# Iron Construction Castings from Brazil, Canada, and China

Investigation Nos. 701-TA-249 and 731-TA-262-263 and 265 (Fifth Review)

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# **U.S. International Trade Commission**

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Address all communications to Secretary to the Commission United States International Trade Commission Washington, DC 20436

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#### UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-249 and 731-TA-262-263 and 265 (Fifth Review)

Iron Construction Castings from Brazil, Canada, and China

#### **DETERMINATIONS**

On the basis of the record<sup>1</sup> developed in the subject five-year reviews, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that revocation of the countervailing duty order on heavy iron construction castings from Brazil, the antidumping duty order on heavy iron construction castings from Canada, and the antidumping duty orders on iron construction castings from Brazil and China would be likely to lead to continuation or recurrence of material injury to pertinent industries in the United States within a reasonably foreseeable time.

#### **BACKGROUND**

The Commission instituted these reviews on December 1, 2021 (86 FR 68283) and determined on March 7, 2022, that it would conduct expedited reviews (87 FR 21136, April 11, 2022).

<sup>&</sup>lt;sup>1</sup> The record is defined in § 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

### Views of the Commission

Based on the record in these five-year reviews, we determine under section 751(c) of the Tariff Act of 1930, as amended ("the Tariff Act"), that revocation of the countervailing duty order on heavy iron construction castings ("heavy castings") from Brazil, the antidumping duty orders on heavy castings from Brazil, Canada, and China, and the antidumping duty orders on light iron construction castings ("light castings") from Brazil and China would be likely to lead to continuation or recurrence of material injury to pertinent industries in the United States within a reasonably foreseeable time.

# I. Background

Original Investigations: In February 1986, the Commission determined that an industry in the United States was materially injured by reason of imports of heavy castings from Canada that were being sold at less than fair value, and that an industry in the United States was threatened with material injury by reason of imports of light castings from Canada that were being sold at less than fair value.<sup>1</sup> On March 5, 1986, the Department of Commerce ("Commerce") published an antidumping duty order covering the subject merchandise from Canada.<sup>2</sup> In May 1986, the Commission determined that an industry in the United States was

<sup>&</sup>lt;sup>1</sup> Iron Construction Castings from Canada, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 (Feb. 1986).

<sup>&</sup>lt;sup>2</sup> Antidumping Duty Order; Certain Iron Construction Castings From Canada, 51 Fed. Reg. 7600 (Mar. 5, 1986); Iron Construction Castings From Canada; Amendment to Final Determination of Sales at Less Than Fair Value and Amendment to Antidumping Duty Order, 51 Fed. Reg. 34110 (Sept. 25, 1986) (amended). The Commission's determination in Iron Construction Castings from Canada, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 (Feb. 1986), and the order on castings from Canada covered both heavy and light castings. The order was subsequently revoked in part by Commerce to exclude light castings. Iron Construction Castings From Canada: Notice of Final Results of Changed Circumstances Antidumping Administrative Review, and Revocation in Part of Antidumping Duty Order, 63 Fed. Reg. 49687 (Sept. 17, 1998).

materially injured by reason of imports of heavy castings from Brazil that were being subsidized by the government of Brazil, that an industry in the United States was materially injured by reason of imports of heavy castings from Brazil, China, and India that were being sold at less than fair value, and that an industry in the United States was threatened with material injury by reason of imports of light castings from Brazil, China, and India that were being sold at less than fair value.<sup>3</sup> On May 9, 1986, Commerce published antidumping duty orders covering the subject merchandise from Brazil, China, and India.<sup>4</sup> On May 15, 1986, Commerce published a countervailing duty order covering the subject merchandise from Brazil.<sup>5</sup>

First reviews: In October 1999, the Commission conducted full first five-year reviews. It cumulated imports of subject light castings from Brazil and China, and determined that

<sup>&</sup>lt;sup>3</sup> Iron Construction Castings from Brazil, India and the People's Republic of China, Inv. Nos. 701-TA-249 and 731-TA-262, 264 and 265 (Final), USITC Pub. 1838 (Apr. 1986) ("Original Investigations"). The Commission had made a separate negative preliminary determination on allegedly subsidized imports of light castings from Brazil. The Court of International Trade remanded that light castings determination (in which the affirmative determinations on imports of heavy castings from Brazil were not at issue) on the basis that the statute required cross cumulation of the allegedly subsidized subject light castings imports with the allegedly less than fair value light castings imports. Bingham & Taylor, Division, Virginia Industries, Inc. v. United States, 10 CIT 67, 627 F. Supp 793 (1986), aff'd, 815 F.2d 1482 (1987). The Commission on remand cumulated all the subject light castings imports and reached an affirmative preliminary determination with respect to Brazil (Iron Construction Castings From Brazil: Light, 51 Fed. Reg. 12217 (Apr. 9, 1986)), but then terminated that investigation when the petitioners withdrew the petition regarding light castings from Brazil (Certain Light Iron Construction Castings From Brazil, 52 Fed. Reg. 29902 (Aug. 12, 1987)).

<sup>&</sup>lt;sup>4</sup> Antidumping Duty Order; Iron Construction Castings From Brazil, 51 Fed. Reg. 17220 (May 9, 1986). The antidumping duty order with respect to light and heavy castings from India was revoked by Commerce in 1991. Revocation of Antidumping Duty Order and Termination of Administrative Reviews; Iron Construction Castings From India, 56 Fed. Reg. 4789 (Feb. 6. 1991). Commerce had previously issued in 1980 a countervailing duty order on imports of iron metal castings from India (Certain Iron Metal Castings from India: Countervailing Duty Order, 45 Fed. Reg. 68650 (Oct. 16, 1980)), following the Commission's determination that an industry in the United States was materially injured by reason of imports of certain iron-metal castings from India that were subsidized by the government of India. Certain Iron-Metal Castings From India, Inv. 303-TA-13 (Final), USITC Pub. 1098 (Sept. 1980).

<sup>&</sup>lt;sup>5</sup> Countervailing Duty Order; Certain Heavy Iron Construction Castings from Brazil, 51 Fed. Reg. 17786 (May 15, 1986).

revocation of the antidumping duty orders covering those subject imports would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. The Commission also cumulated imports of subject heavy castings from Brazil, Canada, and China and further determined that revocation of the antidumping duty orders covering those subject imports, and the countervailing duty order covering imports of heavy castings from Brazil, would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. Commerce issued notices of continuation of the antidumping duty orders on subject imports from Brazil, Canada, and China, and the countervailing duty order on subject imports from Brazil, effective November 12, 1999.

Second reviews: In June 2005, the Commission conducted expedited second five-year reviews of the orders. It cumulated all subject imports of light castings from Brazil and China and determined that revocation of the antidumping duty orders covering those subject imports would be likely to lead to continuation or recurrence of material injury to an industry in the

<sup>&</sup>lt;sup>6</sup> Iron Metal Castings from India, Heavy Iron Construction Castings from Brazil, and Iron Construction Castings from Brazil, Canada, and China, Inv. Nos. 303-TA-13 (Review), 701-TA-249 (Review), and 731-TA-262, 263 and 265 (Review), USITC Pub. 3247 (Oct. 1999) ("First Reviews"). The Commission also determined in those full first reviews that revocation of the countervailing duty order on iron metal castings from India would not be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time. *Id.* Accordingly, Commerce revoked the countervailing duty order on iron metal castings from India. Revocation of Countervailing Duty Order: Iron Metal Castings from India, 64 Fed. Reg. 61602 (Nov. 12, 1999). The Commission's negative determination regarding the order on subject imports from India was upheld in Neenah Foundry Co. v. United States, 25 CIT 766, 155 F. Supp. 2d 766 (2001).

<sup>&</sup>lt;sup>7</sup> Continuation of Antidumping Duty Orders: Certain Iron Construction Castings From Brazil, Canada, and the People's Republic of China, 64 Fed. Reg. 61590 (Nov. 12, 1999); Continuation of Countervailing Duty Order: Heavy Iron Construction Castings From Brazil, 64 Fed. Reg. 61591 (Nov. 12, 1999).

United States within a reasonably foreseeable time. The Commission also cumulated all imports of subject heavy castings from Brazil, Canada, and China, and further determined that revocation of the antidumping duty orders covering those subject imports, and the countervailing duty order covering imports of heavy castings from Brazil, would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.<sup>8</sup> Commerce issued a notice of continuation of the antidumping duty orders on imports from Brazil, Canada, and China, and the countervailing duty order on imports from Brazil, effective June 29, 2005.<sup>9</sup>

Third reviews: In October 2010, the Commission conducted expedited third five-year reviews of the orders. It cumulated all subject imports of light castings from Brazil and China and determined that revocation of the antidumping duty orders covering those subject imports would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. The Commission also cumulated all imports of subject heavy castings from Brazil, Canada, and China, and further determined that revocation of the antidumping duty orders covering those subject imports, and the countervailing duty order covering imports of heavy castings from Brazil, would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a

<sup>&</sup>lt;sup>8</sup> Certain Iron Construction Castings from Brazil, Canada, and China, Inv. Nos. 701-TA-249 and 731-TA-262, 263 and 265 (Second Review), USITC Pub. 3781 (June 2005) ("Second Reviews").

<sup>&</sup>lt;sup>9</sup> Continuation of Antidumping Duty Orders on Certain Iron Construction Castings From Brazil, Canada, and the People's Republic of China, and the Countervailing Duty Order on Heavy Iron Construction Castings From Brazil, 70 Fed. Reg. 37326 (June 29, 2005).

reasonably foreseeable time.<sup>10</sup> Commerce issued a notice of continuation of the antidumping duty orders on imports from Brazil, Canada, and China, and the countervailing duty order on imports from Brazil, effective November 19, 2010.<sup>11</sup>

Fourth reviews: In December 2016, the Commission conducted full fourth five-year reviews of the orders. It cumulated all subject imports of light castings from Brazil and China, and determined that revocation of the antidumping duty orders covering those subject imports would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. The Commission also cumulated all imports of subject heavy castings from Brazil, Canada, and China, and further determined that revocation of the antidumping duty orders covering those subject imports, and the countervailing duty order covering imports of heavy castings from Brazil, would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. <sup>12</sup> Commerce issued a notice of continuation of the antidumping duty orders on imports from Brazil, Canada, and China, and the countervailing duty order on imports from Brazil, effective January 6, 2017. <sup>13</sup>

<sup>10</sup> Iron Construction Castings from Brazil, Canada, and China, Inv. Nos. 701-TA-249 and 731-TA-262, 263 and 265 (Third Review), USITC Pub. 4191 (Oct. 2010) ("Third Reviews").

<sup>&</sup>lt;sup>11</sup> Certain Iron Construction Castings From Brazil, Canada, and the People's Republic of China: Continuation of Antidumping and Countervailing Duty Orders, 75 Fed. Reg. 70900 (Nov. 19, 2010).

<sup>&</sup>lt;sup>12</sup> Iron Construction Castings from Brazil, Canada, and China, Inv. Nos. 701-TA-249 and 731-TA-262, 263 and 265 (Fourth Review), USITC Pub. 4655 (Dec. 2016) ("Fourth Reviews").

<sup>&</sup>lt;sup>13</sup> Iron Construction Castings From Brazil, Canada, and the People's Republic of China: Continuation of Antidumping Duty Orders and Countervailing Duty Order, 82 Fed. Reg. 1699 (Jan. 6, 2017).

The Current Reviews: The Commission instituted these five-year reviews on December 1, 2021.<sup>14</sup> The Commission received one response to the notice of institution, which was jointly submitted by D&L Foundry, Inc. ("D&L Foundry"); EJ USA, Inc. ("EJ"); Neenah Foundry Company ("Neenah Foundry"); Tyler Union, a Division of McWane, Inc. ("Tyler Union"); and U.S. Foundry and Manufacturing Corp. ("U.S. Foundry"), domestic producers of iron construction castings (collectively "Domestic Producers").<sup>15</sup> No respondent interested party responded to the notice of institution. On March 7, 2022, the Commission determined that the domestic interested party group response to the notice was adequate and the respondent interested party group responses were inadequate.<sup>16</sup> In the absence of any other circumstances that would warrant full reviews, the Commission determined that it would conduct expedited reviews of the orders.<sup>17</sup>

U.S. industry data are based on information supplied by Domestic Producers in their response to the notice of institution. U.S. import data and related information are based on Commerce's official import statistics. Foreign industry data and related information are based on information from the original investigations and the prior five-year reviews, and information

<sup>&</sup>lt;sup>14</sup> Iron Construction Castings From Brazil, Canada, and China: Institution of Five-Year Reviews, 86 Fed. Reg. 68283 (Dec. 1, 2021).

