

SILICON METAL FROM ARGENTINA, BRAZIL, AND THE PEOPLE'S REPUBLIC OF CHINA

Determination of the Commission in
Investigation No. 701-TA-304
(Preliminary) Under the Tariff Act
of 1930, Together With the
Information Obtained in the
Investigation

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Determinations of the Commission in
Investigations Nos. 731-TA-470-472
(Preliminary) Under the Tariff Act
of 1930, Together With the
Information Obtained in the
Investigations

UNITED STATES INTERNATIONAL TRADE COMMISSION

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DETERMINATIONS OF THE COMMISSION TOGETHER WITH INFORMATION OBTAINED IN THE INVESTIGATIONS

**Silicon Metal From Argentina, Brazil, and
The People's Republic of China**

***Invs. Nos. 701-TA-304 and 731-TA-470-472
(Preliminary)***

October 1990

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Note.--Information that would reveal the business proprietary operations of individual concerns may not be published and, therefore, has been deleted from this report. Such deletions are indicated by asterisks.

Determinations

UNITED STATES INTERNATIONAL TRADE COMMISSION

**Investigations Nos 701-TA-304 (Preliminary)
and 731-TA-470-472 (Preliminary)**

**SILICON METAL FROM ARGENTINA, BRAZIL, AND
THE PEOPLE'S REPUBLIC OF CHINA**

Determinations

On the basis of the record¹ developed in investigation No. 701-TA-304 (Preliminary), the Commission unanimously determines, pursuant to section 703(a) of the Tariff Act of 1930 (19 U.S.C. § 1671b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Brazil of silicon metal² that are alleged to be subsidized by the Government of Brazil.

The Commission further unanimously determines, on the basis of the record developed in investigations Nos. 731-TA-470-472 (Preliminary), pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from Argentina, Brazil, and the People's Republic of China (China) of silicon metal³ that are alleged to be sold in the United States at less than fair value (LTFV).

Background

On August 24, 1990, a petition was filed with the U.S. International Trade Commission and the U.S. Department of Commerce by the merchant-producer members of the U.S. silicon metal

¹ The record is defined in sec. 207.2(h) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(h)).

² The merchandise covered by this investigation is silicon metal containing at least 96.00 but less than 99.99 percent of silicon by weight. The subject merchandise is used primarily as an alloying agent for aluminum and in the chemical industry as a precursor to silicones. Silicon metal is currently provided for in subheadings 2804.69.10 and 2804.69.50 of the *Harmonized Tariff Schedule of the United States (HTS)* as a chemical product, but is commonly referred to as a metal. Semiconductor-grade silicon (silicon metal containing by weight not less than 99.99 percent of silicon and provided for in subheading 2804.61.00 of the HTS) is not subject to this investigation.

³ The merchandise covered by these investigations is identical to that in investigation No. 701-TA-304 (Preliminary).

industry,⁴ alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of silicon metal from Brazil and LTFV imports of silicon metal from Argentina, Brazil, and China. Accordingly, effective August 24, 1990, the Commission instituted countervailing duty investigation No. 701-TA-304 (Preliminary) and antidumping investigations Nos. 731-TA-470-472 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of September 5, 1990 (55 F.R. 36330). The conference was held in Washington, DC, on September 14, 1990, and all persons who requested the opportunity were permitted to appear in person or by counsel.

⁴ The petitioners in the investigations with respect to imports from Argentina and China are American Alloys, Inc., Pittsburgh, PA; Elkem Metals Co., Pittsburgh, PA; Globe Metallurgical, Inc., Cleveland, OH; Silicon Metaltech Inc., Seattle, WA; SiMETCO, Inc., Canton, OH; and SKW Alloys, Inc., Niagara Falls, NY. Elkem Metals Co., and SKW Alloys, Inc. are not petitioners in the investigations with respect to imports from Brazil.

Views Of The Commission

VIEWS OF THE COMMISSION

Based on the information obtained in these preliminary investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured¹ by reason of imports of silicon metal from Argentina, Brazil, and the People's Republic of China (China) that are allegedly sold in the United States at less than fair value (LTFV) and, in the case of Brazil, are allegedly subsidized.

Like Product

In order to determine whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the allegedly subsidized and LTFV imports under investigation, the Commission must first determine the relevant domestic industry. The term "industry" is defined as "the domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of that product."² "Like product", in turn, is defined as "[a] product which is like, or in the absence of like, most similar in characteristics and uses with the articles subject to investigation."³ The Commission must determine what domestic product is "like" the imports under investigation.

The U.S. Department of Commerce's (Commerce) notices of initiation of investigations define the scope of the products subject to investigation⁴ as--

¹ The legal standard in preliminary countervailing duty and antidumping investigations is set forth in sections 703(a) and 733(a) of the Act; 19 U.S.C. §§ 1671b(a), 1673b(a), which require the Commission to determine whether, based on the best information available at the time of the preliminary determination, there is a reasonable indication of material injury or threat thereof to a domestic industry, or material retardation of the establishment of a domestic industry by reason of the imports under investigation.

In applying this standard, the Commission may weigh the evidence before it to determine whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of material injury; and (2) no likelihood exists that any contrary evidence will arise in a final investigation." American Lamb Co. v. United States, 785 F.2d 994, 1001-1004 (Fed. Cir. 1986). In American Lamb, the Federal Circuit stated that the purpose of preliminary determinations is to avoid the cost and disruption to trade caused by unnecessary investigations and the "reasonable indication" standard requires more than a finding that there is a possibility of such injury. Id. at 1001-04.

² 19 U.S.C. § 1677(4)(A).

³ 19 U.S.C. § 1677(10).

⁴ Commerce has responsibility for defining the imports that are subject to investigation. 19 U.S.C. §§ 1671, 1673; Algoma Steel Corp., Ltd. v. United States, 865 F.2d 240 (Fed. Cir. 1989).

silicon metal containing at least 96.00 percent but less than 99.99 percent of silicon by weight. The subject merchandise is used primarily as an alloying agent for aluminum and in the chemical industry as a precursor to silicon. Silicon metal is currently provided for under subheadings 2804.69.10 and 2804.69.50 of the Harmonized Tariff Schedule (HTS) as a chemical product, but is commonly referred to as a metal. Semiconductor-grade silicon (silicon metal containing by weight not less than 99.99 percent of silicon and provided for in subheading 2804.61.00 of the HTS) is not subject to this investigation.⁵

Thus, the Commission must determine what domestic product is like the subject imports defined by Commerce.

The Commission's like product definition is based on the facts of each case.⁶ In determining the appropriate like product(s), the Commission typically has considered a number of factors relating to characteristics and uses, including: (1) physical appearance, (2) interchangeability, (3) channels of distribution, (4) customer perceptions of the product, (5) common manufacturing facilities and production employees, and (6) where appropriate, price.⁷ No single factor is necessarily dispositive, and the Commission may consider other factors that it finds are relevant depending on the facts of a particular investigation. Further, the Commission considers that minor variations among products provide an insufficient basis for finding separate like products.⁸

For purposes of these preliminary investigations, we determine the like product to be all silicon metal, regardless of grade, having a silicon content of at least 96.00 percent but less than 99.99 percent of silicon by weight, and excluding semiconductor grade silicon.⁹ Silicon metal of different grades has the same physical appearance, *i.e.*, is metallic in appearance and steel-gray in color.¹⁰ All silicon metal,

⁵ 55 Fed. Reg. 38716, 38717, 38719, 38729 (Sept. 20, 1990). See Staff Report to the Commission ("Staff Report") at Appendix C.

⁶ Asociacion Colombiana de Exportadores de Flores v. United States, 693 F. Supp. 1165, 1168 n.4 (CIT 1988); The Torrington Co. v. United States, slip op. 90-90 (CIT, Aug. 11, 1990).

⁷ See, e.g., Antifriction Bearings (Other Than Tapered Roller Bearings) from the Federal Republic of Germany, France, Italy, Japan, Romania, Singapore, Sweden, Thailand, and the United Kingdom, Invs. Nos. 303-TA-19 and 20 (Final) and 731-TA-391-399 (Final), USITC Pub. 2185 (May 1989), Views of Commissioners Eckes, Lodwick, Rohr and Newquist at 11.

⁸ *Id.*; S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979); Sony Corporation of America v. United States, 712 F. Supp. 978, 981 (CIT 1989); Industrial Nitrocellulose from Brazil, Japan, the People's Republic of China, the Republic of Korea, the United Kingdom, and West Germany, Invs. Nos. 731-TA-439-444 (Final), USITC Pub. 2295 (June 1990) at 4; Cf. Nitrile Rubber from Japan, Inv. No. 731-TA-384 (Preliminary), USITC Pub. 2027 (Oct. 1987).

⁹ The parties agree that there is one like product, as defined above.

¹⁰ Staff Report at A-4.

whether domestic or imported, is produced from the same raw material, and the process for producing all grades of both domestic and imported silicon metal is identical.¹¹ The petitioners state that the domestic industry produces all grades of silicon metal in the same plants, using the same employees and facilities,¹² and there is no information to the contrary. The majority of both domestic and imported silicon metal is sold directly to endusers.¹³

There are three primary uses for silicon metal--in the production of primary aluminum, secondary aluminum, and chemical products. Other uses account for a small proportion of U.S. consumption.¹⁴ Nearly all imports are secondary aluminum grade,¹⁵ while the largest single market for domestic silicon metal shipments is for chemical grade product.¹⁶ However, the information before us suggests that a substantial amount of the domestic product also goes to the secondary aluminum market. Higher grade silicon metal is sometimes shipped to a purchaser with a lower specification.¹⁷ Thus, there is some interchangeability among different grades in the sense that the more pure product can be used in the same applications as the less pure product, although the reverse is not true. If the Commission conducts final investigations concerning silicon metal, it will seek further information on the question of interchangeability.

With the exception of allegations that some of the Chinese product is or was of inferior quality, there is no evidence of quality differences between the domestic and imported product.¹⁸ There are few, if any, substitute products for silicon metal.¹⁹

We also do not include semiconductor grade silicon metal, *i.e.*, silicon metal containing by weight not less than 99.99 percent silicon, in the like product definition. Semiconductor grade silicon metal has a distinct end use, and there appears to be no competitive overlap between the two products. Semiconductor grade silicon metal is not produced by manufacturers of other silicon metal and requires

¹¹ *Id.* at A-5-6.

¹² Petition at 19.

¹³ Staff Report at A-15-16.

¹⁴ *Id.* at A-6-7.

¹⁵ *Id.*, tabulation at A-16. Virtually all import shipments are secondary aluminum grade, and the remainder are chemical grade.

¹⁶ *Id.*

¹⁷ *Id.* at A-5.

¹⁸ *Id.* at A-56-57.

¹⁹ *Id.* at A-7.

a higher degree of purity than silicon metal used for other purposes. Semiconductor grade silicon metal is a further refined product made from the silicon metal subject to this investigation. It requires special manufacturing processes and is sold at prices considerably higher than the prices for other silicon metal.²⁰ Based on the information in these preliminary investigations, we do not believe that semiconductor grade silicon metal is like the subject imports. We will seek additional information on this point in any final investigations.

Domestic Industry

The statute defines the domestic industry as "the domestic producers as a whole of the like product, or those producers whose output of the like product constitutes a major proportion of the total domestic production of the product."²¹ The Commission has defined the like product to be silicon metal containing at least 96.00 percent silicon but excluding semiconductor-grade silicon metal, and therefore the domestic industry is defined as all producers of such silicon metal in the United States.

Two domestic producers of silicon metal are captive producers²² that produce silicon metal for use in their own manufacturing operations. The Commission has consistently included such captive producers as part of the domestic industry,²³ but has noted it will be "mindful of the fact that unfairly traded imports 'may not affect open-market producers and integrated producers in the same way.'"²⁴ In any final investigations, we will seek further information concerning whether the imports have affected the merchant and captive producers differently.

²⁰ Petition at 18 n.8.

²¹ 19 U.S.C. § 1677(4).

²² The captive producers are Dow Coming Corp. and Reynolds Metals Co.

²³ See, e.g., Industrial Phosphoric Acid from Belgium and Israel, Invs. Nos. 731-TA-365 and 366 (Preliminary), USITC Pub. 1931 (Dec. 1986) at 6-7; Polyethylene Terephthalate Film, Sheet and Strip from Japan, the Republic of Korea, and Taiwan, Invs. Nos. 731-TA-458-460 (Preliminary), USITC Pub. 2292 (June 1990) at 12-13.

²⁴ Id., citing Electrolytic Manganese Dioxide from Greece and Japan, Invs. Nos. 731-TA-406 and 408 (Final), USITC Pub. 2177 (Apr. 1989) at 9.

Related Parties

Under the statute, the Commission may exclude "in appropriate circumstances" from the domestic industry domestic producers who are either "related to the exporters or importers, or are themselves importers of the allegedly subsidized or dumped merchandise."²⁵

The Commission has generally applied a two-step analysis to determine whether to exclude a domestic producer under the related parties provision. First, the Commission determines whether the company qualifies as a related party under section 771(4)(B). Second, the Commission determines whether, in view of the domestic producer's status as a related party, there are "appropriate circumstances" for its exclusion from the domestic industry definition.²⁶ The related parties provision may be used to avoid distortion in the aggregate data bearing on the condition of the domestic industry that might result from inclusion of related parties whose operations are shielded from the effects of the imports under investigation.²⁷

Several domestic producers reportedly imported silicon metal from the subject countries²⁸ during the period of investigation.²⁹ These companies represented a significant portion of domestic production in 1989.³⁰ The volume of imports by these companies from the subject countries generally is so small in relation to their total domestic production and sales that the imports do not appear to have affected the performance of any of the companies. Exclusion of these companies would therefore present a distorted picture of the state of the domestic industry. Moreover, based on the available information concerning their volume of imports in relation to their total production, it also does not appear that

²⁵ 19 U.S.C. § 1677(4)(B).

²⁶ See, e.g., Digital Readout Systems and Subassemblies Thereof from Japan, Inv. No. 731-TA-390 (Final), USITC Pub. 2150 (Jan. 1989) at 15; Dry Aluminum Sulfate from Sweden, Inv. No. 731-TA-430 (Preliminary), USITC Pub. 2174 (Mar. 1989) at 11.

²⁷ *Id.*; S. Rep. No. 249, 96th Cong., 1st Sess. at 83.

²⁸ Other domestic producers reportedly imported silicon metal during the period of investigation but were uncertain about whether the imports were from the subject countries or from other sources. We will attempt to determine more information on this issue in any final investigations.

²⁹ The number and identities of the importing producers is business proprietary information. The Commission's discussion of this issue has been tailored to avoid disclosure of any such information.

³⁰ Staff Report at A-13-15, A-24.

their imports had the effect of "shielding" the companies from import competition. We therefore do not exclude these firms as related parties.³¹

However, we also note that for each of two of the companies, imports or sales of imported merchandise account for a significant portion of their domestic shipments. We believe this raises a significant question concerning their exclusion. If this matter returns for a final investigation, we will seek additional information on this issue.

Condition of the domestic industry

The statute directs the Commission to determine whether there is a reasonable indication that the domestic industry is materially injured by reason of the subject imports.³² "Material injury" is defined as "harm which is not inconsequential, immaterial, or unimportant."³³ In assessing material injury, the statute sets forth specific factors for the Commission to consider.³⁴ No one factor is determinative,³⁵ and the Commission is entitled to consider other economic factors relevant to analysis of the industry in question, as long as such factors are identified and their relevance is fully explained.³⁶

Although the trade data and financial indicators show that the domestic industry's condition improved between 1987 and 1988, there was a marked downturn in these factors in the 1988-1989 period. Thus, domestic production fell 4.6 percent in this latter period, while capacity declined by 1.1 percent and capacity utilization declined by 3.6 percent.³⁷ Domestic production did rise, by 7.5 percent,

³¹ Commissioner Rohr notes that while the Commission may be able to obtain domestic producer data from companies that also import to avoid "data distortions", a company's imports may nevertheless affect whether the company supports, opposes, or remains neutral with regard to a petition. This has not, in the past, been a significant factor in the Commission's consideration of related parties, but may bear more consideration in light of the Court of International Trade's decision in Suramerica de Aleaciones Laminadas, C.A. v. United States, slip op. 90-79 (CIT, Aug. 22, 1990).

³² 19 U.S.C. §§ 1671b(a), 1673b(a).

³³ 19 U.S.C. § 1677(7)(A).

³⁴ The Commission must consider (I) the volume of imports, (II) the effect of imports on prices in the United States for like products, and (III) the impact of imports on domestic producers of like products. 19 U.S.C. § 1677(7)(B). The Commission is obliged to explain its analysis of volume, price effect, and impact of imports. Id. Specific subfactors that the Commission must evaluate, but need not necessarily discuss in its views, are set forth in section 1677(7)(C).

³⁵ 19 U.S.C. § 1677(7)(E)(ii) ("The presence or absence of any factor . . . shall not necessarily give decisive guidance with respect to the determination by the Commission of material injury.")

³⁶ 19 U.S.C. § 1677(7)(B).

³⁷ Staff Report at A-17, Table 2a.

and capacity also rose, by 8.6 percent, in interim 1990 over interim 1989, while capacity utilization continued to decline in the interim period.³⁸ Total domestic shipments also were reduced, by 3.2 percent in quantity and 4.5 percent in value, between 1988 and 1989, and per-unit values fell by 1.4 percent in that period.³⁹ In the interim period, total domestic shipments continued to decline in volume and value, and per-unit values also fell.⁴⁰ ⁴¹ Domestic end-of-period inventories rose markedly throughout the period of investigation.⁴² It is apparent, therefore, that much of the increase in domestic production during the investigation period was being inventoried, suggesting that the relatively robust trends during 1987-1988 did not indicate a healthy industry.⁴³

The domestic industry's financial indicators also declined precipitously during the 1988-1989 period. Operating income on operations producing silicon metal fell 120.6 percent in that period, and showed a loss in 1989 and interim 1990.⁴⁴ Net income also fell in that period, and the industry showed a net loss in 1989 as well as in interim 1990.⁴⁵ Four firms showed both operating and net losses in 1989.⁴⁶

In addition, the number of production-related workers, amount of hours worked by production-related workers, and their wages and total compensation declined between 1988 and 1989, although there was a rise in average hourly wages and average hourly total compensation paid to production-related workers.⁴⁷ Each of these indicators showed an increase in interim 1990.⁴⁸

³⁸ *Id.*

³⁹ *Id.* at A-21, Table 3a.

⁴⁰ *Id.*

⁴¹ Acting Chairman Brunsdale notes that because 1988 was a peak year in the silicon metal industry, using the Commission's traditional approach of analyzing three years of industry data may be particularly important in this case. Over the three year period 1987 to 1989, U.S. production increased by 2.5 percent, capacity increased by 2.7 percent, and unit value increased by 9.7 percent. In addition, total shipments increased in both quantity and value terms. Capacity utilization was nearly identical in 1987 and 1989, in excess of 85 percent, despite the fact that capacity increased over the period.

⁴² Staff Report at A-25, Table 4a.

⁴³ Acting Chairman Brunsdale notes that inventories ranged from 3.7 percent of production in 1987 to 6.5 percent of production in 1989. She does not believe that inventories of that size are excessive and she disagrees that such inventory accumulation suggests that an industry is not healthy.

⁴⁴ Staff Report at A-31, Table 6.

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *Id.* at A-27, Table 5a.

⁴⁸ *Id.* However, these trends are attributable to the increased production by four producers. Most of the increased production ended up as inventories, rather than as increased shipments.

In sum, the production, capacity, shipment, value, inventory, financial and employment factors provide a reasonable indication that the domestic industry is materially injured.⁴⁹

Cumulation

Section 771(7)(C)(iv) of the Tariff Act of 1930 directs that--

[T]he Commission shall cumulatively assess the volume and effect of imports from two or more countries of like products subject to investigation if such imports compete with each other and with the like products of the domestic industry in the United States.⁵⁰

The Commission has interpreted the statute to require cumulation when imports meet the following three criteria: (1) they must be subject to investigation, (2) they must compete with other imported products and the domestic like product, and (3) they must be marketed within a reasonably coincident period.⁵¹ In determining whether these criteria are met, the Commission has considered the following factors--

- (1) the degree of fungibility between imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
- (2) the presence of sales or offers to sell, in the same geographical market, of imports from different countries and the domestic like product;
- (3) the existence of common or similar channels of distribution for imports from different countries and the domestic like product;
- (4) whether the imports are simultaneously present in the market.⁵²

⁴⁹ Acting Chairman Brunsdale joins in this discussion of the condition of the domestic industry. However, she does not reach a separate legal conclusion concerning the presence or absence of material injury based on this information. While she does not believe an independent determination is either required by the statute or useful, she finds the discussion of the condition of the domestic industry helpful in determining whether any injury resulting from the allegedly subsidized and LTFV imports is material.

⁵⁰ 19 U.S.C. § 1677(7)(c)(iv).

⁵¹ See Chaparral Steel Co. v. United States, 901 F.2d 1097, 1101, 1105 (Fed. Cir. 1990).

⁵² See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan, Invs. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986), aff'd, Fundicao Tupy, S.A. v. United States, 678 F.Supp. 898, 902 (CIT 1988), aff'd, 859 F.2d 915 (Fed. Cir. 1988).

While no single factor is determinative and the list of factors is not exclusive, they are intended to provide the Commission with a framework for determining whether the imports compete with each other and with the domestic like product.⁵³ Only a "reasonable overlap" of competition is required.⁵⁴

The vast majority of imports from all three countries are of secondary aluminum grade silicon metal, and therefore competition between the subject imports and the domestic like product occurs primarily in that segment of the market. The Commission has not gathered separate information about the relative sizes of the three market segments.⁵⁵ However, the parties indicate that the secondary aluminum and the chemical markets are by far the largest in the United States.⁵⁶ For purposes of the secondary aluminum market, it appears that all the imports of secondary aluminum grade silicon metal⁵⁷ are fungible with the domestic secondary aluminum grade product.⁵⁸ There is evidence that imports from each of the countries under investigation compete for sales with the domestic product.⁵⁹ Moreover, four U.S. importers import the product from all three countries under investigation.⁶⁰ There is evidence that these importers do not differentiate among the import sources for silicon metal when filling orders, so that imported silicon metal from whatever source is treated the same by the importers and their purchasers, thus indicating that there is competition among imports.⁶¹

⁵³ See Wieland Werke, AG v. United States, 718 F. Supp. 50 (CIT 1989); Granges Metallverken, AG v. United States, 716 F. Supp. 17 (CIT 1989); Florex v. United States, 705 F. Supp. 582 (CIT 1989).

⁵⁴ See Wieland Werke, AG v. United States, 718 F. Supp. 50, 52 (CIT 1989) ("Completely overlapping markets are not required"); Granges Metallverken AB v. United States, 716 F. Supp. 17, 21, 22 (CIT 1989) ("The Commission need not track each sale of individual sub-products and their counterparts to show that all imports compete with all other imports and all domestic like products . . . the Commission need only find evidence of reasonable overlap in competition"); Florex v. United States, 705 F. Supp. 582, 592 (CIT 1989) ("[c]ompletely overlapping markets is (*sic*) not required.")

⁵⁵ If these investigations return for final investigations, the Commission will attempt to obtain information concerning the size of each market.

⁵⁶ See, e.g., Post-Conference Brief of Petitioners at 18-19; Post-Conference Brief of Brazilian respondent Camargo Correa Metais S.A. ("Camargo") at 9.

⁵⁷ There have been some past quality problems with imports from China. More recently, however, the quality of imports from China has improved. Staff Report at A-56-57. There is evidence that the quality of the Chinese merchandise varies depending on the Chinese supplier. Transcript of the Conference at 139-140 (testimony of Mr. Lubin).

⁵⁸ See Transcript of the Conference at 39 (testimony of Mr. Button.)

⁵⁹ Staff Report at A-62-63, A-75; Attachments to Producer Response of SKW.

⁶⁰ Staff Report at A-15.

⁶¹ See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan, Invs. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986) at 9 n.31, aff'd, Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898 (CIT 1988), aff'd, 859 F.2d 915 (Fed. Cir. 1988).

The bid and price and lost sales/lost revenues information before the Commission shows that imports are sold, or offered for sale, in many of the same geographic markets as the domestic like product.⁶² ⁶³ The Commission will further examine this issue if these cases return for final investigations. The imports and domestic like product appear to have similar channels of distribution, *i.e.*, are sold directly to endusers.⁶⁴ Imports from all three countries have been simultaneously present in the United States market throughout the period of investigation.⁶⁵

Consequently, in these preliminary investigations we determine that the prerequisites for mandatory cumulation have been met for each of the countries subject to investigation.

The statute provides an exception to the cumulation requirement for "negligible" imports. 19 U.S.C. § 1677(7)(C)(v) provides--

- (v) *TREATMENT OF NEGLIGIBLE IMPORTS.--The Commission is not required to apply clause (iv) or subparagraph (F)(iv) [concerning cumulation of imports in a threat of material injury analysis] in any case in which the Commission determines that imports of the merchandise subject to investigation are negligible and have no discernable adverse impact on the domestic industry.*

In determining whether imports are negligible, the Commission is required to consider all relevant economic factors, including whether--

- (I) the volume and market share of the imports are negligible,
- (II) the sales transactions involving the imports are isolated and sporadic, and
- (III) the domestic market for the like product is price sensitive by reason of the nature of the product, so that a small quantity of imports can result in price suppression or depression.

19 U.S.C. § 1677(7)(C)(v). The legislative history to this provision indicates that the Commission is to apply the exception narrowly and that it is not to be used to subvert the purpose and the general

⁶² See Staff Report at A-62-66; Attachments to Producer Response of SKW.

⁶³ Commissioner Rohr notes that while a large percentage of Chinese imports are sold in a particular geographic region in which imports from the other countries subject to investigation do not appear to be present, significant quantities of Chinese material are also sold in the geographic markets in which other imports are present.

⁶⁴ Staff Report at A-15. The domestic product is sold by the merchant producers directly to endusers, while the imported product is generally sold through unrelated importers/brokers/distributors in the United States directly to endusers.

