China, France, Germany, Italy, Japan, Korea, Luxembourg, Mexico, Russia, Slovenia, Spain, South Africa, Sweden, Taiwan, Turkey, Ukraine, United Kingdom, and Venezuela; Cold bar – Argentina, Brazil, Canada, France, Germany, Italy, Japan, Mexico, Slovenia, Spain, Sweden, Ukraine, and United Kingdom; Rebar – Argentina, Brazil, Canada, China, Germany, Italy, Indonesia, Japan, Korea, Latvia, Luxembourg, Mexico, New Zealand, Russia, South Africa, Spain, Taiwan, Thailand, Turkey, Ukraine, and Venezuela. Data will be discussed in the aggregate form for all countries (i.e., not separately for each of the countries) because this investigation concerns all imports from all sources.

Table LONG-6
Reported exports of hot bar[1] from major import sources, 1996-2000

Source	Destination	1996	1997	1998	1999	2000
		metric tonnes	*metric tonnes*	*metric tonnes*	*metric tonnes*	*metric tonnes*
Brazil	Argentina	18,986	36,968	39,122	51,208	48,313
	Mexico	3,057	18,755	19,902	30,079	30,075
	United States	21,885	26,842	22,142	16,852	18,198
	Bolivia	1,550	9,179	11,343	13,018	16,732
	France	4,248	4,230	5,156	12,530	10,654
	Chile	7,044	12,083	11,621	10,393	14,189
	all other	55,020	68,102	51,977	41,762	61,761
	total	111,790	176,159	161,263	175,842	199,922
Canada	United States	893,944	950,315	985,606	1,000,534	1,098,855
	Mexico	7,197	10,340	15,446	13,694	22,120
	Egypt	4,287	0	0	5,200	687
	U K	2,020	2,221	2,343	2,311	1,214
	China	263	9	27	2,121	87
	Sudan	20	0	0	0	0
	all other	15,345	7,136	3,790	2,719	6,936
	total	923,076	970,021	1,007,212	1,026,579	1,129,899
Germany	France	203,596	225,405	307,355	283,340	286,445
	Italy	125,931	194,148	227,929	206,395	223,126
	Austria	55,352	71,464	78,920	102,538	71,992
	Netherlands	69,171	81,988	102,695	91,803	80,808
	Switzerland	55,031	61,137	75,521	85,428	113,514
	United States	41,661	35,527	35,665	49,761	94,945
	all other	549,729	653,795	651,295	610,404	738,619
	total	1,100,471	1,323,464	1,479,380	1,429,669	1,609,449
Japan	Korea	132,309	141,494	58,348	192,506	197,235
	United States	112,684	121,691	208,330	156,437	160,801
	Taiwan	0	0	138,705	142,652	146,776
	Thailand	97,087	76,039	51,568	105,262	117,752
	China	64,049	82,760	93,439	67,876	58,393
	Hong Kong	46,588	47,912	56,130	59,724	70,025
	all other	254,532	368,648	218,975	270,756	263,884
	total	707,249	838,544	825,495	995,213	1,014,866

table continued next page

Table LONG-6 continued

Source	Destination	1996	1997	1998	1999	2000
Korea	United States	6,178	7,504	87,102	110,704	(2)
	Saudi Arabia	11,018	12,282	77,579	83,846	(2)
	China	35,974	55,224	68,545	74,745	(2)
	India	6,726	6,436	29,467	51,030	(2)
	Taiwan	0	24,540	55,435	41,533	(2)
	Singapore	24,484	32,209	23,179	21,719	(2)
	all other	206,860	188,425	297,653	190,170	(2)
	total	291,240	326,620	638,960	573,747	(2)
Mexico	United States	177,378	149,032	128,806	372,002	(2)
	Guatemala	12,523	6,902	7,147	5,133	(2)
	El Salvador	4,239	4,397	8,092	2,196	(2)
	Honduras	2,148	1,290	1,454	878	(2)
	Belize	316	340	279	779	(2)
	Netherlands Antilles	0	0	0	701	(2)
	all other	27,156	16,958	6,592	1,953	(2)
	total	223,760	178,919	152,370	383,642	(2)
Turkey	United States	29,400	55,319	91,323	72,023	168,186
	Algeria	53,151	34,808	63,230	79,641	78,270
	Canada	0	7,788	17,340	19,810	44,654
	Netherlands	8,920	26,564	20,390	45,734	43,541
	Morocco	31,405	30,013	48,483	65,837	38,011
	Israel	5,902	13,479	20,581	34,505	32,009
	all other	406,243	349,446	392,425	396,091	351,546
	total	535,021	517,417	653,772	713,641	756,217
U K	Germany	294,059	282,496	271,425	258,535	(2)
	United States	182,161	245,249	197,381	180,670	(2)
	Italy	100,577	109,945	101,728	82,845	(2)
	France	76,320	81,790	80,193	67,682	(2)
	Spain	37,097	56,667	62,934	66,538	(2)
	Netherlands	59,468	55,852	64,171	59,942	(2)
	all other	363,394	393,718	327,253	276,238	(2)
	total	1,113,076	1,225,717	1,105,085	992,450	(2)

(1) Hot bar includes exports under HTS 7213.20, 7213.99, 4214.10, 7214.30, 7214.91, 7214.99, 7215.90, 7216.10, 7216.21, 7216.22, 7216.50, 7216.61, 7216.69, 7216.91, 7216.99, 7227.20, 7227.90, 7228.20, 7228.30, 7228.40, 7228.60, 7228.70, and 7228.80
(2) Data not available

Source: UN trade data

Table LONG-7
Reported exports of cold bar[1] from major import sources, 1996-2000

Source	Destination	1996	1997	1998	1999	2000
		metric tonnes	*metric tonnes*	*metric tonnes*	*metric tonnes*	*metric tonnes*
Canada	United States	88,729	99,944	103,205	109,467	111,615
	Taiwan	1,546	1,950	2,045	1,742	2,914
	U K	2,176	2,811	3,158	2,620	2,036
	Poland	8	59	6	11	988
	Mexico	248	1,724	753	343	679
	Egypt	1,757	0	0	4,129	677
	all other	1,120	1,405	550	635	783
	Total	95,584	107,893	109,717	118,947	119,692
France	Germany	49,074	71,653	91,355	63,788	70,677
	United States	18,033	40,106	41,861	12,922	38,277
	Italy	26,362	26,652	31,109	24,343	28,821
	U K	23,107	28,642	30,217	18,808	25,253
	Spain	7,723	10,622	16,184	13,031	16,828
	Belgium	0	0	0	10,504	14,339
	all other	54,217	71,817	78,495	53,783	67,140
	Total	178,516	249,492	289,221	197,179	261,335
Germany	France	25,599	26,125	30,084	29,918	35,271
	Netherlands	27,207	24,148	23,456	23,807	29,361
	Italy	7,001	7,641	9,711	14,554	26,336
	Switzerland	16,902	15,607	19,299	15,172	19,164
	Czech Rep.	7,383	10,676	12,357	12,241	18,991
	United States	4,306	8,082	9,887	10,571	15,855
	all other	79,498	100,620	100,809	99,868	117,525
	Total	167,896	192,899	205,603	206,131	262,503
Japan	Thailand	21,044	13,239	5,212	8,929	12,417
	Hong Kong	13,131	16,420	13,707	13,306	11,944
	China	6,683	8,581	9,016	12,282	10,163
	Singapore	5,355	7,392	8,066	8,535	9,390
	Taiwan	0	0	11,651	8,244	8,606
	United States	4,844	5,638	8,893	6,954	7,552
	all other	30,796	38,224	20,254	30,409	28,231
	Total	81,853	89,494	76,799	88,659	88,303

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Table LONG-7 continued						
Source	Destination	1996	1997	1998	1999	2000
Mexico	United States	2,788	3,519	3,657	4,391	(2)
	Guatemala	108	650	503	131	(2)
	Chile	0	45	115	71	(2)
	Costa Rica	216	79	3	59	(2)
	El Salvador	43	117	91	57	(2)
	Spain	0	0	0	31	(2)
	all other	1,456	671	501	104	(2)
	Total	4,611	5,081	4,870	4,844	(2)
Russia	Iran	0	18,978	5,943	71,989	172,055
	Austria	0	0	14,802	7,615	67,833
	Germany	0	5,392	12,739	25,564	36,656
	Taiwan	0	0	527	12,420	25,728
	Belgium	0	0	0	17,545	24,817
	United States	0	1,006	6,406	4,844	10,238
	all other	0	359,462	538,219	320,145	119,951
	Total	0	384,838	578,636	460,122	457,278
Spain	France	73,760	53,894	63,685	52,839	57,301
	Germany	26,267	18,963	20,848	18,992	23,746
	United States	11,833	12,330	15,483	14,179	20,434
	U K	17,959	13,807	13,028	8,379	12,555
	Italy	7,351	5,816	6,345	6,290	10,225
	Mexico	1,261	1,651	3,092	3,832	9,014
	all other	46,273	39,765	40,620	37,809	43,345
	Total	184,704	146,226	163,101	142,320	176,620
U K	Italy	12,842	7,689	13,036	36,601	(2)
	United States	25,790	26,967	35,490	32,376	(2)
	France	26,410	29,260	30,762	28,937	(2)
	Germany	17,419	21,846	27,876	25,503	(2)
	Ireland	8,780	7,956	9,326	9,484	(2)
	Mexico	4,632	5,430	4,870	4,837	(2)
	all other	45,879	44,931	38,843	34,862	(2)
	Total	141,752	144,079	160,203	172,600	(2)

(1) Cold bar includes exports under HTS 7215.10, 7215.50, 7215.90, 7228.20, 7228.50, and 7228.60
(2) Data not available

Source: UN trade data

Table LONG-8
Reported exports of rebar[1] from major import sources, 1996-2000

Source	Destination	1996	1997	1998	1999	2000
		metric tonnes	*metric tonnes*	*metric tonnes*	*metric tonnes*	*metric tonnes*
Canada	United States	1,136	782	929	3,292	2,266
	Bermuda	0	24	609	1,026	304
	Bahamas	0	0	0	0	53
	Panama	0	0	0	0	32
	Indonesia	0	0	0	0	20
	all other	102	0	116	603	100
	Total	1,238	806	1,654	4,921	2,775
China	Hong Kong	185,189	132,502	184,939	113,406	193,922
	United States	43	5,092	219	5,757	67,554
	Burma (Myanmar)	15,594	6,996	6,354	8,805	28,139
	Cambodia (Kampuchea)	11,308	7,803	3,491	4,494	14,916
	Korea, North	20	725	1,046	399	10,707
	all other	54,621	33,968	13,039	25,036	20,231
	Total	266,774	187,085	209,088	157,897	335,469
Korea	United States	11,999	38,000	642,838	415,125	(2)
	Hong Kong	0	11,995	144,263	88,982	(2)
	Canada	0	0	65,264	29,309	(2)
	Kuwait	0	0	33,824	25,094	(2)
	Panama	0	0	12,145	21,966	(2)
	all other	289,145	254,145	411,799	83,434	(2)
	Total	301,144	304,140	1,310,134	663,910	(2)
Latvia	United States	0	44,033	142,126	418,329	209,560
	Canada	0	0	2,467	11,854	75,384
	U K	0	9,988	0	1	52,852
	Algeria	36,282	52,145	38,267	6,194	46,614
	Poland	4,649	0	29,226	21,523	27,355
	all other	173,890	227,107	202,198	52,293	131,546
	Total	214,821	333,273	414,284	510,193	543,311

table continued next page

Table LONG-8 continued						
Source	Destination	1996	1997	1998	1999	2000
Mexico	United States	197,902	227,679	87,981	135,626	(2)
	Germany	0	0	0	43,296	(2)
	Costa Rica	1,454	76	233	2,669	(2)
	Guatemala	8,870	7,206	3,899	1,674	(2)
	Belize	3,944	2,769	2,460	1,501	(2)
	all other	467,789	249,097	59,040	1,038	(2)
	Total	679,958	486,828	153,612	185,805	(2)
Moldova	Romania	0	0	212	1	1
	Ukraine	0	0	14	0	0
	Russia	0	0	23	0	0
	Total	0	0	249	1	1
Turkey	United Arab Emirates	386,389	333,389	420,702	587,008	480,208
	Singapore	533,776	840,850	367,804	507,750	370,766
	United States	146,327	73,503	27,372	59,036	225,997
	Hong Kong	480,854	563,589	326,217	191,380	213,841
	Israel	19,956	175,239	280,129	281,465	185,742
	all other	1,485,046	1,239,434	1,713,192	2,249,175	1,636,697
	Total	3,052,347	3,226,005	3,135,417	3,875,813	3,113,252

(1) Rebar includes exports under HTS 7213.10 and 7214.20
(2) Data not available

Source: UN trade data

U.S. Demand

Demand Characteristics

Data obtained in this investigation indicates that overall demand for bar products has increased during the period for which data were collected. Purchasers of bar products generally agreed that the demand for their end-use products has increased during the past five years.[24] Apparent U.S. consumption of hot bar, cold bar, and rebar increased by 11.7 percent, 16.6 percent, and 48.1 percent, respectively during 1996-2000. Responding purchasers of all three bar products cited the favorable economic climate in the United States as the main factor behind the increase in the demand.

Table LONG-9
Reported changes in demand for end-use products reported by purchasers of bar products since 1996

Reported change	Number of purchasers reporting		
	Hot bar	Cold bar	Rebar
Increased	27	16	4
Decreased	16	7	1
Other or no change	7	4	2
Source: Compiled from data submitted in response to Commission questionnaires			

Based on the available information, the overall consumption of bar products will not change significantly in response to changes in price. The main factor contributing to the low degree of price sensitivity is the lack of available substitute products. As noted in the injury phase staff report, the majority of producers, importers, and purchasers reported that there are no known substitutes for steel bar products. Many of the responding purchasers produce other long steel products and substitution is limited by the production process.

[24] Purchasers of long steel products responded to Commission questionnaires with regard to all long steel products purchased. For each product category (hot bar, cold bar, and rebar) responses of all firms that purchased domestic or imported product are included. Many responding firms purchase products from more than one product category (see injury phase staff report table LONG-85). Responses are not additive across product categories.

Also contributing to a low demand responsiveness is the fact that for many of the end uses of bar products, the cost share is low . The percentage of the cost of the end product accounted for by hot bar and cold bar products varies significantly, from 2-3 percent of some valves to 70 percent of some oilfield drilling tools.[25] While a higher-cost component tends to support a higher degree of price sensitivity, the fact that many of the "end products" mentioned by purchasers are used in the production of other products tends to moderate this effect.

There is a single end use for rebar; structural reinforcement of cast concrete structures. The share of total cost accounted for by rebar is very small. Therefore, the demand for rebar also is likely to be fairly unresponsive to changes in its price.

Substitutability of Domestic and Imported Steel Long Products

Available data indicates that rebar from domestic and import sources are largely interchangeable. There is less substitutability between domestic and imported hot bar and cold bar. Responding purchasers reported a number of hot bar and cold bar products that are reportedly not available or are in short supply from domestic sources.[26] A majority of responding hot bar and cold bar purchasers reported that product quality is the most important factor in deciding from whom to purchase bar products (tables LONG-10-13).

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[25] Purchaser questionnaire responses from ***.

[26] If many of these products are eventually excluded from any import restrictions, the remaining hot bar and cold bar products would be assumed to be more perfectly substitutable.

Table LONG-10
Hot bar: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	65	32	20
Price	40	52	38
Availability/Delivery	19	47	53
Contract/Traditional Supplier	13	5	7
Other[1]	7	5	24

[1] Other includes forgeability, credit terms, product range, service, and supplier stability.

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

Table LONG-11
Hot bar: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.9	8	29	1	5	2	1	32	33	18
Delivery terms	2.4	1	36	0	2	6	0	27	50	6
Delivery time	2.8	6	29	2	4	3	1	40	12	11
Discounts offered	2.2	2	30	3	1	6	1	10	58	13
Lowest price	2.6	3	29	5	2	5	1	15	36	31
Minimum quantity requirements	2.2	2	33	1	2	6	0	22	50	11
Packaging	2.0	1	35	1	2	6	0	12	64	7
Product consistency	2.9	2	34	1	4	4	0	10	57	16
Product quality	3.0	4	31	2	4	4	0	12	51	20
Product range	2.2	7	30	0	3	4	1	15	56	12
Reliability of supply	2.9	3	34	0	4	2	2	25	39	19
Technical support	2.4	8	28	1	5	2	1	31	40	12
Transportation network	2.1	5	32	0	4	3	1	28	50	5
U.S. transportation costs	2.3	4	31	0	3	5	0	22	50	10

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

Table LONG-12
Cold bar: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	46	11	11
Price	13	30	26
Availability/Delivery	5	29	24
Contract/Traditional Supplier	10	1	1
Other[1]	2	5	15

[1] Other includes customer approval, lot size, credit terms, and product range.

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

Table LONG-13
Cold bar: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.8	4	13	1	2	1	1	19	18	11
Delivery terms	2.3	0	18	0	1	3	0	18	28	2
Delivery time	2.7	3	13	2	2	1	1	25	17	6
Discounts offered	2.2	1	14	2	0	3	1	7	33	6
Lowest price	2.6	3	12	3	0	3	1	9	22	17
Minimum quantity requirements	2.3	1	16	0	1	3	0	13	28	7
Packaging	2.1	0	18	0	1	3	0	6	34	7
Product consistency	2.9	1	17	0	1	3	0	4	34	10
Product quality	2.9	1	16	1	1	3	0	3	31	14
Product range	2.3	6	12	0	1	2	1	7	34	7
Reliability of supply	2.9	1	17	0	1	2	1	13	28	7
Technical support	2.3	4	13	1	2	1	1	17	26	5
Transportation network	1.9	2	16	0	2	1	1	15	32	1
U.S. transportation costs	2.1	1	16	0	1	3	0	17	27	4

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

The only rebar product that was reported to be in short supply from domestic producers is small diameter rebar. The Commission found that import penetration is much higher for smaller size rebar, but this may be due to price differences. Domestic producers traditionally charge a premium for smaller sizes, while many importers apparently sell rebar at the same price regardless of size.[27] Some rebar is subject to "Buy American" provisions, and some purchasers express a preference for domestic product beyond regulatory provisions, therefore, domestic and imported rebar are less than perfect substitutes. However, domestic producers are largely unaware of "Buy American" provisions at the time of sale.[28] Most rebar purchasers reported that price, rather than quality, is the most important factor in the purchase decision. As Daryle L. Doden, president of Ambassador Steel Corporation noted "As a consumer, the standard joke of the industry is you have one requirement for rebar, that it sinks in water."[29] Factors ranked as most important in the purchase of rebar, and purchasers' rating of the importance of various factors are reported in tables LONG-14 and 15.

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[27] USITC Publication 3343, August 2000, p. II-1 and Publication 3425, May 2001, PP. I-10, 11.