<sup>&</sup>lt;sup>15</sup> D&L Foundry, EJ, Neenah Foundry, and U.S. Foundry are producers of heavy castings. Confidential Report ("CR"); Public Report ("PR") at Table B-2. D&L Foundry, EJ, and Tyler Union are producers of light castings. *Id.* at Table B-3; *see* Domestic Producers' Substantive Response to Notice of Institution ("Domestic Producers' Substantive Response"), January 3, 2022, at 29.

<sup>&</sup>lt;sup>16</sup> Iron Construction Castings From Brazil, Canada, and China: Scheduling of Expedited Five-Year Reviews, 87 Fed. Reg. 21136 (Apr. 11, 2022). The Commission determined that the reviews were extraordinarily complicated and exercised its authority to extend the review period by up to 90 days pursuant to 19 U.S.C. § 1675(c)(5)(B). *Id.* 

<sup>&</sup>lt;sup>17</sup> Iron Construction Castings From Brazil, Canada, and China: Scheduling of Expedited Five-Year Reviews, 87 Fed. Reg. 21136 (April 11, 2022).

<sup>&</sup>lt;sup>18</sup> CR/PR at I-19 to I-21.

supplied by Domestic Producers in these reviews.<sup>19</sup> The Commission received one response to its adequacy phase questionnaire from a U.S. purchaser of iron construction castings.<sup>20</sup>

# II. Domestic Like Product and Industry

#### A. Domestic Like Product

In making its determination under section 751(c) of the Tariff Act, the Commission defines the "domestic like product" and the "industry." <sup>21</sup> The Tariff Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation under this subtitle." <sup>22</sup> The Commission's practice in five-year reviews is to examine the domestic like product definition from the original investigation and consider whether the record indicates any reason to revisit the prior findings.<sup>23</sup>

Commerce has defined the scope of the antidumping duty orders in these five-year reviews as follows:

*Brazil.* The merchandise covered by the order consists of certain iron construction castings from Brazil, limited to manhole covers, rings, and frames, catch basin grates and frames, cleanout covers and frames used for drainage or access purposes for public utility, water and sanitary systems, classifiable as heavy castings under Harmonized Tariff Schedule (HTS) item numbers 7325.10.0010, 7325.10.0020,

<sup>&</sup>lt;sup>19</sup> CR/PR at I-27 to I-33.

<sup>&</sup>lt;sup>20</sup> CR/PR at D-3. The firm was identified by producers as a purchaser of \*\*\*. *Id.* 

<sup>&</sup>lt;sup>21</sup> 19 U.S.C. § 1677(4)(A).

<sup>&</sup>lt;sup>22</sup> 19 U.S.C. § 1677(10); see, e.g., Cleo Inc. v. United States, 501 F.3d 1291, 1299 (Fed. Cir. 2007); NEC Corp. v. Department of Commerce, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); Nippon Steel Corp. v. United States, 19 CIT 450, 455 (1995); Timken Co. v. United States, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996); Torrington Co. v. United States, 747 F. Supp. 744, 748-49 (Ct. Int'l Trade 1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991); see also S. Rep. No. 249, 96<sup>th</sup> Cong., 1<sup>st</sup> Sess. 90-91 (1979).

<sup>&</sup>lt;sup>23</sup> See, e.g., Internal Combustion Industrial Forklift Trucks from Japan, Inv. No. 731-TA-377 (Second Review), USITC Pub. 3831 at 8-9 (Dec. 2005); Crawfish Tail Meat from China, Inv. No. 731-TA-752 (Review), USITC Pub. 3614 at 4 (July 2003); Steel Concrete Reinforcing Bar from Turkey, Inv. No. 731-TA-745 (Review), USITC Pub. 3577 at 4 (Feb. 2003).

7325.10.0025; and to valve, service, and meter boxes which are placed below ground to encase water, gas, or other valves, or water and gas meters, classifiable as light castings under HTS item numbers 7325.10.0030, 7325.10.0035, 7325.99.1000. The HTS item numbers are provided for convenience and customs purposes only. The written product description remains dispositive.

Canada. The merchandise covered by the order consists of certain iron construction castings from Canada, limited to manhole covers, rings, and frames, catch basin grates and frames, clean-out covers, and frames used for drainage or access purposes for public utility, water and sanitary systems, classifiable as heavy castings under HTS item numbers 7325.10.0010, 7325.10.0020, 7325.10.0025, 7325.99.1000. The HTS item numbers are provided for convenience and customs purposes only. The written product description remains dispositive.

China. The products covered by the order are certain iron construction castings, limited to manhole covers, rings and frames, catch basin grates and frames, cleanout covers and drains used for drainage or access purposes for public utilities, water and sanitary systems; and valve, service, and meter boxes which are placed below ground to encase water, gas, or other valves, or water or gas meters. These articles must be of cast iron, not alloyed, and not malleable. This merchandise is currently classifiable under the HTS item number{s} 7325.10.0010 and 7325.10.0050. The HTS item numbers are provided for convenience and customs purposes. The written product description remains dispositive.<sup>24</sup>

Commerce has defined the scope of the countervailing duty order with respect to heavy castings from Brazil as follows:

The products covered by the Order are certain heavy iron construction castings from Brazil, limited to manhole covers, rings and frames, catch basin grates and frames, cleanout covers and frames used for drainage or access purposes for public utility, water and sanitary systems, classifiable as heavy castings under Harmonized Tariff Schedule (HTS) item number 7325.10.0010, 7325.10.0020, and 7325.10.0025. Subject merchandise may also enter under 7325.99.1000. The HTS item numbers are provided for convenience and Customs purposes only. The written description remains dispositive.<sup>25</sup>

<sup>&</sup>lt;sup>24</sup> Certain Iron Construction Castings From Brazil, Canada, and the People's Republic of China: Final Results of Expedited Fifth Sunset Review of the Antidumping Duty Orders, 87 Fed. Reg. 14,821, 14,822 (March 16, 2022).

<sup>&</sup>lt;sup>25</sup> Heavy Iron Construction Castings From Brazil: Final Results of Expedited Fifth Sunset Review of the Countervailing Duty Order, 87 Fed. Reg. 19,484 (Apr. 4, 2022).

Castings are described as either "light" or "heavy" depending on their weight and end use. Iron castings are cast either from gray iron or ductile iron. Heavy castings are used principally for drainage or access purposes by utilities and municipalities in storm drainage, water transportation and water treatment, sanitary systems, natural gas transmission, and highway systems. Manhole sets, consisting of a cover and a frame, and sometimes accessory parts such as rings, constitute the bulk of domestic production of heavy castings. Heavy castings generally range in weight from 250 to 1,000 pounds. Light castings consist primarily of valve, service, and meter boxes. They are used by utilities and municipalities to encase the underground valves and meters of water, gas, or other utilities, and to provide access to this equipment for periodic adjustment or readings. Light castings generally range in weight from 10 to 120 pounds. Page 120 pounds. Page

### 1. The Original Investigations

In the original investigations, the Commission defined heavy and light castings as separate domestic like products, explaining that the characteristics of heavy and light castings differed markedly even though both types are made of iron that is not alloyed and not malleable. The Commission found that heavy castings are relatively flat, designed for use on street surfaces for drainage and access purposes in water and sewage systems, and generally weigh from 270 to 1,000 pounds, whereas light castings are tubular, designed for use below the ground to encase water or gas valves and meters in utility systems, and generally weigh under

<sup>&</sup>lt;sup>26</sup> CR/PR at I-10.

<sup>&</sup>lt;sup>27</sup> CR/PR at I-10.

<sup>&</sup>lt;sup>28</sup> CR/PR at I-11.

120 pounds. The Commission emphasized that the foundry methods employed in the production of heavy and light castings are distinctly different, such that domestic producers equipped themselves to specialize in one or the other, but generally not both. The Commission also determined that "other" or "specialty" castings, including tree grates, watertight, and bolt-down castings, were not like heavy or light castings in characteristics and uses. It found that those articles also differed from heavy and light castings in materials and configurations, and differed in end uses, as reflected by the differing end-users and channels of distribution. The Commission also observed that additional fabrication, finishing, and assembly are required to achieve characteristics and uses inherent to specialty castings that are not required for the production of light or heavy iron construction castings. The commission of light or heavy iron construction castings.

#### 2. Prior Five-Year Reviews

In the full first five-year reviews, expedited second five-year reviews, and expedited third five-year reviews of the orders on iron construction castings from Brazil, Canada, and China, the Commission again defined heavy castings and light castings as separate domestic like products.<sup>31</sup> In the full fourth five-year reviews, domestic producers contended that the prior like product definitions were still appropriate, and no party expressed disagreement with those

<sup>&</sup>lt;sup>29</sup> Iron Construction Castings from Brazil, Canada, India and the People's Republic of China, Inv. Nos. 701-TA-249 and 731-TA-262- 265 (Preliminary), USITC Pub. 1720 at 6-7 (Jun. 1985). In the final phase of the original investigations, the Commission found that no new information provided a basis for altering its findings. *Original Investigations*, USITC Pub. 1838 at 6; *Iron Construction Castings from Canada*, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 at 4 (Feb. 1986).

<sup>&</sup>lt;sup>30</sup> Iron Construction Castings from Canada, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 at 4 n.9 (Feb. 1986).

<sup>&</sup>lt;sup>31</sup> First Reviews, USITC Pub. 3247 at 6-7; Second Reviews, USITC Pub. 3781 at 6; Third Reviews, USITC Pub. 4191 at 6.

definitions. Given the absence of any new information suggesting that the characteristics or uses of the products had changed since the prior proceedings, the Commission continued to define two domestic like products, consisting of heavy castings and light castings.<sup>32</sup>

#### 3. The Current Reviews

Domestic Producers state that they support the definition of the two domestic like products used by the Commission in the previous proceedings.<sup>33</sup> The record does not indicate that the characteristics or uses of domestically produced heavy castings and light castings have significantly changed since the prior proceedings so as to warrant revisiting the definition.<sup>34</sup> Consequently, we again define two separate domestic like products, consisting of heavy castings and light castings.

#### B. Domestic Industry

Section 771(4)(A) of the Tariff Act defines the relevant industry as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product." In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

<sup>&</sup>lt;sup>32</sup> Fourth Reviews, USITC Pub. 4655 at 9.

<sup>&</sup>lt;sup>33</sup> Domestic Producers' Substantive Response at 37.

<sup>&</sup>lt;sup>34</sup> See generally CR/PR at I-10 to I-13.

<sup>&</sup>lt;sup>35</sup> 19 U.S.C. § 1677(4)(A). The definitions in 19 U.S.C. § 1677 are applicable to the entire subtitle containing the antidumping and countervailing duty laws, including 19 U.S.C. §§ 1675 and 1675a. *See* 19 U.S.C. § 1677.

In the original investigations and in the full first, expedited second and expedited third five-year reviews, the Commission defined two domestic industries consisting of all producers of heavy castings and all producers of light castings.<sup>36</sup> In the full fourth reviews, no party disagreed with that definition, and the Commission again defined two domestic industries consisting of all domestic producers of heavy castings and all domestic producers of light castings.<sup>37</sup> In these investigations, Domestic Producers state that they agree with the Commission's definition of the domestic industries in the past proceedings.<sup>38</sup>

These reviews raise issues as to whether certain producers qualify as a related party subject to possible exclusion pursuant to the related parties provision of the statute. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise, or are themselves importers.<sup>39</sup> The Commission did not exclude any producers from either domestic industry as related parties under 19 U.S.C. § 1677(4)(B) in any of the prior proceedings.<sup>40</sup>

<sup>&</sup>lt;sup>36</sup> Original Investigations, USITC Pub. 1838 at 7-8; First Reviews, USITC Pub. 247 at 7; Second Reviews, USITC Pub. 3781 at 6-7; Third Reviews, USITC Pub. 4191 at 6-7.

<sup>&</sup>lt;sup>37</sup> Fourth Reviews, USITC Pub. 4655 at 11-12.

<sup>&</sup>lt;sup>38</sup> Domestic Producers' Substantive Response at 37.

<sup>&</sup>lt;sup>39</sup> 19 U.S.C. § 1677(4)(B).

<sup>&</sup>lt;sup>40</sup> In the original investigations, four producers were identified as related parties based on their importation of subject merchandise. The Commission found, however, that including those producers in the pertinent industry did not significantly bias the industry data and the record did not indicate those producers had obtained any substantial benefit from their importations. The Commission therefore did not exclude any producers from the domestic industries. *Original Investigations*, USITC Pub. 1838 at 8; *Iron Construction Castings from Canada*, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 at 5 (Feb. 1986).

In the full first five-year reviews, the Commission did not exclude the four producers that had imported subject merchandise, finding that their low ratios of imports to production and, in most instances, support for the orders, indicated that their primary interests were in domestic production. (Continued...)