⁶⁵ *Id.* at A-49, Table 13.

application of the mandatory cumulation provision.⁶⁶ Whether imports are "negligible" may differ from industry to industry and for that reason the statute does not provide a specific numeric definition.⁶⁷

The Argentine respondents argue that they should not be subject to cumulation on the ground that their imports are negligible. They assert that their market share as a percent of apparent U.S. consumption is small and has declined to 1.5 percent as of the first half of 1990.⁶⁸ Because their imports do not compete against domestic merchandise in "the majority, if not the vast majority of cases," they claim that their imports have no discernible adverse impact on the domestic product.⁶⁹ In addition, they argue that Argentine silicon metal is imported sporadically and has not had a price-suppressive effect on the domestic industry.⁷⁰ Consequently, they believe that Argentine imports should be considered negligible and not subject to mandatory cumulation.

The record indicates that Argentine imports have been present in the United States throughout the period of investigation, and have increased between 1987 and 1989.⁷¹ Silicon metal from Argentina accounted for 3.4 percent of U.S. consumption in 1987, 4.5 percent in 1988, and 3.8 percent in 1989.⁷² This degree of import penetration does not support a finding that the Argentine imports are negligible, especially in light of information that the U.S. market responds to import pricing.⁷³ Therefore, we

⁶⁶ See H.R. Rep. No. 40, Part 1, 100th Cong., 1st Sess. 131 (1987); H.R. Rep. No. 576, 100th Cong., 2d Sess. at 621. The Ways and Means Committee Report cautions that the exception is to be applied:

only in circumstances where it is clear that imports from that source are so small and so isolated that they could not possibly be having any injurious impact on the U.S. industry. The ITC shall apply this exception with particular care in situations involving fungible products, where a small quantity of low-priced imports can have a very real effect on the market.

H.R. Rep. No. 40, Part 1 at 130.

⁶⁷ *Id.* at 131. Specifically, the Report notes that:

For an industry which is already suffering considerable injury and has long been battered by unfair import competition, very small additional quantities of unfair imports may be more than negligible. For another industry, not so deeply injured, small additional quantities of unfair imports may have no discernible effect at all.

⁶⁸ Post-Conference Brief of Argentine respondents at 16.

⁶⁹ *Id.*

⁷⁰ *Id.* at 17.

⁷¹ Argentine imports (in short tons) were 6,180 in 1987, 9,580 in 1988, and 7,445 in 1989. There was a decline in interim 1990 compared with interim 1989, from 4,699 short tons to 1,898. Staff Report at A-10, Table 1.

⁷² *Id.* at A-54-55, Table 14.

⁷³ *Id.* at A-62-66.

have determined to cumulatively assess the Argentine imports with imports from the other countries subject to investigation.⁷⁴

Material injury by reason of LTFV imports

Pursuant to sections 703(a) and 733(a) of the statute,⁷⁵ the Commission must determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, by reason of the allegedly subsidized and LTFV imports that are subject to investigation.⁷⁶ In making this determination, the Commission may consider information demonstrating possible alternative causes of injury to the domestic industry.⁷⁷ The Commission may not weigh causes, however.⁷⁸ It is sufficient to support an affirmative determination that the imports under investigation contribute to the domestic industry's materially injured condition.^{79 80 81} We note that imports are sold primarily in the secondary aluminum market, and that imports from the subject countries have little presence in the other markets. The Commission must determine whether there is a reasonable indication of material injury or threat thereof to the domestic industry as a whole.⁸²

Imports from the subject countries showed consistent increases during the period of investigation. The volume of imports, by quantity, rose from 12,146 short tons to 32,088 short tons

⁷⁴ Compare Certain Sodium Sulfur Compounds from the Federal Republic of Germany, the People's Republic of China, Turkey, and the United Kingdom, Invs. Nos. 701-TA-303 and 731-TA-465-468 (Preliminary), USITC Pub. 2307 (Aug. 1990) at 20-21.

⁷⁵ 19 U.S.C. §§ 1671b(a), 1673b(a).

⁷⁶ 19 U.S.C. § 1673d(b)(1).

⁷⁷ See S. Rep. No. 249, 96th Cong., 1st Sess. 58 (1979). Such alternate causes may include "the volume and prices of imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology, and the export performance and productivity of the domestic industry. *Id.* at 57.

⁷⁸ See *id.* at 57-58, 75; Hercules, Inc. v. United States, 973 F. Supp. 454, 481-82 (CIT 1987).

⁷⁹ LMI-La Metalli Industriale, S.p.A. v. United States, 712 F. Supp. 959 (CIT 1989).

⁸⁰ Acting Chairman Brunsdale notes that the Commission must determine that the injury "by reason of" the subject imports is material in order to reach an affirmative determination.

⁸¹ Commissioner Newquist notes that:

[i]n determining material injury by reason of imports under investigation, the Commission is not to weigh causes of injury, but is to determine whether imports contribute to conditions of the domestic industry. See, e.g., British Steel Corp. v. United States, 8 CIT 86, 96, 593 F. Supp. 405, 413 (1984). It is sufficient that the imports contribute, even minimally, to material injury. Citrosuco Paulista, S.A. v. United States, 12 CIT ---, 704 F. Supp. 1075, 1101 (1988); Gifford-Hill Cement Co. v. United States, 9 CIT 357, 368, 615 F. Supp. 577, 586 (1985).

LMI-La Metalli Industriale, S.p.A. v. United States, 712 F. Supp. 959, 971 (CIT 1989).

⁸² See, e.g., Copperweld Corp. v. United States, 682 F. Supp. 552 (CIT 1988).

from 1987 to 1988, and increased to 34,902 short tons in 1989, nearly tripling in three years. Imports grew from 26,307 short tons in interim 1989 to 31,548 short tons in interim 1990.⁸³ Import value also increased during this period.⁸⁴ Total market penetration by the subject imports grew throughout the investigation period, measured by both quantity and value.⁸⁵

The secondary aluminum market is an important market for silicon metal sales, both for the domestic producers and the imported product.⁸⁶ Because of its importance to the domestic industry, the concentration of import competition in this market is sufficient to provide a reasonable indication of material injury to the industry as a whole. In addition, there is an indication that prices in the secondary aluminum market have an effect on prices in other markets.⁸⁷ We will revisit the question of the effect of such import concentration in the secondary aluminum market on the domestic industry as a whole in any final investigations.⁸⁸

Price data for silicon metal sold to the secondary aluminum market show a mixed pattern of over- and underselling of the domestic product by the imports, with the imports underselling the domestic product more often than not.⁸⁹ We note that there have been few imports of chemical grade silicon metal; however, available price comparisons between the domestic and imported silicon metal sold to the chemical market are consistent with a finding that there is a reasonable indication of material injury by reason of the subject imports.⁹⁰

Bid information provided by the domestic industry indicates that the availability of imports from the subject countries may have been used by purchasers to secure lower prices from the domestic

⁸³ Staff Report at A-49, Table 13.

⁸⁴ *Id.*

⁸⁵ *Id.* at A-54-55, Table 14.

⁸⁶ *See* Transcript of the Conference at 62.

⁸⁷ *See* Staff Report at A-62-65. We will further explore the price relationship between markets in any final investigations.

⁸⁸ Commissioner Rohr notes that additional pricing data and pricing comparisons should be sought in the event this matter returns for a final investigation. In particular, the Commission should seek data from purchasers to provide a more complete picture of this industry, keeping in mind the Congressional admonitions about the use of unbiased purchaser information contained in Conference Report 101-650, 101st Cong., 2d Sess. (July 1990).

⁸⁹ Staff Report at A-61 and A-63, Tables 16 and 17.

⁹⁰ *Id.* Any more detailed discussion of price comparisons in the chemical market would reveal business proprietary information.

industry.⁹¹ In addition the Commission was able to confirm lost sales allegations indicating that the subject imports replaced sales of the domestic like product in several specific transactions.^{92 93 94}

For the foregoing reasons, we conclude that there is a reasonable indication that the domestic industry is materially injured by reason of allegedly subsidized imports from Brazil, and allegedly LTFV imports from Argentina, Brazil, and the People's Republic of China.

Respondents have raised several arguments that the condition of the domestic industry is not attributable to the imports under investigation. Among these arguments is their assertion that the long-term contract prices to supply chemical grade silicon metal, a market segment dominated by the domestic producers, underprice the "spot" market for secondary aluminum users, where the domestic producers face greater import competition. From this, they reason that low prices for the chemical grade product are attributable to factors other than imports.⁹⁵

Respondents also argue that domestic users of silicon metal purchased imports because domestic producers refused to supply them during periods of peak demand.⁹⁶ They assert that because the vast majority of the imports compete with the domestic industry only in the secondary aluminum market segment, the present condition of the domestic industry must stem from causes other than imports.⁹⁷ Respondents trace the allegedly injured condition of several domestic producers to overleveraged management buyouts or other mismanagement.⁹⁸

We will seek further information concerning these alleged alternate causes for the domestic industry's condition in any final investigations.⁹⁹ For purposes of these preliminary investigations,

⁹¹ *Id.* at A-62-65.

⁹² *Id.* at A-65-66.

⁹³ Acting Chairman Brunsdale points out that certain alleged lost sales were reportedly due to the inability of domestic firms to fill additional orders. Further investigation of this issue will be important in the final determination. *See* Staff Report at A-65-68.

⁹⁴ Commissioner Rohr notes that in any final investigations an important analytical question that must be addressed is the extent to which the prices in the three market segments are related and the degree to which prices in the secondary aluminum market "lead" prices in the other two market segments. At present there is some anecdotal evidence suggesting this relationship, but further analysis of this issue is needed.

⁹⁵ Post-Conference Brief of Camargo at 13.

⁹⁶ *Id.* at 14-15; Post-Conference Statement of ABRAFE at 7.

⁹⁷ *Id.* at 11-12; Post-Conference Brief of Camargo at 16; Post-Conference Brief of Argentine respondents at 19-20.

⁹⁸ *Id.* at 18; Post-Conference Statement of ABRAFE at 2-4; Post-Conference Brief of Camargo at 17-18.

⁹⁹ Of particular interest to us is the relationship between long-term contracts and any price-adjustment features they may have and spot-market pricing.

however, we determine that there is a reasonable indication that the subject imports are a cause of material injury.

Standing

Respondents argue that there is insufficient domestic industry support for the petitions in this case, which they believe should consequently be dismissed for lack of standing. Relying on Suramerica de Aleaciones Laminadas, C.A. v. United States,¹⁰⁰ respondents argue that the Commission should dismiss the petition itself or, alternatively, recommend that Commerce dismiss the petition.

The Commission has previously held that it defers to Commerce's statutory authority to determine the sufficiency of petitions filed under the statute and that the Commission therefore does not rule on a petitioner's standing.¹⁰¹ The Suramerica decision does not require the Commission to determine standing issues.¹⁰² We therefore will continue to defer to Commerce concerning resolution of standing issues.^{103 104}

¹⁰⁰ Slip op. 90-79 (CIT, Aug. 22, 1990).

¹⁰¹ See, e.g., Thermostatically Controlled Appliance Plugs and Internal Probe Thermostats Therefor from Canada, Japan, Malaysia, and Taiwan, Invs. Nos. 731-TA-400 and 402-404 (Final), USITC Pub. 2152 (Jan. 1989) at 25 n.79; Laser Light-Scattering Instruments from Japan, Inv. No. 731-TA-455 (Preliminary), USITC Pub. 2282 (May 1990) at 16 n.52, and citations therein.

¹⁰² Suramerica, slip op. at 33.

¹⁰³ Acting Chairman Brunsdale believes that lack of industry support for a petition is relevant to the question of whether injury is by reason of the subject imports, and therefore that standing is relevant to the Commission's determination.

¹⁰⁴ Commissioner Rohr notes that Commerce may wish to consider the Commission's definition of the domestic industry, including the inclusion of related parties, and our possible revisitation of this issue in any final investigation.

Information Obtained In The Investigations

INTRODUCTION

On August 24, 1990, a petition was filed with the U.S. International Trade Commission (Commission) and the U.S. Department of Commerce (Commerce) by the merchant-producer members of the U.S. silicon metal industry.¹ The petition alleges that an industry in the United States is materially injured, and threatened with material injury by reason of imports of silicon metal² from Argentina, Brazil, and the People's Republic of China (China) that are alleged to be sold at less than fair value (LTFV) and subsidized by the Government of Brazil.

Accordingly, effective August 24, 1990, the Commission instituted preliminary countervailing duty investigation No. 701-TA-304 (Preliminary) under section 703(a) of the Tariff Act of 1930 (the act) (19 U.S.C. § 1671b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Brazil of silicon metal alleged to be subsidized by the Government of Brazil.³

The Commission also instituted, effective August 24, 1990, preliminary antidumping investigations Nos. 731-TA-470-472 (Preliminary) under section 733(a) of the act (19 U.S.C. § 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Argentina, Brazil, and China of silicon metal alleged to be sold in the United States at LTFV.⁴

Notice of the institution of the Commission's investigations and of a conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of September 5, 1990 (55 F.R. 36330).⁵ The conference was held on September 14, 1990.⁶ The Commission voted on these investigations on October 4, 1990. The statute directs that the Commission make its determination in this case within 45 days after receipt of the petition, or by October 9, 1990.

¹ The merchant-producer members of the U.S. silicon metal industry include American Alloys, Inc., Pittsburgh, PA; Elkem Metals Co., Pittsburgh, PA; Globe Metallurgical, Inc., Cleveland, OH; Silicon Metaltech Inc., Seattle, WA; SiMETCO, Inc., Canton, OH; and SKW Alloys, Inc., Niagara Falls, NY.

² The merchandise covered by these investigations is silicon metal containing at least 96.00 but less than 99.99 percent of silicon by weight. The subject merchandise is used primarily as an alloying agent for aluminum and in the chemical industry as a precursor to silicones. Silicon metal is currently provided for in subheadings 2804.69.10 and 2804.69.50 of the *Harmonized Tariff Schedule of the United States (HTS)* as a chemical product, but is commonly referred to as a metal. Semiconductor-grade silicon (silicon metal containing by weight not less than 99.99 percent of silicon and provided for in subheading 2804.61.00 of the HTS) is not subject to these investigations.

³ The petitioners in this investigation are American Alloys, Inc., Pittsburgh, PA; Globe Metallurgical, Inc., Cleveland, OH; Silicon Metaltech Inc., Seattle, WA; and SiMETCO, Inc., Canton, OH.

⁴ The petitioners in these investigations are American Alloys, Inc., Pittsburgh, PA; Elkem Metals Co., Pittsburgh, PA; Globe Metallurgical, Inc., Cleveland, OH; Silicon Metaltech Inc., Seattle, WA; SiMETCO, Inc., Canton, OH; and SKW Alloys, Inc., Niagara Falls, NY.

⁵ A copy of the Commission's notice is presented in app. A.

⁶ A list of witnesses appearing at the conference is presented in app. B.

PREVIOUS COMMISSION INVESTIGATION CONCERNING SILICON METAL

There has been one previous Commission investigation concerning silicon metal. On March 5, 1979, the Commission determined, pursuant to the Antidumping Act, 1921 (19 U.S.C. §160(a)), that an industry in the United States was not being and was not likely to be injured, and was not prevented from being established, by reason of imports of silicon metal from Canada that were being, or were likely to be, sold at LTFV.⁷

THE PRODUCT

Description

Silicon is a chemical element metallic in appearance and steel gray in color.⁸ ⁹ It is a solid that melts at 1,410°C and is insoluble in water. Both imported and domestic silicon are usually sold in the form of lumps. Size is specified by establishing a maximum length, usually between 4 and 6 inches, and a minimum width, usually between one-quarter and one-half inch.¹⁰ Silicon metal is a polycrystalline material, whose crystals have a diamond cubic structure at atmospheric pressure.¹¹

The Harmonized Tariff System (HTS) established three six-digit subheadings for elemental silicon. The industry refers to the silicon classifiable in each subheading as a separate grade.¹² Silicon metal that contains by weight not less than 99.99 percent silicon (i.e., impurities are not more than one part in 10,000) is known as semiconductor-grade silicon metal. The petitioners do not produce the semiconductor-grade product, which is excluded from the scope of these investigations.¹³ Silicon metal containing by weight less than 99.99 percent silicon but not less than 99 percent silicon is known as chemical-grade. U.S. commercial chemical-grade silicon metal typically contains approximately 3,500 parts per million (ppm) of iron, 700 ppm of calcium, and less than 3,500 ppm of aluminum.¹⁴

Silicon metal containing by weight less than 99 percent silicon is known as metallurgical-grade. The merchandise subject to investigation is limited to silicon metal containing by weight at least 96 percent silicon. Commercial metallurgical-grade silicon metal is available in a primary-aluminum-grade, which typically contains 5,000 ppm of iron and 700 ppm of calcium, and a secondary-

⁷ USITC, Silicon Metal From Canada: Determination of No Injury in Investigation No. AA1921-192 Under the Antidumping Act, 1921, as Amended, Together With the Information Obtained in the Investigation, USITC Publication 954, March 1979.

⁸ Although called silicon metal, it is actually a metalloid, meaning it has both metallic and nonmetallic properties.

⁹ Silicon metal is classified by the Defense Logistics Agency as a strategic metal.

¹⁰ See petition p. 8.

¹¹ J.S. Kasper and S.M. Richards, Acta Crystallography, vol. 17 (1964), p. 752.

¹² Petition, p. 8.

¹³ Unless otherwise specified, all references to "silicon metal" in this report mean silicon metal containing less than 99.99 percent but at least 96 percent silicon.

¹⁴ * * *

aluminum-grade, which typically contains 10,000 ppm of iron and 3,500 ppm of calcium.¹⁵ Prior to 1988, secondary aluminum smelters complained about the presence of excessively fine silicon metal as well as contamination by iron slag in imports from China. Higher grade silicon metal is sometimes shipped to a purchaser with a lower specification because of factors such as product availability and shipping cost.

Manufacturing processes

The raw material for silicon metal is a silica containing at least 99 percent silicon dioxide and less than 1 percent iron. There are many quartzite deposits that meet this specification throughout the world. Foreign producers of silicon metal are believed to use a production process identical to their U.S. counterparts. The silicon-containing material is mined, washed, crushed, and screened. The production of 1 ton of silicon metal requires about 2.7 tons of quartzite. This siliceous material is combined with a carbon-containing reducing agent, such as low-ash coal, petroleum coke, charcoal, or coal char, and a bulking agent, such as wood chips.

The carbon in the reducing agent separates 0.53 tons of oxygen from each ton of silica; at least 0.85 tons of carbon are required to produce 1 ton of silicon metal. Since the reducing agent usually does not contain 100-percent available carbon, up to 1.8 tons of reducing agent may be required per ton of silicon metal produced. Carbon was chosen as the chemical reducing agent because of its high electrical resistivity. The commercial reducing agent must also have low ash to minimize contaminants. The bulking agent provides pores for the flow of by-product gases.

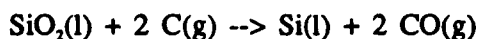
The mixture of carbon, silica, and bulking agent is placed in a submerged arc electric furnace. U.S. furnaces range in size from 10 to 30 feet in diameter and from 20 to 40 feet in depth.¹⁶ Electricity is delivered to the furnace from a transformer system, which lowers the voltage. Three electrodes deliver a large current to the reactants. The electrodes are typically made of prefabricated amorphous carbon. The reduction of 2.7 tons of contained silica to 1 ton of silicon requires 9.5 million kilocalories of heat energy.

Power consumption at U.S. furnaces ranges from 10 to 35 megawatts (MW) per day, and would produce between 15 and 65 tons of silicon metal. The production of silicon metal is very energy intensive; approximately 12 MW-hours of electricity are required to produce 1 ton of silicon metal. Silicon metal production requires about six times the power as the production of pig iron in an electric arc furnace. The preferred locations for silicon furnaces are in areas where power is readily available at low cost. In submerged arc furnaces, electrode size, spacing, gap, voltage, and current must be closely regulated to optimize power consumption, reactant consumption, and silicon metal production.

¹⁵ These levels of impurities are typical of domestic product. Impurities present in imported silicon metal are somewhat different.

¹⁶ Submerged arc furnaces of this size cost between \$10 million and \$25 million. A new silicon metal plant would cost between \$30 million and \$40 million. Occupational safety and health and environmental protection regulations require silicon metal producers to invest in pollution control equipment with a capital cost of between \$6 and \$8 million per plant.

The reactant mixture is heated to approximately 1,650°C by electrodes operating near 3,700°C. Pure amorphous carbon sublimates between 3,652°C and 3,697°C. Pure silica in α -quartz crystals transitions to β -quartz at 575°C, then to β_2 -tridymite at 870°C, then to β -cristobalite at 1,470°C, and melts at 1,610°C.¹⁷ The molten silica is reduced to silicon metal, and carbon is oxidized to carbon monoxide gas.¹⁸ The chemical reaction may be shown as--



Silicon is removed or tapped intermittently from the furnace at approximately 1,760°C in U.S. plants. No U.S. plant is known to be capable of continuous tapping. The molten alloy is often refined by oxygen injection to remove aluminum and calcium impurities. Some impurities, such as chromium, iron, and titanium, cannot be removed from silicon metal by chemical means, so the raw material is selected based on assays of these impurities. The impurities present in the imported products are different than the impurities present in the domestic product. The molten alloy is poured into iron molds or onto beds of silicon metal fines. After cooling, the ingot or billet is crushed to the desired size and stored for shipment.

Uses

The chemical industry uses both captively produced and purchased silicon metal to produce silicon tetrachloride, trichloromethylsilane, trichlorosilane, dichloromethylsilane, and chlorotrimethylsilane. These products are further processed into semiconductor and other electronic-grade silicon, and numerous silicon-containing compounds including silicone fluids, resins, and greases.

Silicon metal is used in the production of aluminum alloys. It is also used in the production of other alloys and chemical compounds containing silicon, in the production of the ultra-pure grade of elemental silicon, and in the production of specialty steel. The U.S. Standard Industrial Classification, 1987, divides the major group, Primary Metal Industries, into seven industry groups, including Primary Smelting and Refining of Nonferrous Metals and Secondary Smelting and Refining of Nonferrous Metals. The primary metals industry group provides for producers of copper, aluminum, and other nonferrous metals produced from ores. The secondary metals industry group provides for aluminum, copper, lead, precious metals, zinc, and other nonferrous metals produced from scrap. Both industry groups produce aluminum and copper alloys.

The silicon in aluminum alloys reduces shrinkage and hot cracking, and improves castability, corrosion resistance, hardness, tensile strength, wear resistance, and weldability. The presence of iron in most aluminum alloys reduces these qualities, so aluminum alloy producers usually limit the iron content of the silicon metal to 1 percent or less. Silicon is also used in the production of brass and bronze. The silicon in copper alloys reduces dross formation, and improves fluidity, corrosion resistance, and tensile strength. The steel industry uses silicon metal to increase permeability and electrical resistance and to reduce hysteresis loss in the magnetic materials used in power transformers, in energy-efficient motors and generators, and in communications equipment.

¹⁷ Natural quartz melts at a higher temperature (1,610°C) than silicon metal (1,410°C). See, The Chemical Rubber Co., Handbook of Chemistry and Physics, 1966.

¹⁸ Stoichiometrically, 2 tons of carbon monoxide are produced as a by-product of the production of 1 ton of molten silicon metal.

Substitute products

Initial analysis indicates that there are few, if any, substitutes for chemical or metallurgical-grade silicon metal.¹⁹ The properties that make silicon a unique chemical element are present in other chemical elements, but extensive purchaser testing would be required to develop the combination of chemical elements and base metals that could be substituted for silicon metal. Generally, chemical applications are based on silicon's unique properties and the value added to the finished product by its use. Polymers of silicon can save assembly, installation, and maintenance costs because of their longer service life compared to that of carbon-based polymers. The electronic applications of silicon have expanded because alternative materials, such as gallium-arsenide and germanium, are only available in much smaller quantities.

The primary and secondary alloy producers would also have difficulty in selecting and obtaining substitute products. The more ductile the alloy must be, the more difficult to select a substitute for silicon metal. For uses of ductile alloys where weight is unimportant, producers could consider using lead. For ductile uses requiring lightweight alloys, aluminum producers could consider using copper silicides or various copper alloys. For higher strength uses, alloy producers could consider using tin. Any change in alloy production that affects composition ratios would be very expensive to implement, and the alloy produced would be a different alloy. Whether this "nonsilicon" alloy would be acceptable to smelter customers could only be determined by extensive additional testing by their customers.

U.S. tariff treatment

Imports of silicon metal containing 99 percent to less than 99.99 percent silicon are classified in subheading 2804.69.10 of the HTS. They were previously classified in item 632.42 of the former Tariff Schedules of the United States (TSUS). This TSUS item was established when technology limited polycrystalline silicon to 99.7 percent purity. The most-favored-nation (MFN) (col. 1--general) rate of duty,²⁰ applicable to silicon metal from Argentina, Brazil, China, and all other MFN countries, is 5.3 percent ad valorem.²¹ Imports of silicon metal from Argentina are eligible for duty-free entry under the Generalized System of Preferences (GSP).²² The column 2 rate of duty²³ is 21 percent ad valorem.

¹⁹ However, higher grade material can usually be substituted for lower grade material.

²⁰ The rates of duty in the general subcolumn of column 1 are MFN rates and are applicable to imported products from all countries except those non-market economy countries and areas enumerated in general note 3(b) of the HTS. However, the MFN rates do not apply if preferential tariff treatment is sought and granted to products of developing countries under the Generalized System of Preferences (GSP) or the Caribbean Basin Economic Recovery Act (CBERA), or to products of Israel or Canada, as provided under the special rates of duty subcolumn of column 1.

²¹ In addition, pursuant to the Omnibus Budget Reconciliation Act of 1986, a user fee (to cover the cost of the U.S. Customs Service's processing of imports) of 0.17 percent ad valorem on most imports is in effect.

²² The GSP affords nonreciprocal tariff preferences to developing countries to aid their economic development and to diversify and expand their production and exports. The U.S. GSP, enacted in title V of the Trade Act of 1974 and renewed in the Trade and Tariff Act of 1984, applies to goods imported on or after Jan. 1, 1976, and before July 4, 1993. The GSP provides duty-free entry to eligible goods the product of, and imported directly from, designated beneficiary developing countries, as set forth in general note 3(c)(ii) to the HTS.

²³ The rates of duty in column 2 apply to imported products from those non-market economy countries and areas enumerated in general note 3(b) of the HTS.