[28] Of 18 purchasers who responded to questions concerning "Buy American" provisions in a recent antidumping case, an average 32.3 percent of purchases were subject to "Buy American" provisions and in 12.7 percent of purchases there was a preference for domestic product without regulatory requirements. All responding producers reported that they do not charge different prices based on regulatory requirements, 14 of 15 U.S. producers are unaware of domestic content requirements during negotiations, and 10 of 10 responding purchasers reported that domestic suppliers typically charge the same price regardless of domestic content requirements. See USITC Publication 3425, p. V-7.

[29] Certain steel concrete reinforcing bars from Belarus, China, Indonesia, Korea, Latvia, Moldova, Poland, and Ukraine 731-TA-873-875, 877-880, and 882 (Final), hearing transcript, p. 60.

Table LONG-14
Rebar: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	10	15	12
Price	33	12	11
Availability/Delivery	8	27	18
Contract/Traditional Supplier	3	1	4
Other[1]	3	2	11

[1] Other includes product range, credit terms, service, and supplier reputation.

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

Table LONG-15
Rebar: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.9	4	7	1	2	3	1	15	16	6
Delivery terms	2.5	0	11	0	1	5	0	12	24	1
Delivery time	2.8	2	7	2	3	2	1	18	15	4
Discounts offered	2.6	2	7	2	1	4	0	5	21	10
Lowest price	2.8	2	5	4	1	4	1	5	13	19
Minimum quantity requirements	2.1	0	11	0	1	5	0	16	19	2
Packaging	2.2	0	11	0	1	5	0	5	29	3
Product consistency	2.8	0	10	1	1	5	0	4	30	3
Product quality	2.9	1	9	1	1	5	0	5	28	4
Product range	2.3	2	8	1	1	4	1	8	25	4
Reliability of supply	2.9	2	9	0	2	3	1	12	20	5
Technical support	2.2	3	7	1	3	2	1	16	18	3
Transportation network	2.1	3	8	0	3	2	1	15	21	1
U.S. transportation costs	2.3	3	8	0	2	4	0	10	21	6

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

Elasticity Estimates[30]

The domestic supply elasticity for the various steel long products measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced products.

The U.S. demand elasticity for steel long products measures the sensitivity of the overall quantity demanded to a change in the U.S. market price. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component share of the steel long product in the production of any downstream products. As noted, there are a large number of end uses of hot-rolled bar and light shapes; as such, the share of the total cost of the end products accounted for by hot bar varies.

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[31] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (availability, sales terms/discounts/promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced hot bar and

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[30] Parties had the opportunity to comment on staff's aggregate elasticity estimates for all steel long products; this information can be found in the staff report on pages LONG-104, 105 of the injury phase staff report. EUROFER reports in its prehearing and posthearing briefs that capacity utilization for domestic cold bar producers is understated because of misleading data submitted by a domestic producer, and that producers in this industry are not more responsive to price changes than other bar producers. Staff agrees that one firm's capacity to finish its hot bar products could not necessarily be used to increase production of other cold-finished bar products. Therefore, the domestic supply elasticity of cold bar producers is estimated to be the same as that for the other bar products.

[31] The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and U.S. like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change. Foreign producers, importers, and purchasers have reported products within the hot bar and cold bar categories which are unavailable or in short supply from domestic producers. The existence of these niche products and the emphasis on quality over price as the primary factor in purchase decisions indicates a lower elasticity of substitution.

imported hot bar, and between U.S.-produced cold bar and imported cold bar, is likely to be in the range of 2 to 4. The elasticity of substitution between U.S.-produced and imported rebar is estimated to be much higher, in the range of 5 to 8.

Product	Supply elasticity	Demand elasticity	Substitution elasticity	Foreign supply elasticity estimate		
				Canada	Mexico	All other
Hot bar	3 to 5	-0.5 to -0.75	2 to 4	5 to 10	5 to 10	10 to 20
Cold bar	3 to 5	-0.5 to -0.75	2 to 4	5 to 10	10 to 20	10 to 20
Rebar	3 to 5	-0.5 to -0.75	5 to 8	10 to 20	10 to 20	10 to 20

Remedy Recommendation

Table LONG-16
Recommendations for remedy options for the domestic hot bar, cold bar, and rebar industries, as reported by domestic producers and respondents

Party	Remedy recommendation
Ispat Inland (domestic producer)	Hot bar: Recommends an initial 40 percent tariff on hot bar, for four years, with minimal annual reductions. Recommends imports from Canada be excluded.
Minimill 201 Coalition and the Cold Finished Trade Coalition	All bar products: Recommends 50 percent tariffs with minimal declines over four years, plus recommendations by the Commission for a global round of steel negotiations, and assistance for displaced workers. Recommends against bailouts or payment of legacy costs, as this would primarily benefit a minority of producers. Recommends imports from Canada be excluded from any import restraint.
North Star Steel	Hot bar: Recommends a tariff "substantial and flexible enough so that currency movements . . .do not nullify the tariff effect" and that imports from Canada be included in any import restrictions.
United Steel Workers Association	All bar products: Recommends maximum allowable tariffs, quotas, the continuation of multilateral negotiations to address global overcapacity and production, payments dedicated to payment of legacy costs, floor prices. The base period for quotas should be the three-year period from July 1, 1994-June 30, 1997, or calendar years 1996-97 if the Commission limits the base period to a period within the period examined. Tariffs should be 50 percent, or alternatively from 30 to 50 percent, stratified by product and value, with the higher tariff imposed on lower-value products.

table continued next page

Table LONG-16 continued

Acindar	Hot bar: Recommends excluding free-machining carbon steel wire rod (under 7213.20.00).
Ad hoc coalition for Fair International Steel Trade	Hot bar and cold bar: Special bar quality (SBQ) bars with diameter greater than 4 inches (alternatively 6 1/4 inches), thermally treated SBQ bars, aircraft quality SBQ bars, and SBQ sharp cornered hot-rolled bars with diameter greater than 2.75 inches should be excluded from any import restrictions. Imports of large diameter SBQ bar into the United States west of the 90th meridian should be treated differently than imports into the rest of the country, as these imports are outside the U.S. industry's natural market. Import restrictions will not benefit the U.S. steel industry and will harm user industries. Recommend assistance with legacy costs, capital costs, and plant closures.
Australian Embassy	All bar products: Any remedy should be in the form of an integrated adjustment plan, not just less import competition. Disrupting imports of upstream products harms domestic producers of downstream products. Import restriction makes the domestic industry less competitive. Across -the-board relief would entrench inefficient producers. Legacy costs, unfavorable tax provisions, and regulatory impediments to consolidation should be addressed in any relief plan.
Caterpillar	Hot bar: Hot-rolled bar for track shoes and ripper shanks should be excluded from any remedy recommendation.
Canadian producers	All bar products: Any import restriction should take the form of country-specific quotas or tariff-rate quotas from which Canada is exempt. "Tariffs would also be inequitable because they would proportionately impact countries like Canada, whose suppliers have maintained a relatively stable market share during the period of investigation." (footnote omitted) Furthermore a "substantial portion of CFB produced in Canada is made from HRB produced in the United States . . . this CFB, which has a predominately U.S. content must, under a NAFTA anomaly, be labeled as a Canadian-origin product, even though CFB produced in Canada from German HRB must be labeled as a German origin product."
China Iron and Steel Association	All bar products: If import restrictions are imposed, recommends two years of quantitative restrictions based on the average of the last three calendar years (1998-2000).

table continued next page

Table LONG-16 continued

Consuming Industry Trade Coalition	All bar products: Any import restriction will ultimately end up harming the steel industry itself. The domestic consumer base will shrink as consumers that can move relocate outside the United States, and those that cannot move will buy less steel. Plus, the steel industry itself "account for about 30 percent of all steel imports."
Corus	Hot bar: The domestic industry has already adjusted to import competition. If the Commission does recommend relief, it should be limited to adjustment assistance to the few producers in need of such assistance. If the Commission recommends import restrictions it should focus on low-priced high volume imports, with a specific quota allocated to the EU, a value-break, and special provisions for the high-end imports that enter the United States under their own HTS numbers (free-cutting steels under 7214.30.0000 and 7213.20.0000). If import restrictions are imposed, imports of special profiles and tellurium steel should be excluded.
Developing country issues	All bar products: Safeguard measures should not be applied to a developing country as long as its share of imports does not exceed three percent, unless imports by all such developing countries collectively exceed nine percent.
Duferco Steel	Rebar: CBERA countries should be excluded from any import restrictions.
European Commission	All bar products: Any import restriction would yield double protection, as unfair imports have already been constrained by antidumping and countervailing duties. Excluding NAFTA countries from any import restrictions would be unacceptable.
European Confederation of Iron and Steel Industries (EUROFER)	All bar products: Recommends separation of alloy and carbon steel bar, and bearing grade bars from other bars. Recommends exclusion of bar over six inches in diameter, quenched and tempered large-diameter bar, heat treated bar, and oil and gas bar. Recommends separating rough-turned bar from cold bar, as this product competes most closely with hot bar. Any import restriction should be in the form of an allocated quota based on the period 1998-2000 (1997-1999 for rebar, with allocation based on 2001), and imports should be allocated to the EU as a whole rather than individual member countries.

table continued next page

Table LONG-16 continued

Free Trade in Steel Coalition (ports and steel handlers)	All bar products: Any remedy should focus on restructuring and assistance to displaced workers. Relief should be targeted on relieving problems internal to the domestic steel industry. "Saving one job at Sparrows Point while sacrificing three at the Port of Baltimore is sheer folly."
Gerdau MRM Steel	Hot bar: Canadian imports and special profiles should be excluded from any remedy.
Government of Taiwan	All bar products: Imports into the United States from Taiwan were less than those from Canada or Mexico (which the Commission found to be non-injurious). Any recommendation should consist of remedies other than trade restrictions "such as adjustment assistance promoting efficient consolidation of the U.S. steel industry, just as the Europeans have done."
Hoesch Hohenlimburg GmbH	Hot bar: Recommend targeted adjustment assistance. Special carbon steel profiles should be excluded from any import restrictions.
INA USA	Hot bar and cold bar: Bearing quality steel should be excluded from any import restrictions. Recommended exclusions are: Hot-rolled bar in sizes under 30 mm diameter, (7228.30.2000), 52100 wire rod (7227.90.1030 and 7227.90.2030), and 52100 cold-worked bar under 30 mm (7228.50.1010).
ISTIL (Ukraine) Ltd.	Cold bar: Recommends adjustment assistance, including trade adjustment assistance. If import restrictions are part of the relief package, recommend quotas as less burdensome to consumers.
Japanese respondents	Hot bar and cold bar: Recommend excluding bearing quality steel wire rod and bar (7227.90.1030, 7227.90.2030, 7228.30.2000, 7228.60.1030), plus free-cutting steel wire rod and bar containing lead (7213.20.0000 and 7214.30.0000).
NSK Corporation	Hot bar and cold bar: Ball bearing steel should be excluded from any import relief.
Ovako	Hot bar and cold bar: Ball bearing steel is a separate like product. Ball bearing steel should be excluded from any import restriction. Imports of ball bearing steel are low (no more than 0.5% of imports of hot bar, and 1.5% of cold bar) and have been declining.

table continued next page

Table LONG-16 continued

Saarstahl AG	Recommend adjustment assistance for problems "such as uneconomic capacities, lack of specialization, and unfunded legacy costs." Wire rod with a diameter of 19 mm or more and free-machining steel bars should be excluded from any import restrictions imposed.
Sidor	Rebar: Any remedy must provide more economic benefit than cost, and should include a short supply mechanism. Any relief measure should avoid punishing countries that maintained a low level of imports over the period examined.
Steel Fastener Working Group	All bar products: Recommend adjustment assistance to domestic firms to eliminate high-cost capacity and the reduction of legacy costs, with a reduction in global overcapacity.
Turkish respondents	All bar products: Recommend excluding flat bar (strip) 1/8" thick and of any width, flat bar (strip) 3/16" thick and of any width, flat bar less than 1" width in any thickness (7216.50.0000), round and square bars under ½" in width (7214.99.00), equal angles less than 1" in width (7216.21.0000), merchant bar. Recommend no trade restriction more restrictive than a quota set at 90% of 2000 imports for merchant bar Recommend no restriction on rebar as the recent AD cases have taken care of the problem (if there was a problem).

Alternate Remedy Options

Staff has estimated the effects of several different tariff rates on the domestic bar products industries. Using domestic and import shipment data obtained during this investigation and elasticities estimated by staff, a summary of the effects of tariff rates of 10 to 50 percent in increments of 5 percent are presented in tables 17-25.[32]

[32] As noted earlier, the Commission must make a determination as to whether or not imports from Andean and Carribean Basin countries, and from Isreal are to be included in any suggested remedy. For all of the scenarios presented, imports from these countries have been included in the "target" imports.

Table LONG-17: Effects of imposing a 10 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	Hot bar	Cold bar	Rebar
Domestic price	0.4 to 1.1	0.3 to 1.1	0.7 to 1.3
Domestic quantity	1.5 to 4.4	1.4 to 4.2	2.7 to 5.4
Domestic revenue	2.0 to 5.3	1.9 to 5.0	3.6 to 6.5
Canada:			
Price	6.0 to 8.2	6.1 to 8.4	0.5 to 1.1
Quantity	-19.0 to -10.2	-19.7 to -10.6	3.6 to 7.8
Mexico:			
Price	0.2 to 0.9	0.2 to 0.8	0.5 to 1.1
Quantity	1.8 to 5.6	1.7 to 5.4	3.6 to 7.8
All other:			
Price	6.7 to 8.1	6.7 to 8.1	5.5 to 7.3
Quantity	-19.9 to -10.8	-20.3 to -10.9	-32.2 to -20.3
Import Market Share:			
Covered imports	17.1 to 19.0	15.4 to 17.2	13.8 to 16.1
Total imports	18.7 to 20.5	15.5 to 17.2	14.6 to 16.8
Consumer costs ($1,000)	(101,946) to (89,226)	(24,538) to (21,206)	(40,426) to (34,447)
Net welfare effects ($1,000)	3,151 to 15,872	539 to 3,293	489 to 4,965
Remedy	10.00%	10.00%	10.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

Table LONG-18: Effects of imposing a 15 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	**Hot bar**	**Cold bar**	**Rebar**
Domestic price	0.5 to 1.6	0.5 to 1.5	1.0 to 1.8
Domestic quantity	2.1 to 6.3	2.1 to 6.0	3.9 to 7.5
Domestic revenue	2.9 to 7.6	2.7 to 7.2	5.2 to 9.0
Canada:			
Price	8.9 to 12.2	9.0 to 12.5	0.7 to 1.6
Quantity	-26.8 to -14.7	-27.7 to -15.2	5.2 to 10.9
Mexico:			
Price	0.3 to 1.2	0.2 to 0.8	0.7 to 1.6
Quantity	2.6 to 8.1	2.9 to 9.1	5.2 to 10.9
All other:			
Price	10.0 to 12.1	10.0 to 12.2	8.2 to 10.9
Quantity	-28.1 to -15.5	-28.5 to -15.7	-44.1 to -28.5
Import Market Share:			
Covered imports	15.5 to 18.1	13.9 to 16.3	11.5 to 14.6
Total imports	17.1 to 19.6	13.9 to 16.4	12.3 to 15.3
Consumer costs ($1,000)	(146,537) to (129,941)	(35,230) to (30,870)	(56,765) to (48,658)
Net welfare effects ($1,000)	586 to 17,221	(245) to 3,390	(2,162) to 4,370
Remedy	15.00%	15.00%	15.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

Table LONG-19: Effects of imposing a 20 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	Hot bar	Cold bar	Rebar
Domestic price	0.7 to 2.0	0.6 to 2.0	1.2 to 2.3
Domestic quantity	2.8 to 8.0	2.7 to 7.6	4.9 to 9.2
Domestic revenue	3.7 to 9.7	3.6 to 9.2	6.6 to 11.1
Canada:			
Price	11.7 to 16.2	11.9 to 16.6	0.8 to 1.9
Quantity	-33.6 to -18.7	-34.7 to -19.4	6.6 to 13.6
Mexico:			
Price	0.4 to 1.6	0.4 to 1.5	0.8 to 1.9
Quantity	3.3 to 10.4	3.2 to 9.9	6.6 to 13.6
All other:			
Price	13.2 to 16.1	13.3 to 16.2	10.8 to 14.4
Quantity	-35.3 to -19.8	-35.7 to -20.1	-53.7 to -35.8
Import Market Share:			
Covered imports	14.0 to 17.2	12.5 to 15.5	9.6 to 13.2
Total imports	15.7 to 18.8	12.6 to 15.6	10.4 to 13.9
Consumer costs ($1,000)	(187,613) to (168,470)	(45,067) to (40,013)	(71,075) to (61,350)
Net welfare effects ($1,000)	(6,573) to 15,270	(2,153) to 2,712	(6,309) to 2,422
Remedy	20.00%	20.00%	20.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

Table LONG-20: Effects of imposing a 25 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	**Hot bar**	**Cold bar**	**Rebar**
Domestic price	0.8 to 2.4	0.8 to 2.4	1.4 to 2.7
Domestic quantity	3.4 to 9.6	3.2 to 9.1	5.8 to 10.7
Domestic revenue	4.5 to 11.6	4.3 to 11.1	7.8 to 12.9
Canada:			
Price	14.5 to 20.2	14.7 to 20.7	1.0 to 2.3
Quantity	-39.7 to -22.5	-40.8 to -23.2	7.8 to 15.8
Mexico:			
Price	0.5 to 1.9	0.2 to 1.2	1.0 to 2.3
Quantity	4.0 to 12.5	4.5 to 14.0	7.8 to 15.8
All other:			
Price	16.4 to 20.1	16.5 to 20.2	13.3 to 17.9
Quantity	-41.6 to -23.7	-42.1 to -24.1	-61.6 to -42.1
Import Market Share:			
Covered imports	12.7 to 16.4	11.3 to 14.8	8.0 to 11.9
Total imports	14.4 to 18.0	11.4 to 14.8	8.8 to 12.6
Consumer costs ($1,000)	(225,626) to (205,071)	(54,146) to (48,692)	(83,686) to (72,801)
Net welfare effects ($1,000)	(16,689) to 10,645	(4,666) to 1,415	(11,310) to (506)
Remedy	25.00%	25.00%	25.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

Table LONG-21: Effects of imposing a 30 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	Hot bar	Cold bar	Rebar
Domestic price	0.9 to 2.8	0.9 to 2.7	1.6 to 3.0
Domestic quantity	3.9 to 11.0	3.8 to 10.5	6.7 to 11.9
Domestic revenue	5.3 to 13.4	5.1 to 12.7	9.0 to 14.5
Canada:			
Price	17.2 to 24.1	17.5 to 24.7	1.1 to 2.6
Quantity	-45.0 to -25.9	-46.2 to -26.8	9.0 to 17.7
Mexico:			
Price	0.6 to 2.2	0.5 to 2.1	1.1 to 2.6
Quantity	4.7 to 14.4	4.5 to 13.7	9.0 to 17.7
All other:			
Price	19.6 to 24.1	19.6 to 24.2	15.7 to 21.4
Quantity	-47.1 to -27.4	-47.7 to -27.8	-68.0 to -47.7
Import Market Share:			
Covered imports	11.6 to 15.7	10.2 to 14.1	6.7 to 10.8
Total imports	13.3 to 17.3	10.3 to 14.1	7.5 to 11.5
Consumer costs ($1,000)	(260,957) to (239,956)	(62,582) to (56,964)	(94,885) to (83,127)
Net welfare effects ($1,000)	(28,887) to 3,853	(7,664) to (389)	(16,855) to (4,081)
Remedy	30.00%	30.00%	30.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