In these reviews, none of the Domestic Producers responding to the Commission's notice of institution import subject merchandise from Brazil, Canada or China, and there is no information in the record indicating that any other domestic producer of heavy castings or light castings imports subject merchandise.<sup>41</sup> Although two domestic producers have corporate affiliations with foreign producers of subject merchandise, neither producer qualifies as a related party.

Moreover, the Commission found that those importers did not appear to have obtained any benefit from their importations that significantly distorted their performance or shielded them from the effects of the unfairly traded imports. *First Reviews*, USITC Pub. 3247 at 9.

In the expedited second five-year reviews, the Commission did not exclude two producers that the domestic producers had identified as possible importers of subject merchandise, because the record included no indication that they had actually imported subject merchandise during the review period. It also found that Tyler Pipe, a domestic producer of light castings, was not a related party based on its affiliation with a Canadian producer of heavy castings, given that light castings from Canada were not subject to the order. *Second Reviews*, USITC Pub. 3781 at 7 n.22.

In the expedited third five-year reviews, the Commission discussed two possible related parties issues, but did not find that any related parties existed. *Third Reviews*, USITC Pub. 4191 at 7 n.22.

In the full fourth five-year reviews, the Commission found that two domestic producers were related parties, but found that appropriate circumstances did not exist to exclude either of them from the domestic industries. The Commission found that domestic light castings producer \*\*\* was a related party because its corporate parent imported subject merchandise, but found that the small amount of imports of subject merchandise by the corporate parent compared to the domestic production of \*\*\* indicated that \*\*\* principal interest was in domestic production. Accordingly, the Commission found that appropriate circumstances did not exist to exclude the firm from the domestic industry producing light castings. Fourth Reviews, USITC Pub. 4655 at 10-11; Fourth Reviews Confidential Views at 14-15 (EDIS Document No. 761863). The Commission found that \*\*\* was a related party because its purchases of subject imports accounted for a predominant portion of the purchases from an importer of subject merchandise, and those purchases accounted for a substantial share of subject imports from Canada. However, the Commission found that \*\*\* primary interest was in domestic production given the \*\*\* ratio of its purchases to its domestic production, and noted that it supported continuation of the orders and was responsible for a substantial proportion of domestic production. Accordingly, the Commission found that appropriate circumstances did not exist to exclude the firm from the domestic industry producing heavy castings. Id.

<sup>&</sup>lt;sup>41</sup> Domestic Producers' Response to Commission Cure Letter, January 13, 2022, at 2.

D&L Foundry is related to Penticton Foundry ("Penticton"), a producer of subject merchandise in Canada. It is also affiliated with Dingzhou Dongfang Foundry Co., Ltd. ("Dingzhou"), a producer of subject merchandise in China, through a joint venture that is 50 percent owned by a trust that owns an investment company, which owns D&L Foundry Group. The record does not contain any information that either Penticton or Dingzhou exported subject merchandise to the United States during the period of review. We consequently find that D&L Foundry does not qualify as a related party based on its affiliation with Penticton and Dinghzhou. 43

Tyler Union, a domestic producer of light castings, shares common ownership with Bibby Ste. Croix, a producer of heavy castings in Canada.<sup>44</sup> We find, as the Commission did with respect to Tyler Pipe in the second reviews, that Tyler Union's relationship with a Canadian producer of heavy castings does not qualify Tyler Union as a related party, because Tyler Union is only included in the domestic light castings industry as it only produces light castings, and there is no order with respect to light castings from Canada.<sup>45</sup> Moreover, the record does not contain any information that Bibby Ste. Croix exported subject merchandise to the United States during the period of review.

<sup>&</sup>lt;sup>42</sup> Domestic Producers' Substantive Response at 29.

<sup>&</sup>lt;sup>43</sup> A domestic producer must be related to "an exporter or importer of the subject merchandise" to qualify as a related party under 19 U.S.C. § 1677(4)(B).

<sup>&</sup>lt;sup>44</sup> Domestic Producers' Substantive Response at 29.

<sup>&</sup>lt;sup>45</sup> See Second Reviews, USITC Pub. 3781 at 7 n.22.

In sum, consistent with our definition of two separate domestic like products, we define two domestic industries consisting of all domestic producers of heavy castings and all domestic producers of light castings.

#### III. Cumulation

#### A. Legal Standard

With respect to five-year reviews, section 752(a) of the Tariff Act provides as follows:

the Commission may cumulatively assess the volume and effect of imports of the subject merchandise from all countries with respect to which reviews under section 1675(b) or (c) of this title were initiated on the same day, if such imports would be likely to compete with each other and with domestic like products in the United States market. The Commission shall not cumulatively assess the volume and effects of imports of the subject merchandise in a case in which it determines that such imports are likely to have no discernible adverse impact on the domestic industry.<sup>46</sup>

Cumulation therefore is discretionary in five-year reviews, unlike original investigations, which are governed by section 771(7)(G)(i) of the Tariff Act.<sup>47</sup> The Commission may exercise its discretion to cumulate, however, only if the reviews are initiated on the same day, the Commission determines that the subject imports are likely to compete with each other and the domestic like product in the U.S. market, and imports from each such subject country are not likely to have no discernible adverse impact on the domestic industry in the event of

<sup>&</sup>lt;sup>46</sup> 19 U.S.C. § 1675a(a)(7).

<sup>&</sup>lt;sup>47</sup> 19 U.S.C. § 1677(7)(G)(i); see also, e.g., Nucor Corp. v. United States, 601 F.3d 1291, 1293 (Fed. Cir. 2010) (Commission may reasonably consider likely differing conditions of competition in deciding whether to cumulate subject imports in five-year reviews); Allegheny Ludlum Corp. v. United States, 475 F. Supp. 2d 1370, 1378 (Ct. Int'l Trade 2006) (recognizing the wide latitude the Commission has in selecting the types of factors it considers relevant in deciding whether to exercise discretion to cumulate subject imports in five-year reviews); Nucor Corp. v. United States, 569 F. Supp. 2d 1328, 1337-38 (Ct. Int'l Trade 2008).

revocation. Our focus in five-year reviews is not only on present conditions of competition, but also on likely conditions of competition in the reasonably foreseeable future.

The statutory threshold for cumulation is satisfied in these reviews, because all reviews were initiated on the same day, December 1, 2021.<sup>48</sup>

## B. Heavy Castings

# 1. The Original Investigations and Previous Five-Year Reviews

Original Investigations. In the original investigations, the Commission cumulated subject imports of heavy castings from Brazil, Canada, and China for its analysis of material injury by reason of subject imports. <sup>49</sup> The Commission found that heavy castings were essentially fungible because they were made to uniform specifications supplied by municipalities and other end users. It also found that prices of imports of heavy castings from all subject countries and domestic producers' prices were within a very narrow range. It found that there was an overlap among the importers and the domestic producers as to the end users and geographic areas to which the product was directed. Accordingly, the Commission found that imports of heavy castings from all subject countries competed with each other and with the domestic like product. <sup>50</sup>

First Five-Year Reviews. In the full first five-year reviews, the Commission exercised its discretion to cumulate subject imports of heavy castings from Brazil, Canada, and China. The Commission did not make explicit separate "no discernible adverse impact" findings regarding

<sup>&</sup>lt;sup>48</sup> CR/PR at Table I-1.

<sup>&</sup>lt;sup>49</sup> Original Investigations, USITC Pub. 1838 at 12-13.

<sup>&</sup>lt;sup>50</sup> Original Investigations, USITC Pub. 1838 at 12 and n.45; Iron Construction Castings from Canada, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 at 8 (Feb. 1986).

heavy castings from Brazil, Canada, or China.<sup>51</sup> It stated that although the industries in Brazil and China were not exporting heavy castings to the United States in more than small quantities at that time, there was nothing on the record to indicate that the circumstances warranting cumulation in the original investigations would not recur if the orders were revoked. The Commission concluded that subject imports from Brazil, Canada, and China would be likely to compete with each other and with the domestic like product in the U.S. market if the orders were revoked. The Commission did not find that subject imports of heavy castings from any of the subject countries were likely to compete under different conditions of competition in the U.S. market in the event of revocation, and accordingly concluded that it was appropriate to exercise its discretion to cumulate subject imports of heavy castings from Brazil, Canada, and China.<sup>52</sup>

Second and Third Five-Year Reviews. In both the expedited second five-year reviews and third five-year reviews, the Commission noted that no party had asserted that imports of heavy castings from any subject country would be likely to have no discernible adverse impact and stated that the record did not otherwise suggest this was an issue in the reviews. In both reviews, it found a likely reasonable overlap of competition between subject imports of heavy castings from Brazil, Canada, and China and between those imports and the domestic like

The Commission's only "no discernible adverse impact" discussion concerning heavy castings in the first five-year reviews focused on whether revocation of the countervailing duty order on subject imports from India would be likely to have no discernible adverse impact on the domestic industry. Three Commissioners found that subject imports from India would be likely to have no discernible adverse impact, and one Commissioner declined to exercise discretion to cumulate with respect to subject imports from India. *First Reviews*, USITC Pub. 3247 at 12-14, 27-31.

<sup>&</sup>lt;sup>52</sup> First Reviews, USITC Pub. 3247 at 14-15.

<sup>&</sup>lt;sup>53</sup> Second Reviews, USITC Pub. 3781 at 8; Third Reviews, USITC Pub. 4191 at 8.

product, and did not find that subject imports of heavy castings from any of the subject countries were likely to compete under different conditions of competition in the U.S. market in the event of revocation. Accordingly, the Commission concluded that it was appropriate to exercise its discretion to cumulate subject imports of heavy castings from Brazil, Canada, and China. In the expedited third five-year reviews, the Commission observed that the record contained very little new information about either the subject industries or the characteristics of the subject imports, and that most of the available information was from the original investigations and prior reviews, particularly the full first reviews. 55

Fourth Five-Year Reviews. In the full fourth five-year reviews, the Commission exercised its discretion to cumulate subject imports of heavy castings from Brazil, Canada, and China. The Commission determined that subject imports from all three countries were not likely to have no discernible adverse impact on the domestic industry if the orders were revoked. Specifically, the Commission found that the record indicated that the subject heavy castings industry in Brazil had substantial capacity and excess capacity, had maintained a presence in the U.S. market since the orders were imposed, and had shown an increasing degree of export orientation during the period of review, with the United States as an important export market. With respect to heavy castings from Canada, the Commission noted that official export statistics indicated that the largest export market for iron construction castings ("castings") from Canada (including light castings as well as heavy castings) was the United

<sup>&</sup>lt;sup>54</sup> Second Reviews, USITC Pub. 3781 at 9; Third Reviews, USITC Pub. 4191 at 10.

<sup>&</sup>lt;sup>55</sup> Third Reviews, USITC Pub. 4191 at 9.

<sup>&</sup>lt;sup>56</sup> Fourth Reviews, USITC Pub. 4655 at 15-20.

<sup>&</sup>lt;sup>57</sup> Fourth Reviews, USITC Pub. 4655 at 15-18.

States, and that \*\*\* of the export shipments of the one subject Canadian producer of heavy castings that submitted a questionnaire response in the reviews went to the United States. 58

With respect to heavy castings from China, the Commission cited import data indicating that the quantity of subject imports of heavy castings from China during each year of the period of review was greater than that reported in the prior reviews, as well as official export statistics indicating that China's global exports of castings (including both heavy and light castings) and its exports of castings to the United States both increased overall during the period of review. 59

The Commission also found a likely reasonable overlap of competition between and among subject imports of heavy castings from all three subject countries and the domestic like product. The Commission found that the record did not support respondents' argument that there was a lack of fungibility with respect to subject imports from Brazil, rejecting as unsupported by the record the contention that heavy castings exported to the U.S. market by a Brazilian exporter were specialty products that did not compete with domestically produced product. The Commission also determined that heavy castings imports from all three subject countries would be likely to compete under similar conditions of competition upon revocation of the orders, finding that the industries in all three subject countries had substantial capacity and/or excess capacity, had some degree of export orientation, and had shown a continuing interest in the U.S. market since imposition of the orders. The competition of the orders in the U.S. market since imposition of the orders.

<sup>&</sup>lt;sup>58</sup> Fourth Reviews, USITC Pub. 4655 at 18-19; Fourth Reviews Confidential Views at 28-29 (EDIS Document No. 761863).

<sup>&</sup>lt;sup>59</sup> Fourth Reviews, USITC Pub. 4655 at 19-20; Fourth Reviews Confidential Views at 29-30 (EDIS Document No. 761863).

<sup>&</sup>lt;sup>60</sup> Fourth Reviews, USITC Pub. 4655 at 20-22.

<sup>&</sup>lt;sup>61</sup> Fourth Reviews, USITC Pub. 4655 at 22-25.