Imports of silicon metal containing less than 99 percent silicon are classified in subheading 2804.69.50 of the HTS. They were previously classified in former TSUS item 632.86. The MFN rate of duty, applicable to silicon metal from Argentina, Brazil, China, and all other MFN countries, is 9 percent ad valorem. Imports classified in this subheading are not eligible for duty-free entry under the GSP. The column 2 rate of duty is 45 percent ad valorem.

THE NATURE AND EXTENT OF ALLEGED SUBSIDIES AND SALES AT LTFV

Alleged LTFV sales

On September 13, 1990, Commerce initiated antidumping investigations to determine whether imports of silicon metal from Argentina, Brazil, and China are being, or are likely to be, sold in the United States at LTFV within the meaning of section 731 of the act.²⁴ The following tabulation presents the petitioners' alleged LTFV margins:

| <u>Country</u> | <u>Margins (percent ad valorem)</u> |
|-----------------|-------------------------------------|
| Argentina | 49.35 to 113.27 |
| Brazil | 29.17 to 66.07 |
| China | 134.73 to 139.49 |

Petitioners are also alleging the existence of "critical circumstances" within the meaning of section 733(e) of the Act with respect to imports of silicon metal from Argentina, Brazil, and China. Pending affirmative determinations by the Commission, Commerce is scheduled to make its preliminary determinations in these investigations on or before January 31, 1991.

Alleged subsidies by the Government of Brazil

On September 13, 1990, Commerce initiated a countervailing duty investigation to determine whether manufacturers, producers, or exporters in Brazil of silicon metal receive benefits which constitute subsidies within the meaning of section 701 of the act.²⁵ The petitioners are alleging the existence of "critical circumstances" within the meaning of section 703(e) of the act with respect to imports of silicon metal from Brazil. Pending an affirmative determination by the Commission, Commerce is scheduled to make its preliminary determination on or before November 19, 1990.

²⁴ A copy of Commerce's initiation notices is presented in app. C.

²⁵ A copy of Commerce's initiation notice is presented in app. C.

The petition filed with the Commission and Commerce cited 10 subsidy programs of the Government of Brazil that allegedly confer subsidies. In its notice of initiation, Commerce indicated that only 7 of the 10 programs cited met the requirements of sections 701(a) and 702(b) of the act. The following tabulation lists the subsidy programs under investigation by Commerce:

1. Income Tax Exemption for Exports Earnings
2. Preferential Working Capital Financing for Exports Provided by the Department of Foreign Commerce of the Central Bank of Brazil (CACEX)
3. Benefits Provided by the Commission for the Granting of Fiscal Benefits to Special Export Programs (BEFIEX)
4. Export Financing Provided by the Fundo de Financiamento a Exportacao (FINEX) (Resolution 68 and 509 of the Conselho Nacional do Comercio Exterior (CONCEX))
5. Financing for the Storage of Merchandise Destined for Export (Resolution 330 of the Central Bank of Brazil)
6. Export Production Financing Provided Under the Programa de Financiamento a Producao para a Exportacao (PROEX)
7. Provision of Electricity at Preferential Rates to Silicon Metal Producers Located in Minas Gerais

THE DOMESTIC MARKET

Apparent U.S. consumption

Data on apparent U.S. consumption of silicon metal are presented in table 1 and figure 1, and are based on U.S. producers' shipments compiled from questionnaires of the Commission, and official import statistics of Commerce.

Apparent U.S. consumption increased 16.8 percent from 1987 to 1988 but declined 7.7 percent from 1988 to 1989. Based on interim first-half 1989 and 1990 data, consumption increased 3.9 percent.

U.S. producers

There are currently eight producers of silicon metal in the United States. The Commission received questionnaire responses from all eight U.S. producers. Figure 2 presents the geographic distribution of the nine U.S. silicon metal plants.

Table 1
Silicon metal: U.S. producers' shipments, U.S. imports, U.S. exports, and apparent U.S. consumption, 1987-89, January-June 1989, and January-June 1990

(In short tons of contained silicon)

| Item | 1987 | 1988 | 1989 | January-June-- | |
|----------------------------|---------------------|---------------------|---------|----------------|---------|
| | | | | 1989 | 1990 |
| U.S. producers' shipments: | | | | | |
| Domestic | 146,323 | 152,447 | 147,521 | 78,195 | 76,987 |
| Export | *** | *** | *** | *** | *** |
| Total | *** | *** | *** | *** | *** |
| U.S. imports from: | | | | | |
| Argentina | 6,180 ¹ | 9,580 ¹ | 7,445 | 4,699 | 1,898 |
| Brazil | 4,765 ¹ | 12,822 ¹ | 16,524 | 6,286 | 15,973 |
| China ² | 1,200 ¹ | 9,685 ¹ | 10,933 | 7,141 | 7,984 |
| Subtotal | 12,146 ¹ | 32,088 ¹ | 34,902 | 18,126 | 25,855 |
| All other countries | 23,545 ¹ | 27,991 ¹ | 13,732 | 8,181 | 5,693 |
| Total imports | 35,691 ¹ | 60,078 ¹ | 48,633 | 26,307 | 31,548 |
| Apparent U.S. consumption | 182,014 | 212,525 | 196,155 | 104,502 | 108,535 |

¹ Because import data for TSUSA item 632.8600 are available only on a "gross" rather than "net" weight basis, this figure is slightly overstated (between 0.3 and 2.0 percent).

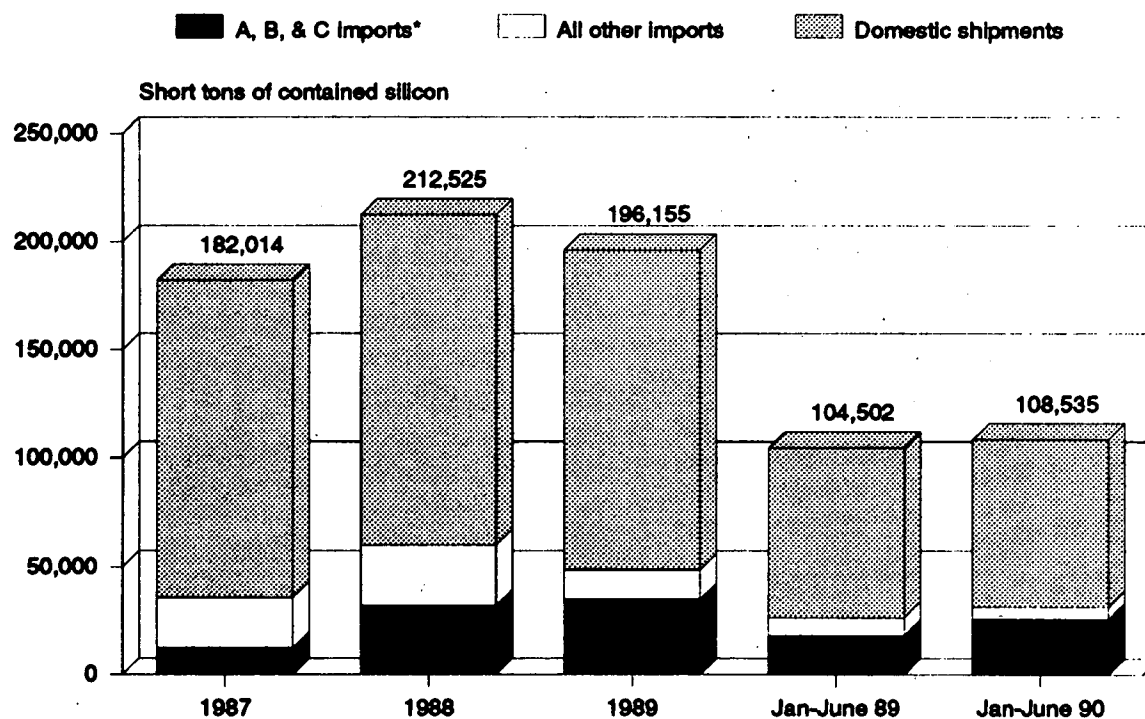
² Includes material believed to be Chinese in origin and transhipped through Hong Kong and Taiwan. Such transshipments totaled 0 short tons in 1987, 855 short tons in 1988, 3,006 short tons in 1989, 2,195 short tons in January-June 1989, and 1,106 short tons in January-June 1990.

Note.--Because of rounding, figures may not add to the totals shown.

Source: U.S. producers' shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission. U.S. imports compiled from official statistics of the U.S. Department of Commerce.

Figure 1

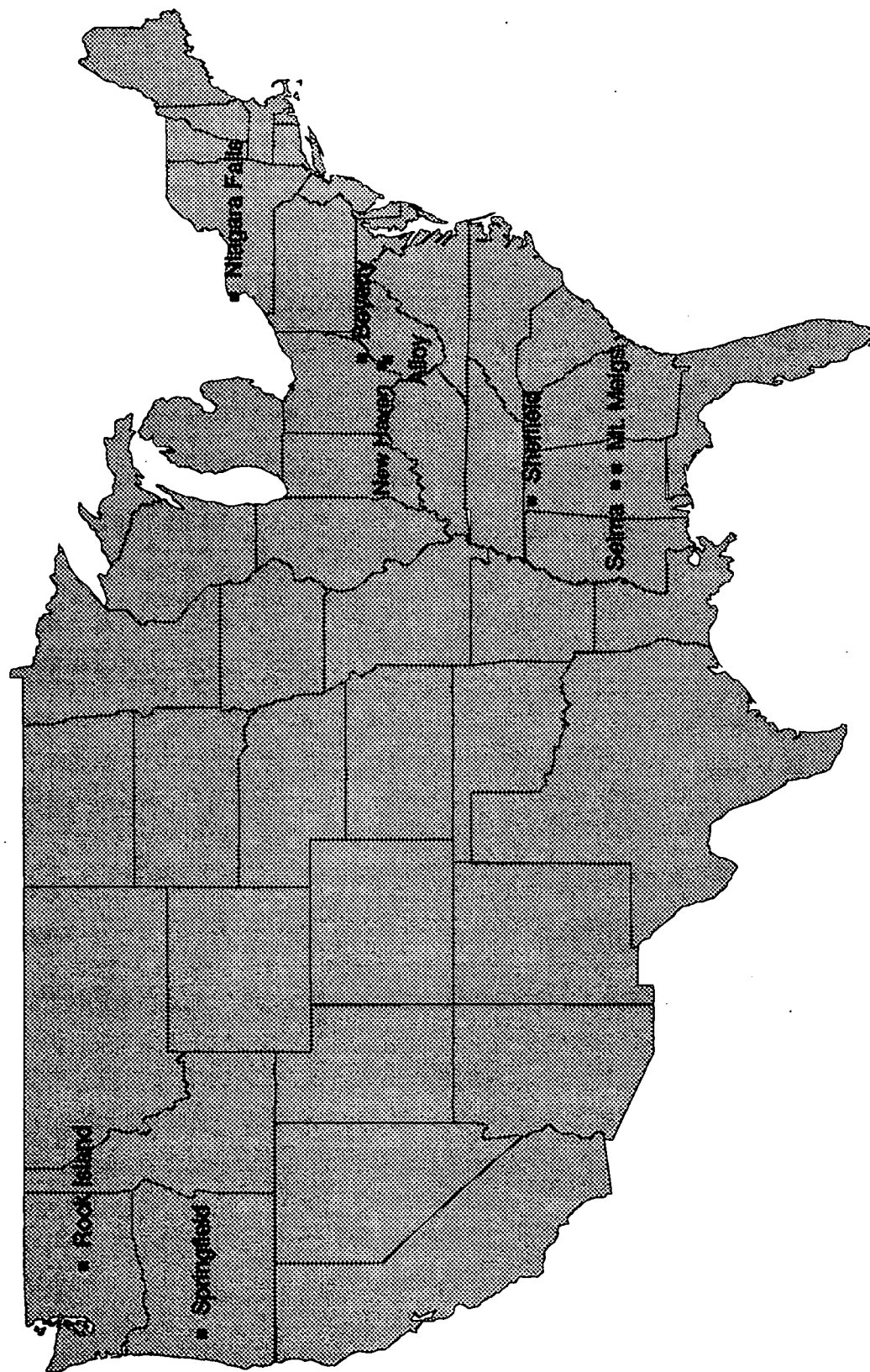
Silicon metal: U.S. producers' domestic shipments, U.S. imports, and apparent U.S. consumption, 1987-89, January-June 1989, and January-June 1990



Source: Table 1.

* Imports from Argentina, Brazil, and China.

Figure 2
Plant locations of U.S. silicon metal producers



Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The names of these producers, the locations of their plants, their share of U.S. production in 1989, and the products produced at each plant are presented in the following tabulation:

| <u>Producer</u> | <u>Plant location(s)</u> | <u>Share of U.S. production in 1989</u> | <u>Product(s) produced</u> |
|--|--------------------------|---|----------------------------|
| American Alloys, Inc. ² | New Haven, WV | *** | FeSi and Si |
| Dow Corning Corp. | Springfield, OR | *** | Si |
| Elkem Metals Co. | Alloy, WV | *** | FeSi and Si |
| Globe Metallurgical, Inc. | Beverly, OH | *** | FeSi and Si |
| | Selma, AL | *** | Si |
| Reynolds Metals Co. | Sheffield, AL | *** | Si |
| Silicon Metaltech, Inc. ³ | Rock Island, WA | *** | FeSi and Si |
| SIMETCO, Inc. ⁴ | Mt. Meigs, AL | *** | Si |
| SKW Alloys, Inc. | Niagara Falls, NY | *** | FeSi and Si |

¹ FeSi is ferrosilicon, and Si is silicon metal.
² Formerly Foote Mineral Co., Ferroalloy Division.
³ Formerly M.A. Hanna Co., Silicon Division.
⁴ Formerly Ohio Ferro-Alloys Corp.

American Alloys.--American Alloys, a petitioner, is a diversified silicon alloys and silicon metal producer. However, American Alloys did not begin production of silicon metal until September 1989, following the construction of a new furnace dedicated exclusively to silicon metal production. American Alloys is a relatively small U.S. producer, accounting for *** percent of U.S. production of silicon metal in 1989 and *** percent in January-June 1990.

Dow Corning.--Dow Corning²⁶ is a * * * joint-venture company owned by the Dow Chemical Company and Corning, Inc. The company develops, manufactures, and markets silicones and related specialty chemical materials. Dow Corning owns one silicon metal production facility in the United States that produces * * * percent of its total silicon supply needs. * * * percent of Dow Corning's production is consumed internally. Internal production accounted for *** percent of its total consumption in 1989, while purchases from other U.S. producers accounted for *** percent and imports accounted for *** percent.²⁷ Total production in 1989 was *** net short tons. Total consumption in 1989 was *** net short tons.²⁸

²⁶ * * *
²⁷ * * *
²⁸ * * *

Elkem Metals.--Elkem Metals²⁹ is a diversified silicon alloys and silicon metal producer that is a * * * subsidiary of Elkem a/s, Oslo, Norway. Elkem Metals accounted for *** percent of U.S. production of silicon metal in 1987, *** percent in 1988,³⁰ *** percent in 1989, and *** percent in January-June 1990.

Globe Metallurgical.--Globe Metallurgical (Globe), a petitioner, is a diversified silicon alloys and silicon metal producer. Globe accounted for *** percent of U.S. production in 1987, *** percent in 1988, *** percent in 1989, and *** percent in January-June 1990.³¹

Reynolds Metals.--Reynolds Metals (Reynolds) is a large U.S. producer of aluminum. Reynolds produces silicon metal to meet its internal need for primary-aluminum-grade silicon metal to be used as an alloying agent in its primary-aluminum production. Reynolds internally consumed *** percent of its silicon metal production in 1989, while * * * . Reynolds also purchased silicon metal from other U.S. producers and U.S. importers. Purchases from other U.S. producers accounted for *** percent of internal consumption in 1989, while purchases from U.S. importers accounted for *** percent. Reynolds has indicated it intends to shut down its Sheffield, AL silicon metal operation effective October 31, 1990.³²

Silicon Metaltech.--Silicon Metaltech, a petitioner, is a diversified silicon alloys and silicon metal producer. Since June 1990, the company has been operating under chapter 11 of the U.S. Bankruptcy Code. Silicon Metaltech accounted for *** percent of U.S. production of silicon metal in 1987, *** percent in 1988, *** percent in 1989, and *** percent in January-June 1990.³³

SiMETCO.--SiMETCO, a petitioner, produces only silicon metal. SiMETCO accounted for *** percent of U.S. production in 1987, *** percent in 1988, *** percent in 1989, and *** percent in January-June 1990.

SKW Alloys.--SKW Alloys³⁴ (SKW) is a diversified silicon alloys and silicon metal producer that is a * * * subsidiary of SKW Trostberg, Trostberg, West Germany. SKW accounted for *** percent of U.S. production of silicon metal in 1987, *** percent in 1988, *** percent in 1989, and *** percent in January-June 1990.

²⁹ Elkem Metals supports the petition with respect to Argentina and China; however, the company has elected not to support the petition with respect to Brazil for the following reasons: * * * . Staff telephone conversation with William D. Kramer, counsel for petitioners, Sept. 20, 1990.

³⁰ * * * .

³¹ * * * .

³² See Camargo Correa Metais S.A. post-conference brief, Sept. 18, 1990, Exhibit 3.

³³ * * * .

³⁴ SKW supports the petition with respect to Argentina and China; however, the company elected not to support the petition with respect to Brazil for the following reasons: * * * . Staff telephone conversation with William D. Kramer, counsel for petitioners, Sept. 20, 1990.

U.S. importers

Twenty-two firms were named in the petition as possible importers of silicon metal from the subject countries. The Commission sent questionnaires to each of the firms identified in the petition and to one additional firm that it identified as an importer of silicon metal. In addition, three U.S. producers indicated that they imported silicon metal.

Respondents to the Commission's importer's and producers' questionnaires are believed to account for 80-90 percent of imports of silicon metal from the subject countries from 1987 through June 1990. The following tabulation identifies those firms which received the Commission's producers' and importers' questionnaire and indicated that they imported silicon metal from the subject countries during the period January 1987 through June 1990:

[illegible]

Three U.S. producers, * * *, directly imported silicon metal from the subject countries during the period under investigation. * * * .

Channels of distribution

Both U.S. producers and importers sell the majority of their silicon metal directly to end users. The market for silicon metal consists of three principal market segments: chemical manufacturers, secondary aluminum manufacturers, and primary aluminum manufacturers. Although data are not available concerning the exact size of each of these market segments, there are available data on the quantity of shipments by grade.

According to responses to Commission questionnaires, approximately 52 percent of U.S. producers' shipments in 1989 were classified as chemical-grade shipments,³³ compared with only *** percent for U.S. importers. Secondary-aluminum-grade silicon metal represented 25 percent of U.S. producers' shipments compared with *** percent of U.S. importers' shipments. The following tabulation presents a breakout of U.S. producers' and importers' shipments of silicon metal, by grade in 1989:

| <u>Silicon metal grade</u> | <u>Percent of shipments</u> |
|------------------------------------|-----------------------------|
| U.S. producers: | |
| Chemical-grade | 52.4 |
| Secondary-aluminum-grade | 24.7 |
| Primary-aluminum-grade | 15.7 |
| Other-grades | <u>7.2</u> |
| | 100.0 |
| U.S. Importers: | |
| Chemical-grade | *** |
| Secondary-aluminum-grade | *** |
| Primary-aluminum-grade | 0.0 |
| Other-grades | <u>0.0</u> |
| | 100.0 |

CONSIDERATION OF ALLEGED MATERIAL INJURY TO AN INDUSTRY IN THE UNITED STATES

U.S. production, capacity, and capacity utilization

The Commission requested U.S. silicon metal producers to provide data on the average-of-period and end-of-period practical capacity, production, and capacity utilization for 1987-89, January-June 1989, and January-June 1990. These data are presented in table 2a and figure 3. Table 2b presents production, capacity, and capacity utilization on an individual company basis.

Reported average-of-period capacity increased 3.9 percent from 1987 to 1988 but declined 1.1 percent from 1988 to 1989. The January-June interim figures show an increase in capacity of 8.6 percent in 1990 over that in the corresponding period of 1989.

Production of silicon metal increased 7.6 percent from 1987 to 1988, but declined 4.6 percent from 1988 to 1989. The January-June interim figures show an increase in production of 7.5 percent in 1990 over that in the corresponding period of 1989.

³³ See product description section of this report for definitions of product grades.

Table 2a
Silicon metal: U.S. capacity,¹ production, and capacity utilization, 1987-89, January-June 1989, and January-June 1990

(In short tons of contained silicon, except as noted)

| Item | 1987 | 1988 | 1989 | January-June-- | |
|--|---------|---------|---------|----------------|--------|
| | | | | 1989 | 1990 |
| U.S. production | 149,066 | 160,343 | 152,898 | 76,694 | 82,439 |
| End-of-period capacity | 164,651 | 187,846 | 178,872 | 84,290 | 94,400 |
| Average-of-period capacity | 172,845 | 179,500 | 177,594 | 87,469 | 94,987 |
| End-of-period capacity utilization ² (in percent) | 87.1 | 85.4 | 85.5 | 91.0 | 87.3 |
| Average-of-period capacity utilization (in percent) | 86.2 | 89.3 | 86.1 | 87.7 | 86.8 |

¹ Practical capacity was defined as the greatest level of output a plant can achieve within the framework of a realistic work pattern. Producers were asked to consider, among other factors, a normal product mix and an expansion of operations that could be reasonably attained in their industry and locality in setting capacity in terms of the number of shifts and hours of plant operations. The capacity was reported using industry averages of 151 hours per week and 51 weeks per year.

² Computed from data of firms supplying both production and capacity information.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Average-of-period capacity utilization increased from 86.2 percent in 1987 to 89.3 percent in 1988, but declined to 86.1 percent in 1989. The January-June interim figures indicate that capacity utilization decreased from 87.7 percent in 1989 to 86.8 percent in the corresponding period of 1990.

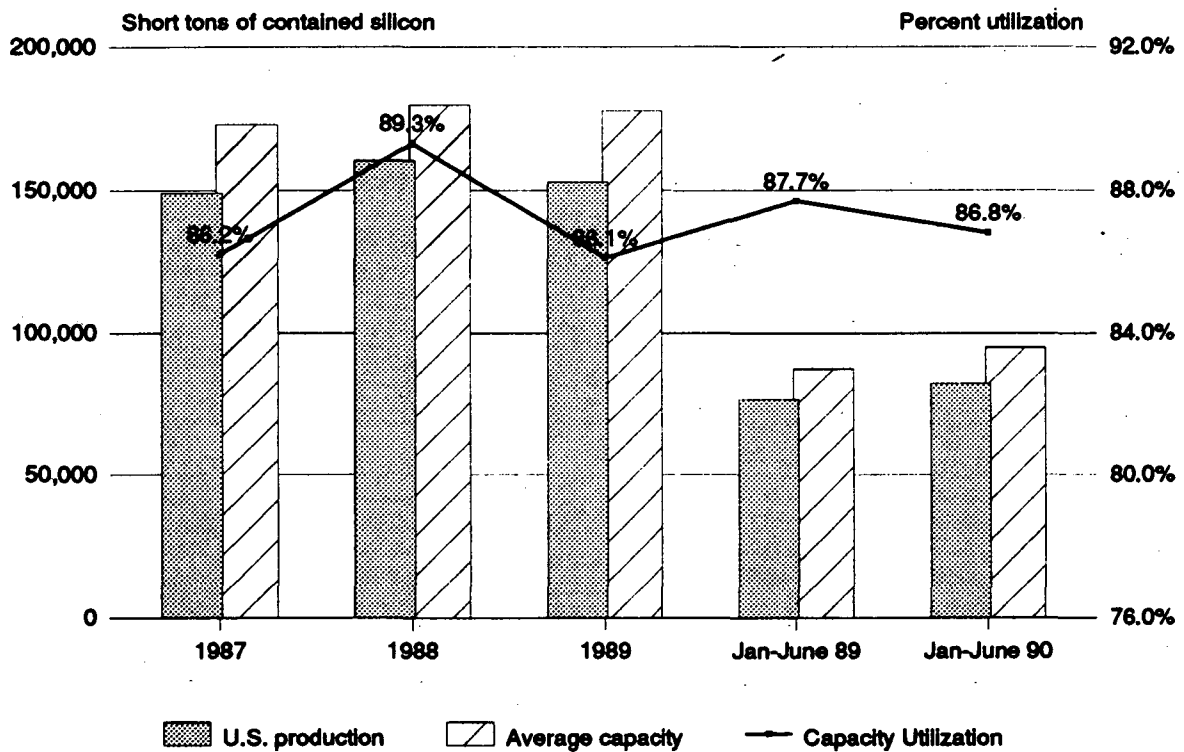
U.S. producers' shipments

Data for U.S. producers' shipments of domestically produced silicon metal are presented in table 3a and figure 4.³⁶ The quantity and value of U.S. shipments (intracompany transfers plus domestic market shipments) by individual producers are presented in table 3b. According to data collected from the Commission's questionnaires, total shipments of silicon metal by U.S. producers increased 5.5 percent from 1987 to 1988, but declined 4.2 percent from 1988 to 1989. Shipments during the interim period January-June increased 0.8 percent in 1990 over the corresponding period of 1989.

³⁶ Four U.S. producers, * * * , indicated they purchased silicon metal from U.S. importers. * * * .

Figure 3

Silicon metal: U.S. capacity, production, and capacity utilization, 1987-89, and January-June 1989 and 1990



Source: Table 2a.