Table LONG-22: Effects of imposing a 35 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	**Hot bar**	**Cold bar**	**Rebar**
Domestic price	1.1 to 3.2	1.0 to 3.1	1.8 to 3.3
Domestic quantity	4.5 to 12.4	4.3 to 11.8	7.4 to 13.0
Domestic revenue	6.0 to 15.0	5.8 to 14.3	10.0 to 15.8
Canada:			
Price	19.8 to 28.1	20.2 to 28.8	1.2 to 2.8
Quantity	-49.8 to -29.1	-51.0 to -30.0	10.0 to 19.3
Mexico:			
Price	0.6 to 2.4	0.3 to 1.5	1.2 to 2.8
Quantity	5.4 to 16.2	6.0 to 18.1	10.0 to 19.3
All other:			
Price	22.7 to 28.1	22.8 to 28.2	18.1 to 24.8
Quantity	-52.1 to -30.8	-52.6 to -31.2	-73.2 to -52.7
Import Market Share:			
Covered imports	10.6 to 15.0	9.3 to 13.4	5.6 to 9.8
Total imports	12.3 to 16.6	9.3 to 13.5	6.4 to 10.6
Consumer costs ($1,000)	(293,930) to (273,310)	(70,436) to (64,867)	(104,893) to (91,470)
Net welfare effects ($1,000)	(42,729) to (3,989)	(11,036) to (2,024)	(22,723) to (7,914)
Remedy	35.00%	35.00%	35.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

Table LONG-23: Effects of imposing a 40 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	Hot bar	Cold bar	Rebar
Domestic price	1.2 to 3.5	1.1 to 3.4	1.9 to 3.6
Domestic quantity	5.0 to 13.6	4.8 to 12.9	8.1 to 13.8
Domestic revenue	6.7 to 16.5	6.4 to 15.7	10.9 to 16.8
Canada:			
Price	22.4 to 32.0	22.9 to 32.8	1.3 to 3.0
Quantity	-54.0 to -32.1	-55.3 to -33.0	10.9 to 20.6
Mexico:			
Price	0.7 to 2.7	0.7 to 2.6	1.3 to 3.0
Quantity	6.0 to 17.8	5.7 to 16.9	10.9 to 20.6
All other:			
Price	25.8 to 32.0	25.9 to 32.2	20.5 to 28.2
Quantity	-56.4 to -33.9	-57.0 to -34.3	-77.5 to -57.0
Import Market Share:			
Covered imports	9.6 to 14.4	8.5 to 12.8	4.7 to 8.9
Total imports	11.4 to 16.0	8.5 to 12.9	5.6 to 9.7
Consumer costs ($1,000)	(327,604) to (302,525)	(77,800) to (71,606)	(114,017) to (99,054)
Net welfare effects ($1,000)	(57,864) to (11,679)	(14,708) to (3,935)	(28,761) to (12,146)
Remedy	40.00%	40.00%	40.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

Table LONG-24: Effects of imposing a 45 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	**Hot bar**	**Cold bar**	**Rebar**
Domestic price	1.3 to 3.8	1.2 to 3.6	2.1 to 3.8
Domestic quantity	5.5 to 14.7	5.3 to 13.9	8.7 to 14.6
Domestic revenue	7.4 to 17.9	7.1 to 17.0	11.8 to 17.7
Canada:			
Price	25.0 to 35.9	25.5 to 36.8	1.4 to 3.2
Quantity	-57.8 to -34.8	-59.0 to -35.8	11.8 to 21.7
Mexico:			
Price	0.8 to 2.9	0.4 to 1.8	1.4 to 3.2
Quantity	6.6 to 19.3	7.4 to 21.6	11.8 to 21.7
All other:			
Price	28.8 to 36.0	28.9 to 36.1	22.8 to 31.6
Quantity	-60.3 to -36.8	-60.9 to -37.2	-81.1 to -60.9
Import Market Share:			
Covered imports	8.8 to 13.8	7.7 to 12.3	4.0 to 8.1
Total imports	10.6 to 15.4	7.8 to 12.3	4.8 to 8.9
Consumer costs ($1,000)	(360,789) to (329,125)	(85,330) to (77,875)	(123,452) to (106,041)
Net welfare effects ($1,000)	(74,011) to (20,318)	(18,606) to (6,093)	(34,865) to (16,699)
Remedy	45.00%	45.00%	45.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

Table LONG-25: Effects of imposing a 50 percent tariff on imports of bar products

U.S. market effects *(in percent unless otherwise noted)*	Hot bar	Cold bar	Rebar
Domestic price	1.4 to 4.0	1.3 to 3.9	2.2 to 4.0
Domestic quantity	6.0 to 15.7	5.7 to 14.9	9.3 to 15.2
Domestic revenue	8.0 to 19.1	7.7 to 18.1	12.5 to 18.5
Canada:			
Price	27.5 to 39.8	28.0 to 40.7	1.5 to 3.4
Quantity	-61.1 to -37.4	-62.4 to -38.4	12.5 to 22.7
Mexico:			
Price	0.8 to 3.1	0.8 to 3.0	1.5 to 3.4
Quantity	7.1 to 20.6	6.8 to 19.6	12.5 to 22.7
All other:			
Price	31.9 to 39.9	32.0 to 40.1	25.0 to 35.0
Quantity	-63.8 to -39.5	-64.3 to -40.0	-84.0 to -64.4
Import Market Share:			
Covered imports	8.1 to 13.2	7.0 to 11.8	3.4 to 7.4
Total imports	9.8 to 14.9	7.1 to 11.8	4.2 to 8.2
Consumer costs ($1,000)	(392,832) to (354,339)	(92,891) to (83,828)	(132,258) to (112,556)
Net welfare effects ($1,000)	(90,941) to (29,904)	(22,686) to (8,476)	(40,963) to (21,488)
Remedy	50.00%	50.00%	50.00%
	Tariff	Tariff	Tariff
	Mexico excluded	Mexico excluded	Canada & Mexico excluded

CONSIDERATIONS UNDER SECTION 203(a)(2)

Adjustment Assistance and Worker Retraining

According to information on the Department of Labor's website, workers from several firms that produce long steel products have been certified for adjustment assistance.[33] Firms listed include Cascade Steel, J and L Steel Specialty, Roanoke Electric Steel, North Star Steel, and United States Steel LLC.

Positive Adjustment to Import Competition

Adjustment plans were submitted by individual producers of bar products, and in the remedy prehearing brief of the Minimill Coalition received on October 29, 2001. In the adjustment plan, individual producers propose capital expenditures that will reduce costs, improve efficiency, and improve financial stability. Producers state that additional revenue will allow domestic producers to replace aged equipment, enhance productivity and efficiency, and improve product quality. Producers also report that temporary import relief would also allow domestic producers to pursue research into new steel making technology. Finally, some producers report emphasis would be placed on debt repayment so that future operating income can be devoted to capital improvements rather than debt service.

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[33] See Department of Labor's website at *wdsc.doeta.gov\trade_act\taa.* In addition, staff has attempted to contact the Department of Commerce to obtain information on firms that have been certified for adjustment assistance but to date has not received the information. To the extent that additional information becomes available, it will be forwarded to the Commission.

CARBON AND ALLOY TUBULAR PRODUCTS

CONSIDERATION OF REQUESTED RELIEF

This section contains a discussion of the economic factors that affect the conditions of competition in the U.S. tubulars market. These factors determine the likely effects on the U.S. market of the imposition of a quota, tariff, or tariff-rate quota as relief under section 202 of the Trade Act of 1974. This section discusses the supply and demand conditions in the U.S. tubulars market and provides estimates of ranges of elasticities of supply, demand, and substitution that are based on the market considerations. A model-based estimation of the likely effects of the import relief requested by domestic industry representatives and of other possible import relief are provided. In addition, this memorandum contains a discussion of section 203(a)(2) considerations.

Current Tariffs and Quotas

U.S. imports of welded tubulars and fittings and flanges are subject to import duties as provided for by the HTS. The 2001 general duty rates and applicable NAFTA[34] duty rates for the subheadings covered by this investigations are as follows:

HTS number	2001 duty rate	
	General	NAFTA
Welded		
7305.11.10	0.6	0.3
7305.11.50	1.5	0.9
7305.12.10	0.6	0.3
7305.12.50	1.5	0.9
7305.19.10	0.6	0.3
7305.19.50	1.5	0.9
7305.31.20	2.3	0.0
7305.31.40	0.6	0.3
Continued on next page.		

[34] The rate of duty for tubular products imported from Canada for all of the subheadings is free; the rates listed in the NAFTA column apply to imports from Mexico.

HTS number	2001 duty rate	
	General	NAFTA
Welded		
7305.31.60	1.5	0.9
7305.39.10	0.6	0.3
7305.39.50	1.5	0.9
7305.90.10	0.6	0.3
7305.90.50	1.5	0.9
7306.30.10	2.4	1.6
7306.30.30	2.3	0.0
7306.30.50	0.6	0.3
7306.50.10	2.2	1.5
7306.50.30	2.3	0.0
7306.50.50	1.5	0.9
7306.60.10	0.2	0.1
7306.60.30	1.4	0.9
7306.60.50	2.4	1.6
7306.60.70	2.2	1.5
7306.90.10	0.6	0.3
7306.90.50	1.5	0.9
Fittings and flanges		
7307.91.50	5.5	0.0
7307.92.30	1.9	0.0
7307.92.90	6.2	0.0
7307.93.30	6.2	1.2
7307.93.60	5.5	0.0
7307.93.90	4.3	0.0
7307.99.50	4.3	0.0
8431.43.80	0.0	0.0

The column 1-general duty rates are scheduled for arranged reduction to an eventual rate of "free" by January 1, 2004, as provided for in Presidential Proclamation 6763 which implements the Uruguay Round concession and as amended by Proclamation 6875 (annexes II and III(a)(2), reflecting

Harmonized System changes in the HTS). The rates applicable to imports from Mexico are being reduced annually and are to be eliminated as of January 1, 2003. Other special tariff programs provide duty-free entry to eligible products of Israel, of beneficiaries of the Caribbean Basin Economic Recovery Act (CBERA) and Andean Trade preferences Act (ATPA), and of least-developed beneficiary developing countries under the Generalized System of Preferences (GSP).

SUPPLY AND DEMAND CONSIDERATIONS

Domestic Supply

As discussed in the staff report, there are few production substitutes for welded tubulars or fittings and flanges, and both products are produced to a wide variety of specifications. Both the welded and fittings and flanges industries produce primarily for the U.S. market, and have some excess capacity and/or inventories that make them moderately responsive to price changes.

Welded tubular products are produced from hot rolled steel by a variety of U.S. producers. Welded tubular products vary in diameter, wall thickness, and shape (rectangular or circular), among other qualities. In general, it is not possible to make other products on the same equipment as used for producing welded tubulars, with the exception of welded OCTG. Welded tubulars are generally not produced on the same equipment as fittings and flanges, though they are sometimes an input in the production of fittings and flanges.

The Commission's fittings and flanges category encompasses four main groups: butt-weld pipe fittings, flanges, tool joints, and other fittings. Butt-weld pipe fittings and flanges are produced by both integrated and non-integrated producers. An integrated producer will produce fittings forgings or flange forgings, and then convert those into butt-weld fittings or flanges, respectively.[35] A non-integrated

[35] Butt-weld pipe fittings can also be produced directly from seamless or welded tubulars.

producer will purchase fittings forgings or flange forgings and perform the conversion steps.[36] Fittings forgings, butt-weld pipe fittings, and flanges are all within the scope of this investigation, while flange forgings are not (although stainless steel flange forgings are within the scope). In general, producers of fittings and flanges are not the same as the producers of pipe and tube.[37] There are a small number of integrated fittings and flanges producers, but a larger number of (generally smaller) fittings and flanges converters.[38] Tool joints are also included in the Commission's fittings and flanges category and are used to attach lengths of drill pipe to each other.

Based on available information summarized in table TUBULAR-1, U.S. welded tubular producers are likely to respond to changes in demand with moderate to large changes in the quantity of shipments of U.S.-produced welded tubular products to the U.S. market. The main factors contributing to the moderate to large responsiveness of supply are low levels of capacity utilization tempered by limited export markets and moderate inventory levels. In addition, U.S. fittings and flanges producers are likely to respond to changes in demand with moderate to large changes in the quantity of shipments of U.S.-produced fittings and flanges products to the U.S. market. The main factors contributing to the moderate to large responsiveness of supply are low levels of capacity utilization tempered by limited export markets and moderate inventory levels.

Industry Capacity

U.S. producers of both welded tubular products and fittings and flanges reported generally falling levels of capacity utilization for 1997-99, with a mild rebound for fittings and flanges in 2000. Capacity

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[36] Forgings and finished fittings and flanges can be made from bar, seamless tubulars, or welded tubulars. Remedy phase hearing transcript, pp. 791-793.

[37] There are exceptions to this rule. For example, pipe nipples fall into the fittings category and are made by tubular producers. There is currently only one U.S. producer, Weldbend, that makes both fittings and flanges. Injury phase hearing transcript, p. 2,602.

[38] See, for example, Injury Phase Prehearing Briefs of Boltex Manufacturing et al, pp. 8-10, CAB and CAB Flange Manufacturing, pp. 2-3, Mill Works, Trinity Fitting, and Tube Forgings, pp. 7-9, Joint Respondents Product 22, pp. 1, 15-17.

utilization rates for welded tubular products and fittings and flanges were at relatively low levels throughout the period, and for welded tubulars were below 60 percent in 2000 and interim 2001. These data indicate that U.S. producers have some unused capacity with which they could increase production of tubular products in the event of price changes. Table TUBULAR-1 summarizes capacity utilization, export, and inventory information for U.S. producers for welded tubulars and fittings and flanges.

Table TUBULAR-1
Tubular products: Factors affecting domestic producers' supply to the U.S. market

Product	Capacity utilization *(percent)*	Exports/total shipments *(percent)*	Inventories/total shipments *(percent)*
Welded tubulars	56.2	3.8	16.7
Fittings and flanges	67.4	3.1	30.9
Source: Compiled from data submitted in response to Commission questionnaires.			

Alternate Markets

Available data indicate that because exports have accounted for a relatively small portion of total shipments of welded tubular products and fittings and flanges, there is little potential for increased sales to alternative markets. Exports of all tubular products as a percentage of total shipments were stable at very low levels for fittings and flanges; similarly for welded tubulars, exports rose then fell back below 1996 levels. These data indicate that exporting remains a small part of U.S. producers' shipments. The consistent low levels of the numbers indicates that U.S. producers can not easily divert shipments to or from alternate markets in response to changes in the price of tubular products.

Inventory Levels

U.S. producers' inventories of welded tubular products and fittings and flanges accounted for a relatively stable percentage of total shipments during the period for which data were collected. As a ratio to total shipments, inventories were between 14 and 17 percent for welded and 28 and 31 percent for fittings and flanges during 1996-2001. These data indicate that U.S. producers of welded have a

somewhat limited ability to use inventories as a means of increasing shipments of welded tubular products to the U.S. market, while fittings and flanges producers have more such flexibility.

Import Supply

Data provided in foreign producer questionnaires indicate that producers in the countries that export significant quantities of welded tubulars to the United States are generally operating at relatively moderate levels of capacity utilization; moreover, these producers do have alternate markets that would allow them to respond to changes in the price of welded tubulars or fittings and flanges in the U.S. market.

All Sources

Foreign producers' capacity utilization in 2000 was 70.0 percent for welded tubulars and 58.4 percent for fittings and flanges. Foreign producers' inventories relative to total shipments were steady for both welded tubulars and fittings and flanges. In 2000, foreign producers of welded tubulars shipped almost one-third of their production beyond their borders, with about one quarter of these exports going to the United States. Foreign producers of fittings and flanges also exported a large percentage of their production. These data indicate that foreign producers of welded tubulars and fittings and flanges will be able to respond at least moderately with increased supply to the U.S. market in the event of price changes. Table TUBULAR-2 summarizes capacity utilization, export, and inventory information for all Foreign producers across tubular product categories.

Table TUBULAR-2
Tubular products: Factors affecting foreign producers' supply to the U.S. market

Product	Capacity utilization *(percent)*	U.S. Exports/total shipments *(percent)*	Inventories/total shipments *(percent)*
Welded tubulars	70.0	12.6	7.5
Fittings and flanges	58.4	19.0	16.4

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

Canada

Canadian producers' capacity utilization in 2000 was 62.0 percent for welded tubulars and *** percent for fittings and flanges. Canadian inventories relative to total shipments were relatively steady for welded tubulars. In 2000, Canada shipped a significant amount of its production beyond its borders, with almost all of these exports going to the United States. These data indicate that Canadian producers will be able to respond at least moderately with increased supply of welded tubulars and fittings and flanges to the U.S. market in the event of price changes, but perhaps less than other foreign producers who ship more of their production to other countries worldwide. Table TUBULAR-3 summarizes capacity utilization, export, and inventory information for Canadian producers across tubular product categories.

Table TUBULAR-3
Tubular products: Factors affecting Canadian producers' supply to the U.S. market

Product	Capacity utilization *(percent)*	U.S. Exports/total shipments *(percent)*	Inventories/total shipments *(percent)*
Welded tubulars	62.0	47.4	8.9
Fittings and flanges	***	***	***

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

Mexico

Mexican producers' capacity utilization in 2000 was 66.8 percent for welded tubulars and *** percent for fittings and flanges. Mexican inventories relative to total shipments increased slightly from 1996 to 2000 and was 10.2 percent for welded tubulars and *** percent for fittings and flanges. From 1996-2000, Mexico's fittings and flanges production ***. In 2000, Mexico shipped about 20 percent of its production of welded tubulars beyond its borders, with about 85 percent of these exports going to the United States. These data indicate that Mexican producers will be able to respond at least moderately with increased supply of welded tubulars

and fittings and flanges to the U.S. market in the event of price changes, though that response will be moderated by the ***. Table TUBULAR-4 summarizes capacity utilization, export, and inventory information for all Mexican producers across tubular product categories.

Table TUBULAR-4
Tubular products: Factors affecting Mexican producers' supply to the U.S. market

Product	Capacity utilization	U.S. Exports/total shipments	Inventories/total shipments
	(percent)	*(percent)*	*(percent)*
Welded tubulars	66.8	16.7	10.2
Fittings and flanges	***	***	***

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

U.S. Demand

Demand Characteristics

Based on the available information, the overall demand for welded tubulars and fittings and flanges will not change significantly in response to changes in the price of these tubular products. The main factor contributing to the low degree of price sensitivity is the lack of available substitute products. As noted in the staff report, the majority of producers, importers, and purchasers reported that there were few effective substitutes for welded tubulars or fittings and flanges. Also contributing to a low demand responsiveness is the low cost share of welded tubulars and fittings and flanges in the ultimate end product for many end uses.