# 2. Likelihood of No Discernible Adverse Impact

The statute precludes cumulation if the Commission finds that subject imports from a country are likely to have no discernible adverse impact on the domestic industry. <sup>62</sup> Neither the statute nor the Uruguay Round Agreements Act ("URAA") Statement of Administrative Action ("SAA") provides specific guidance on what factors the Commission is to consider in determining that imports "are likely to have no discernible adverse impact" on the domestic industry. <sup>63</sup> With respect to this provision, the Commission generally considers the likely volume of subject imports and the likely impact of those imports on the domestic industry within a reasonably foreseeable time if the orders are revoked. Our analysis for each of the subject countries takes into account, among other things, the nature of the product and the behavior of subject imports in the original investigations.

Based on the record in these reviews, we find that imports from each subject country are not likely to have no discernible adverse impact on the domestic industry in the event of revocation of the corresponding order(s).

#### a. Brazil

During the original period of investigation, the quantity of U.S. shipments of subject imports of heavy castings from Brazil increased from 1.9 million pounds in 1983 to 19.5 million pounds in 1985.<sup>64</sup> In the first reviews, the quantity of U.S. shipments of subject imports from Brazil was 227,000 pounds in 1997 and 73,000 pounds in 1998.<sup>65</sup> In the second reviews, the

<sup>&</sup>lt;sup>62</sup> 19 U.S.C. § 1675a(a)(7).

<sup>&</sup>lt;sup>63</sup> SAA, H.R. Rep. No. 103-316, vol. I at 887 (1994).

<sup>&</sup>lt;sup>64</sup> Original Investigations, USITC Pub. 1838 at A-45.

<sup>&</sup>lt;sup>65</sup> See Second Reviews, USITC Pub. 3781 at Table I-7.

quantity of subject imports from Brazil ranged between a period low of 391,000 pounds in 2003 and a period high of 1.5 million pounds in 2004.<sup>66</sup> In the third reviews, the quantity of subject imports from Brazil was 685,000 pounds in 2009.<sup>67</sup> In the fourth reviews, the quantity of subject imports of heavy castings from Brazil was 1.1 million pounds in 2013, 498,000 pounds in 2014, and 662,000 pounds in 2015.<sup>68</sup> In the current reviews, the quantity of subject imports of heavy castings from Brazil was 864,000 pounds in 2016, 1.1 million pounds in 2017, 1.5 million pounds in 2018, 740,000 pounds in 2019, and 790,000 pounds in 2020.<sup>69</sup> The market share of subject imports of heavy castings from Brazil was 3.5 percent of apparent U.S. consumption in 1985, less than 0.05 percent in 1998, 0.1 percent in 2003, \*\*\* percent in 2009, \*\*\* percent in 2015, and 0.1 percent in 2020.<sup>70</sup>

According to official export statistics, total Brazilian exports of iron construction castings, including subject heavy and light castings combined, increased from 1.4 million pounds in 2016 to 2.0 million pounds in 2017, 2018, and 2019, and then declined to 1.7 million pounds in 2020.<sup>71</sup> Those data show that Brazilian exports of iron construction castings to the United States were 547,000 pounds in 2016, 544,000 pounds in 2017, 734,000 pounds in 2018, 386,000 pounds in 2019, and 258,000 pounds in 2020.<sup>72</sup> According to those data, the largest

<sup>&</sup>lt;sup>66</sup> Second Reviews, USITC Pub. 3781 at Table I-7.

<sup>&</sup>lt;sup>67</sup> Third Reviews, USITC Pub. 4191 at Table I-14.

<sup>&</sup>lt;sup>68</sup> CR/PR at Table C-1.

<sup>&</sup>lt;sup>69</sup> CR/PR at Table I-7.

<sup>&</sup>lt;sup>70</sup> CR/PR at Table I-9; *see* First Reviews Revisions to Confidential Report, INV-W-234 (Oct. 15, 1999) at Table I-2 and n.2 (EDIS Document No. 761870).

<sup>&</sup>lt;sup>71</sup> CR/PR at Table I-11. The official export statistics under the applicable HTS subheading are not believed to contain any exports of out-of-scope products. CR/PR at Table I-11 note.

<sup>&</sup>lt;sup>72</sup> CR/PR at Table I-11.

export destinations for iron construction castings from Brazil in 2020 were Argentina, the United States, and Poland.<sup>73</sup>

The record of the current reviews contains limited new information concerning the heavy castings industry in Brazil, and no information of any significant changes to the Brazilian industry since the last five-year reviews. Domestic Producers provided a list of 98 possible producers of castings in Brazil.

Subject imports from Brazil undersold the domestic like product in \*\*\* of 16 comparisons in the original investigations. In the fourth reviews, while under the discipline of the orders, prices of subject imports of heavy castings from Brazil were higher than those of domestic product in all 14 instances. No pricing product data were obtained in the current five-year reviews.

Based on the foregoing, including the continued presence of subject imports from Brazil in the U.S. market while under the disciplining effect of the orders, the large size and volume of exports of the Brazilian industry, and the underselling by subject imports from Brazil during the original investigations, we do not find that subject imports of heavy castings from Brazil would be likely to have no discernible adverse impact on the domestic industry if the antidumping and countervailing duty orders were revoked.

# b. Canada

<sup>&</sup>lt;sup>73</sup> CR/PR at Table I-11.

<sup>&</sup>lt;sup>74</sup> See CR/PR at I-27 to I-28.

<sup>&</sup>lt;sup>75</sup> CR/PR at I-27.

<sup>&</sup>lt;sup>76</sup> See Fourth Reviews Confidential Report, INV-OO-105 (Nov. 15, 2016) at Table V-6 (EDIS Document No. 761883).

<sup>&</sup>lt;sup>77</sup> Fourth Reviews, USITC Pub. 4655 at 43.

During the original period of investigation, the quantity of U.S. shipments of subject imports of heavy castings from Canada increased from 8.6 million pounds in 1983 to 21.0 million pounds in 1985.<sup>78</sup> In the first reviews, the quantity of U.S. shipments of subject imports from Canada was 10.2 million pounds in 1998.<sup>79</sup> In the second reviews, the quantity of subject imports from Canada was 9.6 million pounds in 2003.<sup>80</sup> In the third reviews, the quantity of subject imports from Canada was 6.6 million pounds in 2009.<sup>81</sup> In the fourth reviews, the quantity of subject imports from Canada was 1.3 million pounds in 2013, 937,000 pounds in 2014, and 1.3 million pounds in 2015.<sup>82</sup> In the current reviews, the quantity of subject imports of heavy castings from Canada was 998,000 pounds in 2016, 411,000 pounds in 2017, 379,000 pounds in 2018, 402,000 pounds in 2019, and 194,000 pounds in 2020.<sup>83</sup> The market share of subject imports of heavy castings from Canada was 3.7 percent of apparent U.S. consumption in 1985, 1.5 percent in 1998 and 2003, \*\*\* percent in 2009, \*\*\* percent in 2015, and less than 0.05 percent in 2020.<sup>84</sup>

According to official export statistics, total Canadian exports of iron construction castings, including subject heavy and light castings combined, were 2.8 million pounds in 2016, 2.5 million pounds in 2017, 2.2 million pounds in 2018, 2.5 million pounds in 2019, and 2.4

<sup>&</sup>lt;sup>78</sup> Original Investigations, USITC Pub. 1838 at A-45.

<sup>&</sup>lt;sup>79</sup> See Second Reviews, USITC Pub. 3781 at Table I-7.

<sup>&</sup>lt;sup>80</sup> Second Reviews, USITC Pub. 3781 at Table I-7.

<sup>&</sup>lt;sup>81</sup> Third Reviews, USITC Pub. 4191 at Table I-14.

<sup>82</sup> CR/PR at Table C-1.

<sup>83</sup> CR/PR at Table I-7.

<sup>&</sup>lt;sup>84</sup> CR/PR at Table I-9.

million pounds in 2020.<sup>85</sup> Those data show that Canadian exports of iron construction castings to the United States were 2.5 million pounds in 2016, 2.3 million pounds in 2017, 2.2 million pounds in 2018, 2.4 million pounds in 2019, and 2.3 million pounds in 2020.<sup>86</sup> According to those data, the United States was by far the leading export destination for iron construction castings from Canada during each year in the 2016-2020 period of review.<sup>87</sup>

The record of the current reviews contains limited new information concerning the heavy castings industry in Canada. <sup>88</sup> Domestic Producers provided a list of 14 possible producers of castings in Canada. <sup>89</sup> Canadian producer Fonderie Laperie invested \$5.5 million in 2016 at its metal casting facility to make improvements, including a new melt deck and equipment. <sup>90</sup>

Subject imports from Canada undersold the domestic like product in 29 of 38 comparisons in the original investigations.<sup>91</sup> In the full first reviews, the Commission found significant underselling by subject imports of heavy castings from Canada in each quarter examined from January 1997 to March 1999.<sup>92</sup> In the full fourth reviews, subject imports of

<sup>&</sup>lt;sup>85</sup> CR/PR at Table I-13. The official export statistics under the applicable HTS subheading are not believed to contain any exports of out-of-scope products. CR/PR at Table I-13 note.

<sup>&</sup>lt;sup>86</sup> CR/PR at Table I-13.

<sup>&</sup>lt;sup>87</sup> CR/PR at Table I-13.

<sup>88</sup> See CR/PR at I-28 to I-29.

<sup>89</sup> CR/PR at I-29.

<sup>&</sup>lt;sup>90</sup> CR/PR at I-29.

<sup>&</sup>lt;sup>91</sup> See Fourth Reviews Confidential Report, INV-OO-105 (Nov. 15, 2016) at Table V-6 (EDIS Document No. 761883).

<sup>&</sup>lt;sup>92</sup> First Reviews, USITC Pub. 3247 at 22. The Commission did not make any findings with respect to underselling by subject imports of heavy castings from Brazil or China in the full first reviews. *Id*.

heavy castings from Canada undersold U.S.-produced product in all 14 quarterly comparisons.<sup>93</sup>

No pricing product data were obtained in the current five-year reviews.

Based on the foregoing, including the continued presence of subject imports from Canada in the U.S. market while under the disciplining effect of the order, the large size and volume of exports of the Canadian industry, and the underselling by subject imports from Canada during the original investigations and first and fourth reviews, we do not find that subject imports of heavy castings from Canada would be likely to have no discernible adverse impact on the domestic industry if the antidumping duty order were revoked.

#### c. China

During the original period of investigation, the quantity of U.S. shipments of subject imports of heavy castings from China increased from 10.8 million pounds in 1983 to 19.5 million pounds in 1985. In the first reviews, the quantity of U.S. shipments of subject imports of heavy castings from China was 1.3 million pounds in 1998. In the second reviews, the quantity of subject imports of heavy castings from China was 2.3 million pounds in 2003. In the third reviews, the quantity of subject imports of heavy castings from China was 1.4 million pounds in 2009. In the fourth reviews, the quantity of subject imports of heavy castings from China was 3.0 million pounds in 2013, 3.4 million pounds in 2014, and 3.1 million pounds in 2015. In the current reviews, the quantity of subject imports of heavy castings from China

<sup>&</sup>lt;sup>93</sup> Fourth Reviews, USITC Pub. 4655 at 43.

<sup>&</sup>lt;sup>94</sup> Original Investigations, USITC Pub. 1838 at A-45.

<sup>&</sup>lt;sup>95</sup> See Second Reviews, USITC Pub. 3781 at Table I-7.

<sup>&</sup>lt;sup>96</sup> Second Reviews, USITC Pub. 3781 at Table I-7.

<sup>97</sup> Third Reviews, USITC Pub. 4191 at Table I-14,

<sup>98</sup> CR/PR at Table C-1.

was 3.3 million pounds in 2016, 2.8 million pounds in 2017, 3.4 million pounds in 2018, 3.9 million pounds in 2019, and 1.7 million pounds in 2020.<sup>99</sup> The market share of subject imports of heavy castings from China was 3.5 percent of apparent U.S. consumption in 1985, 0.2 percent in 1998, 0.4 percent in 2003, \*\*\* percent in 2009, \*\*\* percent in 2015, and 0.3 percent in 2020.<sup>100</sup>

According to official export statistics, total Chinese exports of iron construction castings, including subject heavy and light castings combined, were 217.8 million pounds in 2016, 203.7 million pounds in 2017, 183.3 million pounds in 2018, 188.0 million pounds in 2019, and 169.3 million pounds in 2020. Those data show that Chinese exports of iron construction castings to the United States were 15.5 million pounds in 2016, 14.9 million pounds in 2017, 18.7 million pounds in 2018, 17.9 million pounds in 2019, and 16.2 million pounds in 2020. According to those data, the largest export destinations for iron construction castings from China in 2020 were Japan, Italy, and the United States. Global Trade Atlas data reflect that China was the world's largest exporter of iron construction castings throughout the period of review.