Table 2b

Silicon metal: U.S. capacity, production, and capacity utilization, by firms, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- | |
|--|---------|---------|---------|----------------|--------|
| | | | | 1989 | 1990 |
| <hr/> <i>Production (net short tons)</i> <hr/> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. ¹ | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 149,066 | 160,343 | 152,898 | 76,694 | 82,439 |
| <hr/> <i>End-of-period capacity (net short tons)</i> <hr/> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. ¹ | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 164,651 | 187,846 | 178,872 | 84,290 | 94,400 |
| <hr/> <i>Average-of-period capacity (net short tons)</i> <hr/> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. ¹ | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 172,845 | 179,500 | 177,594 | 87,469 | 94,987 |

(table continued)

Table 2b--Continued

Silicon metal: U.S. capacity, production, and capacity utilization, by firms, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- | |
|---|------|------|------|----------------|------|
| | | | | 1989 | 1990 |
| <hr/> | | | | | |
| <i>End-of-period capacity utilization (percent)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. ¹ | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | 87.1 | 85.4 | 85.5 | 91.0 | 87.3 |
| <hr/> | | | | | |
| <i>Average-of-period capacity utilization (percent)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. ¹ | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | 86.2 | 89.3 | 86.1 | 87.7 | 86.8 |

Note.--"Net short tons" equals short tons of contained silicon.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 3a
Silicon metal: Shipments of U.S. producers, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- | |
|---------------------------------------|----------------------|---------|---------|----------------|---------|
| | | | | 1989 | 1990 |
| <hr/> | | | | | |
| <i>Quantity (net short tons)</i> | | | | | |
| <hr/> | | | | | |
| Intracompany transfers | *** | *** | *** | *** | *** |
| Domestic market shipments | *** | *** | *** | *** | *** |
| Subtotal | 146,323 ¹ | 152,447 | 147,521 | 78,195 | 76,987 |
| <hr/> | | | | | |
| Export shipments | *** | *** | *** | *** | *** |
| Total | *** | *** | *** | *** | *** |
| <hr/> | | | | | |
| <i>Value (1,000 dollars)</i> | | | | | |
| <hr/> | | | | | |
| Intracompany transfers | *** | *** | *** | *** | *** |
| Domestic market shipments | *** | *** | *** | *** | *** |
| Subtotal | 167,905 ¹ | 194,628 | 185,780 | 99,000 | 91,973 |
| <hr/> | | | | | |
| Export shipments | *** | *** | *** | *** | *** |
| Total | *** | *** | *** | *** | *** |
| <hr/> | | | | | |
| <i>Unit value (per net short ton)</i> | | | | | |
| <hr/> | | | | | |
| Intracompany transfers | *** | *** | *** | *** | *** |
| Domestic market shipments | *** | *** | *** | *** | *** |
| Average of subtotal | \$1,147 ¹ | \$1,277 | \$1,259 | \$1,266 | \$1,195 |
| <hr/> | | | | | |
| Export shipments | *** | *** | *** | *** | *** |
| Average of total | *** | *** | *** | *** | *** |
| <hr/> | | | | | |

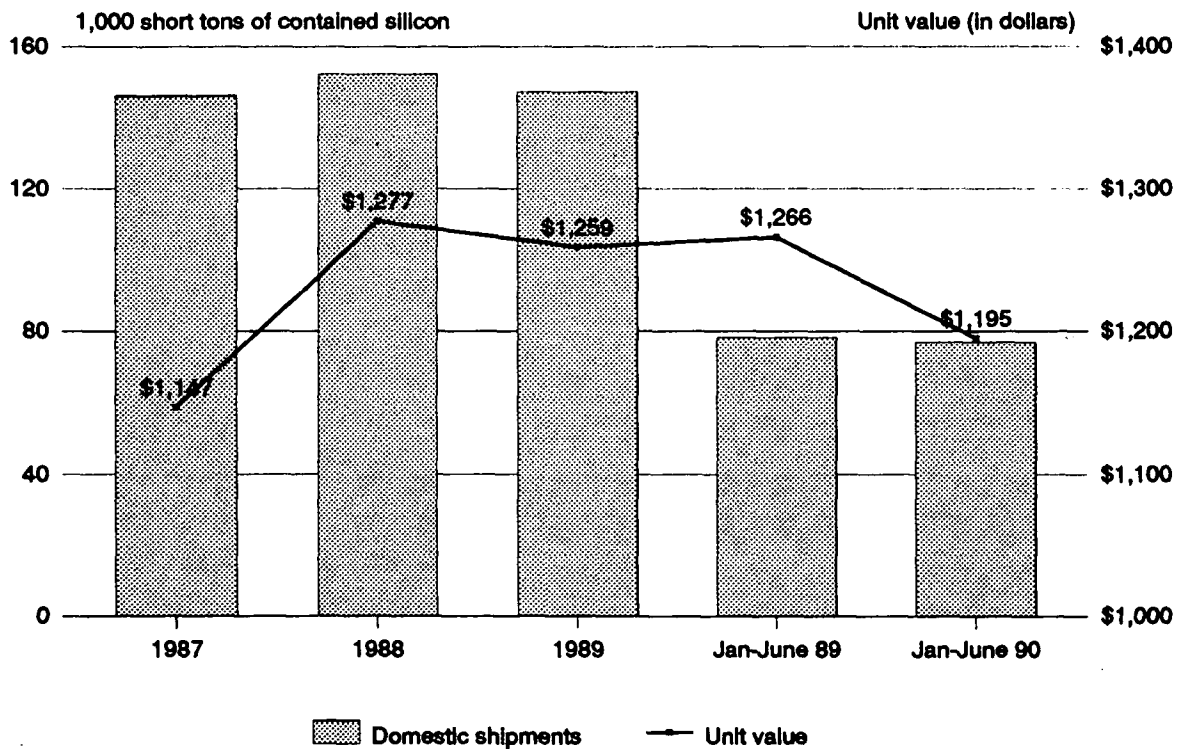
¹ Domestic market shipments and U.S. shipments are overstated and exports understated because *** was unable to breakdown its 1987 shipments (which amounted to *** net short tons, valued at ***) into domestic market shipments and exports. Exports accounted for *** percent of the firm's total shipments (on the basis of quantity) in 1988, *** percent in 1989, and *** percent in January-June 1990.

Note.--"Net short tons" equals short tons of contained silicon.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Figure 4

Silicon metal: U.S. producers' total domestic shipments with unit values, 1987-89, and January-June 1989 and 1990



Source: Table 3a.

Table 3b

Silicon metal: U.S. shipments¹ of U.S. producers, by firms, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June- 1989 | 1990 |
|---------------------------------------|----------------------|---------|---------|-----------------------|---------|
| <i>Quantity (net short tons)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. ² | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 146,323 ⁴ | 152,447 | 147,521 | 78,195 | 76,987 |
| <i>Value (1,000 dollars)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. ² | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 167,905 ⁴ | 194,628 | 185,780 | 99,000 | 91,973 |
| <i>Unit value (per net short ton)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. ² | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | \$1,147 ⁴ | \$1,277 | \$1,259 | \$1,266 | \$1,195 |

¹ Intracompany transfers plus domestic market shipments.

.....

² Values were estimated by the staff of the U.S. International Trade Commission.⁴ See footnote number 1 in table 3a for explanation.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

The value of total domestic shipments increased 17.3 percent from 1987 to 1988, but declined 5.3 percent from 1988 to 1989. The value of shipments during the interim period January-June decreased 4.8 percent in 1990 from that in the corresponding period of 1989.

Intracompany transfers represented *** percent of aggregate U.S. producers' shipments in 1987, *** percent in 1988, *** percent in 1989, *** percent in interim 1989, and *** percent in interim 1990. Export shipments represented *** percent in 1987, *** percent in 1988, *** percent in 1989, *** percent in interim 1989, and *** percent in interim 1990.

The unit value per net ton of domestic market shipments (excluding transfers) increased 12.0 percent from 1987 to 1988, but declined 2.0 percent from 1988 to 1989, and declined between the interim periods by 5.5 percent.

U.S. producers' imports

As indicated earlier, * * * imported silicon metal from Brazil, and * * * imported product from China during the period covered by the investigations. * * * imported only in 1989; these imports equaled *** percent of its production in that year. * * * imported only in 1987 and 1989; its imports equaled *** percent of its production in 1987 and *** percent in 1989. * * * began importing in 1988; its imports equaled *** percent of its production in 1988, *** percent in 1989, and *** percent in January-June 1990.

U.S. producers' inventories

Data for U.S. producers' inventories are presented in table 4a. The inventories of individual producers are presented in table 4b. According to data collected from the Commission's questionnaires, end-of-period inventories of silicon metal produced by U.S. producers increased 37.5 percent from 1987 to 1988 and 31.7 percent from 1988 to 1989. During the period 1987 through 1989, inventories increased 81.1 percent from 5,504 to 9,969 net short tons. End-of-period inventories during the interim period January-June increased 92.0 percent in 1990 over those in the corresponding period of 1989.

U.S. employment, wages, compensation, and productivity

Data for employment, wages, and productivity are presented in table 5a and table 5b. According to data collected from the Commission's questionnaires, the number of production and related workers (PRWs) declined 2.6 percent from 1987 to 1988, and declined a further 1.7 percent from 1988 to 1989. During the interim period January-June, the number employed increased 6.9 percent in 1990 over the corresponding period of 1989.

The number of hours worked by PRWs declined 0.4 percent from 1987 to 1988, and declined a further 3.0 percent from 1988 to 1989. During the interim period January-June, the hours worked increased 5.1 percent in 1990 over the corresponding period of 1989.

Wages paid to PRWs increased 1.9 percent from 1987 to 1988, but declined 1.2 percent from 1988 to 1989. During the interim period January-June, wages paid increased 9.9 percent in 1990 over the corresponding period of 1989.

Table 4a
Silicon metal: U.S. producers' end-of-period inventories, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- | |
|---|-------|-------|-------|----------------|--------|
| | | | | 1989 | 1990 |
| <i>Quantity (net short tons)</i> | | | | | |
| End-of-period inventories | 5,504 | 7,570 | 9,969 | 6,426 | 12,339 |
| <i>Ratio¹ of inventories to-- (in percent)</i> | | | | | |
| Production | 3.7 | 4.7 | 6.5 | 4.2 | 7.5 |
| Total U.S. shipments ² | 3.8 | 5.0 | 6.8 | 4.1 | 8.0 |
| Total U.S. and export shipments | *** | *** | *** | *** | *** |

¹ Ratios for January-June periods are calculated using annualized production and shipment data.

² Total U.S. shipments equals intracompany transfers plus domestic market shipments.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Total compensation paid to PRWs increased 4.6 percent from 1987 to 1988, but declined 0.2 percent from 1988 to 1989. During the interim period January-June, total compensation increased 10.7 percent in 1990 over the corresponding period of 1989.

Hourly wages paid to PRWs increased 2.3 percent from 1987 to 1988, and increased a further 1.8 percent from 1988 to 1989. During the interim period January-June, hourly wages paid increased 4.5 percent in 1990 over the corresponding period of 1989.

Hourly total compensation paid to PRWs increased 5.0 percent from 1987 to 1988, and increased a further 2.9 percent from 1988 to 1989. During the interim period January-June, hourly total compensation increased 5.4 percent in 1990 over the corresponding period of 1989.

Productivity (net short tons per hour) increased 8.0 percent from 1987 to 1988, but declined 1.7 percent from 1988 to 1989. During the interim period January-June, productivity increased 2.2 percent in 1990 over the corresponding period of 1989.

Unit labor costs declined 2.8 percent from 1987 to 1988, but increased 4.7 percent from 1988 to 1989. During the interim period January-June, unit labor costs increased 2.7 percent in 1990 over the corresponding period of 1989.

Table 4b
Silicon metal: U.S. producers' end-of-period inventories, by firms, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- | |
|--|-------|-------|-------|----------------|--------|
| | | | | 1989 | 1990 |
| Quantity (net short tons) | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 5,504 | 7,570 | 9,969 | 6,426 | 12,339 |
| Ratio ¹ to production (in percent) | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | 3.7 | 4.7 | 6.5 | 4.2 | 7.5 |
| Ratio ¹ to U.S. shipments (in percent) | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | 3.8 | 5.0 | 6.8 | 4.1 | 8.0 |
| Ratio ¹ to total shipments (in percent) | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metaltech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | *** | *** | *** | *** | *** |

¹ Ratios for January-June periods are calculated using annualized production and shipment data.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 5a

Number of production and related workers producing silicon metal, hours worked,¹ wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, 1987-89, January-June 1989, and January-June 1990²

| Item | 1987 | 1988 | 1989 | January-June-- | |
|---|---------|---------|---------|----------------|---------|
| | | | | 1989 | 1990 |
| Number of production and related workers | 730 | 711 | 699 | 708 | 757 |
| Hours worked by production and related workers (1,000 hours) | 1,545 | 1,539 | 1,493 | 765 | 804 |
| Wages paid to production and related workers (1,000 dollars) | 20,532 | 20,928 | 20,670 | 10,645 | 11,700 |
| Total compensation paid to production and related workers (1,000 dollars) | 26,269 | 27,474 | 27,423 | 14,076 | 15,586 |
| Average hourly wages ³ paid to production and related workers | \$13.29 | \$13.60 | \$13.84 | \$13.92 | \$14.55 |
| Average hourly total compensation paid to production and related workers | \$17.00 | \$17.85 | \$18.37 | \$18.40 | \$19.39 |
| Productivity (net short tons per 1,000 hours) | 96.5 | 104.2 | 102.4 | 100.3 | 102.5 |
| Unit labor costs ³ (per net short ton) | \$176 | \$171 | \$179 | \$184 | \$189 |

¹ Includes hours worked plus hours of paid leave time.

² Firms providing employment data accounted for 100 percent of reported total U.S. shipments (based on quantity) in 1989.

³ On the basis of total compensation paid.

Note.--"Net short tons" equals short tons of contained silicon.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 5b

Number of production and related workers producing silicon metal, hours worked, wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, by firms, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June- 1989 | 1990 |
|--|--------|--------|--------|-----------------------|--------|
| <i>Number of production and related workers (PRWs)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 730 | 711 | 699 | 668 | 757 |
| <i>Hours worked by PRWs (1,000 hours)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 1,545 | 1,539 | 1,493 | 726 | 804 |
| <i>Wages paid to PRWs (1,000 dollars)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 20,532 | 20,928 | 20,670 | 10,100 | 11,700 |
| <i>Total compensation paid to PRWs (1,000 dollars)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Total | 26,269 | 27,474 | 27,423 | 13,379 | 15,586 |

(Table continued)

Table 5b--Continued

Number of production and related workers producing silicon metal, hours worked, wages and total compensation paid to such employees, and hourly wages, productivity, and unit production costs, by firms, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- 1989 | 1990 |
|--|---------|---------|---------|------------------------|---------|
| <i>Hourly wages paid to PRWs</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | \$13.29 | \$13.60 | \$13.84 | \$13.92 | \$14.55 |
| <i>Hourly total compensation paid to PRWs</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | \$17.00 | \$17.85 | \$18.37 | \$18.40 | \$19.39 |
| <i>Productivity (net short tons per 1,000 hours)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | 96.5 | 104.2 | 102.4 | 100.3 | 102.5 |
| <i>Unit labor costs (per net short ton)</i> | | | | | |
| American Alloys, Inc. | *** | *** | *** | *** | *** |
| Dow Corning Corp. | *** | *** | *** | *** | *** |
| Elkem Metals Co. | *** | *** | *** | *** | *** |
| Globe Metallurgical, Inc. | *** | *** | *** | *** | *** |
| Reynolds Metals Co. | *** | *** | *** | *** | *** |
| Silicon Metatech, Inc. | *** | *** | *** | *** | *** |
| SIMETCO, Inc. | *** | *** | *** | *** | *** |
| SKW Alloys, Inc. | *** | *** | *** | *** | *** |
| Average | \$176 | \$171 | \$179 | \$185 | \$189 |

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

* * * reported layoffs of *** workers in * * * , *** workers in * * * , and *** workers in * * * , all because of lack of orders. The first group of workers * * * . * * * reported a layoff of *** workers for * * * beginning in * * * . * * * reduced employment by *** workers in * * * . * * * reported reductions of *** workers for * * * and *** workers for * * * .

Financial experience of U.S. producers

Seven U.S. producers,³⁷ accounting for *** percent of U.S. production of silicon metal in 1989, supplied income-and-loss data on their silicon metal operations and on their overall establishment operations. * * * .

* * * * *

On June 15, 1990, Silicon Metaltech filed a petition for reorganization under chapter 11 of the U.S. Bankruptcy Code. SiMETCO, previously Ohio Ferro-Alloys Corp., assumed its new name effective December 8, 1988, under its reorganization plan filed under chapter 11. Ohio Ferro-Alloys Corp. filed a chapter 11 petition on October 30, 1986.

Silicon metal operations.--Income-and-loss data are shown in table 6. Net sales of silicon metal rose by 13.2 percent from \$176.6 million in 1987 to \$200.0 million in 1988 and then fell by 15.0 percent to \$169.9 million in 1989. Such sales declined by 5.7 percent from \$96.0 million during January-June 1989 to \$90.6 million in the corresponding period of 1990. Net sales in terms of net tons increased by 4.4 percent from 1987 to 1988, decreased by 12.2 percent from 1988 to 1989, and rose by 3.1 percent during January-June from 1989 to 1990.

Aggregate operating income increased from \$10.8 million in 1987 to \$11.1 million in 1988. However, during the same period, the operating income margin declined from 6.1 percent to 5.5 percent. In 1989 and January-June 1990, U.S. producers reported aggregate operating losses of \$2.3 million, or 1.3 percent of net sales, and \$617,000, or 0.7 percent of net sales, respectively. Pre-tax net income or loss margins generally followed a similar trend as operating income or loss margins except in 1988. In that year, the net income margin was higher because SiMETCO reported a one-time gain of \$8.6 million on satisfaction of pre-petition liabilities under its plan of reorganization under Chapter 11.

Income-and-loss data down to the operating income level on a "per-net-ton" basis are presented in the following tabulation (in dollars per short ton of contained silicon):

³⁷ These seven firms are * * * .

| Item | 1987 | 1988 | 1989 | January-June-- | |
|--|------------|------------|------------|----------------|------------|
| | | | | 1989 | 1990 |
| Net sales | \$1,190.62 | \$1,291.77 | \$1,250.57 | \$1,303.21 | \$1,192.07 |
| Cost of goods sold | 1,051.50 | 1,141.03 | 1,179.24 | 1,168.85 | 1,123.89 |
| Gross profit | 139.11 | 150.74 | 71.33 | 134.36 | 68.17 |
| Selling, general, and administrative expenses . . | 66.35 | 79.25 | 88.14 | 86.57 | 76.29 |
| Operating income or (loss) . . | 72.76 | 71.49 | (16.80) | 47.79 | (8.12) |

Average net sales value per net ton increased by 8.5 percent from 1987 to 1988 and then declined by 3.2 percent in 1989 and further fell by 8.5 percent during January-June 1990. From 1987 to 1988, per-net-ton average gross profit increased by 8.4 percent, but operating income declined by 1.7 percent because of a large increase (19.4 percent) in average selling, general, and administrative (SG&A) expenses. Two firms reported large increases in their SG&A expenses. * * * .

In 1989, per-net-ton cost of goods sold and SG&A expenses increased, whereas average net sales value declined, resulting in an operating loss of \$16.80. All firms except * * * reported higher per-net-ton SG&A expenses in 1989, as sales quantities declined by 12.2 percent. During January-June 1990, the operating loss per net ton of \$8.12 reflected the fact that cost of goods sold and SG&A expenses combined declined less than average net sales value. The percentage distribution of the components of cost of goods sold as a share of total cost of goods sold for silicon metal is presented in the following tabulation:³⁸

| Item | 1987 | 1988 | 1989 | January-June-- | |
|-------------------------------|-------|-------|-------|----------------|-------|
| | | | | 1989 | 1990 |
| Raw materials | 28.0 | 27.1 | 26.4 | 26.7 | 29.8 |
| Energy costs | 21.7 | 21.3 | 19.8 | 19.4 | 19.8 |
| Direct labor | 8.6 | 7.9 | 9.4 | 8.6 | 10.0 |
| Other factory costs | 41.8 | 43.7 | 44.4 | 45.2 | 40.4 |
| Total cost of goods sold . . | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

³⁸ * * * .

Table 6

Income-and-loss experience of U.S. producers¹ on their operations producing silicon metal, accounting years 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- | |
|--|---------|---------|---------|----------------|---------|
| | | | | 1989 | 1990 |
| <i>Quantity (net short tons)</i> | | | | | |
| Net sales | 148,324 | 154,819 | 135,881 | 73,675 | 75,969 |
| <i>Value (1,000 dollars)</i> | | | | | |
| Net sales | 176,597 | 199,990 | 169,929 | 96,014 | 90,560 |
| Cost of goods sold | 155,963 | 176,653 | 160,236 | 86,115 | 85,381 |
| Gross profit | 20,634 | 23,337 | 9,693 | 9,899 | 5,179 |
| Selling, general, and administrative expenses | 9,842 | 12,269 | 11,976 | 6,378 | 5,796 |
| Operating income or (loss) | 10,792 | 11,068 | (2,283) | 3,521 | (617) |
| Startup or shutdown expense | *** | *** | *** | *** | *** |
| Interest expense | 4,084 | 5,780 | 6,298 | 3,038 | 3,237 |
| Other income or (expense), net | *** | *** | *** | *** | *** |
| Net income or (loss) before income taxes | 4,310 | 13,740 | (9,087) | 584 | (4,104) |
| Depreciation and amortization | 6,668 | 7,538 | 8,163 | 3,767 | 4,314 |
| Cashflow ² | 10,978 | 21,278 | (924) | 4,351 | 210 |
| <i>Share of net sales (percent)</i> | | | | | |
| Cost of goods sold | 88.3 | 88.3 | 94.3 | 89.7 | 94.3 |
| Gross profit | 11.7 | 11.7 | 5.7 | 10.3 | 5.7 |
| Selling, general, and administrative expenses | 5.6 | 6.1 | 7.0 | 6.6 | 6.4 |
| Operating income or (loss) | 6.1 | 5.5 | (1.3) | 3.7 | (0.7) |
| Net income or (loss) before income taxes | 2.4 | 6.9 | (5.3) | 0.6 | (4.5) |
| <i>Number of firms reporting</i> | | | | | |
| Operating losses | 1 | 0 | 4 | 1 | 5 |
| Net losses | 3 | 2 | 4 | 3 | 6 |
| Data | 6 | 6 | 7 | 6 | 7 |

1

² Cash flow is defined as net income or (loss) plus depreciation and amortization.

Note.--"Net short tons" equals short tons of contained silicon.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Selected key income-and-loss data by firm are presented in table 7. Figure 5 presents the operating income and pretax net income of U.S. producers of silicon metal as a share of net sales for 1987-89, January-June 1989, and January-June 1990.

Overall establishment operations.--Income-and-loss data on the overall operations of establishments within which silicon metal is produced are presented in table 8.

Investment in productive facilities.--Fixed and total assets of the reporting firms are presented in table 9. Figure 6 presents the return on total assets of U.S. producers of silicon metal for 1987-89, January-June 1989, and January-June 1990. Operating and net returns on the book value of fixed assets and on total assets followed generally the same trend as did the ratios of operating and net income to net sales during the reporting periods.

In 1988, the increase in assets reflects the revaluation of all assets when * * *. Total assets were written down over * * *.

Capital expenditures.--The capital expenditures incurred by the reporting firms are shown in table 10. The majority of capital expenditures were for machinery, equipment, and fixtures. However, for silicon metal operations, as a share of total capital expenditures, pollution control equipment accounted for 14 percent in 1987, 6 percent in 1988, 12 percent in 1989, 3 percent in January-June 1989, and 9 percent in January-June 1990.

Research and development expenses.--The responding firms' research and development expenses during the periods covered by the investigations are presented in the following tabulation (in thousands of dollars):

| <i>Item</i> | <i>1987</i> | <i>1988</i> | <i>1989</i> | <i>January-June--</i> | |
|---|-------------|-------------|-------------|-----------------------|-------------|
| | | | | <i>1989</i> | <i>1990</i> |
| All products of establishment | 10,111 | 10,486 | 8,208 | 4,853 | 3,604 |
| Silicon metal | 1,792 | 2,416 | 1,611 | 1,375 | 648 |

Impact of imports on capital and investment.--The Commission requested each firm to describe any actual and/or potential negative effects of imports of silicon metal from Argentina, Brazil, and/or China on existing development and production efforts, growth, investment, and ability to raise capital. Their responses are shown in appendix D.

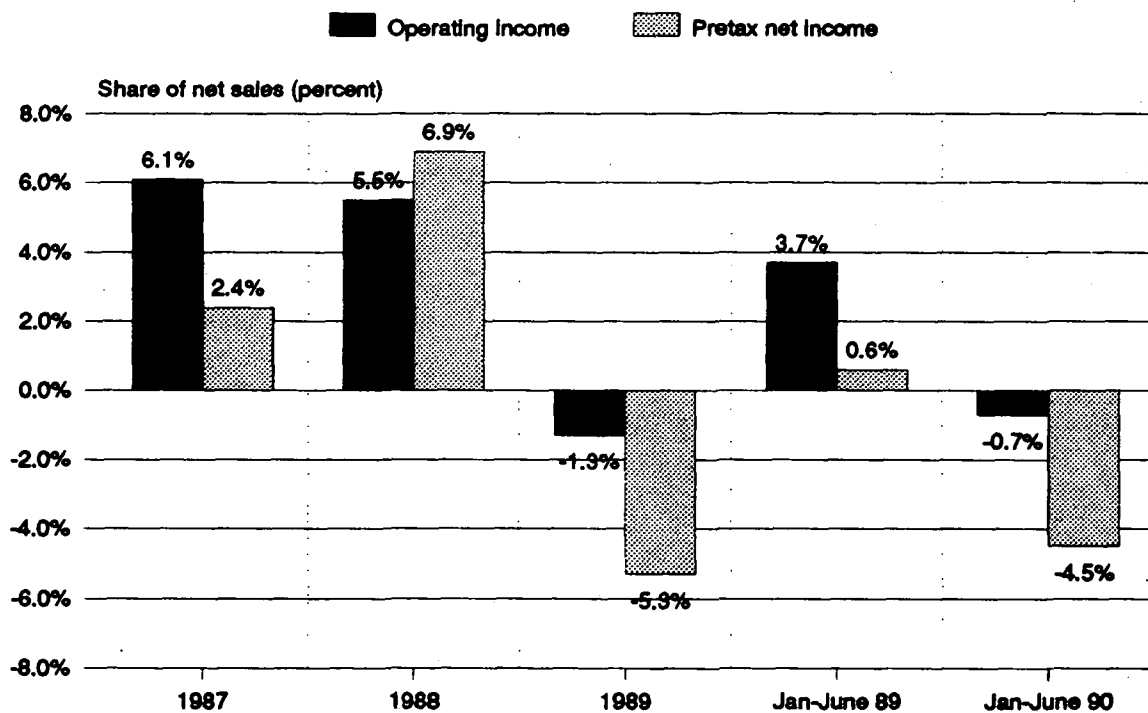
Table 7
Income-and-loss experience of U.S. producers on their operations producing silicon metal,
by firms, accounting years 1987-89, January-June 1989, and January-June 1990

| <i>Item</i> | <i>1987</i> | <i>1988</i> | <i>1989</i> | <u><i>January-June-</i></u> | |
|-------------|-------------|-------------|-------------|-----------------------------|-------------|
| | | | | <i>1989</i> | <i>1990</i> |

• • • • •

Figure 5

Operating income and pretax net income of U.S. producers on silicon metal operations, accounting years 1987-89, January-June 1989, and January-June 1990



Source: Table 7.