Welded tubular products are employed in a wide variety of end uses. Their uses as both standard and structural pipe mean that they can be used for conveyance in industrial applications, as well as having structural and conveyance uses in construction, automobiles, electric power generation, and in the oil market. Some respondent importers of welded tubular products divide the welded market into large diameter welded used for line pipe and other welded, generally standard pipe.[39] Overall economic

[39]Injury phase hearing transcript, pp. 2,579 and 2,660.

diameter welded used for line pipe and other welded, generally standard pipe.[39] Overall economic growth from 1996-2001 has led to a general increase in demand for welded pipe across a myriad of end uses.

The fittings category includes butt-weld pipe fittings, flanges, and tool joints. Fittings and flanges are often distributed with other tubular products, and purchasers stated that demand for them is driven by utilities, automotive products, and import competition in downstream markets. One fittings importer characterized oil and gas end uses as "high-end" demand while construction end uses would be "low-end" demand.[40] Demand for tool joints is connected with OCTG demand and hence drilling activity, since tool joints are used in manufacturing finished drill pipe.

There are three main drivers for tubular products demand. First is the general economic situation, as increased production will mean more demand from the construction, industrial (automotive, chemical, etc.), and transportation sectors. Second is drilling for hydrocarbons, which will mean more demand for the welded line pipe to carry it. Third is energy generation, which will mean more demand for tubular products used in utility plants, as well as the line pipe (both seamless and welded) to bring the oil and natural gas to the plant. These three demand factors do not play equal roles and can work to complement but also undercut each other.

Substitute Products

There are few substitutes for welded tubulars or for fittings and flanges.[41] Substitutes for welded tubulars include higher cost substitutes such as aluminum, stainless steel, or seamless tubulars as well as lower cost substitutes such as plastic, concrete, or wood. However, these substitutes would only be

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[39] Injury phase hearing transcript, pp. 2,579 and 2,660.

[40] One fittings producer, however, stated that oil and gas demand for fittings was often "overstated." Injury phase hearing transcript, pp. 2,617, 2,683, and 2,687.

[41] Twenty purchasers of welded tubulars and 8 purchasers of fittings and flanges reported any substitutes at all, with most qualifying that substitution was more expensive, not always possible, or rare.

possible in specific end uses, and would affect design and performance. Likewise, fittings and flange purchasers did cite stainless steel, plastic, and copper fittings and flanges as potential substitutes, but only in certain instances. The majority of both welded and fittings and flanges purchasers, though, said that there were no substitutes for the tubular products they purchased.

Cost Share

Because there are a large number of end uses for welded tubular products and fittings and flanges, the percentage of the cost of the end product accounted for by the tubular products varies significantly. Purchasers were asked to report the end uses for which they purchased tubular products as a component part and to report the percentage of the total cost accounted for by the tubular products. As noted in the staff report, welded tubular products and fittings and flanges are usually a small part of the cost of an entire structure or plant; however, they may be considered the bulk of the costs for a pipeline.[42] A high cost component tends to support a higher degree of price sensitivity of demand, and so the wide range of cost shares indicates that while some end uses may be affected more significantly by price changes, others would be less affected, moderating the overall effect of price changes on the demand for tubular products.

Substitutability of Domestic and Imported Welded Tubulars

Comparisons of Domestic Products and Subject Imports

The Commission received responses from purchasers of both welded tubulars and fittings and flanges, as shown in table TUBULAR-5.

[42] Some of the wide variation in estimates of end use cost share comes from what is defined as the end use product; tubular products will be a small share of the cost of fabricated steel, an entire automobile, a complete bridge, or a factory. They may have a larger cost share of a component of one of those end uses, though. Regardless, a wide variation would still exist between different end uses for both welded tubulars and fittings and flanges.

Table TUBULAR-5
Tubular products: Number of firms reporting purchases of domestic and imported products, by products

Product	Number of firms reporting--		
	Purchases of domestic product	Purchases of imported product	Purchases of both imported and domestic product
Welded not OCTG	138	88	73
Fittings and Flanges	52	39	31
Source: Compiled from data submitted in response to Commission questionnaires.			

In general, purchasers reported that U.S. tubular products are broadly competitive with foreign tubular products of high reputation (*e.g.* European, Argentine, Japanese, and Korean tubular products). However, in cases of specific products, some purchasers did report a lack of U.S. production capability or sufficient availability.[43] Purchasers who compared the prices of U.S. and imported tubular products were much more likely to report that U.S. tubular products were more expensive than imports, especially imports from less industrialized nations.

Purchasers tended to indicate familiarity with a fairly wide variety of countries' tubular products. They were asked to rank factors important in purchasing decisions and then compare U.S., Canadian, Mexican, and non-NAFTA tubular products. The results are summarized in the tabulations below.

Welded tubulars: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	67	32	21
Price	45	43	47
Availability/Delivery	17	59	42
Contract/Traditional Supplier	12	4	13
Other[1]	12	15	30

[1] Other includes domestic supplier/origin of material, customer specification, product range, lot size, credit terms, affiliated company, and service.

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

[43] It should be noted, though, that these cases were mentioned by few purchasers, and that overall, as the tabulations on the following pages show, the overwhelming number of purchasers found U.S. and foreign welded and fittings and flanges to be used in the same applications.

Welded tubulars: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.9	5	23	1	8	12	1	28	36	16
Delivery terms	2.4	2	26	0	5	16	0	21	53	6
Delivery time	2.8	6	17	5	10	9	2	42	29	9
Discounts offered	2.3	6	22	0	2	15	4	9	57	12
Lowest price	2.6	8	17	3	4	8	9	10	32	39
Minimum quantity requirements	2.2	1	24	3	0	19	2	24	43	12
Packaging	2.1	0	28	0	1	19	1	8	58	13
Product consistency	2.9	1	27	0	4	15	2	13	52	16
Product quality	3.0	1	27	0	5	15	1	12	52	17
Product range	2.4	6	20	2	7	12	2	14	42	24
Reliability of supply	2.9	6	20	2	8	10	3	27	36	17
Technical support	2.3	6	20	2	8	10	3	26	39	15
Transportation network	2.1	3	25	0	6	12	3	23	52	4
U.S. transportation costs	2.2	3	21	4	5	15	1	20	52	5

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

Fittings: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	34	14	4
Price	9	18	27
Availability/Delivery	6	21	19
Contract/Traditional Supplier	6	2	0
Other[1]	5	5	10

[1] Other includes domestic supplier/origin of material, customer specification, product range, lot size, credit terms, affiliated company, and service.

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

Fittings: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.9	3	4	1	4	8	1	13	23	10
Delivery terms	2.3	2	6	0	2	10	1	11	34	1
Delivery time	2.8	4	2	2	4	9	0	21	24	2
Discounts offered	2.2	4	3	0	4	8	0	6	31	6
Lowest price	2.6	1	5	2	3	3	6	4	21	21
Minimum quantity requirements	2.0	0	7	1	1	11	1	7	27	10
Packaging	2.1	0	8	0	2	11	0	3	38	5
Product consistency	2.9	2	6	0	2	11	0	3	35	9
Product quality	3.0	3	5	0	2	11	0	3	35	9
Product range	2.4	4	4	0	4	8	1	7	23	17
Reliability of supply	3.0	4	3	1	4	8	1	10	29	7
Technical support	2.3	3	5	0	5	7	1	9	32	5
Transportation network	2.0	1	7	0	3	10	0	14	31	1
U.S. transportation costs	2.1	2	5	0	4	9	0	13	31	0

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

The following tabulation shows how many purchasers in each category reported that imported and domestically produced tubular products that were produced to the same grade and specification were generally used in the same applications.[44]

[44] The staff report summarized tubular purchasers' responses on questions of ordering specifically from domestic versus foreign sources. Because most purchasers purchased more than one type of tubular product (i.e. seamless and welded), it is not possible to have a clear breakout of how many intended their responses only for the remaining categories of welded and fittings and flanges. However, the basic theme remained that foreign sources were sometimes favored over U.S. sources because of short supply or quality issues in the United States, while U.S. sources were favored because of local content rules or high quality. The products listed as in short supply from U.S. sources were generally specialty products, such as certain large or small diameter welded tubulars, thicker wall welded tubulars, ring flanges, fittings forgings, or SAW (***).

Are U.S. and Canadian tubular products produced to the same grade and specification generally used in the same applications?				
Product	Number of purchasers who reported purchases of domestic in 2000	Percent who answered "yes"	Number of purchasers who reported purchases of imported in 2000	Percent who answered "yes"
Welded	89	93.3	74	93.2
Fittings	44	95.5	35	94.3

Are U.S. and Mexican tubular products produced to the same grade and specification generally used in the same applications?				
Product	Number of purchasers who reported purchases of domestic in 2000	Percent who answered "yes"	Number of purchasers who reported purchases of imported in 2000	Percent who answered "yes"
Welded	90	94.4	69	94.2
Fittings	40	97.5	29	93.1

Are U.S. and all other tubular products produced to the same grade and specification generally used in the same applications?				
Product	Number of purchasers who reported purchases of domestic in 2000	Percent who answered "yes"	Number of purchasers who reported purchases of imported in 2000	Percent who answered "yes"
Welded	96	94.8	72	95.8
Fittings	42	95.2	29	96.6

For purchasers who stated that imported and domestically produced tubular products were not generally used in the same applications, reasons cited included limited size range and heat treating capability in the United States and lower quality tubular products from other countries.

Elasticity Estimates

U.S. Supply Elasticity[45]

The domestic supply elasticity for tubular products measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of tubular products. The elasticity of domestic supply depends on several factors, including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift production to other products, the existence of inventories, and the availability of alternate markets for U.S.-produced tubular products. Although most

[45] A supply function is not defined in the case of a non-competitive market.

U.S. producers do not use their tubular production equipment to produce non-tubular products,[46] there is some significant excess capacity that could be used to scale up production. Analysis of these factors earlier indicates that the U.S. industry is likely to be able to increase or decrease shipments to the U.S. market; an estimate in the range of 3 to 5 is suggested for both welded tubulars and fittings and flanges.

U.S. Demand Elasticity

The U.S. demand elasticity for tubular products measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of tubular products. This estimate depends on factors discussed earlier such as the existence of substitute products and the component share of tubular products in the production of downstream products. There are few, if any, viable substitutes for tubular products in general, but component share varies widely. Based on available information, the aggregate demand for tubular products is likely to be inelastic; a range of -0.5 to -1.0 is suggested.

Substitution Elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[47] Product differentiation, in turn, depends upon such factors as quality and conditions of sale. A majority of purchasers indicated that for most applications, U.S. and imported products are broadly substitutable. Based on available information, the elasticity of substitution between U.S. produced and imported tubular products is likely to be in the range of 4 to 6.

Table TUBULAR-6 summarizes the inputs used by Commission staff in its economic modeling.

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[46] It should be noted that now welded producers could produce welded OCTG.

[47] The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and U.S. like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.

Table TUBULAR-6 Inputs used in the economic modeling for tubular products		
Input	Range or value for welded tubulars	Range or value for fittings and flanges
Domestic supply elasticity	3 to 5	3 to 5
Canada import supply elasticity	5 to 10	5 to 10
Mexico import supply elasticity	5 to 10	5 to 10
Other subject import supply elasticity	10 to 20	10 to 20
Aggregate demand elasticity	-0.5 to -1.0	-0.5 to -1.0
Substitution elasticity	4 to 6	4 to 6
Quantity of domestic shipments (*short tons*)	4,540,213	189,313
Value of domestic shipments (*$1,000*)	2,676,552	368,047
Quantity of non-NAFTA imports (*short tons*)[1]	1,420,685	100,592
Value of non-NAFTA imports (*$1,000*)[1]	676,371	200,190
Quantity of Canadian imports (*short tons*)	1,017,378	16,046
Value of Canadian imports (*$1,000*)	572,980	72,231
Quantity of Mexican imports (short tons)	189,145	18,761
Value of Mexican imports (*$1,000*)	109,170	35,518

Domestic Industry's Proposal and Effects

Two welded domestic industry parties, Bethelehem Steel and the Committee on Pipe and Tube Imports, asked for 50 percent tariffs reduced gradually over the next four years.[48] In addition, the Committee on Pipe and Tube Imports asked for a quota instead of a tariff for Canadian welded tubular products. For fittings and flanges, Weldbend and U.S. flange producers proposed a TRQ implemented by specific HTS classification, with an in-quota tariff of *** percent and an above-quota tariff of 50 percent; higher in-quota tariffs for Mexican butt-weld pipe fittings and Indian flanges were also recommended. These producers request quotas based on 1993-95 average annual imports within each

[48] The Committee on Pipe and Tube Imports, which also represents producers of fittings other than butt-weld pipe fittings, also proposed the same 50 percent tariff on other fittings.

tariff classification.[49] A group of integrated butt-weld pipe fittings producers proposed a tariff of 37 percent and a quota based on 1993-95 levels for butt-weld pipe fittings only; this group stated that a tariff on a larger scope of all fittings and flanges might send imports seeking the higher-value butt-weld pipe fittings.[50] The results from the domestic welded industry's model can be found in table TUBULAR-11.

Respondents' Suggested Remedy

The majority of respondents asked for exclusions of specific products rather than debating particular ways to run the COMPAS model (see tables TUBULAR-7 and TUBULAR-8). Two groups of respondents did suggest quotas based on 1998-2000 levels in their prehearing briefs; while the proposed quotas would not likely have much effect unless U.S. demand continued to grow, they would prevent further growth in import market share if demand remained steady. Results of this model are summarized in table TUBULAR-11. In addition, Turkish respondents submitted a COMPAS model with a quota set at 90 percent of annualized 2001 imports for welded.

[49] Weldbend also asks that fittings forgings be excluded from the definition of fittings.

[50] This proposal also asked for a separate quantitative restriction for small and large diameter butt-weld pipe fittings and no exclusion for fittings forgings.

Table TUBULAR-7
Recommendations for remedy options for the domestic welded tubular industry, as reported by respondents

Respondent	Remedy recommendation
BP America	Take into account AD orders on large diameter line pipe, and exclude some specific large diameter line pipe products.
Canadian tubular producers	Exclude Canada from import relief. If a quota or TRQ is used on Canada, it should be based on year 2000 levels.
CONFAB (Brazil)	Exclude high specification, large diameter line pipe from any remedy. Also, do not impose tariff remedy.
Duferco (Guatemala)	Determine separate remedies for CBERA countries.
ESTA	Do not impose tariffs, quotas, or TRQs on European line pipe. Also states that line pipe data used by Commission is faulty.
Grant-Prideco	Exclude certain specialty large diameter line pipe from remedy.
IPSCO	Exclude large diameter line pipe from Canada from remedy.
Japanese respondents	Impose a country specific quota based on 2000 levels, with certain exclusions and short supply provisions.
Katakura Steel Tube Co.	Exclude cold drawn over a mandrel tubing for oil lift pumps from remedy.
Korean respondents	If anything, use a quota based on 2001 levels for standard pipe, with large diameter line pipe separate.
Mannesmann/ESTA	Exclude tubing for auto fuel pumps, specialty tubes for drive shafts from remedy.
N. Merfish Supply	Keep remedies restrained on small diameter standard pipe.
Rothrist Tube (Switzerland)	Exclude certain DOM welded steel tubes from remedy.
South African producers	South Africa should be excluded as developing country and AGOA member; any import relief should be tariff rate quota based on 1998-2000
Sumitomo	Exclude hot rolled sheet for coiled tubing and T9 chrome welded cold drawn over a mandrel tubing from remedy.
Thai producers	Use developing country exemption from quotas, but not for non-WTO members. Keep remedies the same within each tubular category.
Tubeurop/ESTA	Exclude welded elliptical structural tubing from remedy.
Tubos de Caribe	Exclude Colombia under ATPA.
Turkish respondents	Adopt separate remedies for standard, large diameter line, and other pipe products. Impose no trade restrictions on standard pipe. If anything, a quota based on no more than 90 percent of 2001 shipments
Williams	Exclude large diameter line pipe, or certain sub-products, and use adjustment assistance instead of tariffs or quota.

Table TUBULAR-8
Recommendations for remedy options for the domestic fittings and flanges industry, as reported by respondents

Respondent	Remedy recommendation
Allied Fitting	If anything, quota based on 1998-2000.
CAB and CAB Flange	Exclude low pressure ring flanges from remedy.
Chamberlain	Do not exclude tool joints for drill pipe.
European Flange producers	Separate flanges and exclude them, or at least approved market flanges and large diameter flanges. Use non-import restrictive remedies such as trade adjustment assistance and loan guarantees, or suspension of GSP benefits at most.
Grant-Prideco	Exclude tool joints for drill pipe
IML (Italy)	Consider forged fittings separately.
Niples del Norte and Empresas Riga (Mexican producers)	Mexican imports of fittings, flanges, and tool joints should not be subject to remedial action.
Weldbend	Exclude butt-weld pipe fittings forgings

Alternate Remedy Options

Staff has estimated the effects of several different tariff rates on the domestic welded tubular industry and on the fittings and flanges industry. Using domestic and import shipment data obtained during this investigation and elasticities estimated by staff, a summary of the effects of tariff rates of 15, 20, 25, 30, 35, 40, 45, and 50 percent are presented in tables TUBULAR-9 and TUBULAR-10.[51]

[51] Detailed output which includes all possible combinations of elasticity parameters is available upon request. There are three potential issues with the models in scenarios I, II, and III. First, due to the lack of complete producer data in the fittings and flanges category, the domestic market share is understated, which will have the effect of making the tariff and quota projections larger than in reality. Second, it should be noted that all the fittings and flanges parties have agreed that the larger fittings and flanges category could be broken down into further sub-categories by HTS number and (to some extent) by domestic producer. Third, these estimates were made without making any exclusions. To the extent possible with data supplied, staff could estimate other models with varying exclusions.

Scenario I: Tariff levels of 10, 15, 20, 25, 30, 35, 40, 45 and 50 percent, with Mexico excluded from the welded tubular models

Scenarios II and III: For welded only- Domestic industry's model, with tariffs of 50 percent and Canada quota, and respondent model, with quotas based on 1998-2000 levels

CONSIDERATIONS UNDER SECTION 203(a)(2)

Adjustment Assistance and Worker Retraining

According to information on the Department of Labor's website, workers from at least two firms that are producers of tubular products (Geneva and North Star Steel) have been certified for adjustment assistance.[52]

Positive Adjustment to Import Competition

The Commission received adjustment plans from four groups of domestic producers: Bethlehem Steel, the Committee on Pipe and Tube Imports, several fittings and flange producers, and integrated butt-weld pipe fittings producers. All four groups stated that they would use temporary import relief to start or finish capital spending to improve efficiency and lower costs, to broaden and expand the range of products produced, ro rebuild and re-train their labor forces, and to increase capacity. Several parties noted the difficulty of obtaining capital or engaging in lengthy upgrades in the current price environment. Additional plans mentioned by subsets of the four groups included ***. Domestic producers stated that these kind of improvements will leave them better able to compete with imports after the temporary relief ends.