The record of the current reviews contains limited new information concerning the heavy castings industry in China. Domestic Producers provided a list of 283 possible

<sup>&</sup>lt;sup>99</sup> CR/PR at Table I-7.

<sup>&</sup>lt;sup>100</sup> CR/PR at Table I-9.

<sup>&</sup>lt;sup>101</sup> CR/PR at Table I-15. The official export statistics under the applicable HTS subheading are not believed to contain any exports of out-of-scope products. CR/PR at Table I-15 note.

<sup>&</sup>lt;sup>102</sup> CR/PR at Table I-15.

<sup>&</sup>lt;sup>103</sup> CR/PR at Table I-15.

<sup>&</sup>lt;sup>104</sup> CR/PR at Table I-16.

<sup>&</sup>lt;sup>105</sup> See CR/PR at I-30 to I-32.

producers of castings in China. <sup>106</sup> Chinese producer HangZhou Youruo Technology Co. Ltd. opened a new heavy castings facility in 2016, with the United States as one of its target export markets, while new Chinese heavy castings producer Suzhou Sense Industry Co., Ltd. opened a plant in 2019, with the bulk of its output to be exported, including to the United States. <sup>107</sup> In addition, Hunan Castking Foundry invested 80 million yuan in 2020 to build a new production workshop to produce subject castings. <sup>108</sup>

In the original investigations, subject imports from China were priced lower than domestic product in \*\*\* of 31 comparisons. No pricing product data were obtained in the current five-year reviews.

Based on the foregoing, including the continued presence of subject imports from China in the U.S. market while under the disciplining effect of the order, the large size and volume of exports of the Chinese industry, and the underselling by subject imports from China during the original investigations, we do not find that subject imports of heavy castings from China would be likely to have no discernible adverse impact on the domestic industry if the antidumping duty order were revoked.

## 3. Likelihood of a Reasonable Overlap of Competition

The Commission generally has considered four factors intended to provide a framework for determining whether subject imports compete with each other and with the domestic like

<sup>&</sup>lt;sup>106</sup> CR/PR at I-30.

<sup>&</sup>lt;sup>107</sup> CR/PR at I-31.

<sup>&</sup>lt;sup>108</sup> CR/PR at I-31.

<sup>&</sup>lt;sup>109</sup> See Fourth Reviews Confidential Report, INV-OO-105 (Nov. 15, 2016) at Table V-6 (EDIS Document No. 761883). In the full fourth reviews, no importer provided pricing data for imports of heavy castings from China. *Fourth Reviews*, USITC Pub. 4655 at 42-43 n.215.

product.<sup>110</sup> Only a "reasonable overlap" of competition is required.<sup>111</sup> In five-year reviews, the relevant inquiry is whether there likely would be competition even if none currently exists because the subject imports are absent from the U.S. market.<sup>112</sup>

Fungibility. In the original investigations, the Commission found that heavy castings were essentially fungible because they were made to uniform specifications supplied by municipalities and other end users. The Commission made a similar finding of fungibility in the full first reviews. In the full fourth five-year reviews, the Commission observed that a majority of responding U.S. importers and purchasers found that heavy castings from Brazil,

<sup>&</sup>lt;sup>110</sup> The four factors generally considered by the Commission in assessing whether imports compete with each other and with the domestic like product are as follows: (1) the degree of fungibility between subject imports from different countries and between subject 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 markets of imports from different countries and the domestic like product; (3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and (4) whether subject imports are simultaneously present in the market with one another and the domestic like product. *See, e.g., Wieland Werke, AG v. United States,* 718 F. Supp. 50 (Ct. Int'l Trade 1989).

<sup>&</sup>lt;sup>111</sup> See Mukand Ltd. v. United States, 937 F. Supp. 910, 916 (Ct. Int'l Trade 1996); Wieland Werke, 718 F. Supp. at 52 ("Completely overlapping markets are not required."); United States Steel Group v. United States, 873 F. Supp. 673, 685 (Ct. Int'l Trade 1994), aff'd, 96 F.3d 1352 (Fed. Cir. 1996). We note, however, that there have been investigations where the Commission has found an insufficient overlap in competition and has declined to cumulate subject imports. See, e.g., Live Cattle from Canada and Mexico, Inv. Nos. 701-TA-386 and 731-TA-812-13 (Preliminary), USITC Pub. 3155 at 15 (Feb. 1999), aff'd sub nom, Ranchers-Cattlemen Action Legal Foundation v. United States, 74 F. Supp. 2d 1353 (Ct. Int'l Trade 1999); Static Random Access Memory Semiconductors from the Republic of Korea and Taiwan, Inv. Nos. 731-TA-761-62 (Final), USITC Pub. 3098 at 13-15 (Apr. 1998).

<sup>&</sup>lt;sup>112</sup> See generally, Chefline Corp. v. United States, 219 F. Supp. 2d 1313, 1314 (Ct. Int'l Trade 2002).

<sup>&</sup>lt;sup>113</sup> Original Investigations, USITC Pub. 1838 at 12 and n.36; Iron Construction Castings from Canada, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 at 8 (Feb. 1986).

<sup>114</sup> First Reviews, USITC Pub. 3247 at 6, 14. In our analysis of whether there is a reasonable overlap of competition with respect to heavy castings, we have looked more closely at the Commission's analyses in the original investigations and in the full first and fourth reviews, while the expedited second and third reviews contained a less detailed analysis on this issue.

Canada, China, and the United States were either "always" or "frequently" interchangeable. 115 Given this, as well as record information indicating that certain "specialty" products exported by Brazil to the United States competed directly with and were interchangeable with domestically produced heavy castings, the Commission found a sufficient degree of fungibility between and among subject imports from all three sources and the domestic like product to support the finding of a likely reasonable overlap of competition. 116

In the current reviews, Domestic Producers contend that the relevant conditions of competition have not changed since the prior reviews, and that heavy castings from the three subject countries and the domestic like product remain interchangeable. There is no new information in these reviews to indicate that the degree of fungibility of heavy castings from Brazil, Canada, China, and the domestic like product has changed from that observed in the original investigations and prior reviews.

Channels of Distribution. In the original investigations, the Commission found that channels of distribution for imports of heavy castings and the domestic like product overlapped with respect to sales to end users, <sup>118</sup> and it made a similar finding of overlap in channels of distribution in the full first reviews. <sup>119</sup> In the full fourth five-year reviews, the Commission again

<sup>&</sup>lt;sup>115</sup> Fourth Reviews, USITC Pub. 4655 at 20-21.

<sup>&</sup>lt;sup>116</sup> Fourth Reviews, USITC Pub. 4655 at 22.

<sup>&</sup>lt;sup>117</sup> Domestic Producers' Final Comments at 3-4.

<sup>&</sup>lt;sup>118</sup> Original Investigations, USITC Pub. 1838 at 12 and n.36; Iron Construction Castings from Canada, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 at 8 (Feb. 1986).

<sup>&</sup>lt;sup>119</sup> First Reviews, USITC Pub. 3247 at 14.

found an overlap in channels of distribution, finding that U.S. producers and importers of subject heavy castings from Brazil, Canada, and China sold primarily to distributors. 120

In the current reviews, Domestic Producers contend that the relevant conditions of competition have not changed since the prior reviews, and that heavy castings from the three subject countries and the domestic like product remain interchangeable. There is no new information in these reviews to indicate that the channels of distribution for heavy castings from each of the subject countries and the domestic industry have changed from those observed in the original investigations and prior reviews.

Geographic Overlap. In the original investigations, the Commission found that there was an overlap between imports of heavy castings from the subject countries and the domestic like product with respect to the geographic areas where their sales were directed, 122 and it made a similar finding in the full first reviews. 123 In the full fourth reviews, the Commission found that that, even with the orders in place, there was overlap in the geographic market areas served by the domestic like product and imports of heavy castings from all subject sources during the period of review, with castings (not broken down between heavy and light castings) from all sources generally sold to all regions of the United States. 124

There is no new information in these reviews to indicate that the geographic regions in which heavy castings from the subject countries and the domestic industry are sold have

<sup>&</sup>lt;sup>120</sup> Fourth Reviews, USITC Pub. 4655 at 21, 22.

<sup>&</sup>lt;sup>121</sup> Domestic Producers' Final Comments, April 15, 2022, at 3-4.

<sup>&</sup>lt;sup>122</sup> Original Investigations, USITC Pub. 1838 at 12 and n.36; Iron Construction Castings from Canada, Inv. No. 731-TA-263 (Final), USITC Pub. 1811 at 8 (Feb. 1986).

<sup>&</sup>lt;sup>123</sup> First Reviews, USITC Pub. 3247 at 14.

<sup>&</sup>lt;sup>124</sup> Fourth Reviews, USITC Pub. 4655 at 22.

changed since the original investigations and prior reviews. The record indicates that subject imports of heavy castings from Brazil entered primarily through Houston-Galveston, TX, during the period of review; subject imports from Canada entered primarily through Ogdensburg, NY; and subject imports from China entered through Charleston, SC, and Savannah, GA.<sup>125</sup>

Simultaneous Presence in Market. The Commission did not specifically address simultaneous presence in the market in the original investigations. However, in the full first reviews, the Commission observed that in the original period of investigation, subject imports of heavy castings from Brazil, Canada, and China had been simultaneously present In the market and also had competed with each other and the domestic like product, and stated that nothing in the record of those reviews indicated that those circumstances would not recur if the orders were revoked. <sup>126</sup> In the full fourth reviews, the Commission found that the domestic like product and subject imports of heavy castings from each subject country were present in the U.S. market throughout the period of review. <sup>127</sup> In the current reviews, subject imports of heavy castings from Brazil, Canada, and China were present in the U.S. market in each year of the 2016-2020 period, with subject imports from Brazil present in 48 of 60 months, subject imports from Canada present in 55 of 60 months, and subject imports from China present in all 60 months. <sup>128</sup>

Conclusion. The record in these expedited reviews contains limited information concerning subject imports of heavy castings from Brazil, Canada, and China in the U.S. market

<sup>&</sup>lt;sup>125</sup> See Official Import Statistics (EDIS Document 761910).

<sup>&</sup>lt;sup>126</sup> First Reviews, USITC Pub. 3247 at 14.

<sup>&</sup>lt;sup>127</sup> Fourth Reviews, USITC Pub. 4655 at 22.

<sup>&</sup>lt;sup>128</sup> CR/PR at I-22 and Table I-7; see Official Import Statistics (EDIS Document 761910).

during the current review period. The record contains no new information, however, suggesting a change in the considerations that led the Commission in its original determinations and prior reviews to conclude that there was a reasonable overlap of competition between and among imports from the subject countries and the domestic like product. In light of this, and in the absence of any contrary argument, we find that there would likely be a reasonable overlap of competition between and among subject imports of heavy castings from Brazil, Canada, and China and the domestic like product, if the orders were revoked.

#### 4. Likely Conditions of Competition

In determining whether to exercise our discretion to cumulate the subject imports, we assess whether subject imports of heavy castings from Brazil, Canada, and China would likely compete under similar or different conditions of competition in the U.S. market after revocation of the orders. The available information in these expedited reviews shows that prior to imposition of the orders, imports of heavy castings from each subject country increased significantly in volume and market share and undersold the domestic like product in the original period of investigation. The available information also shows that Brazil, Canada, and China each exported substantial volumes of iron construction castings (a category that includes heavy castings) during the current period of review, and that the United States was one of the principal export markets for each of the three subject industries. This information indicates

<sup>&</sup>lt;sup>129</sup> Original Investigations, USITC Pub. 1838 at A-44 to A-47, A-55 to A-64; see Fourth Reviews Confidential Report, INV-OO-105 (Nov. 15, 2016) at Table V-6 n.1 (EDIS Document No. 761883).

<sup>&</sup>lt;sup>130</sup> CR/PR at Tables I-11, I-13, and I-15.

that the industries in all three subject countries have some degree of export orientation, and have shown a continuing interest in the U.S. market since imposition of the orders.

Thus, the record in these reviews does not indicate that there would likely be any significant difference in the conditions of competition between subject imports of heavy castings from Brazil, Canada, and China if the orders were revoked.

#### 5. Conclusion

In sum, we determine that subject imports of heavy castings from Brazil, Canada, and China, considered individually, are not likely to have no discernible adverse impact on the domestic industry if the corresponding orders were revoked. We also find a likely reasonable overlap of competition between and among subject imports from Brazil, Canada, and China and the domestic like product if the orders were revoked. Finally, we find that imports from each subject country would be likely to compete under similar conditions of competition upon revocation of the antidumping and countervailing duty orders. We therefore exercise our discretion to cumulate subject imports of heavy castings from Brazil, Canada, and China for purposes of our analysis in these reviews.