1

Table 8

Income-and-loss experience of U.S. producers on the overall operations of their establishments wherein silicon metal is produced, accounting years 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- | |
|---|---------|---------|---------|----------------|---------|
| | | | | 1989 | 1990 |
| Value (1,000 dollars) | | | | | |
| Net sales | 327,483 | 448,638 | 438,261 | 184,985 | 159,085 |
| Cost of goods sold | 299,485 | 386,601 | 410,035 | 152,740 | 148,483 |
| Gross profit | 27,998 | 62,037 | 28,226 | 32,245 | 10,602 |
| Selling, general, and administrative expenses | 14,723 | 19,615 | 20,885 | 11,754 | 10,174 |
| Operating income or (loss) | 13,275 | 42,422 | 7,341 | 20,491 | 428 |
| Startup or shutdown expense | *** | *** | *** | *** | *** |
| Interest expense | 10,036 | 11,868 | 13,305 | 5,467 | 5,468 |
| Other income or (expense), net | *** | *** | *** | *** | *** |
| Net income or (loss) before income taxes | 2,501 | 39,597 | (5,640) | 15,261 | (4,513) |
| Depreciation and amortization | 10,660 | 12,117 | 13,886 | 6,008 | 6,397 |
| Cashflow ¹ | 13,161 | 51,714 | 8,246 | 21,269 | 1,884 |
| Share of net sales (percent) | | | | | |
| Cost of goods sold | 91.5 | 86.2 | 93.6 | 82.6 | 93.3 |
| Gross profit | 8.5 | 13.8 | 6.4 | 17.4 | 6.7 |
| Selling, general, and administrative expenses | 4.5 | 4.4 | 4.8 | 6.4 | 6.4 |
| Operating income or (loss) | 4.1 | 9.5 | 1.7 | 11.1 | 0.3 |
| Net income or (loss) before income taxes | 0.8 | 8.8 | (1.3) | 8.2 | (2.8) |
| Number of firms reporting | | | | | |
| Operating losses | 2 | 0 | 3 | 0 | 3 |
| Net losses | 3 | 0 | 4 | 0 | 4 |
| Data | 6 | 7 | 7 | 6 | 6 |

¹ Cash flow is defined as net income or (loss) plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 9
Assets of U.S. producers of silicon metal, accounting years 1987-89, January-June 1989, and January-June 1990

| Item | As of the end of accounting year-- | | | As of June 30-- | |
|---|------------------------------------|---------|---------|-----------------|---------|
| | 1987 | 1988 | 1989 | 1989 | 1990 |
| <i>Value (1,000 dollars)</i> | | | | | |
| All products of establishments-- | | | | | |
| Fixed assets: | | | | | |
| Original cost | 254,739 | 254,902 | 271,550 | 260,848 | 272,603 |
| Book value | 116,069 | 132,802 | 141,097 | 134,906 | 137,534 |
| Total assets ¹ | 229,247 | 254,949 | 268,312 | 260,959 | 258,445 |
| Silicon metal-- | | | | | |
| Fixed assets: | | | | | |
| Original cost | 110,028 | 122,272 | 139,755 | 121,983 | 139,391 |
| Book value | 61,949 | 73,690 | 84,248 | 72,313 | 82,107 |
| Total assets ² | 130,967 | 145,513 | 164,362 | 143,943 | 163,261 |
| <i>Return on book value of fixed assets (percent)³</i> | | | | | |
| All products of establishments-- | | | | | |
| Operating return ⁴ | 11.4 | 31.9 | 5.2 | 40.0 | 0.8 |
| Net return ⁵ | 2.2 | 29.8 | (4.0) | 29.8 | (8.5) |
| Silicon metal-- | | | | | |
| Operating return ⁴ | 17.4 | 15.0 | (2.7) | 9.7 | (1.5) |
| Net return ⁵ | 7.0 | 18.6 | (10.8) | 1.6 | (10.0) |
| <i>Return on total assets (percent)³</i> | | | | | |
| All products of establishments-- | | | | | |
| Operating return ⁴ | 5.8 | 16.6 | 2.7 | 19.1 | 0.4 |
| Net return ⁵ | 1.1 | 15.5 | (2.1) | 14.2 | (4.1) |
| Silicon metal-- | | | | | |
| Operating return ⁴ | 8.2 | 7.6 | (1.4) | 4.9 | (0.8) |
| Net return ⁵ | 3.3 | 9.4 | (5.5) | 0.8 | (5.0) |

¹ Defined as book value of fixed assets plus current and noncurrent assets.

² Total establishment assets are apportioned, by firm, to product groups on the basis of the ratio of the respective book values of fixed assets.

³ Computed using data from only those firms supplying both asset and income-and-loss information, and as such, may not be derivable from data presented. Data for the partial-year periods are calculated using annualized income-and-loss information.

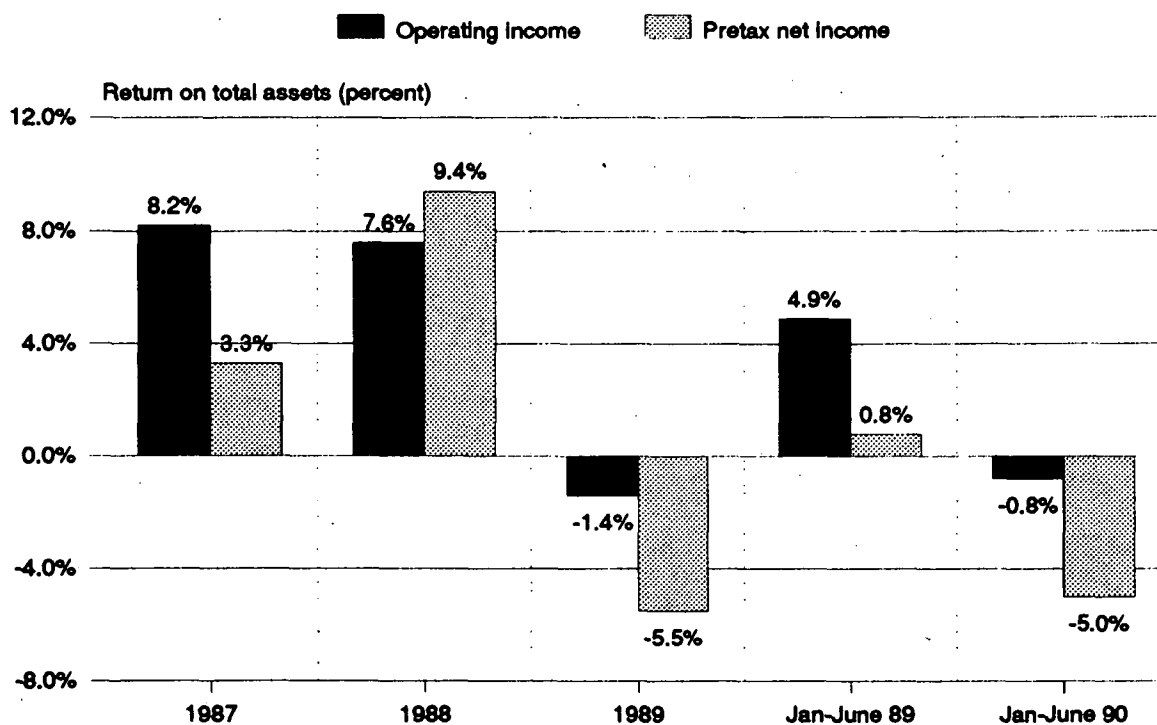
⁴ Defined as operating income or loss divided by asset value.

⁵ Defined as net income or loss divided by asset value.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Figure 6

Return on total assets of U.S. producers on silicon metal operations, accounting years 1987-89, January-June 1989, and January-June 1990



Source: Table 9.

Table 10
Capital expenditures by U.S. producers of silicon metal, accounting years 1987-89,
January-June 1989, and January-June 1990

(In thousands of dollars)

| <i>Item</i> | <i>1987</i> | <i>1988</i> | <i>1989</i> | <i>January-June--</i> <i>1989</i> | <i>1990</i> |
|---|---------------|---------------|---------------|--------------------------------------|--------------|
| All products of establishments: | | | | | |
| Land and land improvements | *** | *** | *** | *** | *** |
| Building and leasehold improvements | *** | *** | *** | *** | *** |
| Machinery, equipment, and fixtures | 11,995 | 21,835 | 18,703 | 14,979 | 4,973 |
| Pollution control equipment | 2,436 | 1,202 | 2,060 | 321 | 412 |
| Total | 17,795 | 23,912 | 20,811 | 15,451 | 5,434 |
| Silicon metal: | | | | | |
| Land and land improvements | *** | *** | *** | *** | *** |
| Building and leasehold improvements | *** | *** | *** | *** | *** |
| Machinery, equipment, and fixtures | 10,094 | 9,797 | 14,667 | 10,504 | 4,003 |
| Pollution control equipment | 2,130 | 675 | 2,058 | 276 | 412 |
| Total | 15,100 | 10,810 | 16,769 | 10,870 | 4,422 |

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

**CONSIDERATION OF ALLEGED THREAT OF MATERIAL INJURY TO
AN INDUSTRY IN THE UNITED STATES**

Section 771(7)(F)(i) of the Tariff Act of 1930 (19 U.S.C. § 1677(7)(F)(i)) provides that--

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of any merchandise, the Commission shall consider, among other relevant factors ³⁹--

(I) If a subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the subsidy is an export subsidy inconsistent with the Agreement),

(II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,

(III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,

(IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,

(V) any substantial increase in inventories of the merchandise in the United States,

(VI) the presence of underutilized capacity for producing the merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury,

(VIII) the potential for product-shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 701 or 731 or to final orders under section 736, are also used to produce the merchandise under investigation,

³⁹ Section 771(7)(F)(ii) of the act (19 U.S.C. § 1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

(IX) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both), and

*(X) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the like product.*⁴⁰

The available information on the nature of the subsidies found by the Department of Commerce (item (I) above) is presented in the section of this report entitled "Alleged subsidies by the Government of Brazil;" information on the volume, U.S. market penetration, and pricing of imports of the subject merchandise (items (III) and (IV) above) is presented in the section entitled "Consideration of the causal relationship between imports of the subject merchandise and the alleged material injury;" and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts (item (X)) is presented in the section entitled "Consideration of alleged material injury to an industry in the United States." Available information on U.S. inventories of the subject products (item (V)); foreign producers' operations, including the potential for "product-shifting" (items (II), (VI), and (VIII) above); any other threat indicators, if applicable (item (VII) above); and any dumping in third-country markets, follows.

U.S. importers' inventories

U.S. importers' end-of-period inventory data are presented in table 11 and figure 7. According to responses to Commission questionnaires, aggregate U.S. importers' end-of-period inventories of silicon metal from Argentina, Brazil, and China increased three-fold from 1987 to 1988, but declined 72.0 percent from 1988 to 1989. During the interim periods, inventories increased 16.6 percent in 1990 over the corresponding period of 1989.

Ability of foreign producers to generate exports and availability of export markets other than the United States

A list of silicon metal producers in Argentina, Brazil, and China is presented in the following tabulation:

⁴⁰ Section 771(7)(F)(iii) of the act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, "...the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other GATT member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

| <u>Producer</u> | <u>Country</u> | <u>Product(s) produced (share of sales)</u> |
|---|----------------|---|
| Electrometalurgica Andina S.A.I.C. ¹ | Argentina | *** |
| Silarsa, S.A. ¹ | Argentina | *** |
| Camargo Correa Metais S.A. ¹ | Brazil | *** |
| Cia Brasileira Carbureto ² | Brazil | *** |
| Cia Industrial Fluminense ² | Brazil | *** |
| Eletroila S.A. ² | Brazil | *** |
| Ligas de Alumínio S.A. ² | Brazil | *** |
| Minasligas - Cia ² | Brazil | *** |
| RIMA Electrometalurgica S.A. ² | Brazil | *** |
| Ministry of Metallurgical Industry ³ (China Metallurgical Import & Export Corp.) | China | *** |
| Ministry of Foreign Trade ³ (Local branches of China National Metals & Minerals Import & Export Corp.) | China | *** |

¹ Supplied comprehensive information.
² Supplied only limited information.
³ Supplied no information.

The Commission requested foreign producer trade data from counsel representing producers in Argentina and Brazil. No counsel represented Chinese producers. In addition to requests from counsel, the Commission requested data from U.S. embassies located in the subject countries. To date, no data have been received from these embassies.

Table 12 presents reported foreign producers' capacity, production, capacity utilization, and shipments. The Commission received comprehensive data from the two Argentine producers, and partial data from six of the seven Brazilian producers.⁴¹ No data from Chinese producers were provided.

⁴¹ Only one Brazilian producer, represented by separate counsel, supplied comprehensive data.

Table 11

Silicon metal: End-of-period inventories of U.S. Importers and ratios to Imports, U.S. shipments of Imports, and total shipments of Imports, by sources, 1987-89, January-June 1989, and January-June 1990

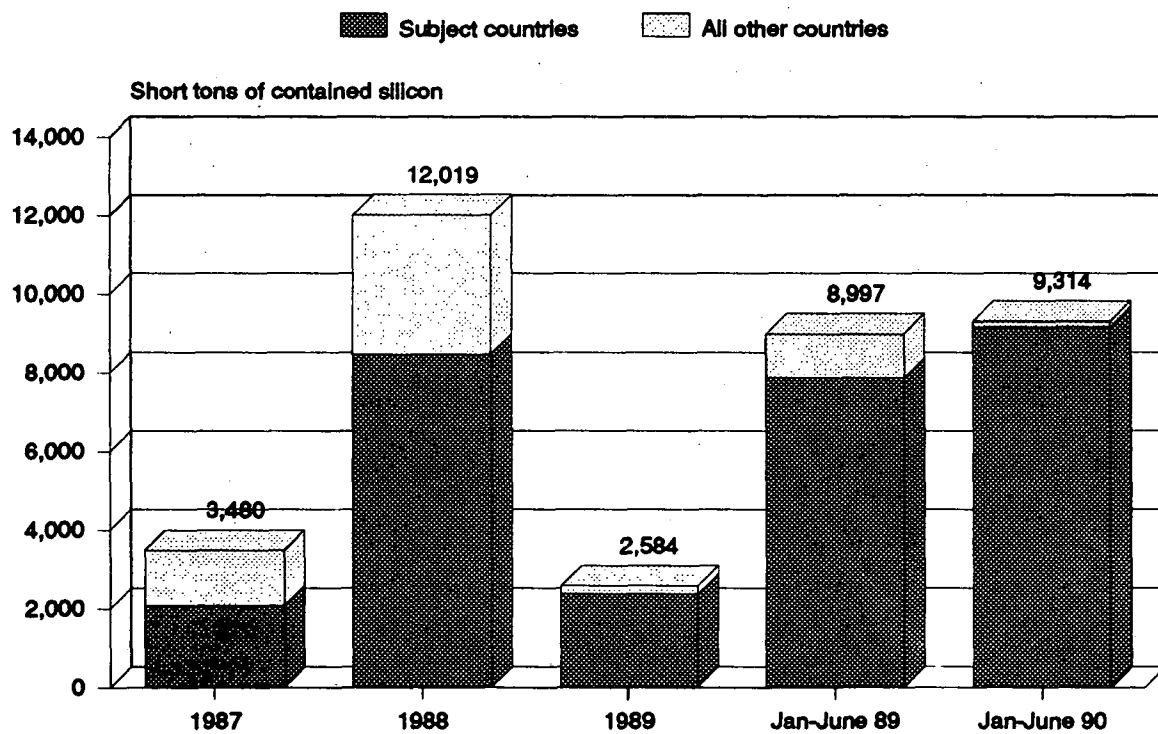
| Item | 1987 | 1988 | 1989 | <u>January-June</u> | |
|--|-------|--------|-------|---------------------|-------|
| | | | | 1989 | 1990 |
| <i>Quantity (net short tons)</i> | | | | | |
| Argentina | *** | *** | *** | *** | *** |
| Brazil | *** | *** | *** | *** | *** |
| China | *** | *** | *** | *** | *** |
| Subtotal | 2,078 | 8,479 | 2,373 | 7,862 | 9,168 |
| All other countries | 1,402 | 3,540 | 210 | 1,135 | 146 |
| Total | 3,480 | 12,019 | 2,584 | 8,997 | 9,314 |
| <i>Ratio to imports (percent)</i> | | | | | |
| Argentina | *** | *** | *** | *** | *** |
| Brazil | *** | *** | *** | *** | *** |
| China | *** | *** | *** | *** | *** |
| Average | 14.2 | 31.9 | 18.2 | 24.3 | 34.8 |
| All other countries | 8.3 | 15.3 | 1.3 | 0.0 | 0.0 |
| Average of total | 11.0 | 24.2 | 10.5 | 18.3 | 21.8 |
| <i>Ratio to U.S. shipments of Imports (percent)</i> | | | | | |
| Argentina | *** | *** | *** | *** | *** |
| Brazil | *** | *** | *** | *** | *** |
| China | *** | *** | *** | *** | *** |
| Average | 13.3 | 41.5 | 13.7 | 22.4 | 26.0 |
| All other countries | 8.9 | 17.5 | 1.5 | 7.3 | 0.1 |
| Average of total | 11.1 | 29.5 | 8.2 | 17.3 | 21.5 |
| <i>Ratio to total shipments of Imports (percent)</i> | | | | | |
| Argentina | *** | *** | *** | *** | *** |
| Brazil | *** | *** | *** | *** | *** |
| China | *** | *** | *** | *** | *** |
| Average | 13.3 | 41.3 | 13.7 | 22.4 | 26.0 |
| All other countries | 8.9 | 16.9 | 1.5 | 7.3 | 0.1 |
| Average of total | 11.1 | 28.9 | 8.2 | 17.3 | 21.5 |

Note.—Because of rounding, figures may not add to the totals shown. "Net short tons" equals short tons of contained silicon.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Figure 7

**Silicon metal: End-of-period inventories of U.S. importers,
1987-89, January-June 1989, and January-June 1990**



Source: Table 11.

Table 12
Foreign producers of silicon metal: Production capacity, production, capacity utilization, home-market shipments, and exports, by subject country, 1987-89, January-June 1989, January-June 1990, and projections for 1990 and 1991

(In short tons of contained silicon, except as noted)

| Item | 1987 | 1988 | 1989 | <u>January-June--</u> | | <u>Projections</u> | |
|------|------|------|------|-----------------------|------|--------------------|------|
| | | | | 1989 | 1990 | 1990 | 1991 |

Source: Submitted by respondents' counsel in response to a Commission request.

Argentina.--There are two producers of silicon metal in Argentina, Electrometalurgica Andina S.A.I.C. (Andina),⁴² and Silarsa, S.A.⁴³

Andina.--Andina is a diversified producer, with silicon metal accounting for *** percent of sales in its most recent fiscal year. Andina has three furnaces that can produce silicon metal.⁴⁴ ⁴⁵

Silarsa.--Silarsa began production of silicon metal in September 1990, with the placing on line of its furnace #1. Silarsa is expected to begin production on its furnace #2 in * * * 1991.⁴⁶

Brazil.--There are seven producers of silicon metal in Brazil.⁴⁷ Comprehensive data were available only for one of the seven firms, Camargo Correa Metais S.A. (CCM), with the remaining six firms' data aggregated together. Only aggregated production, home-market shipments, exports, and total shipments data were provided.⁴⁸

CCM's capacity utilization was *** percent in 1987, *** percent in 1988, and *** percent in 1989. Capacity utilization projections for 1990 and 1991 are *** percent and *** percent, respectively. Exports accounted for * * * of CCM's shipments in 1989 and *** percent in January-June 1990. The United States accounted for *** percent of CCM's exports in 1989, and *** percent in January-June 1990.

China.--No data are available on Chinese producers other than those presented in the petition. The petition alleges that capacity in China more than tripled from 35,400 tons in 1985 to 132,300 tons in 1989 and that most of the additional capacity was intended for export.⁴⁹ Commercial Metals Co., an importer, disputes these figures, arguing that Chinese capacity is difficult to determine but is unlikely to exceed 50,000 tons per year, of which less than 20,000 tons would be of a quality and grade acceptable for consumption in the United States.⁵⁰

In a recent development, on July 27, 1990, the European Community (EC) imposed a final antidumping duty on imports of silicon metal from China. Petitioners argue that this duty will divert substantial quantities of silicon metal from the EC to the United States.⁵¹

⁴² Plant located in Chimbass, San Juan Province. See, petition p. 20.

⁴³ Plant located in Lujan de Cuyo, Mendoza Province. See, petition p. 20.

⁴⁴ * * *

⁴⁵ According to counsel representing Andina, Andina's projected production capacity is *** short tons in 1990 and *** in 1991. Production is estimated to be *** short tons in 1990 and 1991. Exports to the United States are projected to equal *** percent of total shipments in 1990 and *** percent in 1991.

⁴⁶ According to counsel representing Silarsa, Silarsa's projected production capacity and production is *** short tons in 1990 and *** in 1991. Exports to the United States are projected to equal *** percent of total shipments in 1990 and *** percent in 1991.

⁴⁷ See tabulation on p. 42 listing the Brazilian producers.

⁴⁸ * * *

⁴⁹ See petition pp. 24, 78, and 79.

⁵⁰ See post-conference statement of Commercial Metals Co., p. 1.

⁵¹ See petition p. 82 and exhibits 29 and 30.

**CONSIDERATION OF THE CAUSAL RELATIONSHIP BETWEEN IMPORTS OF
THE SUBJECT MERCHANDISE AND THE ALLEGED MATERIAL INJURY**

U.S. imports

Data for U.S. imports have been compiled from official statistics of the U.S. Department of Commerce, unless otherwise noted. Table 13 and figure 8 present U.S. imports for consumption, by sources, for the period under investigation. Imports from Hong Kong and Taiwan have been included in the import data for China.⁵²

Total imports of silicon metal from all countries increased 68.3 percent from 1987 to 1988, decreased 19.1 percent from 1988 to 1989, and increased 19.9 percent during the corresponding interim periods of 1989 and 1990. The value of total imports increased 93.9 percent from 1987 to 1988, decreased 32.4 percent from 1988 to 1989, and increased 11.6 percent during the corresponding interim periods of 1989 and 1990. Figure 9 shows the distribution of U.S. imports by sources, States, and customs districts in 1989.

Argentina.--Imports of silicon metal from Argentina increased 55.0 percent from 1987 to 1988, decreased 22.3 percent from 1988 to 1989, and decreased 59.6 percent during the corresponding interim periods of 1989 and 1990. The value of imports from Argentina increased 67.2 percent from 1987 to 1988, decreased 24.6 percent from 1988 to 1989, and decreased 65.2 percent during the corresponding interim periods of 1989 and 1990.

Brazil.--Imports of silicon metal from Brazil increased 169.1 percent from 1987 to 1988, increased 28.9 percent from 1988 to 1989, and increased 154.1 percent during the corresponding interim periods of 1989 and 1990. The value of imports from Brazil increased 240.2 percent from 1987 to 1988, increased 9.7 percent from 1988 to 1989, and increased 100.4 percent during the corresponding interim periods of 1989 and 1990.

China.--Imports of silicon metal from China increased over 700 percent from 1987 to 1988, increased 12.9 percent from 1988 to 1989, and increased 11.8 percent during the corresponding interim periods of 1989 and 1990. The value of imports from China increased over 800 percent from 1987 to 1988, increased 2.1 percent from 1988 to 1989, and decreased 10.1 percent during the corresponding interim periods of 1989 and 1990.

All other countries.--Imports from all other countries increased 18.9 percent from 1987 to 1988, decreased 50.9 percent from 1988 to 1989, and decreased 30.4 percent during the corresponding interim periods of 1989 and 1990. The value of imports from all other countries increased 36.0 percent from 1987 to 1988, decreased 66.6 percent from 1988 to 1989, and decreased 6.5 percent during the corresponding interim period of 1989 and 1990.

⁵² Petitioners allege that some of the silicon metal produced in China is transshipped through Hong Kong and Taiwan. See petition at p. 59 and petitioner's brief filed in response to "request for additional evidence" dated Sept. 19, 1990. Petitioners cite a number of sources indicating that neither Hong Kong nor Taiwan has any silicon metal production capacity. This allegation, which has not been challenged by other parties, has been confirmed by several U.S. importers through their responses to related questions in the Commission's importers' questionnaire.

Table 13
Silicon metal: U.S. imports for consumption, by sources, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- 1989 | 1990 |
|--|---------------------|---------------------|--------|------------------------|--------|
| <i>Quantity (net short tons)</i> | | | | | |
| U.S. imports from: | | | | | |
| Argentina | 6,180 ¹ | 9,580 ¹ | 7,445 | 4,699 | 1,898 |
| Brazil | 4,765 ¹ | 12,822 ¹ | 16,524 | 6,286 | 15,973 |
| China ² | 1,200 ¹ | 9,685 ¹ | 10,933 | 7,141 | 7,984 |
| Subtotal | 12,146 ¹ | 32,088 ¹ | 34,902 | 18,126 | 25,855 |
| All other countries | 23,545 ¹ | 27,991 ¹ | 13,732 | 8,181 | 5,693 |
| Total imports | 35,691 ¹ | 60,078 ¹ | 48,633 | 26,307 | 31,548 |
| <i>Value³ (1,000 dollars)</i> | | | | | |
| U.S. imports from: | | | | | |
| Argentina | 6,143 | 10,274 | 7,747 | 5,099 | 1,776 |
| Brazil | 4,960 | 16,876 | 18,511 | 7,789 | 15,609 |
| China ² | 1,277 | 11,723 | 11,964 | 7,944 | 7,145 |
| Subtotal | 12,380 | 38,873 | 38,222 | 20,831 | 24,530 |
| All other countries | 25,693 | 34,946 | 11,673 | 7,042 | 6,583 |
| Total imports | 38,073 | 73,820 | 49,895 | 27,873 | 31,113 |

¹ Because import data for TSUSA item 632.8600 are available only on a "gross" rather than "net" weight basis, this figure is slightly overstated (between 0.3 and 2.0 percent).