[52] See Department of Labor's website at *wdsc.doeta.gov\trade_act\taa.* In addition, staff has attempted to contact the Department of Commerce to obtain information on firms that have been certified for adjustment assistance but to date has not received the information. To the extent that additional information becomes available, it will be forwarded to the Commission.

Table TUBULAR-9
Scenario I: Summary effects of different tariff levels on the domestic welded tubular industry.

U.S. welded tubular industry effects *(In percent unless otherwise noted)*	Tariff rate				
	10 percent	15 percent	20 percent	25 percent	30 percent
Domestic price	0.9 to 1.9	1.3 to 2.7	1.7 to 3.4	2.0 to 4.1	2.3 to 4.7
Domestic quantity	3.5 to 7.9	5.0 to 11.3	6.4 to 14.4	7.8 to 17.2	9.0 to 19.7
Domestic revenue	4.7 to 9.6	6.7 to 13.8	8.7 to 17.6	10.5 to 21.0	12.2 to 24.1
Canada:					
Price	5.6 to 7.7	8.3 to 11.4	10.9 to 15.1	13.4 to 18.8	15.9 to 22.4
Quantity	-22.9 to -13.9	-32.1 to -19.8	-40.1 to -25.2	-47.0 to -30.2	-53.0 to -34.6
Mexico:					
Price	0.6 to 1.5	0.8 to 2.2	1.1 to 2.8	1.3 to 3.4	1.5 to 3.8
Quantity	4.5 to 11.1	6.5 to 15.9	8.4 to 20.4	10.2 to 24.4	11.8 to 28.1
Other Subject:					
Price	6.3 to 7.7	9.3 to 11.5	12.3 to 15.3	15.3 to 19.0	18.1 to 22.7
Quantity	-24.2 to -15.3	-34.0 to -21.8	-42.4 to -27.8	-49.6 to -33.1	-55.9 to -38.0
Import Market Share:					
Covered Imports	26.9 to 29.6	23.9 to 27.6	21.2 to 25.8	18.8 to 24.1	16.7 to 22.6
Total Imports	29.9 to 32.5	27.0 to 30.6	24.5 to 28.9	22.2 to 27.3	20.2 to 25.8
Consumer costs ($1,000)	(124,947) to (107,261)	(178,872) to (154,183)	(228,027) to (197,445)	(273,000) to (237,534)	(314,306) to (274,859)
Net welfare effects ($1,000)	5,105 to 21,353	178 to 22,850	(10,321) to 19,879	(24,458) to 13,384	(41,270) to 4,127

Table continued on next page.

Table TUBULAR-9–*cont.*
Scenario I: Summary effects of different tariff levels on the domestic welded tubular industry.

U.S. welded tubular industry effects *(In percent unless otherwise noted)*	Tariff rate			
	35 percent	40 percent	45 percent	50 percent
Domestic price	2.6 to 5.3	2.8 to 5.8	3.0 to 6.2	3.2 to 6.6
Domestic quantity	10.1 to 22.0	11.2 to 24.0	12.2 to 25.8	13.1 to 27.5
Domestic revenue	13.8 to 26.9	15.2 to 29.5	16.6 to 31.8	17.9 to 33.8
Canada:				
Price	18.3 to 25.9	20.6 to 29.4	22.8 to 32.9	25.0 to 36.3
Quantity	-58.2 to -38.7	-62.7 to -42.5	-66.7 to -45.9	-70.2 to -49.0
Mexico:				
Price	1.6 to 4.3	1.8 to 4.7	1.9 to 5.1	2.1 to 5.4
Quantity	13.3 to 31.4	14.8 to 34.5	16.1 to 37.2	17.3 to 39.6
Other Subject:				
Price	21.0 to 26.4	23.7 to 30.1	26.5 to 33.7	29.2 to 37.4
Quantity	-61.3 to -42.5	-66.0 to -46.5	-70.0 to -50.2	-73.5 to -53.6
Import Market Share:				
Covered Imports	14.8 to 21.1	13.2 to 19.8	11.7 to 18.6	10.5 to 17.5
Total Imports	18.4 to 24.4	16.9 to 23.2	15.5 to 22.0	14.3 to 20.9
Consumer costs ($1,000)	(352,615) to (309,324)	(390,602) to (339,685)	(426,458) to (367,881)	(460,415) to (393,993)
Net welfare effects ($1,000)	(59,958) to (6,976)	(79,986) to (19,019)	(100,939) to (32,449)	(122,495) to (46,994)

Table TUBULAR-10
Scenario I: Summary effects of different tariff levels on the fittings and flanges industries.

U.S. fittings and flanges industry effects *(In percent unless otherwise noted)*	Tariff rate				
	10 percent	15 percent	20 percent	25 percent	30 percent
Domestic price	1.4 to 2.8	2.0 to 4.1	2.6 to 5.2	3.1 to 6.3	3.6 to 7.3
Domestic quantity	5.3 to 12.1	7.7 to 17.6	10.0 to 22.8	12.1 to 27.6	14.2 to 32.1
Domestic revenue	7.1 to 14.6	10.4 to 21.5	13.5 to 27.9	16.5 to 34.0	19.3 to 39.6
Canada:					
Price	6.3 to 8.1	9.4 to 12.1	12.3 to 16.0	15.1 to 19.9	17.9 to 23.7
Quantity	-19.5 to -11.5	-27.8 to -16.6	-35.1 to -21.3	-41.6 to -25.6	-47.4 to -29.7
Mexico:					
Price	6.4 to 8.2	9.4 to 12.1	12.3 to 16.1	15.2 to 20.0	18.0 to 23.8
Quantity	-19.7 to -11.6	-28.0 to -16.7	-35.3 to -21.5	-41.9 to -25.8	-47.7 to -29.9
Other Subject:					
Price	7.1 to 8.4	10.5 to 12.5	13.9 to 16.6	17.2 to 20.7	20.5 to 24.7
Quantity	-21.7 to -13.3	-30.8 to -19.2	-38.7 to -24.6	-45.8 to -29.5	-52.0 to -34.1
Import Market Share:					
Covered Imports	33.8 to 36.8	30.4 to 34.6	27.2 to 32.5	24.3 to 30.6	21.7 to 28.8
Total Imports	33.8 to 36.8	30.4 to 34.6	27.2 to 32.5	24.3 to 30.6	21.7 to 28.8
Consumer costs ($1,000)	(31,259) to (27,156)	(45,141) to (39,212)	(58,012) to (50,423)	(69,969) to (60,892)	(81,103) to (70,709)
Net welfare effects ($1,000)	921 to 4,390	(291) to 4,560	(2,925) to 3,697	(6,422) to 1,994	(10,595) to (392)

Table continued on next page.

Table TUBULAR-10–*cont.*
Scenario I: Summary effects of different tariff levels on the domestic fittings and flanges industries.

U.S. fittings and flanges industry effects *(In percent unless otherwise noted)*	Tariff rate			
	35 percent	40 percent	45 percent	50 percent
Domestic price	4.0 to 8.2	4.4 to 9.1	4.8 to 9.8	5.1 to 10.5
Domestic quantity	16.1 to 36.2	17.9 to 40.1	19.6 to 43.6	21.2 to 46.8
Domestic revenue	22.0 to 44.9	24.5 to 49.8	26.9 to 54.4	29.2 to 58.5
Canada:				
Price	20.6 to 27.4	23.2 to 31.2	25.7 to 34.8	28.2 to 38.5
Quantity	-52.6 to -33.4	-57.3 to -36.9	-61.4 to -40.1	-65.1 to -43.1
Mexico:				
Price	20.7 to 27.6	23.3 to 31.3	25.8 to 35.0	28.3 to 38.7
Quantity	-52.9 to -33.6	-57.5 to -37.1	-61.7 to -40.4	-65.3 to -43.4
Other Subject:				
Price	23.6 to 28.8	26.8 to 32.8	29.9 to 36.7	32.9 to 40.7
Quantity	-57.5 to -38.3	-62.3 to -42.1	-66.5 to -45.7	-70.2 to -49.0
Import Market Share:				
Covered Imports	19.4 to 27.1	17.3 to 25.5	15.5 to 24.0	13.8 to 22.6
Total Imports	19.4 to 27.1	17.3 to 25.5	15.5 to 24.0	13.8 to 22.6
Consumer costs ($1,000)	(91,493) to (79,948)	(101,265) to (88,498)	(111,005) to (96,208)	(120,289) to (103,442)
Net welfare effects ($1,000)	(15,291) to (2,941)	(20,381) to (5,824)	(25,763) to (9,075)	(31,351) to (12,640)

Table TUBULAR-11
Scenarios II and III: Summary effects of different models on welded tubular industry

U.S. welded industry effects *(In percent unless otherwise noted)*	Scenario II: domestic industry's model	Scenario III: Japanese respondents' model
Domestic price	3.2 to 6.6	0.6 to 1.2
Domestic quantity	13.1 to 27.5	2.5 to 4.0
Domestic revenue	17.9 to 33.8	3.3 to 5.0
Canada:		
Price	25.0 to 36.3	3.7 to 5.9
Quantity	-70.2 to -49.0	-13.9 to -13.9
Mexico:		
Price	2.1 to 5.4	0.4 to 1.0
Quantity	17.3 to 39.6	3.2 to 5.6
Other Subject:		
Price	29.2 to 37.4	2.8 to 4.6
Quantity	-73.5 to -53.6	-9.4 to -9.4
Import Market Share:		
Covered Imports	10.5 to 17.5	30.5 to 30.8
Total Imports	14.3 to 20.9	33.3 to 33.6
Consumer costs ($1,000)	(460,415) to (393,993)	(94,087) to (55,642)
Net welfare effects ($1,000)	(122,495) to (46,994)	(62,361) to (38,560)

STAINLESS AND TOOL STEEL PRODUCTS

CONSIDERATION OF REQUESTED RELIEF

This section contains a discussion of the economic factors that affect the conditions of competition in the U.S. stainless and tool steel market. These factors are used to estimate the likely effects on the U.S. market of the imposition of a quota, tariff, or tariff-rate quota as relief under section 202 of the Trade Act of 1974. The section discusses the supply and demand conditions in the U.S. stainless and tool steel market and provides estimates of ranges of elasticities of supply, demand, and substitution that are based on the market considerations. A model-based estimation of the likely effects of the import relief requested by the petitioners and of other possible import relief is provided. In addition, this section contains a discussion of section 203(a)(2) considerations.

Current Tariffs and Quotas

U.S. imports of stainless steel bar are subject to import duties as provided for by the HTS. The 2000 column-1 general duty rates and applicable NAFTA duty rates[53] for the subheadings covered by this investigations are as follows:

[53] The NAFTA duty rates shown in the tables only apply to Mexico; the duty rate applicable to Canada for all subject products was zero.

Stainless steel bar and light shapes:

HTS number	2000 duty rate (percentage)	
	General	NAFTA
7221.00.0045	1.4	0.9
7222.11.0005	3.2	2.1
7222.11.0050	3.2	2.1
7222.19.0005	3.2	2.1
7222.19.0050	3.2	2.1
7222.20.0005	3.2	2.1
7222.20.0045	3.2	2.1
7222.30.0000	3.2	2.1
7222.40.3025	0.6	0.4
7222.40.3045	0.6	0.4
7222.40.3065	0.6	0.4
7222.40.3085	0.6	0.4
7222.40.6000	1.6	1.0

Stainless steel wire rod:

HTS number	2000 duty rate (percentage)	
	General	NAFTA
7221.00.00.05	1.4	0.9
7221.00.00.15	1.4	0.9
7221.00.00.30	1.4	0.9
7221.00.00.75	1.4	0.9

Tool steel:

HTS number	2000 duty rate (percentage)	
	General	NAFTA
7224.10.0045	1.5	1.0
7224.90.0015	1.5	1.0
7224.90.0025	1.5	1.0
7224.90.0035	1.5	1.0
7225.20.000	3.2	0.0
7225.30.1000	2.9	1.9
7225.30.5060	2.9	1.9
7225.40.1090	2.9	1.9
7225.40.5060	2.9	1.9
7225.50.1060	3.0	2.0
7226.20.0000	1.7	0.0
7226.91.0500	0.0	0.0
7226.91.1560	2.9	0.0
7226.91.2560	3.5	2.3

Tool Steel (Continued):

HTS number	2000 duty rate (percentage)	
	General	NAFTA
7226.92.1060	3.0	0.0
7226.92.3060	3.2	0.0
7227.10.0000	1.6	1.0
7227.90.1060	0.6	0.4
7227.90.2060	1.3	0.8
7228.10.0010	3.4	2.3
7228.10.0030	3.4	2.3
7228.10.0060	3.4	2.3
7228.30.4000	0.0	0.0
7228.30.6000	3.2	2.1
7228.50.1020	3.2	2.1
7228.50.1040	3.2	2.1
7228.50.1060	3.2	2.1
7228.50.1080	3.2	2.1
7228.60.1060	3.2	2.1
7229.10.000	3.0	0.0

Stainless steel wire:

HTS number	2000 duty rate (percentage)	
	General	NAFTA
7223.00.1015	2.7	0.0
7223.00.1030	2.7	0.0
7223.00.1045	2.7	0.0
7223.00.1060	2.7	0.0
7223.00.1075	2.7	0.0
7223.00.5000	1.0	0.0
7223.00.9000	1.0	0.0

Stainless steel flanges/fittings:

HTS number	2000 duty rate (percentage)	
	General	NAFTA
7307.21.1000	3.3	0.0
7307.21.5000	5.6	0.0
7307.22.1000	1.9	0.0
7307.22.5000	6.2	0.0
7307.23.0000	5.0	0.0
7307.29.0030	5.0	0.0
7307.29.0090	5.0	0.0

The column 1-general duty rates are scheduled for arranged reduction to an eventual rate of "free" by January 1, 2004, as provided for in Presidential Proclamation 6763 which implements the Uruguay Round concession and as amended by Proclamation 6875 (annexes II and III(a)(2), reflecting Harmonized system changes in the HTS). The rates applicable to imports from Mexico are being reduced annually and are to be eliminated as of January 1, 2003. Other special tariff programs provide duty-free entry to eligible products of Israel, of beneficiaries of the Caribbean Basin Economic Recovery Act (CBERA) and Andean Trade Preferences Act (ATPA), and of least-developed beneficiary developing countries under the Generalized System of Preferences (GSP).

Imports from ATPA and CBERA countries, and Israel

The Commission must also state whether and to what extent its findings and recommendations apply to stainless and tool steel products imported from beneficiary Caribbean Basin countries, Andean countries, or from Israel. Table STAINLESS-1 shows year 2000 imports by Andean and Caribbean countries, and by Israel. In general, imports of the subject products from these countries accounted for only a small share of total imports.

Table STAINLESS-1
Year 2000 imports of stainless and tool steel products by ATPA countries, CBERA countries, Israel, and all countries, by product

Product	(Short tons)			
	Andean	CBERA	Israel	All countries
Bar	-	510	178	150,592
Rod	-	245	2	82,344
Tool steel	-	-	-	86,550
Wire	-	-	-	31,340
Fittings/flanges	-	17	294	31,826
Source: Compiled from data submitted in response to Commission questionnaires.				

SUPPLY AND DEMAND CONSIDERATIONS

Domestic Supply

Based on available information, U.S. stainless and tool steel producers are likely to respond to changes in demand with moderate changes in the quantity of shipments of U.S.-produced stainless and tool steel products to the U.S. market. The main factors contributing to the degree of responsiveness of supply are unused capacity utilization and the existence of inventories. U.S. producers' year 2000 capacity utilization, export shipments as a percentage of total shipments, and inventories as a percentage of total shipments are shown by stainless and tool steel product category in table STAINLESS-1.

Industry Capacity

Reported 2000 capacity utilization rates were highest for stainless steel wire (67.2 percent). Capacity utilization rates for the rest of the stainless and tool steel product categories were *** percent in 2000. These data indicate that U.S. producers have substantial unused capacity with which they could increase production of stainless and tool steel products in the event of price changes in the U.S. market.

Alternate Markets

Available data indicate that, for most stainless and tool steel product categories, exports accounted for a small portion of total shipments in 2000. For all stainless and tool steel product categories, exports as a percentage of total shipments were *** percent in 2000. Thus, U.S. producers are not likely to be able to shift a significant amount of stainless and tool steel products from alternative markets to the U.S. market in the event of price changes.

Table STAINLESS-2
Factors affecting U.S. producers' supply to the U.S. market

Product	Capacity utilization (*percent*)	Exports/total shipments (*percent*)	Inventories/total shipments (*percent*)
Bar	55.8	5.5	10.7
Rod	***	***	***
Tool steel	54.5	3.0	32.5
Wire	67.2	2.2	67.0
Fittings/flanges	***	***	***
Source: Compiled from data submitted in response to Commission questionnaires.			

Inventory Levels

U.S. producers' inventories of stainless products in 2000 varied widely depending on the product category. As a ratio to total shipments, inventories of tool steel, stainless steel wire, and stainless steel fittings/flanges were *** percent in 2000. These data indicate that U.S. producers have the ability to use inventories as a means of increasing shipments of stainless and tool steel products to the U.S. market.

Short Supply

Purchasers were asked to report if certain grades/types/sizes of stainless and tool steel products were unavailable or in short supply from domestic sources. Purchasers of stainless steel bar cited shortages of products such as 410Q&T/420Q&T round bar, angle, bar under 1.5 inch diameter, proprietary products of grades 303, 304, and 416, and DC53 round bars. Several purchasers of stainless steel wire rod maintained that there is only one domestic supplier of all grades/types/sizes of wire rod. Purchasers of tool steel products cited shortages of products such as high speed tool steel, cross-rolled tool steel plate, ultra-clean tool steels for plastic injection mold applications, hot-rolled O-1, A-1, and S-7 tool steel, and rolled tool steel rounds. Purchasers of stainless steel wire cited shortages of products such as 440C grade wire, nickel coated spring wire, type 304 nail wire, high-speed steel shaped wire, 410

large diameter copper coated wire, and 420F wire of diameter 0.009-0.062 inches. ***.

Subject Import Supply

Based on available information, foreign stainless and tool steel producers are likely to respond to changes in demand with moderate to large changes in the quantity of shipments of stainless steel products to the U.S. market. The main factors contributing to the degree of responsiveness of supply are unused capacity and the existence of alternate markets and inventories. Foreign producers' year 2000 capacity utilization, export shipments to the United States as a percentage of total shipments, and inventories as a percentage of total shipments are shown by stainless steel product category in tables STAINLESS-3 through STAINLESS-5.

Foreign producers

Foreign producers' capacity utilization rates for most of the stainless products were greater than *** percent in 2000. Capacity utilization rates for tool steel (*** percent) was the lowest. Foreign producers' inventories of stainless and tool steel products relative to total shipments were between *** in 2000. In 2000, foreign producers' exports to the U.S. relative to total shipments were generally *** percent. These data indicate that foreign producers will be able to respond somewhat with increased supply to the U.S. market in the event of price changes.