### C. Light Castings

#### 1. The Original Investigations and Previous Five-Year Reviews

Original Investigations. The Commission did not cumulate subject imports of light castings from Brazil, China, or India in the original investigations; it made separate affirmative

determinations of threat of material injury individually for less-than-fair-value subject imports from Brazil, China, and India.<sup>131</sup>

First Five-Year Reviews. In the full first five-year reviews, the Commission exercised its discretion to cumulate subject imports of light castings from Brazil and China. It stated that it did not find that imports of light castings from Brazil or those from China were likely to have no discernible adverse impact on the domestic industry if the respective orders were revoked, noting the high production capacity in each subject country and the substitutability of light castings made from domestic and subject sources. It stated that while the current levels of imports of light castings from Brazil and China were insignificant or zero, this could reasonably be attributed to the effects of the orders. It found a likely reasonable overlap of competition between the subject imports from Brazil and China and between those imports and the domestic like product, stating that during the original investigations, subject imports of light castings from Brazil and China were simultaneously present in the market and competed with each other and the domestic like product. The Commission found no indication that conditions of competition would be significantly different for subject imports from Brazil and China if the orders were revoked.<sup>132</sup>

Second and Third Five-Year Reviews. In both the expedited second five-year reviews and expedited third five-year reviews, the Commission stated that no party had asserted that subject imports of light castings from either subject country would likely have no discernible adverse impact and that the record did not otherwise suggest this was an issue in the

<sup>&</sup>lt;sup>131</sup> Original Investigations, USITC Pub. 1838 at 20-21.

<sup>132</sup> First Reviews, USITC Pub. 3247 at 11-12.

reviews.<sup>133</sup> In both reviews, it exercised its discretion to cumulate subject imports of light castings from Brazil and China. It further found a likely reasonable overlap of competition between the subject imports from Brazil and China and between those imports and the domestic like product, and also found no indication that conditions of competition would be significantly different for subject imports from Brazil and China if the orders were revoked.<sup>134</sup>

exercised its discretion to cumulate subject imports of light castings from Brazil and China. The Commission determined that subject imports from both countries were not likely to have no discernible adverse impact on the domestic industry if the orders were revoked. With respect to light castings from Brazil, the Commission noted the substantial increase in subject imports of light castings from Brazil in the original period of investigation, official export statistics (including heavy and light castings) indicating that total Brazilian exports of castings increased during the period of review and that the United States was the largest export destination for castings from Brazil, and the absence of any usable questionnaire responses received from producers of light castings from Brazil in the reviews. With respect to light castings from China, the Commission also noted the substantial increase in subject imports of light castings from China in the original period of investigation, official export statistics (including heavy and light castings) indicating that total Chinese exports of castings and Chinese exports of castings

<sup>&</sup>lt;sup>133</sup> Second Reviews, USITC Pub. 3781 at 8; Third Reviews, USITC Pub. 4191 at 8.

<sup>&</sup>lt;sup>134</sup> Second Reviews, USITC Pub. 3781 at 9-10; Third Reviews, USITC Pub. 4191 at 11.

<sup>&</sup>lt;sup>135</sup> Fourth Reviews, USITC Pub. 4655 at 26-27.

to the United States increased during the period of review, and the absence of any questionnaire responses received from producers of light castings from China in the reviews. 136

The Commission also found that the limited information available in the record indicated a likely reasonable overlap of competition between and among subject imports of light castings from Brazil and China and the domestic like product. The Commission also determined that subject imports from both subject countries would be likely to compete under similar conditions of competition upon revocation of the orders, finding that the record indicated that light castings manufactured by subject producers in Brazil and China and by producers in the United States were generally interchangeable with each other, and that subject producers in both subject countries had substantial capacity to produce light castings and some degree of export orientation. The commission also

#### 2. Likelihood of No Discernible Adverse Impact

#### a. Brazil

During the original period of investigation, the quantity of U.S. shipments of subject imports of light castings from Brazil increased from zero in 1983 to 1.6 million pounds in 1985. <sup>139</sup> In the first reviews, there were no reported U.S. shipments of subject imports from

<sup>&</sup>lt;sup>136</sup> Fourth Reviews, USITC Pub. 4655 at 27-28.

<sup>&</sup>lt;sup>137</sup> Fourth Reviews, USITC Pub. 4655 at 28-29.

<sup>&</sup>lt;sup>138</sup> Fourth Reviews, USITC Pub. 4655 at 29-30.

<sup>&</sup>lt;sup>139</sup> Original Investigations, USITC Pub. 1838 at A-45.

Brazil in 1997 or 1998.<sup>140</sup> In the second reviews, the quantity of subject imports from Brazil was 882,000 pounds in 2003.<sup>141</sup> In the third reviews, the quantity of subject imports from Brazil was 250,000 pounds in 2009.<sup>142</sup> In the fourth reviews, the quantity of subject imports from Brazil was 104,000 pounds in 2013, 123,000 pounds in 2014, and zero pounds in 2015.<sup>143</sup> In the current reviews, the quantity of subject imports of light castings from Brazil was 4,000 pounds in 2016, zero pounds in 2017, less than 1,000 pounds in 2018, and zero pounds in 2019 and 2020.<sup>144</sup> The market share of subject imports of light castings from Brazil was \*\*\* percent of apparent U.S. consumption in 1998, \*\*\* percent in 2003, \*\*\* percent in 2009, \*\*\* percent in 2015, and zero percent in 2020.<sup>145</sup>

According to official export statistics, total Brazilian exports of iron construction castings, including subject heavy and light castings combined, increased from 1.4 million pounds in 2016 to 2.0 million pounds in 2017, 2018, and 2019, and then declined to 1.7 million pounds in 2020. Those data show that Brazilian exports of iron construction castings to the United States were 547,000 pounds in 2016, 544,000 pounds in 2017, 734,000 pounds in 2018, 386,000 pounds in 2019, and 258,000 pounds in 2020. According to those data, the largest

<sup>&</sup>lt;sup>140</sup> See Second Reviews, USITC Pub. 3781 at Table I-8.

<sup>&</sup>lt;sup>141</sup> Second Reviews, USITC Pub. 3781 at Table I-8.

<sup>&</sup>lt;sup>142</sup> Third Reviews, USITC Pub. 4191 at Table I-15.

<sup>&</sup>lt;sup>143</sup> CR/PR at Table C-2.

<sup>&</sup>lt;sup>144</sup> CR/PR at Table I-8.

<sup>&</sup>lt;sup>145</sup> CR/PR at Table I-10.

<sup>&</sup>lt;sup>146</sup> CR/PR at Table I-11. The official export statistics under the applicable HTS subheading are not believed to contain any exports of out-of-scope products. CR/PR at Table I-11 note.

<sup>&</sup>lt;sup>147</sup> CR/PR at Table I-11.

export destinations for iron construction castings from Brazil in 2020 were Argentina, the United States, and Poland. 148

The record of the current reviews contains limited new information concerning the light castings industry in Brazil, and no information of any significant changes to the Brazilian industry since the last five-year reviews. Domestic Producers provided a list of 98 possible producers of castings in Brazil. 150

In the original investigations, the Commission found that available pricing data for one Brazilian light casting product showed margins of underselling in excess of 10 percent. No pricing product data for imports of light castings were obtained in the subsequent reviews or in the current five-year reviews. 152

Based on the foregoing, including the large size and volume of exports of the Brazilian industry, and the underselling by subject imports from Brazil during the original investigations, we do not find that subject imports of light castings from Brazil would likely have no discernible adverse impact on the domestic industry if the antidumping duty order were revoked.

#### b. China

During the original period of investigation, the quantity of U.S. shipments of subject imports of light castings from China increased from 927,000 pounds in 1983 to 1.6 million

<sup>&</sup>lt;sup>148</sup> CR/PR at Table I-11.

<sup>&</sup>lt;sup>149</sup> See CR/PR at I-27 to I-28.

<sup>&</sup>lt;sup>150</sup> CR/PR at I-27.

<sup>&</sup>lt;sup>151</sup> Original Investigations, USITC Pub. 1838 at 23.

<sup>&</sup>lt;sup>152</sup> In the full first and full fourth reviews, no importer provided pricing data for imports of light castings. *First Reviews*, USITC Pub. 3247 at 19; *Fourth Reviews*, USITC Pub. 4655 at 53.

pounds in 1985.<sup>153</sup> In the first reviews, the quantity of U.S. shipments of subject imports from China was \*\*\* pounds in 1998.<sup>154</sup> In the second reviews, the quantity of subject imports from China was 2.5 million pounds in 2003.<sup>155</sup> In the third reviews, the quantity of subject imports from China was 544,000 pounds in 2009.<sup>156</sup> In the fourth reviews, the quantity of subject imports from China was 3.4 million pounds in 2013, 1.4 million pounds in 2014, and 1.2 million pounds in 2015.<sup>157</sup> In the current reviews, the quantity of subject imports of light castings from China was 1.0 million pounds in 2016 and 2017, 2.0 million pounds in 2018, 391,000 pounds in 2019, and 319,000 pounds in 2020.<sup>158</sup> The market share of subject imports of light castings from China was \*\*\* percent of apparent U.S. consumption in 1998, \*\*\* percent in 2003, \*\*\* percent in 2009, \*\*\* percent in 2015, and \*\*\* percent in 2020.<sup>159</sup>

According to official export statistics, total Chinese exports of iron construction castings, including subject heavy and light castings combined, were 217.8 million pounds in 2016, 203.7 million pounds in 2017, 183.3 million pounds in 2018, 188.0 million pounds in 2019, and 169.3 million pounds in 2020. Those data show that Chinese exports of iron construction castings to the United States were 15.5 million pounds in 2016, 14.9 million pounds in 2017, 18.7 million pounds in 2018, 17.9 million pounds in 2019, and 16.2 million pounds in 2020. According to

<sup>&</sup>lt;sup>153</sup> Original Investigations, USITC Pub. 1838 at A-45.

<sup>&</sup>lt;sup>154</sup> First Reviews Confidential Views at 18-19 (EDIS Document No. 761859).

<sup>&</sup>lt;sup>155</sup> Second Reviews, USITC Pub. 3781 at Table I-8.

<sup>&</sup>lt;sup>156</sup> Third Reviews, USITC Pub. 4191 at Table I-15.

<sup>157</sup> CR/PR at Table C-2.

<sup>&</sup>lt;sup>158</sup> CR/PR at Table I-8.

<sup>159</sup> CR/PR at Table I-10.

<sup>&</sup>lt;sup>160</sup> CR/PR at Table I-15. The official export statistics under the applicable HTS subheading are not believed to contain any exports of out-of-scope products. CR/PR at Table I-15 note.

<sup>&</sup>lt;sup>161</sup> CR/PR at Table I-15.

those data, the largest export destinations for iron construction castings from China in 2020 were Japan, Italy, and the United States. Global Trade Atlas data reflect that China was the world's largest exporter of iron construction castings throughout the period of review.

The record of the current reviews contains limited new information concerning the light castings industry in China. Domestic Producers provided a list of 283 possible producers of castings in China. Hunan Castking Foundry invested 80 million yuan in 2020 to build a new production workshop to produce subject castings.

In the original investigations, the Commission found that available pricing data showed that subject imports of light castings from China undersold the domestic like product in each quarter from 1983 to 1985, at margins of underselling of approximately 30 percent for most periods. No pricing product data were obtained in the current five-year reviews.

Based on the foregoing, including the continued presence of subject imports from China in the U.S. market while under the disciplining effect of the order, the large size and volume of exports of the Chinese industry, and the underselling by subject imports from China during the original investigations, we do not find that subject imports of light castings from China would likely have no discernible adverse impact on the domestic industry if the antidumping duty order were revoked.

<sup>&</sup>lt;sup>162</sup> CR/PR at Table I-15.

<sup>&</sup>lt;sup>163</sup> CR/PR at Table I-16.

<sup>&</sup>lt;sup>164</sup> See CR/PR at I-30 to I-32.

<sup>&</sup>lt;sup>165</sup> CR/PR at I-30.

<sup>&</sup>lt;sup>166</sup> CR/PR at I-31.

<sup>&</sup>lt;sup>167</sup> Original Investigations, USITC Pub. 1838 at 23.

#### 3. Likelihood of a Reasonable Overlap of Competition

Fungibility. Although the Commission did not cumulate subject imports of light castings in the original investigations, it did make a finding that domestic and imported light castings were essentially fungible. In the most recent full reviews, the Commission found that a majority of reporting U.S. producers, importers, and purchasers found that light castings from Brazil and China were either "always" or "frequently" interchangeable with each other and with the domestic like product. 169

In the current reviews, Domestic Producers contend that the relevant conditions of competition have not changed since the prior reviews, and that light castings from the two subject countries and the domestic like product remain interchangeable. There is no new information in these reviews to indicate that the degree of fungibility of light castings from Brazil, China, and the domestic like product has changed from that observed in the prior reviews.