² Includes material believed to be Chinese in origin and transshipped through Hong Kong and Taiwan. Such transshipments totaled 0 short tons in 1987, 855 short tons in 1988, 3,006 short tons in 1989, 2,195 short tons in January-June 1989, and 1,106 short tons in January-June 1990.

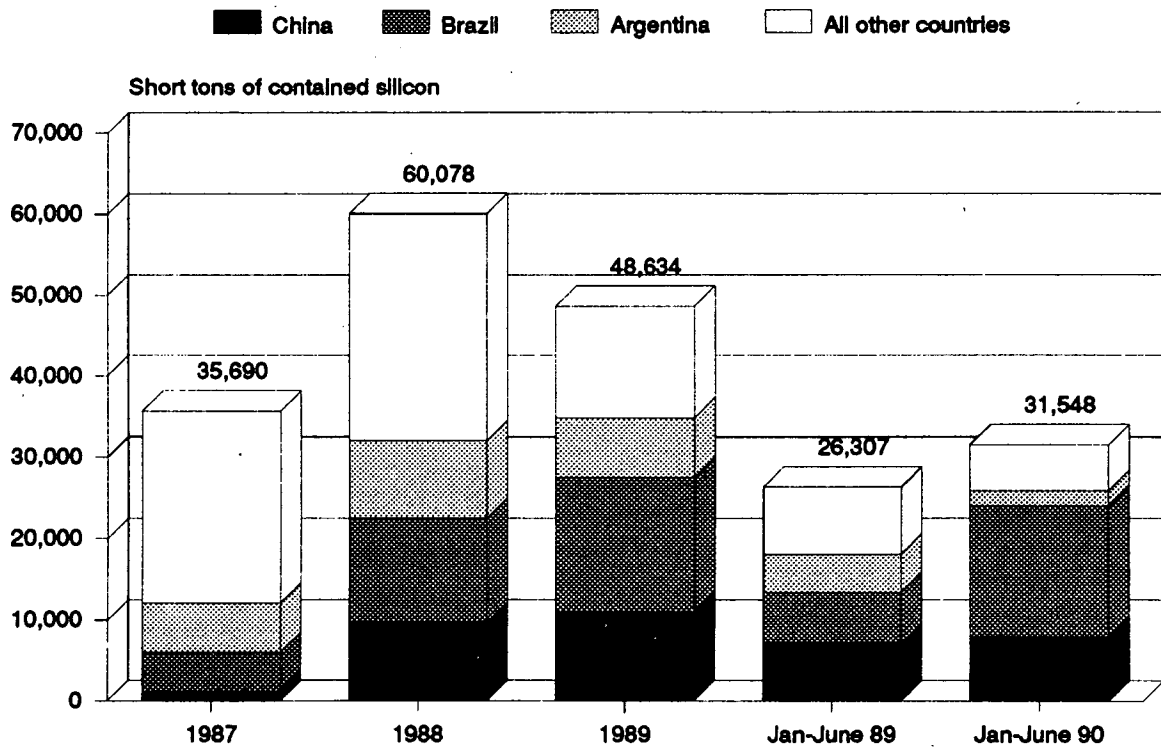
³ Landed duty-paid value.

Note.—Because of rounding, figures may not add to the totals shown. "Net short tons" equals short tons of contained silicon.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Figure 8

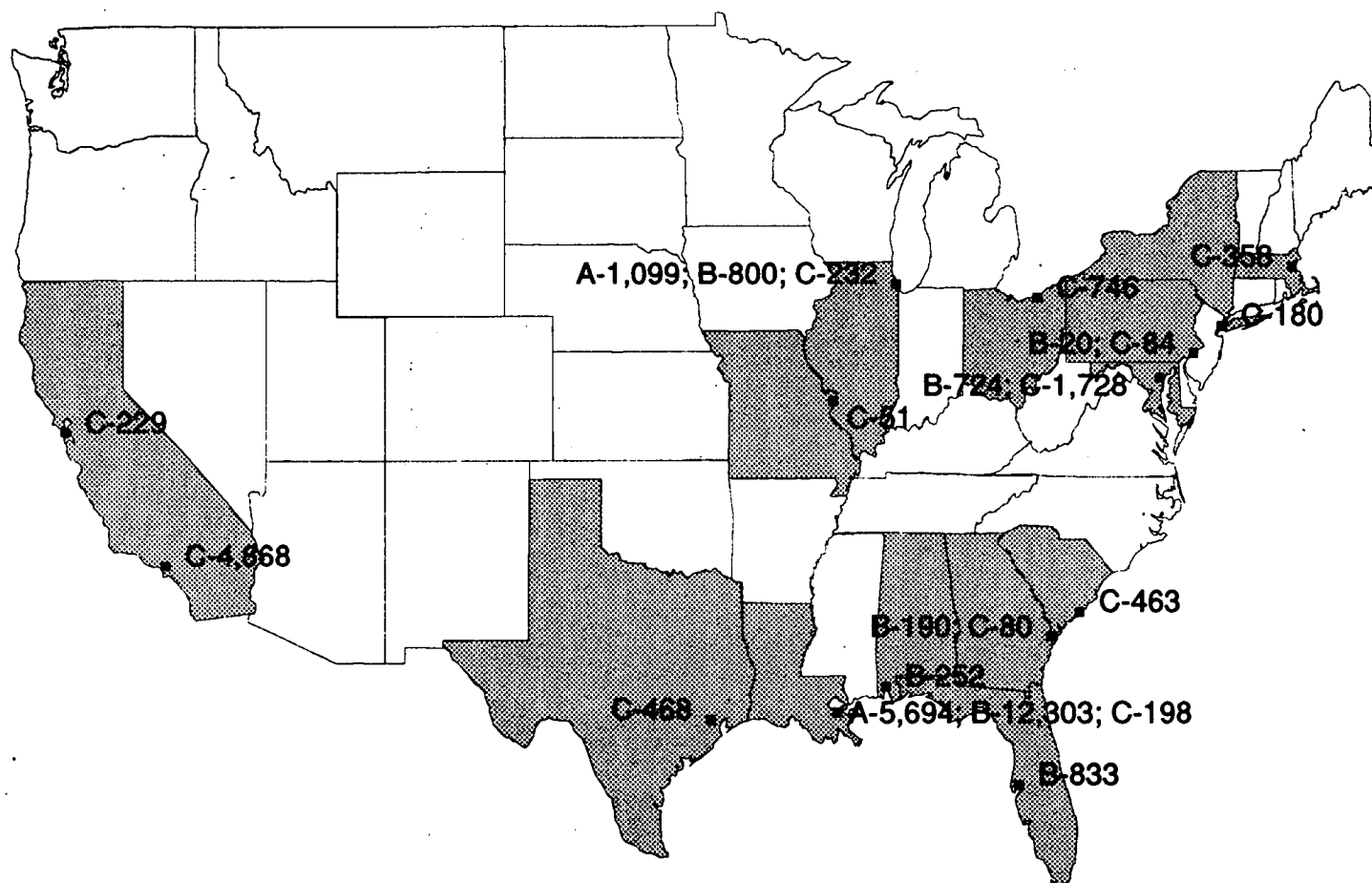
**Silicon metal: U.S. imports for consumption, by sources,
1987-89, January-June 1989, and January-June 1990**



Source: Table 13.

Figure 9

Silicon metal: Distribution of U.S. imports, by sources, States, and customs districts, 1989



Note.--Sources (A=Argentina, B=Brazil, and C=China) and quantities (in thousands of gross kilograms) are shown next to each customs district.

Source: Compiled from official statistics of the U.S. Department of Commerce.

Silicon Metal From Argentina, Brazil, and China

The following tabulation presents U.S. importers' shipments of silicon metal, by grade and subject countries in 1989:

| <u>Country/silicon metal grade</u> | <u>Percent of shipments</u> |
|---------------------------------------|-----------------------------|
| Argentina: | |
| Chemical | 0.0 |
| Secondary-aluminum | 100.0 |
| Primary-aluminum | 0.0 |
| Other | <u>0.0</u> |
| | 100.0 |
| Brazil: | |
| Chemical | *** |
| Secondary-aluminum | *** |
| Primary-aluminum | 0.0 |
| Other | <u>0.0</u> |
| | 100.0 |
| China:¹ | |
| Chemical | 0.0 |
| Secondary-aluminum | 100.0 |
| Primary-aluminum | 0.0 |
| Other | <u>0.0</u> |
| | 100.0 |
| Subject countries:¹ | |
| Chemical | *** |
| Secondary-aluminum | *** |
| Primary-aluminum | 0.0 |
| Other | <u>0.0</u> |
| | 100.0 |
| All other countries: | |
| Chemical | *** |
| Secondary-aluminum | *** |
| Primary-aluminum | 0.0 |
| Other | <u>0.0</u> |
| | 100.0 |
| Total imports: | |
| Chemical | *** |
| Secondary-aluminum | *** |
| Primary-aluminum | 0.0 |
| Other | <u>0.0</u> |
| | 100.0 |

¹ Imports from Hong Kong and Taiwan are included in the "all other countries" category.

In 1989, secondary-aluminum-grade silicon metal accounted for 100 percent of the imports from Argentina,³³ *** percent of the imports from Brazil, and 100 percent of the imports from China. The remainder of imports were chemical-grade silicon metal. None of the imports were classified as primary-aluminum-grade, or other-grade silicon metal. This differs with U.S. producers' shipments, the majority of which were classified as chemical-grade silicon metal for 1989.

U.S. market penetration by imports

Market penetration ratios by quantity and value of imports from the subject countries are presented in figures 10a and 10b, and table 14.

Total imports.--The U.S. market share of the quantity of total imports of silicon metal from all countries increased from 19.6 percent in 1987 to 28.3 percent in 1988, but declined to 24.8 percent in 1989. For the interim periods, the share of total imports increased from 25.2 percent in 1989 to 29.1 percent in the corresponding period of 1990. The U.S. market share of the value of total imports of silicon metal from all countries increased from 18.5 percent in 1987 to 27.5 percent in 1988, but declined to 21.2 percent in 1989. For the interim periods, the share of total imports increased from 22.0 percent in 1989 to 25.3 percent in the corresponding period of 1990.

Argentina.--The U.S. market share of the quantity of imports of silicon metal from Argentina increased from 3.4 percent in 1987 to 4.5 percent in 1988, but declined to 3.8 percent in 1989. For the interim periods, Argentina's share decreased from 4.5 percent in 1989 to 1.7 percent in the corresponding period of 1990. The U.S. market share of the value of imports of silicon metal from Argentina increased from 3.0 percent in 1987 to 3.8 percent in 1988, but decreased to 3.3 percent in 1989. For the interim periods, Argentina's share decreased from 4.0 percent in 1989 to 1.4 percent in the corresponding period of 1990.

Brazil.--The U.S. market share of the quantity of imports of silicon metal from Brazil increased from 2.6 percent in 1987 to 6.0 percent in 1988 and 8.4 percent in 1989. For the interim periods, Brazil's share increased from 6.0 percent in 1989 to 14.7 percent in the corresponding period of 1990. The U.S. market share of the value of imports of silicon metal from Brazil increased from 2.4 percent in 1987 to 6.3 percent in 1988 and 7.9 percent in 1989. For the interim periods, Brazil's share increased from 6.1 percent in 1989 to 12.7 percent in the corresponding period of 1990.

China.--The U.S. market share of the quantity of imports of silicon metal from China increased from 0.7 percent in 1987 to 4.6 percent in 1988 and 5.6 percent in 1989. For the interim periods, China's share increased from 6.8 percent in 1989 to 7.4 percent in the corresponding period of 1990. The U.S. market share of the value of imports of silicon metal from China increased from 0.6 percent in 1987 to 4.4 percent in 1988 and 5.1 percent in 1989. For the interim periods, China's share decreased from 6.3 percent in 1989 to 5.8 percent in the corresponding period of 1990.

³³ See product description section of this report for definitions used in classifying each silicon metal grade.

Figure 10a

Silicon metal: U.S. market penetration ratios by quantity of imports from the subject countries, 1987-89, and January-June 1990

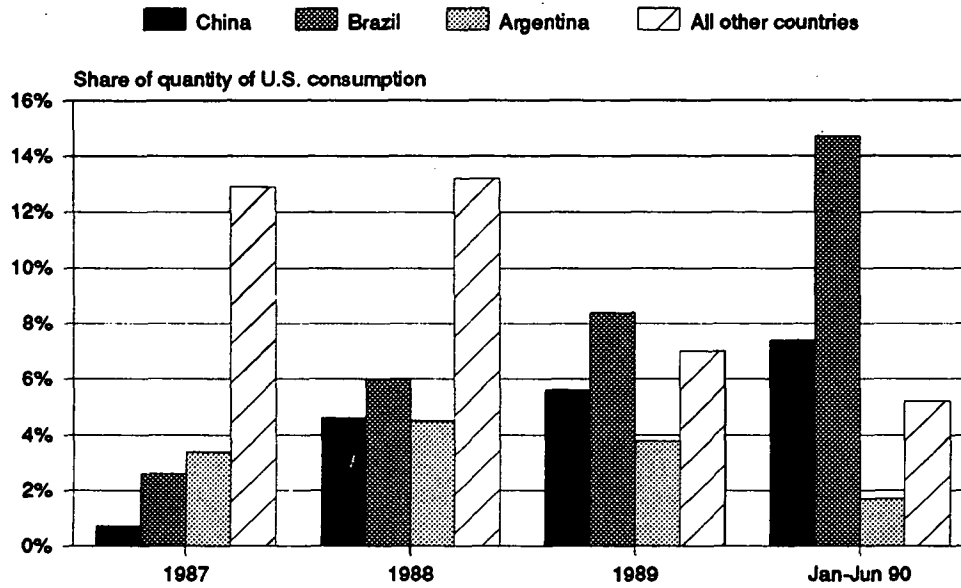
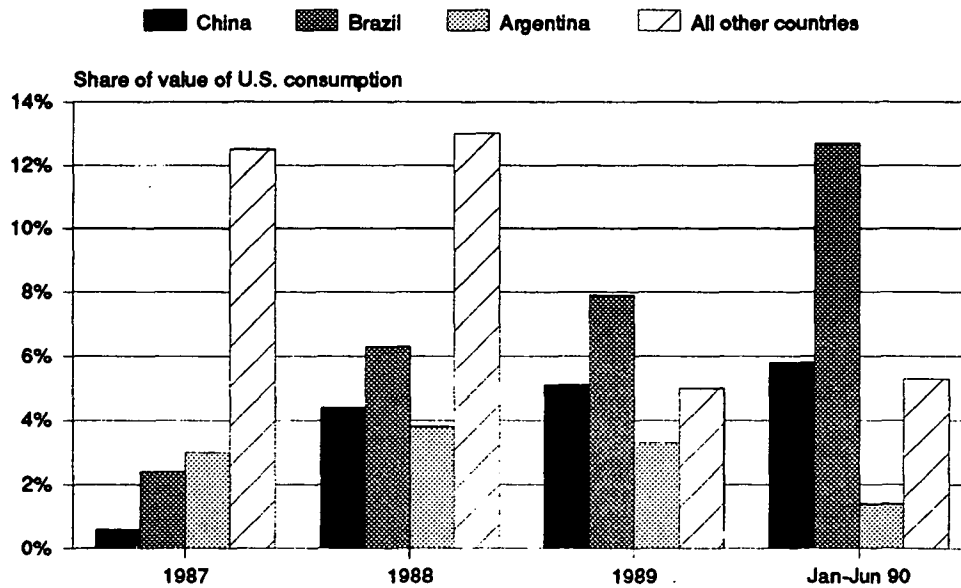


Figure 10b

Silicon metal: U.S. market penetration ratios by value of imports from the subject countries, 1987-89, and January-June 1990



Source: Table 14.

Table 14

Silicon metal: Apparent U.S. consumption, U.S. imports, and ratios of imports to consumption, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June- 1989 | 1990 |
|--|---------------------|---------------------|---------|-----------------------|---------|
| <i>Quantity (net short tons)</i> | | | | | |
| Producers' U.S. shipments | 146,323 | 152,447 | 147,521 | 78,195 | 76,987 |
| U.S. imports from: | | | | | |
| Argentina | 6,180 ¹ | 9,580 ¹ | 7,445 | 4,699 | 1,898 |
| Brazil | 4,765 ¹ | 12,822 ¹ | 16,524 | 6,286 | 15,973 |
| China ² | 1,200 ¹ | 9,685 ¹ | 10,933 | 7,141 | 7,984 |
| Subtotal | 12,146 ¹ | 32,088 ¹ | 34,902 | 18,126 | 25,855 |
| All other countries | 23,545 ¹ | 27,991 ¹ | 13,732 | 8,181 | 5,693 |
| Total imports | 35,691 ¹ | 60,078 ¹ | 48,633 | 26,307 | 31,548 |
| Apparent U.S. consumption | 182,014 | 212,525 | 196,154 | 104,502 | 108,535 |
| <i>Share of the quantity of U.S. consumption (percent)</i> | | | | | |
| Producers' U.S. shipments | 80.4 | 71.7 | 75.2 | 74.8 | 70.9 |
| U.S. imports from: | | | | | |
| Argentina | 3.4 | 4.5 | 3.8 | 4.5 | 1.7 |
| Brazil | 2.6 | 6.0 | 8.4 | 6.0 | 14.7 |
| China | 0.7 | 4.6 | 5.6 | 6.8 | 7.4 |
| Subtotal | 6.7 | 15.1 | 17.8 | 17.4 | 23.8 |
| All other countries | 12.9 | 13.2 | 7.0 | 7.8 | 5.2 |
| Total imports | 19.6 | 28.3 | 24.8 | 25.2 | 29.1 |

(Table continued)

Table 14--Continued

Silicon metal: Apparent U.S. consumption, U.S. imports, and ratios of imports to consumption, 1987-89, January-June 1989, and January-June 1990

| Item | 1987 | 1988 | 1989 | January-June-- | |
|-------------------------------------|--|---------|---------|----------------|---------|
| | | | | 1989 | 1990 |
| | Value ³ (1,000 dollars) | | | | |
| Producers' U.S. shipments | 167,905 | 194,628 | 185,780 | 99,000 | 91,973 |
| U.S. imports from: | | | | | |
| Argentina | 6,143 | 10,274 | 7,747 | 5,099 | 1,776 |
| Brazil | 4,960 | 16,876 | 18,511 | 7,789 | 15,609 |
| China ² | 1,277 | 11,723 | 11,964 | 7,944 | 7,145 |
| Subtotal | 12,380 | 38,873 | 38,222 | 20,831 | 24,530 |
| All other countries | 25,693 | 34,946 | 11,673 | 7,042 | 6,583 |
| Total imports | 38,073 | 73,820 | 49,895 | 27,873 | 31,113 |
| Apparent U.S. consumption | 205,978 | 268,448 | 235,675 | 126,873 | 123,086 |
| | Share of the value of U.S. consumption (percent) | | | | |
| Producers' U.S. shipments | 81.5 | 72.5 | 78.8 | 78.0 | 74.7 |
| U.S. imports from: | | | | | |
| Argentina | 3.0 | 3.8 | 3.3 | 4.0 | 1.4 |
| Brazil | 2.4 | 6.3 | 7.9 | 6.1 | 12.7 |
| China | 0.6 | 4.4 | 5.1 | 6.3 | 5.8 |
| Subtotal | 6.0 | 14.5 | 16.2 | 16.4 | 19.9 |
| All other countries | 12.5 | 13.0 | 5.0 | 5.6 | 5.3 |
| Total imports | 18.5 | 27.5 | 21.2 | 22.0 | 25.3 |

¹ Because import data for TSUSA item 832.8600 are available on a "gross" rather than "net" weight basis, this figure is slightly overstated (between 0.3 and 2.0 percent).

² Includes material believed to be Chinese in origin and transshipped through Hong Kong and Taiwan. Such transshipments totaled 0 short tons in 1987, 855 short tons in 1988, 3,006 short tons in 1989, 2,195 short tons in January-June 1989, and 1,106 short tons in January-June 1990.

³ Landed duty-paid value.

Note.--Because of rounding, figures may not add to the totals shown. "Net short tons" equals short tons of contained silicon.

Source: U.S. producers' shipments compiled from data submitted in response to questionnaires of the U.S. International Trade Commission. U.S. imports compiled from official statistics of the U.S. Department of Commerce.

All other countries.--The U.S. market share of the quantity of imports of silicon metal from all other countries increased from 12.9 percent in 1987 to 13.2 percent in 1988, but decreased to 7.0 percent in 1989. For the interim periods, the share of imports from all other countries decreased from 7.8 percent in 1989 to 5.2 percent in the corresponding period of 1990. The U.S. market share of the value of imports of silicon metal from all other countries increased from 12.5 percent in 1987 to 13.0 percent in 1988, but decreased to 5.0 percent in 1989. For the interim periods, the share for imports from all other countries decreased from 5.6 percent in 1989 to 5.3 percent in the corresponding period of 1990.

Prices

Silicon metal is sold to three types of customers--primary aluminum manufacturers, secondary aluminum manufacturers, and chemical producers.⁵⁴ The demand for silicon metal tends to follow demand trends in markets of products that use large amounts of aluminum, such as the automobile market. As a result, the demand for silicon metal tends to be cyclical. In the chemical market, there are many uses for silicon metal; therefore, it is more difficult to relate trends in its demand to trends in the demand for any one product or group of products.⁵⁵ The overall demand for silicon metal was high during late 1987 and 1988 but it declined in 1989 and 1990. Demand in the chemical market, however, has generally increased during the past few years.⁵⁶

Silicon metal can be produced to different specifications, which vary from customer to customer. Although the industry commonly refers to ranges of such specifications as grades (i.e., metallurgical and chemical grade), there is actually no standard classification system. Generally, secondary aluminum producers have the least stringent requirements, thus, they can purchase silicon metal that contains more impurities than material purchased by primary aluminum and chemical companies.⁵⁷ Primary aluminum and chemical manufacturers tend to have more stringent product specifications, require higher standards, and thus, often pay higher prices.⁵⁸

Producers and importers disagree on the issue of product quality comparability. Whereas 5 of the 7 responding producers indicated that the quality of domestic and imported silicon metal is generally comparable, the majority of importers (i.e., 6 of 10) stated that there are quality differences. Most of the alleged discrepancies in quality relate to the Chinese product. In the past, the quality of the Chinese product reportedly has been lower than that of the domestic product; cited problems with the Chinese product include a lower silicon content (i.e., below 98 percent); higher levels of impurities, such as iron and calcium; and inconsistent product size. Industry sources indicate, however, that the

⁵⁴ Secondary aluminum producers manufacture aluminum from scrap, whereas primary aluminum companies make aluminum from ore. Chemical companies use silicon metal in the production of other products.

⁵⁵ Petitioners' postconference submission, p. 20.

⁵⁶ Petitioners' postconference submission, p. 20, and transcript of the conference, pp. 96-97.

⁵⁷ All types of silicon metal customers can use a product with high levels of silicon and low levels of impurities; however, they cannot use silicon metal that has a lower silicon content or higher impurities than their specific requirements (transcript of the conference, p. 13).

⁵⁸ U.S. producers argue that the prices in the secondary aluminum producers' segment of the market have a "ripple effect" into the other two segments. U.S. producers assert that chemical and primary aluminum companies are aware of the prices paid in the secondary aluminum market and that those companies try to use the secondary aluminum prices as a guideline in their negotiations with U.S. producers (transcript of the conference, p. 20).

quality of the Chinese product has improved during the past few years and has become more acceptable to U.S. purchasers.⁵⁹ Although the quality of silicon metal imported from Argentina and Brazil tends to be comparable to that of the U.S. product in the secondary aluminum market, only small quantities, if any, have been sold to primary aluminum or chemical manufacturers.⁶⁰ These purchasers have stricter product specifications than secondary aluminum producers and the imports have had trouble meeting the requirements.⁶¹

Silicon metal can be sold in either bulk or packaged form. It is shipped in various types of containers, such as wooden pallet boxes, drums, and supersacks.⁶² Some purchasers request a particular type of container.⁶³ However, packaging is not generally considered an important factor in a purchaser's decision. Although many producers and importers reported that the cost of the container is not included in the price of the silicon metal, some stated that there is often no extra charge for packaging because of competitive pressures.

Silicon metal is generally shipped by truck or rail. U.S. producers reported using both of these modes of transportation, while importers reported using trucks for the majority of their shipments. Transportation costs are usually paid by the supplier and are generally in the range of \$0.01 to \$0.02 per pound (prices are generally \$0.56-\$0.70 per pound). Leadtimes for delivery vary from supplier to supplier, with U.S. producers averaging 1 to 14 days and importers averaging anywhere from 1 week to 2 months.

Before silicon metal is purchased by chemical manufacturers it must be qualified for use.⁶⁴ This procedure can be lengthy, lasting anywhere from 3 to 12 months. First, chemical companies make a test run of the silicon metal to determine how it behaves in the reactors and in the company's production process. If the silicon metal works properly, then a larger sample is tested. After successful completion of all trial runs, the supplier is considered a qualified source.⁶⁵ Because of the time required to qualify suppliers, switching sources may be difficult unless the potential new supplier is already qualified.

Silicon metal is sold both on a spot and contract basis. Although there are some short-term contracts for the secondary aluminum market segment (i.e., 3-month agreements), the majority of sales are done on a spot basis. Most sales to primary aluminum producers are made without a formal contract; however, some formal agreements are made. These agreements, usually 6 months in length, generally set the price, quantity, and delivery times. Although prices are negotiated between the supplier and the purchaser, formal bidding procedures are not typical.

⁵⁹ Transcript of the conference, pp. 26 and 137, and questionnaire responses.