Table STAINLESS-3
Factors affecting foreign producers' supply to the U.S. market

Product	Capacity utilization (*percent*)	Exports to the U.S./total shipments (*percent*)	Inventories/total shipments (*percent*)
Bar	87.1	9.6	12.1
Rod	84.3	6.3	5.5
Tool steel	56.5	9.2	11.3
Wire	93.8	7.0	7.8
Fittings/flanges	***	***	***
Source: Compiled from data submitted in response to Commission questionnaires.			

Table STAINLESS-4
Factors affecting Canadian producers' supply to the U.S. market

Product	Capacity utilization (*percent*)	Exports to the U.S. /total shipments (*percent*)	Inventories/total shipments (*percent*)
Bar	***	***	
Rod	-	-	-
Tool steel	***	***	
Wire	***	***	
Fittings/flanges	-	-	-
Source: Compiled from data submitted in response to Commission questionnaires.			

Table STAINLESS-5
Factors affecting Mexican producers' supply to the U.S. market

Product	Capacity utilization (*percent*)	Exports to the U.S./total shipments (*percent*)	Inventories/total shipments (*percent*)
Bar	-	-	-
Rod	-	-	-
Tool steel	-	-	-
Wire	***	***	***
Fittings/flanges	***	***	***
Source: Compiled from data submitted in response to Commission questionnaires.			

*** in 2000. These data indicate that Canadian producers will be able to respond somewhat with increased supply to the U.S. market in the event of price changes.

Mexico

Mexican producers reported year 2000 stainless steel production and shipment data for one product; stainless steel fittings/flanges. The reported capacity utilization rate was *** percent for stainless steel fittings/flanges. Mexican producers of stainless fittings/flanges reported relatively high export and inventory ratios for 2000. These data indicate that Mexican producers will be able to respond somewhat with increased supply to the U.S. stainless steel fittings/flanges market in the event of price changes.

U.S. Demand

Based on available information, the overall demand for stainless and tool steel products will change moderately in response to changes in the price of stainless and tool steel products. The main factor contributing to this low degree of price sensitivity is the lack of available substitute products.

Demand Characteristics

The stainless and tool steel product category encompasses a variety of products, including bar and light shapes, rod, tool steel, wire, and flanges/fittings. Even within each of these narrower categories, there are a wide variety of products differentiated by size, shape, etc. Given the wide variety of products included within the stainless steel category, there are also a wide variety of end uses for these products.

Demand Trends

Figures STAINLESS-1 and STAINLESS-2 show trends in apparent consumption for the 5 stainless steel product categories. For most stainless steel product categories, U.S. consumption fluctuated upward during 1996-2000, then fell in 2001.

At the hearing, Ed Blot, of Ed Blot & Associates, predicted that apparent domestic consumption of stainless steel long products would decline by 25 percent in 2001 and 4 percent in 2002. Mr. Blot

Figure STAINLESS-1
U.S. apparent consumption: Indexes of U.S. apparent consumption of stainless steel bar, rod, and tool steel, by year, 1996-2001[1]

****

[1] Year 2001 data has been annualized.

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

Figure STAINLESS-2
U.S. apparent consumption: Indexes of U.S. apparent consumption of stainless steel wire, and fittings and flanges, by year, 1996-2001[1]

****

[1]Year 2001 data has been annualized.

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

maintains that his apparent domestic consumption prediction for 2002-2004 is similar to changes in apparent domestic consumption that occurred during 1993-95.[54]

Also at the hearing, Mr. Reilly, of Nathan & Associates, reported that Blue Chip Economic Indicators, a consensus forecast service that reflects about 60 or 70 business economist and investment house forecasts of general economic activity in the United States, projects a mild recession going through the first half of 2002, and then a very sharp recovery in the second half of the year. Mr. Reilly noted that the Blue Chip forecast differs from Mr. Blot's forecasts for the out years of 2003 and 2004.[55]

Substitute Products

Purchaser responses concerning substitute products are shown in table STAINLESS-6 For each of the subject stainless steel products the vast majority of responding purchasers reported that there are no other products that could be substituted for stainless and tool steel products in their end uses. The purchasers that reported that substitutes are available cited products such as galvanized wire; alloy, aluminum, and titanium bar; alloy products such as Monel, Incolloy, and Alloy 20; high-tech plastics and polymers; and carbon steel products.

Table STAINLESS-6
Purchaser responses concerning existence of substitute products

Product	Substitutes exist (number of responses)	No substitutes exist (number of responses)
Bar	8	62
Rod	3	45
Tool steel	3	36
Wire	7	58
Fittings/flanges	6	24
Source: Compiled from data submitted in response to Commission questionnaires.		

[54] November 11, 2001 remedy hearing transcript, p. 984.
[55] November 11 hearing transcript, p. 1165.

Cost Share

Because there are a large number of end uses for stainless and tool steel products, the percentage of the cost of the end product accounted for by the stainless steel products varies widely. Purchasers were asked to report the end uses for which they purchased stainless and tool steel products as a component part and to report the percentage of the total cost accounted for by the stainless and tool steel products. Purchasers reported cost shares of 1 percent or less for products such as battery components, metal stamping tools, conveyer parts, fuel injectors, steam turbines, automotive parts, and medical components. At the other end of the spectrum, purchasers reported cost shares of 100 percent for products such as wire, die components, steam turbine blades, press punch dies, bar, and several other intermediate products.

Substitutability of Domestic and Imported Stainless Products

The degree of substitution between domestic and imported stainless and tool steel products depends upon relative prices, quality (*e.g.*, grade standards, reliability of supply, defect rates, etc.) and conditions of sale (*e.g.*, price discounts/rebates, lead times between order and delivery dates, payment terms, product service, etc.). Based on available data, staff believes that although there are some differences in the U.S.-produced and imported stainless and tool steel products, there is a high degree of substitution between them.

U.S. Purchasers

The Commission received responses from approximately 246 purchasers of stainless and alloy tool steel. As seen in table STAINLESS-7 the Commission received responses from firms reporting purchases of each of the 5 stainless products covered by this investigation.[56]

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[56] Many purchasers reported buying more than one of the listed products so the total number of firms reporting purchases of each listed product will be greater than the total number of firms that responded to the questionnaire.

Table STAINLESS-7
Stainless products: Number of firms reporting purchases of domestic and imported products, by products

Product	Number of firms reporting--	
	Purchases of domestic product	Purchases of imported product
Bar and light shapes	74	55
Rod	42	39
Tool steel, all forms	38	22
Wire	55	56
Flanges and fittings	33	28
Source: Compiled from data submitted in response to Commission questionnaires.		

The country of origin of stainless and tool steel products purchased appears to be more important to the responding purchasers than it is to their customers. Tables STAINLESS-8 and STAINLESS-9 show the answers of the firms that responded to the question of whether or not their firm was aware of the country of origin of the product or whether their customers were aware of the country of origin.

Table STAINLESS-8
Purchasers' awareness of country of origin of stainless and tool steel products, by product

Product	Always aware (Number of responses)	Usually aware (Number of response)	Sometimes aware (Number of responses)	Never aware (Number of responses)
Bar	48	28	6	3
Rod	38	15	3	1
Tool steel	17	20	6	3
Wire	43	24	5	-
Fittings/flanges	23	13	2	-
Source: Compiled from data submitted in response to Commission questionnaires.				

Table STAINLESS-9
Purchasers' customers' awareness of country of origin of stainless and tool steel products, by product

Product	Always aware (Number of responses)	Usually aware (Number of response)	Sometimes aware (Number of responses)	Never aware (Number of responses)
Bar	13	16	29	5
Rod	18	10	14	4
Tool steel	4	7	15	3
Wire	14	12	16	11
Fittings/flanges	8	15	10	-
Source: Compiled from data submitted in response to Commission questionnaires.				

Factors Affecting Purchasing Decisions

As shown in tables STAINLESS-10-STAINLESS-14, quality is very important to purchasers of stainless and tool steel products. For all five subject stainless steel products, quality was the factor most often ranked by purchasers as the number one factor used in their purchasing decisions. Price is also considered important, with most purchasers ranking it as the second most important factor.

Table STAINLESS-10
Bar and light shapes: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	52	16	3
Price	10	30	37
Availability/Delivery	10	27	31
Contract/Traditional Supplier	7	1	2
Other[1]	5	12	12

[1] Other includes domestic supplier/origin of material, customer specification, product range, lot size, credit terms, affiliated company, and service.

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

Table STAINLESS-11
Rod: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	34	14	3
Price	10	22	21
Availability/Delivery	5	14	26
Contract/Traditional Supplier	4	1	-
Other[1]	5	6	6

[1] Other includes domestic supplier/origin of material, customer specification, product range, lot size, credit terms, affiliated company, and service.

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

Table STAINLESS-12
Tool steel, all forms: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	28	7	5
Price	3	18	18
Availability/Delivery	6	12	12
Contract/Traditional Supplier	4	-	2
Other[1]	3	7	6

[1] Other includes domestic supplier/origin of material, customer specification, product range, lot size, credit terms, affiliated company, and service.

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

Table STAINLESS-13
Wire: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	49	15	6
Price	11	29	24
Availability/Delivery	3	17	28
Contract/Traditional Supplier	7	1	1
Other[1]	4	8	10

[1] Other includes domestic supplier/origin of material, customer specification, product range, lot size, credit terms, affiliated company, and service.

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

Table STAINLESS-14
Flanges and fittings: Ranking of factors used in purchasing decisions as reported by purchasers

Factor	Number of firms reporting		
	Number 1 factor	Number 2 factor	Number 3 factor
Quality	20	6	2
Price	7	17	8
Availability/Delivery	4	12	7
Contract/Traditional Supplier	2	-	1
Other[1]	6	4	4

[1] Other includes domestic supplier/origin of material, customer specification, product range, lot size, credit terms, affiliated company, and service.

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

Because quality is an important consideration for purchasers of stainless and tool steel, many firms reported that they require suppliers to be certified or prequalified with respect to quality. For each of the five subject product categories, the vast majority of responding firms stated that they required some form of certification (table STAINLESS-15). However, there appear to be differences in the level of certification required. For example, some purchasers reported that they do not have requirements beyond making sure that the product meets AISI, ASTM, ASME, or ISO standards. Other purchasers reported that they require test material for trial runs and audits of suppliers. Qualification can occur as quickly as 1 day and can take as long as 6 to 12 months.

Table STAINLESS-15
Purchaser responses concerning qualification requirements

Product	Number of firms reporting	
	Require qualification	Do not require qualification
Bar	70	14
Rod	48	9
Tool steel	33	12
Wire	62	10
Fittings/flanges	24	15
Source: Compiled from data submitted in response to Commission questionnaires.		

Purchasers were also asked to report if any suppliers, domestic or foreign, ever failed in their attempt to qualify stainless and tool steel products. For each of the five subject product categories the majority of firms reported no, while the remaining firms reported that certain suppliers had failed to qualify (table STAINLESS-16). Reasons given for failure to qualify include quality problems, unavailability of certain grades/sizes/products, late shipments, and delivery problems.

Table STAINLESS-16
Purchaser responses concerning qualification failures

Product	Number of firms reporting	
	Suppliers failed qualification	Suppliers never failed qualification
Bar	22	60
Rod	14	42
Tool steel	12	32
Wire	20	51
Fittings/flanges	8	27
Source: Compiled from data submitted in response to Commission questionnaires.		

As noted earlier, price is important in purchasing decisions for stainless and tool steel. In addition to it being cited as an important factor in purchasing decisions, most purchasers also noted that they either usually or sometimes buy the product at the lowest available price. In response to the question of how often they purchase the lowest priced stainless and tool steel product offered, most purchasers of the five subject products either said "usually" or "sometimes," whereas relatively few said "always" or "never" (table STAINLESS-17).

Table STAINLESS-17
Purchaser responses concerning how often purchasers by the lowest-priced stainless and tool steel product offered, by product

Product	Number of firms reporting			
	Always purchase lowest price	Usually purchase lowest price	Sometimes purchase lowest	Never purchase lowest price
Bar	2	40	38	5
Rod	2	23	27	4
Tool steel	3	17	21	5
Wire	3	26	34	8
Fittings/flanges	1	26	12	-
Source: Compiled from data submitted in response to Commission questionnaires.				

As shown earlier, availability is also an important consideration in purchasing decisions for stainless and tool steel products. Purchasers were asked if certain grades/types/sizes of stainless and tool steel products were unavailable or in short supply from domestic sources. For each of the five subject product categories, the majority of purchasers that responded to this question responded in the negative, while the remaining purchasers stated that there were some products that were unavailable or in short supply in the U.S. market (table STAINLESS-18).

Table STAINLESS-18
Purchaser responses concerning whether or not Certain grades/types/sizes of stainless steel products are unavailable or in short supply from domestic sources

Product	Number of firms reporting	
	Certain grades/types/sizes of stainless steel products are unavailable or in short supply from domestic sources	Certain grades/types/sizes of stainless steel products are not unavailable or in short supply from domestic sources
Bar	33	46
Rod	19	33
Tool steel	13	29
Wire	28	39
Fittings/flanges	11	28
Source: Compiled from data submitted in response to Commission questionnaires.		

Comparisons of Domestic Products and Subject Imports

Purchasers tended to indicate familiarity with a fairly wide variety of countries' stainless and tool steel products. For all five subject product categories, the vast majority of purchasers stated that domestically produced products and subject product imports from Canada, Mexico, and all other countries that were manufactured to the same grade and specification were generally used in the same applications. For purchasers who stated that imported and domestically produced subject products were not generally used in the same applications, reasons cited included quality issues and unavailability of certain grades/sizes (Tables STAINLESS-19-STAINLESS-21).

Table STAINLESS-19
Interchangeability of U.S. and imported Canadian stainless and tool steel products that were manufactured to the same grade specification

Product	Number of firms reporting	
	U.S. and imported Canadian subject products are used in the same applications	U.S. and imported Canadian subject products are not used in the same applications
Bar	59	3
Rod	36	2
Tool steel	24	2
Wire	44	3
Fittings/flanges	29	2
Source: Compiled from data submitted in response to Commission questionnaires.		

Table STAINLESS-20
Interchangeability of U.S. and imported Mexican stainless and tool steel products that were manufactured to the same grade specification

Product	Number of firms reporting	
	U.S. and imported Mexican subject products are used in the same applications	U.S. and imported Mexican subject products are not used in the same applications
Bar	60	2
Rod	34	3
Tool steel	22	2
Wire	38	4
Fittings/flanges	28	2
Source: Compiled from data submitted in response to Commission questionnaires.		

Table STAINLESS-21
Interchangeability of U.S. and imported non-NAFTA stainless and tool steel products that were manufactured to the same grade specification

Product	Number of firms reporting	
	U.S. and imported non-NAFTA subject products are used in the same applications	U.S. and imported non-NAFTA subject products are not used in the same applications
Bar	64	2
Rod	47	-
Tool steel	30	1
Wire	53	5
Fittings/flanges	33	2
Source: Compiled from data submitted in response to Commission questionnaires.		

In general for the five subject product categories, most of the responding purchasers reported that neither they nor their customers specifically order stainless and tool steel products from one country in particular over other possible sources of supply. Purchasers of stainless steel bar and rod were the most evenly split (table STAINLESS-22).

Table STAINLESS-22
Purchaser responses concerning orders of stainless and tool steel products from one country over other possible sources of supply

Product	Number of firms reporting	
	Order stainless steel products from one country over other possible sources of supply	Do not order stainless steel products from one country over other possible sources of supply
Bar	39	42
Rod	27	29
Tool steel	20	25
Wire	25	45
Fittings/flanges	14	23
Source: Compiled from data submitted in response to Commission questionnaires.		

While price was reported by many purchasers to be an important factor in purchasing decisions, many purchasers reported that they had purchased stainless and tool steel products from one source even though a comparable product was available at a lower price from another source. Reasons cited include availability, delivery, customer requirements, quality, lead time for delivery, order size, reliability, long-term supplier, mill cooperation, service, existing contracts, and Buy American preferences.

Table STAINLESS-23
Purchases of higher-priced comparable subject product, by product

Product	Number of firms reporting	
	Purchased subject product from one source even though a comparable product was available at a lower price from another source	Did not purchase comparable higher-priced product
Bar	65	21
Rod	40	17
Tool steel	35	11
Wire	53	19
Fittings/flanges	29	10
Source: Compiled from data submitted in response to Commission questionnaires.		

Purchasers were asked to rate the importance of certain factors as being "very important," "somewhat important," or "not important." Furthermore, purchasers were asked to compare the U.S.-produced stainless and tool steel products to (1) imports from Canada, (2) imports from Mexico, and (3) imports from all non-NAFTA countries based on these same factors. The responses from purchasers are shown in tables STAINLESS-24-STAINLESS-28. As can be seen from the tables, most responding purchasers reported that the domestic and Canadian products were comparable with regard to the cited factors. With regard to imports from Mexico, purchasers reported more differences between the two products. For example, most purchasers of stainless steel bar and light shapes reported that the U.S. subject product was superior to the imported Mexican subject product in terms of price, product range, reliability of supply, technical support, and U.S. transportation costs. Most purchasers of stainless steel

wire reported that U.S. subject product was lower-priced than imported Mexican product, and most purchasers of stainless steel flanges and fittings reported that the U.S. subject product was superior to the imported Mexican product in terms of minimum quantity requirements and reliability of supply. For imports from non-NAFTA countries, purchasers generally reported that the imported and domestic products were comparable with regard to the factors. However, responding purchasers reported some differences. In particular, most purchasers of stainless steel bar and light shapes reported that U.S. subject product was superior to imported non-NAFTA subject product in terms of delivery time, but was priced higher. Most purchasers of stainless steel flanges and fittings reported that U.S. subject product was superior to imported non-NAFTA subject product in terms of delivery time.

U.S. producers' year 2000 U.S. commercial shipments, internal consumption, and export shipments are shown, by product, in table STAINLESS-29. Internal consumption accounted for a relatively small share of stainless steel bar, wire and flanges/fittings, and tool steel total shipments, and a large share of stainless steel rod total shipments.