Channels of Distribution. In the most recent full reviews, the Commission found that U.S. producers' sales of light castings were primarily to distributors, as were sales of subject imports of light castings from Brazil. While no importers provided data with respect to distribution channels for sales of imports of light castings from China, the Commission stated that there was no information in the record to indicate that there had been any change

<sup>&</sup>lt;sup>168</sup> Original Investigations, USITC Pub. 1838 at 6. In our analysis of whether there is a reasonable overlap of competition with respect to light castings, we have looked most closely at the Commission's analyses in the full fourth reviews, which contained the more detailed previous analysis on this issue.

<sup>&</sup>lt;sup>169</sup> Fourth Reviews, USITC Pub. 4655 at 28.

<sup>&</sup>lt;sup>170</sup> Domestic Producers' Final Comments at 3-4.

regarding a likely overlap in channels of distribution, as the Commission had found in the first three reviews. 171

In the current reviews, Domestic Producers contend that domestic light castings and imported light castings from Brazil and China continue to be sold through the same channels of distribution, primarily to distributors and end users. There is no new information in these reviews to indicate that the channels of distribution for light castings from the subject countries and the domestic industry have changed from those observed in the prior reviews.

*Geographic Overlap.* In the most recent full reviews, the Commission found that both U.S. producers and importers of subject merchandise from China reported selling castings (not broken down between heavy and light castings) to all regions in the United States, while importers of subject merchandise from Brazil reported selling in all regions except "other." <sup>173</sup> There is no new information in these reviews to indicate that the geographic regions in which light castings from the subject countries and the domestic industry are sold have changed from those observed in prior reviews. The record indicates that subject imports of light castings from Brazil entered through New York, NY, during the period of review, while subject imports of light castings from China entered through Charleston, SC, Houston-Galveston, TX; Mobile, AL, and New Orleans, LA. <sup>174</sup>

Simultaneous Presence in Market. In the full first reviews, the Commission observed that in the original period of investigation subject imports of light castings from Brazil and China

<sup>&</sup>lt;sup>171</sup> Fourth Reviews, USITC Pub. 4655 at 28-29.

<sup>&</sup>lt;sup>172</sup> Domestic Producers' Final Comments at 3.

<sup>&</sup>lt;sup>173</sup> Fourth Reviews, USITC Pub. 4655 at 28.

<sup>&</sup>lt;sup>174</sup> See Official Import Statistics (EDIS Document 761910).

were simultaneously present In the market and competed with each other and the domestic like product, and stated that nothing in the record indicated that those circumstances would not recur if the orders were revoked.<sup>175</sup> In the most recent full reviews, the Commission found that the domestic like product and subject imports of light castings from China were present in the U.S. market throughout the period of review. While subject imports from Brazil were present in the U.S. market in only 6 out of 42 months in the period, the Commission found that there was no information in the record to indicate that subject light castings imports from Brazil would not likely be simultaneously present in the U.S. market with the domestic like product and subject imports from China upon revocation.<sup>176</sup>

In the current reviews, subject imports of light castings from China were present in the U.S. market in 56 out of 60 months during the 2016-2020 period. Subject imports of light castings from Brazil were present in very small quantities in only two months in 2016 and 2018.<sup>177</sup> However, there is no new information in these reviews to indicate that circumstances have changed from the prior proceedings such that subject light castings imports from Brazil would not likely be simultaneously present in the U.S. market with the domestic like product and subject light castings imports from China upon revocation.

Conclusion. The record in these expedited reviews contains limited information concerning subject imports of light castings in the U.S. market during the current review period. The record contains no new information, however, suggesting a change in the considerations

<sup>&</sup>lt;sup>175</sup> First Reviews, USITC Pub.3247 at 12.

<sup>&</sup>lt;sup>176</sup> Fourth Reviews, USITC Pub. 4655 at 28-29.

<sup>&</sup>lt;sup>177</sup> CR/PR at I-22 and Table I-8; see Official Import Statistics (EDIS Document 761910).

that led the Commission in its prior reviews to conclude that there was a reasonable overlap of competition between and among imports from the subject countries and the domestic like product. In light of this, and in the absence of any contrary argument, we find that there would likely be a reasonable overlap of competition between and among subject imports of light castings from Brazil and China and the domestic like product, if the orders were revoked.

# 4. Likely Conditions of Competition

In determining whether to exercise our discretion to cumulate the subject imports, we assess whether subject imports of light castings from Brazil and China would likely compete under similar or different conditions of competition in the U.S. market after revocation of the orders. The available information in these expedited reviews shows that prior to imposition of the orders, subject imports of light castings from both countries increased significantly in volume and market share. The available information also shows that both Brazil and China exported substantial volumes of iron construction castings (a category that includes light castings) during the current period of review, and that the United States was one of the principal export markets for iron construction castings for both subject countries. This information indicates that the industries in both subject countries have some degree of export orientation, and have shown a continuing interest in the U.S. market since imposition of the orders.

<sup>&</sup>lt;sup>178</sup> Original Investigations, USITC Pub. 1838 at A-45 to A-46.

<sup>&</sup>lt;sup>179</sup> CR/PR at Tables I-11, I-15.

Thus, the record in these reviews does not indicate that there would likely be any significant difference in the conditions of competition between subject imports of light castings from Brazil and China if the orders were revoked.

#### 5. Conclusion

In sum, we determine that subject imports of light castings from Brazil and China, considered individually, are not likely to have no discernible adverse impact on the domestic industry if the corresponding orders were revoked. We also find that there would likely be a reasonable overlap of competition between and among the subject imports from both countries and the domestic like product. Finally, we find that subject imports of light castings from Brazil and China would be likely to compete under similar conditions of competition upon revocation of the antidumping duty orders. We therefore exercise our discretion to cumulate subject imports of light castings from Brazil and China for purposes of our analysis in these reviews.

# IV. Revocation of the Antidumping and Countervailing Duty Orders Would Likely Lead to Continuation or Recurrence of Material Injury Within a Reasonably Foreseeable Time

#### A. Legal Standards

In a five-year review conducted under section 751(c) of the Tariff Act, Commerce will revoke an antidumping or countervailing duty order unless: (1) it makes a determination that dumping or subsidization is likely to continue or recur and (2) the Commission makes a determination that revocation of the antidumping or countervailing duty order "would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable

time."<sup>180</sup> The SAA states that "under the likelihood standard, the Commission will engage in a counterfactual analysis; it must decide the likely impact in the reasonably foreseeable future of an important change in the status quo – the revocation or termination of a proceeding and the elimination of its restraining effects on volumes and prices of imports."<sup>181</sup> Thus, the likelihood standard is prospective in nature.<sup>182</sup> The U.S. Court of International Trade has found that "likely," as used in the five-year review provisions of the Act, means "probable," and the Commission applies that standard in five-year reviews.<sup>183</sup>

The statute states that "the Commission shall consider that the effects of revocation or termination may not be imminent, but may manifest themselves only over a longer period of time." According to the SAA, a "'reasonably foreseeable time' will vary from case-to-case, but

<sup>&</sup>lt;sup>180</sup> 19 U.S.C. § 1675a(a).

<sup>&</sup>lt;sup>181</sup> SAA at 883-84. The SAA states that "{t}he likelihood of injury standard applies regardless of the nature of the Commission's original determination (material injury, threat of material injury, or material retardation of an industry). Likewise, the standard applies to suspended investigations that were never completed." *Id.* at 883.

<sup>&</sup>lt;sup>182</sup> While the SAA states that "a separate determination regarding current material injury is not necessary," it indicates that "the Commission may consider relevant factors such as current and likely continued depressed shipment levels and current and likely continued {sic} prices for the domestic like product in the U.S. market in making its determination of the likelihood of continuation or recurrence of material injury if the order is revoked." SAA at 884.

<sup>183</sup> See NMB Singapore Ltd. v. United States, 288 F. Supp. 2d 1306, 1352 (Ct. Int'l Trade 2003) ("'likely' means probable within the context of 19 U.S.C. § 1675(c) and 19 U.S.C. § 1675a(a)"), aff'd mem., 140 Fed. Appx. 268 (Fed. Cir. 2005); Nippon Steel Corp. v. United States, 26 CIT 1416, 1419 (2002) (same); Usinor Industeel, S.A. v. United States, 26 CIT 1402, 1404 nn.3, 6 (2002) ("more likely than not" standard is "consistent with the court's opinion;" "the court has not interpreted 'likely' to imply any particular degree of 'certainty'"); Indorama Chemicals (Thailand) Ltd. v. United States, 26 CIT 1059, 1070 (2002) ("standard is based on a likelihood of continuation or recurrence of injury, not a certainty"); Usinor v. United States, 26 CIT 767, 794 (2002) ("'likely' is tantamount to 'probable,' not merely 'possible'").

<sup>&</sup>lt;sup>184</sup> 19 U.S.C. § 1675a(a)(5).

normally will exceed the 'imminent' timeframe applicable in a threat of injury analysis in original investigations." <sup>185</sup>

Although the standard in a five-year review is not the same as the standard applied in an original investigation, it contains some of the same fundamental elements. The statute provides that the Commission is to "consider the likely volume, price effect, and impact of imports of the subject merchandise on the industry if the orders are revoked or the suspended investigation is terminated." <sup>186</sup> It directs the Commission to take into account its prior injury determination, whether any improvement in the state of the industry is related to the order or the suspension agreement under review, whether the industry is vulnerable to material injury if an order is revoked or a suspension agreement is terminated, and any findings by Commerce regarding duty absorption pursuant to 19 U.S.C. § 1675(a)(4). <sup>187</sup> The statute further provides that the presence or absence of any factor that the Commission is required to consider shall not necessarily give decisive guidance with respect to the Commission's determination. <sup>188</sup>

<sup>&</sup>lt;sup>185</sup> SAA at 887. Among the factors that the Commission should consider in this regard are "the fungibility or differentiation within the product in question, the level of substitutability between the imported and domestic products, the channels of distribution used, the methods of contracting (such as spot sales or long-term contracts), and lead times for delivery of goods, as well as other factors that may only manifest themselves in the longer term, such as planned investment and the shifting of production facilities." *Id*.

<sup>&</sup>lt;sup>186</sup> 19 U.S.C. § 1675a(a)(1).

<sup>187 19</sup> U.S.C. § 1675a(a)(1). Commerce has not made duty absorption findings with respect to any of the orders under review. Commerce Issues and Decision Memorandum for the Final Results of the Expedited Fifth Sunset Reviews of the Antidumping Duty Orders on Certain Iron Construction Castings from Brazil, Canada, and the People's Republic of China at 5, March 10, 2022 (EDIS Document No. 767521); see Commerce Issues and Decision Memorandum for the Final Results of the Expedited Fifth Sunset Reviews of the Countervailing Duty Order on Heavy Iron Construction Castings from Brazil at 3-5, March 28, 2022 (EDIS Document No. 767521)

<sup>&</sup>lt;sup>188</sup> 19 U.S.C. § 1675a(a)(5). Although the Commission must consider all factors, no one factor is necessarily dispositive. SAA at 886.

In evaluating the likely volume of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether the likely volume of imports would be significant either in absolute terms or relative to production or consumption in the United States. In doing so, the Commission must consider "all relevant economic factors," including four enumerated factors: (1) any likely increase in production capacity or existing unused production capacity in the exporting country; (2) existing inventories of the subject merchandise, or likely increases in inventories; (3) the existence of barriers to the importation of the subject merchandise into countries other than the United States; and (4) the potential for product shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products. In the subject merchandise, are currently being used to

In evaluating the likely price effects of subject imports if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether there is likely to be significant underselling by the subject imports as compared to the domestic like product and whether the subject imports are likely to enter the United States at prices that otherwise would have a significant depressing or suppressing effect on the price of the domestic like product.<sup>191</sup>

<sup>&</sup>lt;sup>189</sup> 19 U.S.C. § 1675a(a)(2).

<sup>&</sup>lt;sup>190</sup> 19 U.S.C. § 1675a(a)(2)(A-D).

<sup>&</sup>lt;sup>191</sup> See 19 U.S.C. § 1675a(a)(3). The SAA states that "{c}onsistent with its practice in investigations, in considering the likely price effects of imports in the event of revocation and termination, the Commission may rely on circumstantial, as well as direct, evidence of the adverse effects of unfairly traded imports on domestic prices." SAA at 886.