⁶⁰ The Chinese silicon metal also was not sold to chemical manufacturers or primary aluminum companies during the period of investigation.

⁶¹ For example, CCM, a Brazilian producer, stated that its product contains too much titanium to be acceptable to the U.S. chemical consumers (transcript of the conference, p. 101). However, * * *.

⁶² Supersacks are large bags often lined with plastic.

⁶³ For example, one producer reported that chemical customers request finely ground silicon. This material is shipped to these customers in drums and lined supersacks.

⁶⁴ Primary aluminum manufacturers also have a qualification process; however, it is much shorter and less involved. Secondary aluminum producers generally do not have qualification processes.

⁶⁵ Transcript of the conference, pp. 45-46.

Sales to chemical manufacturers are nearly always done on a contract basis. Agreements in this market segment are usually made after lengthy negotiations between the purchaser and supplier. The time frames of the contracts are longer, ranging anywhere from 6 months to several years.⁶⁶ Although the price of the silicon metal is usually set in advance, it can change during the course of the contract. Some contracts contain "meet or release" clauses that affect the price and others contain stipulations for yearly price reviews.

Some U.S. producers reported having price lists; however, they also reported that they often cannot adhere to these list prices because of competitive pressures. None of the responding importers reported that it publishes price lists. Prices for silicon metal sold in the secondary aluminum market are published in the magazine *Metals Week*. These prices are sometimes used as a guide in price negotiations.

Spot price trends.--The Commission requested price and quantity information from U.S. producers and importers on their spot sales of silicon metal to the three purchaser groups in this market.⁶⁷ Product specifications for which pricing data were requested differ for each group of purchaser. The product definitions are as follows:

For sales to Secondary Aluminum Producers.--Silicon metal that contains a minimum of 98.0% silicon; a maximum of 1.00% iron; a maximum of 0.40% calcium; and no restriction on the aluminum content.

For sales to Primary Aluminum Producers.--Silicon metal that contains a minimum of 98.5% silicon; a maximum of 1.00% iron; a maximum of 0.07% calcium; and no restriction on the aluminum content.

For sales to Chemical Manufacturers.--Silicon metal that contains a minimum of 98.5% silicon; a maximum of 0.65% iron; a maximum of 0.20% calcium; and a minimum of 0.35% aluminum.

These specifications are defined in order to represent the specific requirements of each group of consumers.⁶⁸ Usable spot pricing data were received from six producers and seven importers.⁶⁹ The products for which pricing data were reported accounted for approximately 50 percent of U.S. producers' shipments during 1989. They accounted for approximately 46, 39, and 61 percent of imports from Argentina, Brazil, and China, respectively, during 1989.

⁶⁶ The majority of contracts in the chemical market range from 6 to 15 months. * * * .

⁶⁷ Prices in the silicon metal market are quoted on the basis of dollars per pound of contained silicon.

⁶⁸ Because there is no uniformly accepted grade classification system, the actual specifications of the products reported by producers and importers may vary slightly. However, they fall within the defined ranges of contained silicon and impurities.

⁶⁹ * * * .

Sales to secondary aluminum producers.--Weighted-average delivered prices for U.S.-produced silicon metal sold to secondary aluminum producers increased irregularly during the period of investigation (table 15).⁷⁰ Prices for the domestic product increased steadily from January-March 1987 to January-March 1989, rising 24.1 percent during that period. Prices fell during 1989 before rising slightly during January-June 1990. Overall, prices for domestic silicon metal sold to secondary aluminum producers were 7.4 percent higher in April-June 1990 than they were in January-March 1987.

Table 15

Silicon metal: Weighted-average delivered prices for U.S.-produced silicon metal and silicon metal imported from Argentina, Brazil, and China for sales to secondary aluminum producers,¹ by quarters, January 1987-June 1990

| <i>Period</i> | <i>U.S.</i> | <i>Argentina</i> | <i>Brazil</i> | <i>China</i> |
|---------------------------------------|-------------|------------------|---------------|--------------|
| <i>Per pound of contained silicon</i> | | | | |
| 1987: | | | | |
| January-March | \$0.54 | *** | \$0.55 | *** |
| April-June | .56 | *** | .57 | *** |
| July-September | .58 | *** | .57 | *** |
| October-December | .59 | *** | .58 | *** |
| 1988: | | | | |
| January-March | .62 | *** | .60 | *** |
| April-June | .63 | *** | .66 | *** |
| July-September | .66 | *** | .65 | *** |
| October-December | .66 | *** | .66 | *** |
| 1989: | | | | |
| January-March | .67 | *** | .64 | *** |
| April-June | .64 | *** | .59 | *** |
| July-September | .58 | *** | .58 | *** |
| October-December | .53 | *** | .53 | *** |
| 1990: | | | | |
| January-March | .56 | *** | .51 | *** |
| April-June | .58 | *** | .54 | *** |

¹ For product specifications see the beginning of section entitled "Spot price trends."

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

⁷⁰ Delivered prices are analyzed in this report because all producers and importers reported that transportation costs are paid by the supplier.

Prices for the imported product showed a similar trend. Weighted-average delivered prices for silicon metal imported from Argentina and sold to secondary aluminum producers rose *** percent from January-March 1987 through October-December 1988. Prices declined irregularly through the first quarter of 1990 but then increased in April-June 1990. Prices for imports from Argentina were *** percent higher in April-June 1990 than they were in January-March 1987.

Delivered prices for silicon metal imported from Brazil and sold to secondary aluminum producers increased 20 percent from January-March 1987 through October-December 1988. These prices declined steadily until April-June 1990, when they then increased slightly. Overall, prices for silicon metal imported from Brazil were 1.8 percent lower in April-June 1990 than they were in January-March 1987.

Prices for silicon metal imported from China and sold in the secondary aluminum market increased *** percent from July-September 1987 to October-December 1988 and then decreased steadily, falling *** percent from January-March 1989 to April-June 1990, with no recovery. Prices for the Chinese product were *** percent lower in the second quarter of 1990 than they were in the third quarter of 1987.

Sales to primary aluminum producers.--Prices for sales to these customers were only reported by U.S. producers (table 16).⁷¹ These prices increased steadily from January-March 1987 to the same quarter of 1989, rising 30.4 percent during that time. Prices then declined 20.5 percent from the first quarter of 1989 to the first quarter of 1990, but then rose slightly in April-June 1990. Overall, prices were 5.4 percent higher at the end of the period of investigation than they were at the beginning.

Sales to chemical manufacturers.--Virtually all sales to this market segment are on a contract basis; however, several U.S. producers reported that they could not provide information on initial and final bids. Therefore, they supplied price and quantity information on a quarterly basis; these data are presented in table 16.⁷² Prices for U.S.-produced silicon metal sold to chemical manufacturers increased 16.9 percent from January-March 1987 to October-December 1988. These prices decreased in the first and third quarters of 1988 and were stable from the third quarter of 1988 to the second quarter of 1990. Overall, prices were 6.8 percent higher at the end of the period than they were in the beginning.

Prices reported by * * * .

Price comparisons.--Price comparisons between domestic and imported silicon metal are shown in table 17. In the secondary aluminum market, prices for silicon metal imported from Argentina were below those of the domestic product in seven quarters, with margins ranging from 1.4 to 5.2 percent. In the remaining seven quarters, imports from Argentina were priced higher than the domestic product, with margins ranging from 0.4 to 12.3 percent. In 11 of the 14 quarters where price comparisons were possible, the Brazilian product undersold the domestic product by between 0.1 and 8.4 percent. In the remaining three quarters, the Brazilian product was priced between 0.4 and 5.1 percent higher than the domestic product. The Chinese product was priced below the domestic product in 8 out of 12 quarters, with margins ranging from 0.5 to 15.0 percent. In three quarters, the Chinese product was priced

⁷¹ As stated earlier, many importers reported that they do not sell their products to primary aluminum manufacturers.

⁷² * * * .

Table 16

Silicon metal: Weighted-average delivered prices for U.S.-produced silicon metal and silicon metal imported from Brazil for sales to primary aluminum producers and chemical manufacturers,¹ by quarters, January 1987-June 1990

| Period | Primary aluminum market | Chemical manufacturer market | |
|--------------------------------|-------------------------|------------------------------|--------|
| | U.S. | U.S. | Brazil |
| Per pound of contained silicon | | | |
| 1987: | | | |
| January-March | \$0.56 | \$0.59 | *** |
| April-June | .58 | .60 | *** |
| July-September | .61 | .62 | *** |
| October-December | .62 | .61 | *** |
| 1988: | | | |
| January-March | .64 | .62 | *** |
| April-June | .70 | .66 | *** |
| July-September | .70 | .68 | *** |
| October-December | .71 | .69 | *** |
| 1989: | | | |
| January-March | .73 | .68 | *** |
| April-June | .68 | .68 | *** |
| July-September | .64 | .63 | *** |
| October-December | .58 | .63 | *** |
| 1990: | | | |
| January-March | .58 | .63 | *** |
| April-June | .59 | .63 | *** |

¹ For product specifications see the beginning of section entitled "Spot price trends."

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Table 17

Silicon metal: Margins of under/(over) selling reported by U.S. producers and importers for sales of silicon metal made to secondary aluminum producers and chemical manufacturers,¹ by quarters, January 1987-June 1990

| Period | Secondary aluminum market | | | Chemical manufacturer market |
|------------------|---------------------------|--------|-------|------------------------------------|
| | Argentina | Brazil | China | Brazil |
| (In percent) | | | | |
| 1987: | | | | |
| January-March | *** | (1.5) | *** | *** |
| April-June | *** | (0.4) | *** | *** |
| July-September | *** | 2.1 | *** | *** |
| October-December | *** | 2.3 | *** | *** |
| 1988: | | | | |
| January-March | *** | 3.4 | *** | *** |
| April-June | *** | (5.1) | *** | *** |
| July-September | *** | 1.3 | *** | *** |
| October-December | *** | 0.5 | *** | *** |
| 1989: | | | | |
| January-March | *** | 4.7 | *** | *** |
| April-June | *** | 6.9 | *** | *** |
| July-September | *** | 0.2 | *** | *** |
| October-December | *** | 0.1 | *** | *** |
| 1990: | | | | |
| January-March | *** | 8.4 | *** | *** |
| April-June | *** | 7.8 | *** | *** |

¹ For product specifications see the beginning of section entitled "Spot price trends."

Note.—Percentage margins are calculated from unrounded figures; thus, margins cannot always be directly calculated from the rounded prices in the table.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

between 0.6 and 11 percent higher than the domestic product. In one quarter, the domestic and Chinese product were priced the same.

In the chemical market, Brazilian silicon metal * * * .

Bid information.--The Commission requested bid and price information from U.S. producers and importers on contracts or agreements made by each firm to supply silicon metal during the period January 1988-June 1990. Three U.S. producers provided usable information; no importers provided any usable data. Information submitted by these U.S. producers is presented in table 18 and discussed below, by purchaser.⁷³

Information obtained indicates that initial bids are generally accepted; however, prices are often adjusted during the length of the contract. Therefore, initial bids are presented in table 18 and any subsequent price changes are discussed in the text. Staff contacted the purchasers involved in these negotiations.

* * * .-- * * * .

* * * .-- * * * .

* * * .-- * * * .

* * * .-- * * * .

* * * .-- * * * .

Lost sales and lost revenues

The Commission received lost sales and lost revenue allegations from *** U.S. producers-- * * * . No allegations were made concerning imports of silicon metal from Argentina. The 19 lost sales allegations pertaining to imports from Brazil totaled approximately \$4.6 million and involved approximately 3,565 tons of silicon metal. The one lost sale allegation involving imports from China totaled approximately \$*** and involved approximately *** tons of silicon metal. Twenty-nine allegations were submitted that concerned imports from both Brazil and China; these allegations totaled

⁷³ Bid information presented in the table consists of those contracts or agreements that were for time periods of at least 3 months. Information submitted concerning monthly sales agreements is not included.

Table 18
Silicon metal: Selected bid information as reported by U.S. producers and importers, January 1987-June 1990

| Purchaser and type of purchaser | Firms providing bids | Country of origin | Initial bid | Date of initial bid | Shipments | | 1989 Value | 1989 Volume | 1990 Value | 1990 Volume |
|---------------------------------------|----------------------------|-------------------------|----------------|---------------------------|-----------|--------|---------------|----------------|---------------|----------------|
| | | | | | 1988 | | | | | |
| | | | | | Value | Volume | | | | |
| | | | | | (000's) | (Tons) | (000's) | (Tons) | (000's) | (Tons) |

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

approximately \$8.1 million and involved 6,644 tons of silicon metal. These producers also alleged that they lost revenues of \$299,421 and \$12,474 from competition from Brazilian and Chinese silicon metal, respectively. The lost revenues concerning Brazil and China involved 7,088 and *** tons, respectively. Thirteen lost revenue allegations were submitted that involved both imports from Brazil and China; these allegations totaled \$281,642 and involved 1,454 tons. Staff contacted three purchasers; a summary of the information obtained is discussed below.⁷⁴

*** was named by *** and *** in 11 lost sales and 5 lost revenue allegations. The lost sales allegations totaled \$*** and involved *** tons of silicon metal allegedly purchased from Brazilian and Chinese suppliers. These two producers also claim that they lost revenues of \$*** on sales of *** tons of silicon metal due to competition from Brazilian and Chinese imports. ***, spokesman for ***, denied these allegations. *** reported that the company does purchase silicon metal from Brazil and China; however, he stated that price was not the reason that the imports were purchased. According to ***, the company purchased virtually all domestic silicon metal until ***. In ***, *** was informed by its domestic suppliers that they were sold out and could not fill *** requirements. *** stated that *** was forced to buy imported silicon metal in order to maintain its level of production. *** reported that the company now purchases imported silicon metal in order to maintain a reliable source of supply. *** added that he generally informs suppliers the price at which he will purchase silicon metal. If the supplier can meet that price and deliver the product then *** will purchase from that supplier. It is important to *** to get the lowest price for silicon metal in order to remain competitive in the secondary aluminum market.

*** was named in seven lost sales and one lost revenue allegation by ***, ***, and ***. The seven lost sales allegations totaled approximately \$***, while the lost revenue allegation totaled \$***.^{75 76} *** stated that the company has switched to purchasing more imported product because it is less expensive than domestic silicon metal. *** stated that approximately *** percent of *** requirements had been accounted for by purchases of domestic product in the past few years; however, the percentage of domestic purchases has recently decreased to about *** percent. According to ***, domestic producers were trying to maintain a price of \$*** per pound in 1990; in early 1989, prices were around \$*** per pound. *** also stated that the quality of silicon metal from Brazil and Argentina are comparable. However, *** stated that ***.

*** was named by ***, ***, ***, and *** in five lost sales allegations and eight lost revenue allegations concerning imports from Brazil and China.⁷⁷ The lost sales allegations totaled approximately \$*** and involved *** tons, while the lost revenue allegations totaled *** and involved *** tons of silicon metal. *** stated that *** did increase purchases of the imported product. *** reported that U.S. producers came to him in *** and asked for a \$*** per pound price increase. *** stated that *** could not afford that increase and it began to purchase more imported material. *** denied the lost revenue allegation, stating that prices for domestic and imported silicon

⁷⁴ The allegations discussed in this section account for approximately *** percent (based on quantity) of the total lost sales reported and approximately *** percent (based on quantity) of the lost revenues. ***.

⁷⁵ ***.

⁷⁶ ***.

⁷⁷ ***.

metal were similar in * * * , therefore it was not necessary for * * * to ask U.S. producers for lower prices to compete with imports.⁷⁸

Exchange rates

Quarterly data reported by the International Monetary Fund indicate that the currencies of two of the three countries subject to these investigations depreciated sharply in relation to the U.S. dollar over the period from January-March 1987 through April-June 1990 (table 19).⁷⁹ ⁸⁰ The nominal values of the Argentine and Brazilian currencies both depreciated by nearly 100 percent vis-a-vis the dollar.

When adjusted for movements in producer price indexes in the United States and the specified countries, the real value of the Argentine currency depreciated by 57.2 percent against the dollar, while the Brazilian currency appreciated by 47.8 percent relative to the dollar during the periods for which data were collected.

⁷⁸ * * * .

⁷⁹ International Financial Statistics, August 1990.

⁸⁰ The exchange rate for the People's Republic of China is determined by the Government of China rather than the free market. Therefore, meaningful exchange rate data for the Chinese currency cannot be presented.

Table 19
Exchange rates:¹ Indexes of nominal and real exchange rates of selected currencies and indexes of producer prices in specified countries,² by quarters, January 1987-June 1990

| Period | U.S. producer price index | <u>Argentina</u> | | | <u>Brazil</u> | | |
|----------------------------|------------------------------------|----------------------------|-----------------------------------|---|----------------------------|-----------------------------------|---|
| | | Producer price index | Nominal exchange rate index | Real exchange rate index ³ | Producer price index | Nominal exchange rate index | Real exchange rate index ³ |
| 1987: | | | | | | | |
| January-March | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| April-June | 101.6 | 115.5 | 87.0 | 98.9 | 178.9 | 58.1 | 102.2 |
| July-September | 102.8 | 155.5 | 65.1 | 98.5 | 258.3 | 38.3 | 96.3 |
| October-December | 103.3 | 242.4 | 40.9 | 96.1 | 354.1 | 30.0 | 102.9 |
| 1988: | | | | | | | |
| January-March | 103.9 | 321.8 | 32.0 | 99.0 | 572.2 | 19.6 | 107.8 |
| April-June | 105.5 | 539.9 | 20.6 | 105.3 | 987.3 | 11.8 | 110.8 |
| July-September | 107.1 | 1,021.4 | 12.5 | 119.5 | 1,819.9 | 6.7 | 113.3 |
| October-December | 107.6 | 1,283.0 | 11.1 | 129.9 | 3,725.7 | 3.4 | 116.3 |
| 1989: | | | | | | | |
| January-March | 109.9 | 1,594.5 | 9.7 | 140.3 | 6,968.6 | 1.9 | 117.9 |
| April-June | 111.9 | 7,526.5 | 1.1 | 71.0 | 8,995.8 | 1.6 | 125.9 |
| July-September | 111.5 | 45,408.0 | 0.2 | 91.5 | 21,158.9 | 0.7 | 133.9 |
| October-December | 111.9 | 56,608.8 | 0.2 | 76.8 | 61,222.7 | 0.3 | 147.8 |
| 1990: | | | | | | | |
| January-March | 113.5 | 117,534.0 ⁴ | (s) | 42.8 ⁴ | (s) | (s) | (s) |
| April-June | 113.2 | (s) | (s) | (s) | (s) | (s) | (s) |

¹ Exchange rates expressed in U.S. dollars per unit of foreign currency.

² Producer price indexes, intended to measure final product prices, are based on period-average quarterly indexes presented in line 63 of the *International Financial Statistics*.

³ The real exchange rate is derived from the nominal rate adjusted for relative movements in producer prices in the United States and the specified countries.

⁴ Derived from Argentine price data reported for January only.

⁵ Less than 0.05 percent.

⁶ Not available.

Note.—January-March = 100.0. The real exchange rates are calculated from unrounded figures; thus, they cannot always be directly calculated from the rounded nominal exchange rates and the producer price indexes.

Source: International Monetary Fund, *International Financial Statistics*, August 1990.

Appendix A

U.S. International Trade Commission's
Federal Register notice

INTERNATIONAL TRADE COMMISSION

[Invs. Nos. 701-TA-304 and 731-TA-470-472 (Preliminary)]

**Institution, Silicon Metal From
Argentina, Brazil, and The People's
Republic of China**

AGENCY: International Trade
Commission.

ACTION: Institution of a preliminary
countervailing duty and antidumping
investigations, and scheduling of a
conference to be held in connection with
these investigations.

SUMMARY: The Commission hereby gives
notice of the institution of preliminary
countervailing duty investigation No.
701-TA-304 (Preliminary) under section
703(a) of the Tariff Act of 1930 (19 U.S.C.
1671b(a)) to determine whether there is
a reasonable indication that an industry
in the United States is materially
injured, or is threatened with material
injury, or the establishment of an
industry in the United States is
materially retarded, by reason of
imports from Brazil of silicon metal,¹

¹ The products subject to these investigations are known to petitioners and in the U.S. market as silicon metal. They contain, by weight, from 96 to less than 99.99 percent of silicon (products containing 99.99 percent or more of silicon are known as semiconductor-grade silicon metal and are not subject to the investigations). For tariff

that are alleged to be subsidized by the Government of Brazil. As provided in section 703(a), the Commission must complete preliminary countervailing duty investigations in 45 days, or in this case by October 9, 1990.

The Commission hereby also gives notice of the institution of preliminary antidumping investigations Nos. 731-TA-470-472 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Argentina, Brazil, and the People's Republic of China of silicon metal,² that are alleged to be sold in the United States at less than fair value. As provided in section 733(a), the Commission must complete preliminary antidumping investigations in 45 days, or in this case by October 9, 1990.

For further information concerning the conduct of these investigations and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and B (19 CFR part 207), and part 201, subparts A through E (19 CFR part 201).

EFFECTIVE DATE: August 24, 1990.

FOR FURTHER INFORMATION CONTACT:
Fred Rogoff (202-252-1179), Office of
Investigations, U.S. International Trade
Commission, 500 E Street SW.,
Washington, DC 20436. Hearing-
impaired individuals are advised that
information on this matter can be
obtained by contacting the
Commission's TDD terminal on 202-252-
1810. Persons with mobility impairments
who will need special assistance in
gaining access to the Commission
should contact the Office of the
Secretary at 202-252-1000.

SUPPLEMENTARY INFORMATION:

Background. These investigations are
being instituted in response to a petition
filed on August 24, 1990 by the
merchant-producer members of the U.S.
silicon metal industry.³

purposes, however, the Harmonized Tariff Schedule of the United States (HTS) defines the subject products as the chemical element silicon, rather than silicon metal. They are provided for in HTS subheadings 2804.69.10 and 2804.69.50 (previously in items 632.42 and 632.86 of the former Tariff Schedules of the United States).

² See footnote number 1 on page 1 for product definitions and tariff schedules of items included in these investigations.

³ The merchant-producer members of the U.S. silicon metal industry include: American Alloys, Inc., Pittsburgh, PA; Elkem Metals Company, Pittsburgh, PA; Globe Metallurgical, Inc., Cleveland, OH.

Participation in the investigations.

Persons wishing to participate in these investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than seven (7) days after publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Public service list. Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to these investigations upon the expiration of the period for filing entries of appearance. In accordance with §§ 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each public document filed by a party to the investigations must be served on all other parties to the investigations (as identified by the public service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Limited disclosure of business proprietary information under a protective order and business proprietary information service list. Pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)), the Secretary will make available business proprietary information gathered in these preliminary investigations to authorized applicants under a protective order, provided that the application be made not later than seven (7) days after the publication of this notice in the Federal Register. A separate service list will be maintained by the Secretary for those parties authorized to receive business proprietary information under a protective order. The Secretary will not accept any submission by parties containing business proprietary information without a certificate of service indicating that it has been served on all the parties that are authorized to receive such information under a protective order.

Conference. The Director of Operations of the Commission has scheduled a conference in connection with these investigations for 9:30 a.m. on Friday, September 14, 1990 at the U.S. International Trade Commission

Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Fred Rogoff (202-252-1179) not later than Tuesday, September 11, 1990 to arrange for their appearance. Parties in support of the imposition of countervailing duties and/or antidumping duties in these investigations, and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference.

Written submissions. Any person may submit to the Commission on or before Tuesday, September 18, 1990, a written brief containing information and arguments pertinent to the subject matter of the investigations, as provided in § 207.15 of the Commission's rules (19 CFR § 207.15). If briefs contain business proprietary information, a nonbusiness proprietary version is due Wednesday, September 19, 1990. A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the rules (19 CFR 201.8). All written submissions except for business proprietary data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any information for which business proprietary treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Business Proprietary Information." Business proprietary submissions and requests for business proprietary treatment must conform with the requirements of §§ 201.6 and 207.7 of the Commission's rules (19 CFR 201.6 and 207.7).

Parties which obtain disclosure of business proprietary information pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)) may comment on such information in their written brief, and may also file additional written comments on such information no later than Friday, September 21, 1990. Such additional comments must be limited to comments on business proprietary information received in or after the written briefs. A nonbusiness proprietary version of such additional comments is due Monday, September 24, 1990.

Authority: These investigations are being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.12 of the Commission's rules (19 CFR 207.12).

Issued: August 30, 1990.

By order of the Commission.

Kenneth R. Mason,
Secretary.

[FR Doc. 90-20910 Filed 9-5-90; 8:45 am]
BILLING CODE 7020-01-M

Appendix B

Calendar of the public conference

CALENDAR OF THE PUBLIC CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission's conference:

Subject: Silicon Metal from Argentina, Brazil,
and the People's Republic of China

Invs. Nos.: 701-TA-304 (Preliminary)
731-TA-470-472 (Preliminary)

Date and Time: September 14, 1990 - 9:30 a.m.

Sessions were held in connection with the investigations in the Main Hearing Room (room 101), United States International Trade Commission, 500 E Street, SW, Washington, DC.

In Support of the Imposition of Antidumping and Countervailing Duties

Squire, Sanders & Dempsey--Counsel
Washington, DC

On behalf of--

American Alloys, Inc., Pittsburgh, PA
Elkem Metals Co., Pittsburgh, PA
Globe Metallurgical, Inc., Cleveland, OH
Silicon Metaltech, Inc., Seattle, WA
SiMETCO, Inc., Canton, OH
SKW Alloys, Inc., Niagara Falls, NY

Ronald Cunningham, President, SiMETCO, Inc.

Gary R. Korecky, Vice President - Marketing and Sales, Silicon
Metaltech, Inc.

Kenneth R. Button, Vice President, Economic Consulting Services, Inc.

William D. Kramer)
)--OF COUNSEL
Ritchie T. Thomas)

CALENDAR OF THE PUBLIC CONFERENCE--Continued

In Opposition to the Imposition of Antidumping and Countervailing Duties

Kaplan Russin & Vecchi
Washington, DC
and
Allende & Brea (Co-counsel)

On behalf of--
Electrometalurgica Andina, S.A.I.C.
Silarsa S.A.

Michael J. Ian, Director, Silarsa S.A., and President, Axel Johnson Ore & Metals, Inc.