Table STAINLESS-24
Bar and light shapes: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.8	1	9	1	2	2	2	10	20	13
Delivery terms	2.3	1	10	-	2	3	1	6	27	10
Delivery time	2.7	2	8	1	2	2	1	17	16	10
Discounts offered	2.1	2	7	2	2	3	1	7	27	8
Lowest price	2.5	2	5	4	3	1	2	6	12	25
Minimum quantity requirements	2.3	2	8	1	1	4	1	6	30	7
Packaging	2.1	-	11	-	-	6	-	5	35	3
Product consistency	2.9	-	11	-	2	3	1	5	27	11
Product quality	3.0	-	10	1	2	3	1	5	26	12
Product range	2.3	1	10	-	3	1	2	6	25	13
Reliability of supply	2.9	1	8	2	3	-	2	11	16	16
Technical support	2.4	2	9	-	3	2	1	13	22	8
Transportation network	2.0	-	11	-	2	3	1	10	32	2
U.S. transportation costs	2.1	1	10	-	3	2	-	8	33	3

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

Table STAINLESS-25
Rod: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.9	-	4	1	1	2	-	4	17	8
Delivery terms	2.3	-	5	-	1	2	-	6	17	6
Delivery time	2.7	-	3	2	1	2	-	6	14	8
Discounts offered	2.0	1	3	1	1	1	1	2	18	10
Lowest price	2.4	2	1	2	1	2	-	4	18	4
Minimum quantity requirements	2.1	1	2	2	1	2	-	5	20	5
Packaging	2.2	-	5	-	-	3	-	2	21	7
Product consistency	2.9	-	5	-	1	2	-	2	18	8
Product quality	2.9	-	4	1	1	2	-	2	16	11
Product range	2.2	-	5	-	1	2	-	4	18	4
Reliability of supply	2.9	1	2	2	1	1	1	3	16	11
Technical support	2.4	-	5	-	1	2	-	4	20	6
Transportation network	1.9	-	5	-	-	3	-	5	23	2
U.S. transportation costs	2.1	-	4	1	-	3	-	2	24	4

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

Table STAINLESS-26
Tool steel, all forms: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.9	-	6	-	-	1	-	4	9	3
Delivery terms	2.3	-	6	-	-	1	-	1	12	3
Delivery time	2.7	-	6	-	-	1	-	3	8	5
Discounts offered	2.0	1	5	-	1	-	-	2	12	2
Lowest price	2.3	2	3	1	1	-	-	4	7	5
Minimum quantity requirements	2.1	1	5	-	1	-	-	2	11	3
Packaging	2.0	-	6	-	-	1	-	1	13	2
Product consistency	3.0	-	6	-	-	1	-	1	10	5
Product quality	3.0	-	6	-	-	1	-	2	7	7
Product range	2.2	-	6	-	-	1	-	3	9	4
Reliability of supply	2.7	-	5	1	-	-	1	4	7	5
Technical support	2.3	-	6	-	-	1	-	5	8	3
Transportation network	1.9	-	6	-	-	1	-	3	13	-
U.S. transportation costs	2.0	-	6	-	-	1	-	2	12	2

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

Table STAINLESS-27
Wire: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.8	1	8	1	1	3	2	9	22	8
Delivery terms	2.3	-	10	-	1	3	2	7	25	5
Delivery time	2.7	2	7	1	1	2	2	12	19	7
Discounts offered	2.1	2	6	1	1	3	2	4	29	5
Lowest price	2.4	7	1	2	4	-	2	6	16	16
Minimum quantity requirements	2.0	2	7	1	1	5	-	10	22	6
Packaging	2.4	-	10	-	-	6	-	4	31	3
Product consistency	3.0	2	8	-	1	3	2	4	27	6
Product quality	3.0	2	7	1	1	2	3	4	24	8
Product range	2.4	1	9	-	1	4	1	7	27	4
Reliability of supply	2.9	2	6	2	1	1	4	5	26	7
Technical support	2.5	2	8	-	1	3	2	9	25	4
Transportation network	2.0	1	8	-	1	4	1	9	27	2
U.S. transportation costs	2.0	-	8	1	1	5	-	9	27	1

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

Table STAINLESS-28
Flanges and fittings: Average purchase factor ratings and reported comparisons between U.S., Canadian, Mexican, and non-NAFTA products

Factor	Average importance score[1]	U.S. vs. Canada[2]			U.S. vs. Mexico[2]			U.S. vs non-NAFTA imports[2]		
		S	C	I	S	C	I	S	C	I
Availability	2.8	-	6	-	2	3	1	9	9	3
Delivery terms	2.5	-	6	-	1	4	1	7	14	-
Delivery time	2.9	-	6	-	2	3	1	12	8	1
Discounts offered	2.4	1	5	-	1	3	2	1	17	3
Lowest price	2.6	2	3	1	2	2	2	4	8	9
Minimum quantity requirements	2.2	1	4	1	3	2	1	4	14	3
Packaging	2.1	-	6	-	1	5	-	4	17	-
Product consistency	3.0	-	6	-	1	5	-	1	18	2
Product quality	3.0	-	6	-	1	5	-	1	19	1
Product range	2.3	-	6	-	2	3	1	2	13	6
Reliability of supply	2.9	-	5	1	3	1	1	4	15	2
Technical support	2.4	1	5	-	2	4	-	4	15	2
Transportation network	2.1	1	5	-	1	4	1	4	16	1
U.S. transportation costs	2.3	-	6	-	1	4	-	4	16	1

[1] 3 = very important, 2 = somewhat important, 1 = not important.
[2] S = U.S. superior, C = products comparable, I = U.S. inferior.

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

Table STAINLESS-29
U.S. producers year 2000 commercial shipments, internal consumption, and export shipments, by product

Product	Percentage of 2000 total shipments accounted for by:		
	U.S. commercial shipments	U.S. internal consumption	Export shipments
Bar	68.1	27.8	4.1
Rod	***	***	***
Tool steel	74.5	22.8	2.7
Wire	96.4	2.1	1.5
Fittings/flanges	***	***	***

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

Several parties that oppose import relief maintain that a significant percentage of the subject imports do not compete with domestic product. Parties that oppose import relief for the domestic stainless steel bar industry maintain that Carpenter is the only domestic producer that produces a full range of stainless steel bar products, which raises monopoly issues.[57] Parties that oppose import relief for the domestic tool steel industry argue that there is no significant direct competition between U.S.-produced tool steel and the vast majority of imported tool steel. These parties maintain that U.S. tool steel is dominated by sophisticated products used in the automotive, major appliances, and capital goods industries.[58] Parties in opposition also cite a number of tool steel products that they claim the domestic industry does not produce.[59] Parties that oppose import relief for the domestic stainless steel wire industry maintain that the U.S. industry is unable to provide a sufficient supply of important high-quality stainless steel wire products.[60] Parties that oppose import relief for the domestic stainless steel flange/fitting industry maintain that a significant proportion of imported stainless steel flanges and fittings cannot compete in the important "approved" segment of the market. Parties in opposition state that this is true for major portions of the petrochemical and nuclear energy industries.[61]

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[57] David Simon's prehearing injury brief, volume 3, p. 17.

[58] O'Melveny & Meyers and LeBoef, Lamb, Greene, & MaCrae prehearing injury brief, p. 29.

[59] O'Melveny & Meyers and LeBoef, Lamb, Greene, & MaCrae prehearing injury brief, pp. 29-35.

[60] Wilkie, Farr & Gallagher; David Simon; Kaye Scholer; and Shearman & Sterling prehearing injury brief, pp. 30-34.

[61] Hogan & Hartson prehearing injury brief, p. 34.

Elasticity Estimates

This section discusses the elasticity estimates that will be used in the economic analysis concerning any remedy options.

U.S. Supply Elasticity[62]

The domestic supply elasticity for stainless products measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of stainless and tool steel products. The elasticity of domestic supply depends on several factors, including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift production to other products, the existence of inventories, and the availability of alternate markets for U.S.-produced stainless and tool steel products.

U.S. Demand Elasticity

The U.S. demand elasticity for stainless and tool steel products measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of stainless and tool steel products. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component share of stainless and tool steel products in the production of downstream products.

Substitution Elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[63] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (availability, sales terms/discounts/promotions, lead times, etc.).

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[62] A supply function is not defined in the case of a non-competitive market.

[63] The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and U.S. like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.

Elasticity estimates for specific segments of the domestic stainless and tool steel product market are given in the following table:

Table STAINLESS-30
Domestic elasticities of supply and demand, and elasticities of substitution between domestic and imported subject product, by product category

Product	Supply elasticity estimate range	Demand elasticity estimate range	Substitution elasticity estimate range
Bar	4 to 6	-0.25 to -0.75	3 to 5
Rod	4 to 6	-0.25 to -0.75	2 to 4
Tool steel	5 to 7	-0.25 to -0.75	3 to 5
Wire	5 to 7	-0.25 to -0.75	3 to 5
Fittings/flanges	5 to 7	-0.25 to -0.75	3 to 5

The domestic supply elasticity estimate ranges tended to be relatively high because each of the products had relatively high levels of unused capacity. The domestic supply elasticity estimate ranges for tool steel, wire, and fittings/flanges were relatively higher because of their relatively large inventory/total shipments ratios.

The demand elasticity estimate ranges were inelastic for each of the subject product categories. These relatively low estimate ranges are largely based on the fact that, in general, purchasers reported that there were no substitutes for the subject products.

For the majority of substitutability factors looked at by the Commission, there was relatively little difference between the purchaser responses for one subject product vs. another. The following purchaser characterizations generally applied to each of the subject products: quality was generally the highest ranked purchasing factor, with price ranked second; most purchasers required some form of certification; relatively few suppliers failed qualification; most purchasers either usually or sometimes purchased the lowest priced product; the vast majority of U.S. and imported subject stainless and tool steel products that were manufactured to the same grade specification are used in the same applications;

and most purchasers reported buying subject product from one source even though a comparable product was available at a lower price from another source. In addition, with few exceptions, most responding purchasers reported that the domestic and imported products were comparable with regard to 14 cited factors, regardless of the subject product.

The main factor differentiating the substitutability of the subject products, is the extent to which the subject products are internally consumed (table STAINLESS-29). The vast majority of stainless steel bar, wire and fittings/flanges, and tool steel are sold commercially, whereas a relatively large amount of stainless steel rod is internally consumed. For this reason, stainless steel rod is estimated to have a lower degree of substitutability.

Import supply elasticity estimates for specific segments of the stainless and tool steel market are given in the following table:

Table STAINLESS-31
Import supply elasticities, by country, by product category

Product	Canadian import supply elasticity estimate range	Mexican import supply elasticity estimate range	Non-NAFTA import supply elasticity estimate range
Bar	5 to 10	5 to 10	4 to 8
Rod	5 to 10	5 to 10	4 to 8
Tool steel	4 to 8	5 to 10	5 to 10
Wire	4 to 8	5 to 10	4 to 8
Fittings/flanges	5 to 10	5 to 10	4 to 8

REQUEST FOR RELIEF

A nonlinear comparative static model is used to analyze the effects of remedy options.[64] The purpose of the model is to present changes in prices, quantities, revenues, and welfare and consumer costs in the U.S. stainless and tool steel market as a result of various tariff, quota, or TRQ levels.

Domestic Industry Proposals and Effects

Domestic stainless producers represented by Collier Shannon and Georgetown Economic Services, have requested relief in the form of a three year quota and a one year tariff for each of the five subject stainless and tool steel products. They recommend that the quotas be based on 1993-95 import levels and that they be increased by 3 percent in each of the second and third years. The one year tariff is 15 percent ad valorem for each of the five subject products. In addition, domestic producers argue that, for stainless steel fittings/flanges, separate quotas should be established for each of the seven HTS categories and the quota volume should be allocated among the top 15 import source countries on the basis of relative shares of total U.S. import volume in 2000. Furthermore, Slater Steel argues that Canada should be excluded from any remedy imposed on stainless steel bar imports.

The United Steelworkers of America (USWA) propose a four year 30 percent ad valorem tariff and a four year quota based on stainless and tool steel imports during the period July 1, 1994-June 30, 1997 (or, if the Commission limits its options to the period of investigation, the 1996-97 period).[65] The tariffs should phase down by 5 percent per year, and the quotas should increase by the growth rate of apparent consumption plus one percent per year. In addition, the USWA proposes that the Commission recommend to the President pursuit of legislation which would authorize the payment of funds to the industry specifically for coverage of the industry's legacy costs.

Shagrin & Associates maintain that the Commission should recommend a quota on imports of

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[64] The results presented by staff in this memorandum assume a zero growth rate for the U.S. wire rod market. However, the model is capable of estimating the effects of remedy options under different growth rate scenarios.

[65] In its posthearing remedy brief the USWA's recommendation as to stainless steel flanges/fittings has been revised to be a tariff-only remedy.

stainless steel fittings and flanges. The proposed quota should be product specific, last four years, and reflect average import levels during the three year period from 1996-98, prior to recent import surges.

Gerlin proposes that the Commission recommend a four year tariff rate quota on imports of stainless steel fittings and flanges. In-quota imports from all countries except Mexico should be subject to their current rate of duty. In-quota imports from Mexico should be assessed an ad valorem duty of ***. Imports from any country that exceed the quota level should be assessed an ad valorem duty of 50 percent. The quota level should be based on average annual imports during 1993-95. Gerlin also maintains that stainless steel flange forgings should be excluded from any remedy action.

Table STAINLESS-32 below shows Collier Shannon Scott's estimated remedy results for the five subject products. These results are based on Collier Shannon Scott's elasticity estimates and remedy proposals.

Table STAINLESS-32
Domestic producers' estimated effects of proposed remedies on the domestic industry, by subject product

Product	(Percent change)		
	Price	Quantity	Revenue
Bar	6.2	19.8	27.3
Rod	***	***	***
Tool steel	4.3	18.2	23.2
Wire	3.8	11.8	16.0
Fittings/flanges	***	***	***
Source: Collier and Shannon remedy briefs for stainless steel bar, rod, wire, fittings/flanges and tool steel.			

Respondents' Suggested Remedy

In general, most respondents did not propose specific remedy options, rather they stated that no remedy was necessary. Several respondents stated any remedy should be only trade adjustment assistance, and should not be trade restrictive. Respondents also presented arguments as to why additional products should be excluded from the proposed remedy. The following table presents a summary of the recommendations made by the various respondent parties.

Table STAINLESS-31
Recommendations for remedy options for the domestic stainless and tool steel industry, as reported by respondents

Respondent	Remedy recommendation
Daido Stainless Steel Co.	Any remedy recommendation should exclude two stainless steel wire products containing lead: SF20T and DSR16FA
Sandvik Steel Co.	The Commission should exclude from any proposed relief certain specialized carbon and alloy and stainless and tool steel products produced by Sandvik.
The Canadian Embassy	While Canada does not believe a remedy is economically justified in view of the circumstances of Canada/U.S. steel trade and may do more harm than good for the U.S. industry, the Commission should be aware, in recommending import remedies, that the NAFTA provides that no party may impose restrictions on imports from the other that "would have the effect of reducing imports of such a good from a Party below the trend of imports of the good from that party over a recent representative base period with allowance for reasonable growth."
The New Zealand Government	While the New Zealand Government recognizes the need for the U.S. steel sector to adjust to changing world market conditions, it does not consider that this should be at the expense of imports through the imposition of import restrictions
The South African Iron and Steel Institute	The Commission's recommendation to the President must address the rights of WTO members which are developing countries under article 9.1 of the safeguards agreement
The European Confederation of Iron and Steel Industries (EUROFER)	EUROFER supports an enforceable worldwide agreement to eliminate most subsidies, to sanction incentives for the closure of uneconomic capacity, expand access to steel markets, and establish effective mechanisms to detect, deter and remedy disruptive import surges before they wreak havoc with open markets. To the extent that import restrictions are considered, EUROFER argues that tariff increases favor the lowest-price supplier, while quantitative restraints operate in a more even-handed manner, allowing traditional, long-standing suppliers to continue to serve the customers they have gained over their years and decades in the marketplace. If the Commission decides to recommend a remedy, a quota based on average imports from 1998 through 2000 is preferable to other forms and levels of relief. Any proposed quota should be allocated among supplying countries/regions.
Tool Steel Group	Tool steel products from the European Union (EU) should be excluded from any form of import restrictions. A substantial volume of tool steel and HSS imported from the EU consists of products that are not produced in the United States, are in short supply, or have buyer specifications that domestic producers have been unable or unwilling to produce. Any remedy recommended by the Commission should be no more restrictive than necessary to remedy serious injury and it should be tailored to protect only those sectors of the domestic industry subject to serious injury by reason of subject imports.

Continued on next page.

Table STAINLESS-31–Continued
Recommendations for remedy options for the domestic stainless and tool steel industry, as reported by respondents

Respondent	Remedy recommendation
The Association of European Quality Flange Producers	Stainless steel flanges and flange forgings should be excluded from this investigation. Furthermore, the integrated producers' and the converters' interests are so diametrically opposed to one another that any recommendation of relief will of necessity favor one group of domestic producers at the direct expense of the other. To the extent that any relief is recommended, that relief should include trade adjustment assistance and a recommendation for bilateral consultations with Mexico to resolve the issue.
UK Steel Association	The UK Steel Association submits two niche product exclusion requests. One request is for 316L grade stainless steel bar, which is used in the production of medical equipment, and high pressure valves and fittings used in the oil and gas industry. The other request is for certain metal cutting, meat cutting and wood cutting band saw carbon steel strip and an alloy equivalent.
Canadian Stainless Steel Wire Producers	Canadian drawn stainless steel wire should be treated as stainless steel wire from Canada.
Viraj	Any remedy recommendations should not include import restrictions. If import restrictions are imposed on stainless steel, any import quotas should be country-specific. Furthermore, any country-specific import quotas based on imports in a prior representative year should not necessarily use the same year for all countries to allocate a global import quota.
Ta Chen	Any remedy recommendations should not include import restrictions.
Avesta Polarit	In its remedy recommendation to the President, the Commission must recognize that it reached a negative stainless steel flange/fitting determination regarding section 311 (a) of the NAFTA Implementation Act. If the Commission determines that it will recommend any remedy in connection with imports of stainless steel flanges and fittings from all countries, such a recommendation should not include any tariffs, tariff-rate quotas or quotas but, instead, should include only trade adjustment assistance.
Eaton Corp.	To the extent the Commission does consider some remedy necessary, Eaton believes the Commission should recommend trade adjustment assistance for U.S. producers of tool steel and stainless steel bar. In addition, Eaton is seeking an exclusion for three special types of engine valve steel, classified in the stainless steel bar and tool steel product categories.

Continued on next page.

Table STAINLESS-31–Continued
Recommendations for remedy options for the domestic stainless and tool steel industry, as reported by respondents

Respondent	Remedy recommendation
Usinor	If the Commission determines that remedies are necessary against stainless steel bar, wire, and rod, such remedies should be limited to trade adjustment assistance. If the Commission determines that remedies other than trade adjustment assistance are necessary, such remedies must be narrowly tailored to address the actual causes of injury sustained by the domestic industry. The Commission should reject tariffs as a possible remedy. Any quotas should be allocated on a country-by-country basis. Any remedies imposed on imports from France should preserve historic, non-injurious import levels. Usinor also provided a list of products it believes should be exempted from the Commission's remedy recommendation.
Hitachi Metals	In its prior submission, Hitachi argues for the exclusion of three categories of products including: a) certain stainless steel wire rod grades 440C and DSUS 70DH; b) certain piston ring wire products; and c) certain edge wire products.
Eramet	Remedies associated with imports of valve steel and medical grade stainless steel bars from the EU are not warranted.
Suzuki Metal Industry Company	Suzuki requests that two certain stainless steel wire products be excluded from any remedy recommendation. The specific products are: a) nickel-coated stainless steel wire; and b) non-magnetic stainless steel wire (grade YUS130M)
Korean Iron and Steel Association	The Commission should not impose restrictions on imports of stainless steel wire. If the Commission imposes restrictions on stainless steel wire, it should establish a quota based on 1998-2000 import levels.
Hysla S.A. de C.V., Altos Hornos de Mexico, S.A. de C.V. (AHMSA), and Techtube de Mexico, S.A. de C.V.	The Commission must recommend that imports of stainless steel flanges and fittings from Mexico be excluded from any actions of remedy in the section 201 investigation on steel. The two affirmative votes with respect to Mexican imports of stainless steel flanges and fittings do not constitute a majority of the Commission.
Aubert & Duval	The Commission should exclude valve steel and medical grade stainless steel bars from any remedy action

Staff Estimated Remedy Options

Staff has estimated the effects of domestic producers' proposed remedy on the domestic subject stainless and tool steel industry. Using domestic and import shipment data obtained during this investigation and elasticities estimated by staff, a summary of the effects of petitioners' proposed remedies are presented in table STAINLESS-33. Staff also estimated the effects of several different tariff rates on the domestic stainless and tool steel industry. Summaries of the effects of tariff rates of 5, 10, 15, 20, 25, 30, 35, 40, 45, and 50 percent are presented in tables STAINLESS 34-STAINLESS-43.[66] Detailed output that includes all possible combinations of elasticity parameters is available upon request.

[66] Mr. Reilly, of Nathan Associates, maintained that, since the domestic stainless steel wire rod industry consists of one firm, Carpenter, that produces principally for internal consumption, COMPAS analysis in this case is invalid. November 11, 2001 hearing transcript, p. 1110.

Table STAINLESS-33
Summary of effects of imposition of a quota based on 1993-95 import levels, and a 15 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	2.3 to 4.7	***	1.7 to 3.5	1.1 to 2.1	***
Domestic quantity	13.6 to 20.8	***	12.0 to 18.9	7.3 to 10.9	***
Domestic revenue	17.2 to 26.0	***	14.6 to 22.9	8.8 to 13.0	***
Canada:					
Price	1.6 to 4.2	***	1.6 to 3.9	1.0 to 2.3	***
Quantity	15.0 to 25.7	***	11.0 to 20.1	6.6 to 11.5	***
Mexico					
Price	1.6 to 4.2	***	1.3 to 3.5	0.8 to 2.1	***
Quantity	15.0 to 25.7	***	12.0 to 21.9	7.3 to 12.6	***
All other:					
Price	20.0 to 37.7	***	12.5 to 23.1	10.4 to 18.6	***
Quantity	-47.0 to -47.0	***	-29.9 to -29.9	-29.6 to -29.6	***
Import market share:					
Covered imports	22.9 to 24.0	***	41.3 to 42.9	20.9 to 21.5	***
Total imports	30.9 to 31.8	***	50.6 to 51.9	21.2 to 21.8	***
Consumer costs ($1,000)	(120,811) to (63,711)	***	(41,066) to (22,350)	(24,312) to (13,755)	***
Net welfare effects ($1,000)	(62,437) to (23,828)	***	(15,832) to (2,195)	(6,451) to 758	***

Table STAINLESS-34
Summary of effects of imposition of a 5 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	0.4 to 0.8	***	0.4 to 0.8	0.2 to 0.5	***
Domestic quantity	1.8 to 4.4	***	2.2 to 5.2	1.4 to 3.3	***
Domestic revenue	2.2 to 5.1	***	2.7 to 6.0	1.6 to 3.8	***
Canada:					
Price	3.0 to 4.2	***	0.4 to 0.9	0.2 to 0.5	***
Quantity	-11.1 to -6.2	***	2.0 to 5.5	1.2 to 3.5	***
Mexico					
Price	0.3 to 0.7	***	0.3 to 0.8	0.2 to 0.5	***
Quantity	1.9 to 5.4	***	2.2 to 6.0	1.4 to 3.8	***
All other:					
Price	2.7 to 3.7	***	2.9 to 3.9	2.5 to 3.7	***
Quantity	-9.3 to -5.1	***	-9.4 to -5.3	-10.5 to -5.9	***
Import market share:					
Covered imports	43.0 to 44.5	***	50.9 to 52.4	20.5 to 21.4	***
Total imports	43.1 to 44.5	***	58.8 to 60.0	20.7 to 21.7	***
Consumer costs ($1,000)	(15,893) to (12,978)	***	(7,405) to (6,179)	(5,078) to (3,997)	***
Net welfare effects ($1,000)	2,170 to 5,498	***	716 to 2,064	842 to 2,056	***

Table STAINLESS-35
Summary of effects of imposition of a 10 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	0.7 to 1.5	***	0.7 to 1.5	0.5 to 0.9	***
Domestic quantity	3.4 to 8.5	***	4.3 to 10.1	2.6 to 6.3	***
Domestic revenue	4.3 to 10.0	***	5.2 to 11.7	3.2 to 7.3	***
Canada:					
Price	6.0 to 8.3	***	0.7 to 1.7	0.4 to 1.0	***
Quantity	-20.7 to -11.9	***	3.9 to 10.7	2.4 to 6.7	***
Mexico					
Price	0.5 to 1.4	***	0.6 to 1.5	0.4 to 0.9	***
Quantity	3.8 to 10.5	***	4.3 to 11.7	2.6 to 7.3	***
All other:					
Price	5.3 to 7.4	***	5.8 to 7.7	4.9 to 7.3	***
Quantity	-17.6 to -9.9	***	-17.9 to -10.1	-19.7 to -11.3	***
Import market share:					
Covered imports	39.9 to 42.6	***	47.5 to 50.4	18.4 to 20.2	***
Total imports	39.9 to 42.7	***	55.9 to 58.3	18.6 to 20.4	***
Consumer costs ($1,000)	(30,410) to (24,819)	***	(14,209) to (11,824)	(9,765) to (7,610)	***
Net welfare effects ($1,000)	3,179 to 9,324	***	933 to 3,391	1,237 to 3,476	***

Table STAINLESS-36
Summary of effects of imposition of a 15 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	1.1 to 2.2	***	1.1 to 2.2	0.7 to 1.3	***
Domestic quantity	5.0 to 12.3	***	6.3 to 14.7	3.8 to 9.1	***
Domestic revenue	6.3 to 14.5	***	7.6 to 17.0	4.6 to 10.4	***
Canada:					
Price	8.9 to 12.3	***	1.0 to 2.5	0.6 to 1.5	***
Quantity	-29.1 to -17.0	***	5.7 to 15.6	3.5 to 9.6	***
Mexico					
Price	0.7 to 2.0	***	0.8 to 2.2	0.5 to 1.3	***
Quantity	5.5 to 15.2	***	6.3 to 17.0	3.8 to 10.4	***
All other:					
Price	7.8 to 11.1	***	8.5 to 11.5	7.2 to 10.8	***
Quantity	-25.0 to -14.3	***	-25.5 to -14.6	-27.7 to -16.3	***
Import market share:					
Covered imports	36.9 to 40.9	***	44.3 to 48.5	16.6 to 19.1	***
Total imports	37.0 to 40.9	***	53.2 to 56.7	16.8 to 19.3	***
Consumer costs ($1,000)	(44,137) to (35,676)	***	(20,659) to (17,000)	(14,112) to (10,893)	***
Net welfare effects	3,198 to 11,769	***	719 to 4,107	1,259 to 4,383	***

Table STAINLESS-37
Summary of effects of imposition of a 20 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	1.4 to 2.8	***	1.4 to 2.8	0.9 to 1.7	***
Domestic quantity	6.5 to 15.8	***	8.2 to 19.0	4.9 to 11.6	***
Domestic revenue	8.2 to 18.7	***	9.9 to 22.0	6.0 to 13.3	***
Canada:					
Price	11.7 to 16.3	***	1.3 to 3.2	0.8 to 1.9	***
Quantity	-36.5 to -21.7	***	7.4 to 20.2	4.5 to 12.2	***
Mexico					
Price	0.9 to 2.5	***	1.1 to 2.8	0.7 to 1.7	***
Quantity	7.1 to 19.6	***	8.2 to 22.0	4.9 to 13.3	***
All other:					
Price	10.2 to 14.7	***	11.2 to 15.3	9.5 to 14.4	***
Quantity	-31.6 to -18.3	***	-32.2 to -18.8	-34.8 to -20.8	***
Import market share:					
Covered imports	34.2 to 39.2	***	41.2 to 46.7	14.9 to 18.0	***
Total imports	34.2 to 39.3	***	50.6 to 55.1	15.2 to 18.3	***
Consumer costs ($1,000)	(57,030) to (45,671)	***	(26,735) to (21,767)	(18,164) to (13,893)	***
Net welfare effects ($1,000)	2,369 to 13,079	***	132 to 4,316	969 to 4,875	***

Table STAINLESS-38
Summary of effects of imposition of a 25 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	1.6 to 3.4	***	1.7 to 3.4	1.1 to 2.0	***
Domestic quantity	7.9 to 19.1	***	9.9 to 23.1	6.0 to 13.8	***
Domestic revenue	10.0 to 22.6	***	12.0 to 26.8	7.2 to 16.0	***
Canada:					
Price	14.4 to 20.3	***	1.5 to 3.8	1.0 to 2.3	***
Quantity	-42.9 to -26.0	***	9.0 to 24.5	5.5 to 14.6	***
Mexico					
Price	1.1 to 3.1	***	1.3 to 3.4	0.8 to 2.0	***
Quantity	8.7 to 23.8	***	9.9 to 26.8	6.0 to 16.0	***
All other:					
Price	12.6 to 18.2	***	13.9 to 19.0	11.7 to 17.9	***
Quantity	-37.6 to -22.1	***	-38.3 to -22.7	-41.0 to -24.9	***
Import market share:					
Covered imports	31.6 to 37.7	***	38.2 to 45.0	13.5 to 17.0	***
Total imports	31.7 to 37.7	***	48.2 to 53.7	13.8 to 17.3	***
Consumer costs ($1,000)	(69,183) to (54,911)	***	(32,479) to (26,175)	(21,958) to (16,649)	***
Net welfare effects ($1,000)	814 to 13,451	***	(989) to 4,107	417 to 5,033	***

Note: For the fittings/flanges COMPAS runs the domestic producers' quantity effects were restricted by domestic producers' capacity levels.

Table STAINLESS-39
Summary of effects of imposition of a 30 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	1.9 to 3.9	***	1.9 to 3.9	1.2 to 2.3	***
Domestic quantity	9.2 to 22.1	***	11.6 to 26.8	7.0 to 15.9	***
Domestic revenue	11.7 to 26.2	***	14.1 to 31.2	8.4 to 18.4	***
Canada:					
Price	17.1 to 24.3	***	1.8 to 4.4	1.1 to 2.6	***
Quantity	-48.5 to -30.0	***	10.6 to 28.5	6.3 to 16.8	***
Mexico					
Price	1.3 to 3.5	***	1.5 to 3.9	0.9 to 2.3	***
Quantity	10.2 to 27.6	***	11.6 to 31.2	7.0 to 18.4	***
All other:					
Price	14.9 to 21.8	***	16.4 to 22.7	13.9 to 21.3	***
Quantity	-42.9 to -25.6	***	-43.7 to -26.3	-46.5 to -28.7	***
Import market share:					
Covered imports	29.3 to 36.2	***	35.5 to 43.3	12.2 to 16.2	***
Total imports	29.3 to 36.2	***	45.9 to 52.2	12.5 to 16.4	***
Consumer costs ($1,000)	(80,676) to (63,486)	***	(37,925) to (30,268)	(25,526) to (19,192)	***
Net welfare effects ($1,000)	(1,405) to 13,052	***	(2,515) to 3,552	(354) to 4,919	***

Note: For the fittings/flanges COMPAS runs the domestic producers' quantity effects were restricted by domestic producers' capacity levels.

Table STAINLESS-39
Summary of effects of imposition of a 35 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	2.2 to 4.4	***	2.2 to 4.4	1.4 to 2.6	***
Domestic quantity	10.5 to 24.9	***	13.2 to 30.3	7.9 to 17.8	***
Domestic revenue	13.3 to 29.6	***	16.1 to 35.3	9.5 to 20.6	***
Canada:					
Price	19.7 to 28.2	***	2.0 to 4.9	1.2 to 2.9	***
Quantity	-53.5 to -33.6	***	12.0 to 32.2	7.2 to 18.9	***
Mexico					
Price	1.5 to 4.0	***	1.7 to 4.4	1.1 to 2.6	***
Quantity	11.5 to 31.2	***	13.2 to 35.3	7.9 to 20.6	***
All other:					
Price	17.2 to 25.3	***	18.9 to 26.4	16.0 to 24.7	***
Quantity	-47.7 to -28.9	***	-48.6 to -29.6	-51.4 to -32.2	***
Import market share:					
Covered imports	27.1 to 34.8	***	32.9 to 41.7	11.1 to 15.3	***
Total imports	27.1 to 34.8	***	43.7 to 50.9	11.4 to 15.6	***
Consumer costs ($1,000)	(91,579) to (71,475)	***	(43,104) to (34,082)	(28,896) to (21,550)	***
Net welfare effects ($1,000)	(4,770) to 12,016	***	(4,337) to 2,711	(1,430) to 4,585	***

Note: For the fittings/flanges COMPAS runs the domestic producers' quantity effects were restricted by domestic producers' capacity levels.

Table STAINLESS-40
Summary of effects of imposition of a 40 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	2.4 to 4.9	***	2.4 to 4.9	1.5 to 2.9	***
Domestic quantity	11.7 to 27.5	***	14.8 to 33.5	8.7 to 19.5	***
Domestic revenue	14.8 to 32.8	***	18.0 to 39.2	10.6 to 22.6	***
Canada:					
Price	22.3 to 32.1	***	2.2 to 5.4	1.4 to 3.2	***
Quantity	-57.9 to -36.9	***	13.4 to 35.7	8.0 to 20.7	***
Mexico					
Price	1.6 to 4.4	***	1.9 to 4.9	1.2 to 2.9	***
Quantity	12.9 to 34.6	***	14.8 to 39.2	8.7 to 22.6	***
All other:					
Price	19.4 to 28.7	***	21.4 to 30.0	18.0 to 28.1	***
Quantity	-52.0 to -31.9	***	-53.0 to -32.8	-55.7 to -35.5	***
Import market share:					
Covered imports	25.1 to 33.4	***	30.6 to 40.2	10.1 to 14.6	***
Total imports	25.1 to 33.5	***	41.7 to 49.6	10.4 to 14.8	***
Consumer costs ($1,000)	(101,957) to (78,943)	***	(48,043) to (37,651)	(32,090) to (23,747)	***
Net welfare effects ($1,000)	(8,646) to 10,457	***	(6,399) to 1,637	(2,731) to 4,074	***

Note: For the fittings/flanges COMPAS runs the domestic producers' quantity effects were restricted by domestic producers' capacity levels.

Table STAINLESS-41
Summary of effects of imposition of a 45 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	2.6 to 5.3	***	2.6 to 5.3	1.6 to 3.1	***
Domestic quantity	12.8 to 29.9	***	16.2 to 36.5	9.6 to 21.1	***
Domestic revenue	16.3 to 35.7	***	19.8 to 42.8	11.6 to 24.4	***
Canada:					
Price	24.8 to 35.9	***	2.4 to 5.9	1.5 to 3.4	***
Quantity	-61.8 to -40.0	***	14.7 to 38.9	8.7 to 22.4	***
Mexico					
Price	1.8 to 4.7	***	2.0 to 5.3	1.3 to 3.1	***
Quantity	14.1 to 37.7	***	16.2 to 42.8	9.6 to 24.4	***
All other:					
Price	21.5 to 32.1	***	23.8 to 33.6	20.0 to 31.4	***
Quantity	-55.8 to -34.8	***	-57.0 to -35.7	-59.6 to -38.5	***
Import market share:					
Covered imports	23.2 to 32.2	***	28.3 to 38.7	9.2 to 13.9	***
Total imports	23.3 to 32.2	***	39.9 to 48.3	9.5 to 14.1	***
Consumer costs ($1,000)	(111,859) to (85,949)	***	(52,766) to (41,000)	(35,129) to (25,800)	***
Net welfare effects ($1,000)	(12,888) to 8,469	***	(8,629) to 371	(4,152) to 3,420	***

Note: For the fittings/flanges COMPAS runs the domestic producers' quantity effects were restricted by domestic producers' capacity levels.

Table STAINLESS-42
Summary of effects of imposition of a 50 percent tariff, by subject product

U.S. market effects (in percent unless otherwise noted)	Bar	Rod	Tool steel	Wire	Fittings/flanges
Domestic price	2.8 to 5.7	***	2.8 to 5.7	1.8 to 3.3	***
Domestic quantity	13.9 to 32.1	***	17.6 to 39.3	10.3 to 22.5	***
Domestic revenue	17.7 to 38.4	***	21.5 to 46.1	12.5 to 26.1	***
Canada:					
Price	27.3 to 39.7	***	2.6 to 6.3	1.6 to 3.7	***
Quantity	-65.3 to -42.9	***	16.0 to 41.9	9.4 to 23.9	***
Mexico					
Price	1.9 to 5.1	***	2.2 to 5.7	1.4 to 3.3	***
Quantity	15.3 to 40.6	***	17.6 to 46.1	10.3 to 26.1	***
All other:					
Price	23.6 to 35.5	***	26.1 to 37.2	22.0 to 34.7	***
Quantity	-59.3 to -37.4	***	-60.5 to -38.4	-63.0 to -41.3	***
Import market share:					
Covered imports	21.5 to 31.0	***	26.3 to 37.3	8.4 to 13.2	***
Total imports	21.6 to 31.0	***	38.2 to 47.1	8.7 to 13.5	***
Consumer costs ($1,000)	(121,338) to (92,543)	***	(57,294) to (44,154)	(38,031) to (27,729)	***
Net welfare effects ($1,000)	(17,413) to 6,131	***	(10,990) to (1,050)	(5,658) to 2,651	***

Note: For the fittings/flanges COMPAS runs the domestic producers' quantity effects were restricted by domestic producers' capacity levels.

CONSIDERATIONS UNDER SECTION 203(a)(2)

Adjustment Assistance and Worker Retraining

According to information on the Department of Labor's website, workers from at least two firms that are producers of stainless steel products (Carpenter Technology and Slater Steel) have been certified for adjustment assistance.[67]

Positive Adjustment to Import Competition

The stainless and tool steel industry's adjustment plan involves a number of components, including: (1) improving industry innovation, efficiency, product quality, and overall cost competitiveness; (2) continuing the development of new products and applications so as to increase demand for stainless and tool steel products; and (3) support for and participation in efforts to remove the structural impediments to a fair market environment, including reduction of excess and inefficient capacity worldwide and elimination of government-sponsored, trade distorting programs. The domestic producers maintain that, with improved efficiency, increased demand, and a market free from structural impediments, the stainless and tool steel industry will be able to compete more effectively with imports at the conclusion of the relief period, thereby ensuring its ultimate survival. Company specific adjustment plans for the stainless steel bar, rod, flange/fitting, and tool steel industries are provided in attachment 1 of the domestic producers' prehearing remedy briefs. Company specific adjustment plans for the stainless steel wire industry are provided in attachment 2 of the domestic producers' prehearing remedy brief.

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[67] See Department of Labor's website at *wdsc.doleta.gov\trade_act\taa*. In addition, staff has attempted to contact the Department of Commerce to obtain information on firms that have been certified for adjustment assistance but to date has not received the information. To the extent that additional information becomes available, it will be forwarded to the Commission.