Kathleen F. Patterson)
)--OF COUNSEL
Carlos Alfaro)

Dow, Lohnes & Albertson
Washington, DC

On behalf of--
Camargo Correa Metais

Richard Fontana, Consultant

William Silverman)
)--OF COUNSEL
Carrie Simon)

Royal Daniel III
Washington, DC

On behalf of--
Associação Brasileira dos Produtores de Ferroligas (ABRAFE) (Brazilian Association of Ferroalloy Producers)

Braulio Lage, General Manager, Polymet, Inc.

Royal Daniel III--OF COUNSEL

Andrew Lubin
Bensalem, PA

On behalf of--
Midland Export, Ltd.

Andrew Lubin, President

Appendix C

U.S. Department of Commerce's
Federal Register notices

U.S. International Trade Commission (ITC) of this action so that it may determine whether imports of silicon metal from Brazil are materially injuring, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before October 9, 1990. If that determination is affirmative, we will make our preliminary determination on or before January 31, 1991.

EFFECTIVE DATE: September 20, 1990.

FOR FURTHER INFORMATION CONTACT: Kate Johnson or John Beck, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-8830 or (202) 377-3464, respectively.

SUPPLEMENTARY INFORMATION:

The Petition

On August 24, 1990, we received a petition filed in proper form by American Alloys, Inc., Globe Metallurgical, Inc., Silicon Metaltech Inc., and SiMETCO, Inc., on behalf of the U.S. industry producing silicon metal. In compliance with the filing requirements of § 353.12 of the Department's regulations (19 CFR 353.12 (1990)), petitioners allege that imports of silicon metal from Brazil are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry.

Petitioners have stated that they have standing to file the petition because they are an interested party, as defined under section 771(9)(C) of the Act, and because they have filed the petition on behalf of the U.S. industry producing the product that is subject to this investigation. If any interested party, as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act, wishes to register support for, or opposition to, this petition, please file written notification with the Assistant Secretary for Import Administration.

Under the Department's regulations, any producer or reseller seeking exclusion from a potential antidumping duty order must submit its request for exclusion within 30 days of the date of the publication of this notice. The procedures and requirements regarding the filing of such requests are contained in § 353.14 of the Department's regulations.

United States Price and Foreign Market Value

Petitioners' estimate of United States price is based on the monthly weighted-average unit Customs value of silicon metal. To calculate an F.O.B. price, petitioners deducted estimated foreign inland freight. Petitioners also calculated United States price based on reported selling prices to consumers in the United States, with appropriate deductions to net back to an F.O.B. foreign factory value. Deductions were made, where appropriate, for movement charges, U.S. Customs duties, and warehousing in the United States.

To calculate foreign market value, petitioners obtained domestic market selling prices for silicon metal offered for sale by two Brazilian producers. We made adjustments for differences in circumstances of sale, where appropriate, for differences in credit expenses and commissions, in accordance with § 353.56 of the Department's regulations.

Based on a comparison of United States price and foreign market value, we calculated dumping margins ranging from 29.17 percent to 66.07 percent.

Petitioners have alleged that "critical circumstances" exist, within the meaning of section 733(e) of the Act, with respect to imports of silicon metal from Brazil.

Initiation of Investigation

Under section 732(c) of the Act, the Department must determine, within 20 days after a petition is filed, whether the petition sets forth the allegations necessary for the initiation of an antidumping duty investigation, and whether the petition contains information reasonably available to the petitioner supporting the allegations.

We have examined the petition on silicon metal from Brazil and found that the petition meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether imports of silicon metal from Brazil are being, or are likely to be, sold in the United States at less than fair value. We will also make a determination as to whether critical circumstances exist with respect to the subject merchandise. If our investigation proceeds normally, we will make our preliminary determination by January 31, 1991.

Scope of Investigation

The merchandise covered by this investigation is silicon metal containing at least 96.00 but less than 99.99 percent of silicon by weight. The subject

International Trade Administration

[A-351-806]

Initiation of Antidumping Duty Investigation: Silicon Metal From Brazil

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce (the Department), we are initiating an antidumping duty investigation to determine whether imports of silicon metal from Brazil are being, or are likely to be, sold in the United States at less than fair value. We are notifying the

merchandise is used primarily as an alloying agent for aluminum and in the chemical industry as a precursor to silicon. Silicon metal is currently provided for under subheadings 2804.69.10 and 2804.69.50 of the *Harmonized Tariff Schedule* (HTS) as a chemical product, but is commonly referred to as a metal. Semiconductor-grade silicon (silicon metal containing by weight not less than 99.99 percent of silicon and provided for in subheading 2804.61.00 of the HTS) is not subject to this investigation. The HTS item numbers are provided for convenience and U.S. Customs Service purposes. The written description remains dispositive.

ITC Notification

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all non-privileged and non-proprietary information. We will allow the ITC access to all privileged and business proprietary information in the Department's files, provided the ITC confirms in writing that it will not disclose such information, either publicly or under administrative protective order, without the written consent of the Deputy Assistant Secretary for Investigations, Import Administration.

Preliminary Determination by ITC

The ITC will determine by October 9, 1990, whether there is a reasonable indication that imports of silicon metal from Brazil are materially injuring, or threaten material injury to, a U.S. industry. If its determination is negative, the investigation will be terminated; otherwise, the investigation will proceed according to statutory and regulatory time limits.

This notice is published pursuant to section 732(c)(2) of the Act.

Dated: September 13, 1990.

Marjorie A. Chorlins,
Acting Assistant Secretary for Import
Administration.

[FR Doc. 90-22332 Filed 9-19-90; 8:45 am]
BILLING CODE 3510-DS-M

[A-570-806]

Initiation of Antidumping Duty Investigation: Silicon Metal From the People's Republic of China

AGENCY: Import Administration,
International Trade Administration,
Department of Commerce.

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce (the Department), we are initiating an antidumping duty investigation to determine whether imports of silicon metal from People's Republic of China (PRC) are being, or are likely to be, sold in the United States at less than fair value. We are notifying the U.S. International Trade Commission (ITC) of this action so that it may determine whether imports of silicon metal from the PRC are materially injuring, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before October 9, 1990. If that determination is affirmative, we will make our preliminary determination on or before January 31, 1991.

EFFECTIVE DATE: September 20, 1990.

FOR FURTHER INFORMATION CONTACT: Kate Johnson or John Beck, Office of Antidumping Investigation, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue NW., Washington, DC 20230; telephone (202) 377-8830 or (202) 377-3464, respectively.

SUPPLEMENTARY INFORMATION:

The Petition

On August 24, 1990, we received a petition filed in proper form by American Alloys, Inc., Globe Metallurgical, Inc., Silicon Metaltech Inc., SIMETCO, Inc., Eikem Metals Company, and SKW Alloys, Inc., on behalf of U.S. industry producing silicon metal. In compliance with the filing requirements of § 353.12 of the Department's regulations (19 CFR 353.12 (1990)), petitioners allege that imports of silicon metal from the PRC are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry.

Petitioners have stated that they have standing to file the petition because they are an interested party, as defined under section 771(9)(C) of the Act, and because they have filed the petition on behalf of the U.S. industry producing the product that is subject to this investigation. If any interested party, as described under paragraphs (C), (D), or (F) of section 771(9) of the Act, wishes to register support for, or opposition to, this petition, please file written notification

with the Assistant Secretary for Import Administration.

Under the Department's regulations, any producer or reseller seeking exclusion from a potential antidumping duty order must submit its request for exclusion within 30 days of the date of the publication of this notice. The procedures and requirements regarding the filing of such requests are contained in § 353.14 of the Department's regulations.

United States Price and Foreign Market Value

Petitioners' estimate of United States price is based on the monthly weighted-average unit Customs value of silicon metal. To calculate an F.O.B. price, petitioners deducted estimated foreign inland freight. Petitioners also calculated United States price based on reported selling prices to consumers in the United States, with appropriate deductions to net back to an F.O.B. foreign factory value. Deductions were made, where appropriate, for movement charges, U.S. Customs duties, and warehousing in the United States.

Petitioners allege that the PRC is a nonmarket economy country within the meaning of section 773(c) of the Act. Accordingly, petitioners based foreign market value (FMV) on constructed value (CV). Constructed value was calculated using the factors of production as developed for the PRC. These factors were valued based on costs incurred in a country at a stage of economic development comparable to the PRC (i.e., India). Petitioners included silica, petroleum coke, coal and woodchips as raw materials in CV. Petitioners also included process materials (electrodes) in the CV. Unit values of the reductants (coal, woodchips and petroleum coke), silica and electrodes were based on 1990 costs in India. Petitioners then included energy and other utilities (electricity and water), labor, other operating costs, and depreciation costs in CV. Petitioners obtained basic wage rates in India from a source at the Office of Indian Affairs at the World Bank. The capital cost for a ferroalloy plant in India was obtained from *Metal Bulletin*. Petitioners estimated five percent of fixed capital for annual depreciation costs. Petitioners also added the statutory minimums of ten percent for general, selling and administrative expenses, and eight percent for profit, in accordance with section 773(e)(1)(B) of the Act. We made adjustments for differences in circumstances of sale, where appropriate, for differences in credit expenses and commissions, in

accordance with § 353.56 of the Department's regulations.

Based on a comparison of USP and FMV, we calculated dumping margins ranging from 134.73 percent to 139.49 percent.

Petitioners also allege that "critical circumstances" exist, within the meaning of section 733(e) of the Act, with respect to imports of silicon metal from the PRC.

Initiation of Investigation

Under section 732(c) of the Act, the Department must determine, within 20 days after a petition is filed, whether the petition sets forth the allegations necessary for the initiation of an antidumping duty investigation, and whether the petition contains information reasonably available to the petitioner supporting the allegations.

We have examined the petition on silicon metal from the PRC and found that the petition meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether imports of silicon metal from the PRC are being, or are likely to be, sold in the United States at less than fair value. We will also make a determination as to whether critical circumstances exist with respect to the subject merchandise. If our investigation proceeds normally, we will make our preliminary determination by January 31, 1991.

Scope of Investigation

The merchandise covered by this investigation is silicon metal containing at least 96.00 but less than 99.99 percent of silicon by weight. The subject merchandise is used primarily as an alloying agent for aluminum and in the chemical industry as a precursor to silicones. Silicon metal is currently provided for under subheadings 2804.69.10 and 2804.69.50 of the *Harmonized Tariff Schedule (HTS)* as a chemical product, but is commonly referred to as a metal. Semiconductor-grade silicon (silicon metal containing by weight not less than 99.99 percent of silicon and provided for in subheading 2804.61.00 of the HTS) is not subject to this investigation. The HTS item numbers are provided for convenience and U.S. Customs Service purposes. The written description remains dispositive.

ITC Notification

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all non-privileged and non-proprietary

information. We will allow the ITC access to all privileged and business proprietary information in the Department's files, provided the ITC confirms in writing that it will not disclose such information, either publicly or under administrative protective order, without the written consent of the Deputy Assistant Secretary for Investigations, Import Administration.

Preliminary Determination by ITC

The ITC will determine by October 9, 1990, whether there is a reasonable indication that imports of silicon metal from the PRC are materially injuring, or threaten material injury to, a U.S. industry. If its determination is negative, the investigation will be terminated; otherwise, the investigation will proceed according to statutory and regulatory time limits.

This notice is published pursuant to section 732(c)(2) of the Act.

Dated: September 13, 1990.

Marjorie A. Chorliss,
Acting Assistant Secretary for Import Administration.

[FR Doc. 90-22333 Filed 9-19-90; 8:45 am]

BILLING CODE 2510-05-M

(A-357-804)

Initiation of Antidumping Duty Investigation: Silicon Metal From Argentina

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

ACTION: Notice.

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce (the Department), we are initiating an antidumping duty investigation to determine whether imports of silicon metal from Argentina are being, or are likely to be, sold in the United States at less than fair value. We are notifying the U.S. International Trade Commission (ITC) of this action so that it may determine whether imports of silicon metal from Argentina are materially injuring, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before October 9, 1990. If that determination is affirmative, we will make our preliminary determination on or before January 31, 1991.

EFFECTIVE DATES: September 20, 1990.

FOR FURTHER INFORMATION CONTACT: Kate Johnson or John Beck, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone (202) 377-8830 or (202) 377-3464, respectively.

SUPPLEMENTARY INFORMATION:**The Petition**

On August 24, 1990, we received a petition filed in proper form by American Alloys, Inc., Globe Metallurgical, Inc., Silicon Metaltech Inc., SiMETCO, Inc., Elkem Metals Company, and SKW Alloys, Inc., on behalf of the U.S. industry producing silicon metal. In compliance with the filing requirements of § 353.12 of the Department's regulations (19 CFR 353.12 (1990)), petitioners allege that imports of silicon metal from Argentina are being,

or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry.

Petitioners have stated that they have standing to file the petition because they are an interested party, as defined under section 771(9)(C) of the Act, and because they have filed the petition on behalf of the U.S. industry producing the product that is subject to this investigation. If any interested party, as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act, wishes to register support for, or opposition to, this petition, please file written notification with the Assistant Secretary for Import Administration.

Under the Department's regulations, any producer or reseller seeking exclusion from a potential antidumping duty order must submit its request for exclusion within 30 days of the date of the publication of this notice. The procedures and requirements regarding the filing of such requests are contained in § 353.14 of the Department's regulations.

United States Price and Foreign Market Value

Petitioners' estimate of United States price is based on the monthly weighted-average unit Customs value of silicon metal. To calculate an F.O.B. price, petitioners deducted estimated foreign inland freight. Petitioners also calculated United States price based on reported selling prices to consumers in the United States, with appropriate deductions to net back to an F.O.B. foreign factory value. Deductions were made, where appropriate, for movement charges, U.S. Customs duties, and warehousing in the United States.

To calculate foreign market value, petitioners obtained three prices for silicon metal offered for sale by an exclusive distributor in Argentina. We made adjustments for differences in circumstances of sale, where appropriate, for differences in credit expenses and commissions, in accordance with § 353.56 of the Department's regulations.

Based on a comparison of United States price and foreign market value, we calculated dumping margins ranging from 49.35 percent to 113.27 percent.

Petitioners have alleged that "critical circumstances" exist, within the meaning of section 733(e) of the Act, with respect to imports of silicon metal from Argentina. We have determined, however, that petitioners have not submitted reasonably available factual

information supporting the allegation, as required by § 353.16 of the Department's regulations. Official import statistics indicate that imports from Argentina have actually decreased. As such, we are not initiating a critical circumstances investigation against silicon metal from Argentina.

Initiation of Investigation

Under section 732(c) of the Act, the Department must determine, within 20 days after a petition is filed, whether the petition sets forth the allegations necessary for the initiation of an antidumping duty investigation, and whether the petition contains information reasonably available to the petitioner supporting the allegations.

We have examined the petition on silicon metal from Argentina and found that the petition meets the requirements of section 732(b) of the Act. Therefore, in accordance with section 732 of the Act, we are initiating an antidumping duty investigation to determine whether imports of silicon metal from Argentina are being, or are likely to be, sold in the United States at less than fair value. If our investigation proceeds normally, we will make our preliminary determination by January 31, 1991.

Scope of Investigation

The merchandise covered by this investigation is silicon metal containing at least 96.00 but less than 99.99 percent of silicon by weight. The subject merchandise is used primarily as an alloying agent for aluminum and in the chemical industry as a precursor to silicones. Silicon metal is currently provided for under subheadings 2804.69.10 and 2804.69.50 of the *Harmonized Tariff Schedule* (HTS) as a chemical product, but is commonly referred to as a metal. Semiconductor-grade silicon (silicon metal containing by weight not less than 99.99 percent of silicon and provided for in subheading 2804.61.00 of the HTS) is not subject to this investigation. The HTS item numbers are provided for convenience and U.S. Customs Service purposes. The written description remains dispositive.

ITC Notification

Section 732(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all non-privileged and non-proprietary information. We will allow the ITC access to all privileged and business proprietary information in the Department's files, provided the ITC confirms in writing that it will not

disclose such information, either publicly or under administrative protective order, without the written consent of the Deputy Assistant Secretary for Investigations, Import Administration.

Preliminary Determination by ITC

The ITC will determine by October 9, 1990, whether there is a reasonable indication that imports of silicon metal from Argentina are materially injuring, or threaten material injury to, a U.S. industry. If its determination is negative, the investigation will be terminated; otherwise, the investigation will proceed according to statutory and regulatory time limits.

This notice is published pursuant to section 732(c)(2) of the Act.

Dated: September 13, 1990.

Marjorie A. Chorlins,

Acting Assistant Secretary for Import Administration.

[FR Doc. 90-22331 Filed 9-19-90; 8:45 am]

BILLING CODE 3510-DS-M

SUMMARY: On the basis of a petition filed in proper form with the U.S. Department of Commerce (the Department), we are initiating a countervailing duty investigation to determine whether manufacturers, producers, or exporters in Brazil of silicon metal, (hereinafter referred to as the subject merchandise), as described in the "Scope of Investigation" section of this notice, receive benefits which constitute subsidies within the meaning of the countervailing duty law. We are notifying the U.S. International Trade Commission (ITC) of this action so that it may determine whether imports of silicon metal from Brazil materially injure, or threaten material injury to, a U.S. industry. If this investigation proceeds normally, the ITC will make its preliminary determination on or before October 9, 1990. If that determination is affirmative, we will make our preliminary determination on or before November 19, 1990.

EFFECTIVE DATE: September 20, 1990.

FOR FURTHER INFORMATION CONTACT: Ross Cotjanle or Carole Showers, Office of Countervailing Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 377-3534 and (202) 377-3217, respectively.

SUPPLEMENTARY INFORMATION:

The Petition

On August 24, 1990, we received a petition in proper form filed by American Alloys, Inc., Globe Metallurgical, Inc., Silicon Metaltech Inc., and SiMETCO, Inc., on behalf of the U.S. industry producing silicon metal. On September 7, 1990, we received additional information from petitioners supplementing their original countervailing duty petition. In compliance with the filing requirements of § 355.12 of the Department's regulations (19 CFR 355.12), petitioners allege that manufacturers, producers, and exporters of silicon metal in Brazil receive subsidies within the meaning of section 701 of the Tariff Act of 1930, as amended (the Act). Petitioners also allege that "critical circumstances" exist within the meaning of section 703(e) of the Act, with respect to imports of silicon metal from Brazil.

Since Brazil is a "country under the Agreement" within the meaning of section 701(b) of the Act, title VII of the Act applies to this investigation, and the ITC is required to determine whether imports of the subject merchandise from

[C-351-807]

Initiation of Countervailing Duty Investigation: Silicon Metal From Brazil

AGENCY: Import Administration,
International Trade Administration,
Department of Commerce.

ACTION: Notice.

Brazil materially injure, or threaten material injury to, the U.S. industry.

Petitioners have stated that they have standing to file the petition because they are an interested party, as defined under section 771(9)(C) of the Act and because they have filed the petition on behalf of the U.S. industry producing the product that is subject to this investigation. If any interested party, as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act, wishes to register support for, or opposition to, this petition, please file written notification with the Assistant Secretary for Import Administration.

Initiation of Investigation

Under section 702(c) of the Act, we must determine whether to initiate a countervailing duty proceeding within 20 days after a petition is filed. Section 702(b) of the Act requires the Department to initiate a countervailing duty proceeding whenever an interested party files a petition, on behalf of an industry, that (1) alleges the elements necessary for the imposition of a duty under section 701(a), and (2) is accompanied by information reasonably available to the petitioner supporting the allegations. We have examined the petition on silicon metal from Brazil and have found that most of the programs alleged in the petition meet these requirements. Therefore, we are initiating a countervailing duty investigation to determine whether Brazilian manufacturers, producers, or exporters of silicon metal receive subsidies. However, we are not initiating an investigation on certain alleged programs because petitioners failed to provide supporting documentation for their allegations or the alleged programs were determined to be not countervailable in previous investigations. See *Final Affirmative Countervailing Duty Determination: Certain Carbon Steel Products From Brazil* (49 FR 17988, April 26, 1984) and *Final Affirmative Countervailing Duty Determination: Steel Wheels From Brazil* (54 FR 15523, April 18, 1989). We will also make a determination as to whether critical circumstances exist with respect to the subject merchandise. If our investigation proceeds normally, we will make our preliminary determination on or before November 19, 1990.

Scope of Investigation

The merchandise covered by this investigation is silicon metal containing at least 95.00 but less than 99.99 percent of silicon by weight. The subject merchandise is used primarily as an alloying agent for aluminum and in the

chemical industry as a precursor to silicon. Silicon metal is currently provided for in subheadings 2804.69.10 and 2804.69.50 of the *Harmonized Tariff Schedule* (HTS) as a chemical product, but is commonly referred to as a metal. Semiconductor-grade silicon (silicon metal containing by weight not less than 99.99 percent of silicon and provided for in subheading 2804.61.00 of the HTS) is not subject to this investigation. The HTS item numbers are provided for convenience and U.S. Customs Service purposes. The written description remains dispositive.

Allegations of Subsidies

Section 702(b) of the Act requires the Department to initiate a countervailing duty proceeding whenever an interested party files a petition on behalf of an industry that (1) alleges the elements necessary for the imposition of a duty under section 701(a), and (2) is accompanied by information reasonably available to the petitioner supporting the allegations. The elements the Department considers when analyzing the sufficiency of a domestic subsidy allegation consist of the following: (1) Specificity (i.e., the program is limited to a specific enterprise or industry or group of enterprises or industries); and (2) provision of a countervailable benefit. To determine the sufficiency of an export subsidy allegation, the Department considers the following: (1) Receipt of benefits contingent upon export performance; and (2) provision of a countervailable benefit.

Petitioners list a number of practices by the Government of Brazil which allegedly confer subsidies on manufacturers, producers, or exporters of silicon metal. Based on our analysis of petitioners' subsidy allegations, we have determined the following:

I. Programs To Be Investigated

For the programs listed below, the requirements of sections 701(a) and 702(b) of the Act were fulfilled in the petition.

- A. *Income Tax Exemption for Export Earnings*
- B. *Preferential Working Capital Financing for Exports Provided by the Department of Foreign Commerce of the Central Bank of Brazil (CACEX)*
- C. *Benefits Provided by the Commission for the Granting of Fiscal Benefits to Special Export Programs (BEFIEX)*
- D. *Export Financing Provided by the Fundo de Financiamento a Exportacao (FINEX) (Resolution 68 and 509 of the Conselho Nacional do Comercio Exterior (CONCEX)*

E. *Financing for the Storage of Merchandise Destined for Export (Resolution 330 of the Central Bank of Brazil)*

F. *Export Production Financing Provided Under the Programa de Financiamento a Producao para a Exportacao (PROEX) (Resolutions 882 and 883 of the Monetary Finance Council)*

G. *Provision of Electricity at Preferential Rates to Silicon Metal Producers Located in Minas Gerais*

II. Programs Not To Be Investigated

For the programs listed below, the requirements of section 701(a) of the Act were not fulfilled in the petition.

A. *National Bank for Economic and Social Development (BNDES) Loans*

Petitioners allege that at least one Brazilian producer of silicon metal has received a government subsidy in the form of BNDES financing for the purchase of capital equipment. Further, petitioners allege that this financing is provided at below-market rates and is limited only to a specific enterprise or industry or group thereof. In *Final Affirmative Countervailing Duty Determination: Certain Carbon Steel Products From Brazil* (49 FR 17988, April 26, 1984), we determined that the provision of BNDES loans was not limited to a specific enterprise or industry or group of enterprises or industries. Absent the provision of new evidence, or an allegation of change circumstances, we have no basis upon which to re-initiate an investigation of BNDES financing.

B. *CIC-OPCRE 6-2-8 (CIC-CREGE 14-11)*

Petitioners allege that short-term loans are being provided to exporters at preferential rates for export financing, contingent on maintaining on deposit a minimum level of foreign exchange. In *Final Affirmative Countervailing Duty Determination: Steel Wheels From Brazil* (54 FR 15523, April 18, 1989), we stated that these loans are no longer preferential. Absent the provision of new evidence, or an allegation of changed circumstances, we have no basis upon which to re-initiate an investigation of CIC-OPCRE 6-2-8 (CIC-CREGE 14-11).

C. *Release of Certain Contractual Obligations and Reduction in Compulsory Loans to the Government-Owned Power Company, ELETROBRAS*

Petitioners allege that the government-owned power company, ELETROBRAS, has released silicon metal producers

from all or part of their obligations under the take-or-pay contracts through which these companies obtain power. Additionally, petitioners allege that ELETROBRAS provided one company in Minas Gerais state, Rima Eletrometalurgica S.A., with a reduction in the amount of its compulsory loans. Because petitioners failed to provide any documentation reasonably available to them to support their allegations, we have no basis upon which to initiate an investigation of this program.

ITC Notification

Section 702(d) of the Act requires us to notify the ITC of this action and to provide it with the information we used to arrive at this determination. We will notify the ITC and make available to it all non-privileged and non-proprietary information. We will also allow the ITC access to all privileged and business proprietary information in the Department's files, provided the ITC confirms in writing that it will not disclose such information, either publicly or under administrative protective order, without the written consent of the Deputy Assistant Secretary for Investigations, Import Administration.

Preliminary Determination by ITC

The ITC will determine by October 9, 1990, whether there is a reasonable indication that imports of silicon metal materially injure, or threaten material injury to, a U.S. industry. If its determination is negative, this investigation will be terminated; otherwise, this investigation will proceed according to statutory and regulatory time limits.

This notice is published pursuant to section 702(c)(2) of the Act.

Dated: September 13, 1990.

Marjorie A. Chorlins,

Acting Assistant Secretary for Import Administration.

[FR Doc. 90-22334 Filed 9-19-90; 8:45 am]

BILLING CODE 3510-DS-M

Appendix D

Effects of imports on producers' existing development
and production efforts, growth, investment, and
ability to raise capital

**EFFECTS OF IMPORTS ON PRODUCERS' EXISTING DEVELOPMENT AND PRODUCTION
EFFORTS, GROWTH, INVESTMENT, AND ABILITY TO RAISE CAPITAL**

The Commission requested U.S. producers to describe the actual and potential negative effects of imports of silicon metal from Argentina, Brazil, and China on the producers' existing development and production efforts, growth, investment, and ability to raise capital. The responses by producers are shown below.

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