In evaluating the likely impact of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider all relevant economic factors that are likely to have a bearing on the state of the industry in the United States, including but not limited to the following: (1) likely declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity; (2) likely negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment; and (3) likely negative effects on the existing development and production efforts of the industry, including efforts to develop a derivative or more advanced version of the domestic like product. 192 All relevant economic factors are to be considered within the context of the business cycle and the conditions of competition that are distinctive to the industry. As instructed by the statute, we have considered the extent to which any improvement in the state of the domestic industry is related to the orders under review and whether the industry is vulnerable to material injury upon revocation. 193

No respondent interested party participated in these expedited reviews. The record, therefore, contains limited new information with respect to the heavy castings industries in Brazil, Canada, and China and the light castings industries in Brazil and China. There also is limited information on the heavy and light castings markets in the United States during the period of review. Accordingly, for our determinations, we rely as appropriate on the facts

<sup>&</sup>lt;sup>192</sup> 19 U.S.C. § 1675a(a)(4).

<sup>&</sup>lt;sup>193</sup> The SAA states that in assessing whether the domestic industry is vulnerable to injury if the order is revoked, the Commission "considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they may also demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports." SAA at 885.

available from the original investigations and prior reviews, and the limited new information on the record in these fifth five-year reviews.

## B. Conditions of Competition and the Business Cycle

In evaluating the likely impact of the subject imports on the domestic industry if an order is revoked, the statute directs the Commission to consider all relevant economic factors "within the context of the business cycle and conditions of competition that are distinctive to the affected industry." <sup>194</sup> The following conditions of competition inform our determinations.

## 1. The Original Investigations and Prior Five-Year Reviews

Heavy and Light Castings. In both its full first and expedited second five-year review determinations, the Commission identified the following conditions of competition pertinent to its analysis of the U.S. markets for both heavy and light castings. It observed that the heavy and light castings industries were mature industries, primarily employing the basic sand-cast method that had changed little since the original investigations, although light castings were also produced in permanent molds in higher-volume, standardized production. The Commission found that the markets for heavy and light castings were highly cyclical, closely following trends in housing, highway, public works, and building construction, that the majority of all sales of heavy and light castings by U.S. producers and importers were to distributors, and that there was no overlap in the applications of light and heavy castings, in that heavy castings were mainly used for drainage purposes while light castings were mainly used to encase underground valves and meters.<sup>195</sup>

<sup>&</sup>lt;sup>194</sup> 19 U.S.C. § 1675a(a)(4).

<sup>&</sup>lt;sup>195</sup> First Reviews, USITC Pub. 3247 at 16-17; Second Reviews, USITC Pub. 3781 at 12.

In the full fourth reviews, the Commission found that the overall demand for both heavy castings and light castings is derived from construction activity and the performance of the U.S. economy. <sup>196</sup> It further found as to both heavy and light castings that domestically produced product and subject imports from all sources were moderately to highly substitutable, and that price was a very important factor in purchasing decisions. <sup>197</sup> The Commission further noted that purchasers had reported that most of their purchases of both heavy castings and light castings were not subject to any requirement to purchase domestic product. <sup>198</sup>

Heavy Castings. In the full first five-year reviews, the Commission discussed several conditions of competition pertinent to heavy castings. It found that domestic foundries, by virtue of their proximity to the municipalities and construction supply distributors, required relatively short lead times and could fill most orders for less popular or customized models without maintaining inventories for such items. The Commission found that importers, with their longer lead times, generally handled only the faster-moving, more standardized models because of the resulting inventory carrying costs associated with supplying a range of products. Thus, the Commission found that, while domestic producers might typically handle 4,000 to 5,000 items, importers might carry only 150 to 200 items. The Commission also observed that, in the case of heavy castings, the substitutes for cast iron most frequently identified in questionnaire responses were plastics, concrete, fiberglass, and composites. Additionally, the record indicated that some domestic sales were subject to "Buy American" provisions. 199 The

<sup>&</sup>lt;sup>196</sup> Fourth Reviews, USITC Pub. 4655 at 34.

<sup>&</sup>lt;sup>197</sup> Fourth Reviews, USITC Pub. 4655 at 36.

<sup>&</sup>lt;sup>198</sup> Fourth Reviews, USITC Pub. 4655 at 36.

<sup>&</sup>lt;sup>199</sup> First Reviews, USITC Pub. 3247 at 17.

Commission viewed these same conditions of competition as pertinent in both the expedited second and third five-year reviews.<sup>200</sup>

In the full fourth reviews, apparent U.S. consumption of heavy castings increased from

\*\*\* pounds in 2013 to \*\*\* pounds in 2015.<sup>201</sup> The Commission noted that a plurality of firms

reported an increase in U.S. demand for heavy castings since January 2010, in light of growth in
the economy and an increase in municipal spending, and that firms reported similar

expectations for future U.S. demand.<sup>202</sup> The Commission also found that the market share of
the domestic industry producing heavy castings was \*\*\* percent of apparent U.S. consumption
in 2013, and \*\*\* percent in 2014 and 2015, while the market share of nonsubject imports of
heavy castings was \*\*\* percent in 2013, and \*\*\* percent in 2014 and 2015, with India being the
largest supplier of nonsubject imports of heavy castings.<sup>203</sup> Finally, the Commission noted that
purchasers had reported that 24.9 percent of their purchases of heavy castings were required
by law to be domestically produced.<sup>204</sup>

Light Castings. In the full first five-year reviews, the Commission found that light castings were manufactured in a range of dimensions but were relatively standardized nationwide, that some producers and respondents indicated that plastics had made gains in the market for light castings, and that the domestic producers estimated that about 28 percent of

<sup>&</sup>lt;sup>200</sup> Second Reviews, USITC Pub. 3781 at 13; Third Reviews, USITC Pub. 4191 at 14.

<sup>&</sup>lt;sup>201</sup> Fourth Reviews, USITC Pub. 4655 at 34; Fourth Reviews Confidential Views at 54 (EDIS Document No. 761863).

<sup>&</sup>lt;sup>202</sup> Fourth Reviews, USITC Pub. 4655 at 34.

<sup>&</sup>lt;sup>203</sup> Fourth Reviews, USITC Pub. 4655 at 35; Fourth Reviews Confidential Views at 54-55 (EDIS Document No. 761863).

<sup>&</sup>lt;sup>204</sup> Fourth Reviews, USITC Pub. 4655 at 36.

light castings sales were subject to "Buy American" provisions in 1997 and 1998.<sup>205</sup> The Commission viewed these same conditions of competition as pertinent in both the expedited second and third five-year reviews.<sup>206</sup>

In the full fourth five-year reviews, the Commission found that apparent U.S. consumption of light castings increased from \*\*\* pounds in 2013 to \*\*\* pounds in 2015, and the Commission noted that most firms reported either increasing or fluctuating demand for light castings. The Commission also found that the market share of the domestic industry producing light castings was \*\*\* percent of apparent U.S. consumption in 2013, \*\*\* percent in 2014, and \*\*\* percent in 2015, while the market share of nonsubject imports of light castings was \*\*\* percent in 2013, \*\*\* percent in 2014, and \*\*\* percent in 2015. The Commission observed that the largest supplier of nonsubject imports of light castings was India, which accounted for \*\*\* percent of total U.S. imports of light castings in 2015. Finally, the Commission noted that purchasers had reported that 15.9 percent of their purchases of light castings were required by law to be domestically produced.

#### 2. The Current Reviews

Demand Conditions. The information available in these reviews indicates that the factors driving demand for heavy and light castings have not significantly changed since the

<sup>&</sup>lt;sup>205</sup> First Reviews, USITC Pub. 3247 at 17.

<sup>&</sup>lt;sup>206</sup> Second Reviews, USITC Pub. 3781 at 13-14; Third Reviews, USITC Pub. 4191 at 15.

<sup>&</sup>lt;sup>207</sup> Fourth Reviews, USITC Pub. 4655 at 34; Fourth Reviews Confidential Views at 54 (EDIS Document No. 761863).

<sup>&</sup>lt;sup>208</sup> Fourth Reviews, USITC Pub. 4655 at 35; Fourth Reviews Confidential Views at 55 (EDIS Document No. 761863).

<sup>&</sup>lt;sup>209</sup> Fourth Reviews, USITC Pub. 4655 at 35; Fourth Reviews Confidential Views at 55-56 (EDIS Document No. 761863).

<sup>&</sup>lt;sup>210</sup> Fourth Reviews, USITC Pub. 4655 at 36.

prior proceedings. Demand for heavy and light casting reflects trends in new home starts and projects involving replacement and improvement of municipal infrastructure.<sup>211</sup> Domestic Producers claim that demand for heavy castings, as measured by apparent U.S. consumption, was higher in 2020 than in 2015, while demand for light castings was lower in 2020 than in 2015.<sup>212</sup>

Apparent U.S. consumption of heavy castings was 623.6 million pounds in 2020, as compared to \*\*\* pounds in 2015, \*\*\* pounds in 2009, 630.8 million pounds in 2003, 683.3 million pounds in 1998, and 560.8 million pounds in 1985.<sup>213</sup> Apparent U.S. consumption of light castings was \*\*\* pounds in 2020, as compared to \*\*\* pounds in 2015, \*\*\* pounds in 2009, \*\*\* pounds in 2003, \*\*\* pounds in 1998, and \*\*\* million pounds in 1985.<sup>214</sup>

\*\*\* responding U.S. purchaser, \*\*\*, reported generally that \*\*\*. 215

*Supply Conditions.* In 2020, the domestic industry was the largest supplier of heavy castings to the U.S. market, accounting for 83.6 percent of apparent U.S. consumption by volume that year, and the second largest supplier of light castings, accounting for \*\*\* percent of apparent U.S. consumption by volume that year. Domestic producer EJ opened a new production facility producing both heavy and light castings in Warner Township, Michigan in November 2018, replacing the company's original foundry in East Jordan, Michigan. <sup>217</sup>

<sup>&</sup>lt;sup>211</sup> CR/PR at I-10 to I-12; Domestic Producers' Final Comments at 4-5.

<sup>&</sup>lt;sup>212</sup> Domestic Producers' Final Comments at 4-5.

<sup>&</sup>lt;sup>213</sup> CR/PR at Table I-9.

<sup>&</sup>lt;sup>214</sup> CR/PR at Table I-10.

<sup>&</sup>lt;sup>215</sup> CR/PR at D-3.

<sup>&</sup>lt;sup>216</sup> CR/PR at Tables I-9-10.

<sup>&</sup>lt;sup>217</sup> CR/PR at Table I-4.

Cumulated subject imports were the smallest source of supply of iron construction castings to the U.S. market in 2020, \*\*\*. Nonsubject imports were the second largest source of supply of heavy castings to the U.S. market in 2020, accounting for 16.0 percent of apparent U.S. consumption that year, and the largest source of light castings to the U.S. market that year, accounting for \*\*\* percent of apparent U.S. consumption. The largest nonsubject sources of heavy castings imports were India, Mexico, and Germany, and the largest nonsubject sources of light castings imports were India, Canada, and Belgium.

One purchaser reported a significant change in the supply conditions for iron construction castings in the United States since 2016. Specifically, \*\*\* indicated \*\*\*.<sup>221</sup>

<sup>&</sup>lt;sup>218</sup> CR/PR at Tables I-9-10.

<sup>&</sup>lt;sup>219</sup> CR/PR at Tables I-9-10.

<sup>&</sup>lt;sup>220</sup> CR/PR at Tables I-7-8.

<sup>&</sup>lt;sup>221</sup> CR/PR at D-3.

Substitutability and Other Conditions. Domestic Producers contend that subject imports of both heavy and light castings, regardless of source, are highly substitutable with domestically produced castings, and that price is a very important factor in purchasing decisions for both heavy and light castings. There is no new information in the record to suggest that the substitutability of the domestic like product and subject imports, or the importance of price to purchasing decisions, has changed since the previous five-year reviews. Accordingly, as in the most recent reviews, we find that heavy and light castings from domestic and subject sources are moderately to highly substitutable. We also find that price is a very important factor in purchasing decisions for both products.

Effective September 24, 2018, subject merchandise from China of both heavy castings and light castings became subject to an additional 10 percent *ad valorem* duty under Section 301 of the Trade Act of 1974<sup>225</sup> ("section 301 tariffs"). Effective May 10, 2019, this additional duty increased from 10 percent to 25 percent *ad valorem*. 227

<sup>&</sup>lt;sup>222</sup> Domestic Producers' Final Comments at 4.

<sup>&</sup>lt;sup>223</sup> See Fourth Reviews, USITC Pub. 4655 at 36.

<sup>&</sup>lt;sup>224</sup> See Fourth Reviews, USITC Pub. 4655 at 36.

<sup>&</sup>lt;sup>225</sup> 19 U.S.C. § 2411.

<sup>&</sup>lt;sup>226</sup> CR/PR at I-9; Notice of Action Pursuant to Section 301: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 83 Fed. Reg. 47974 (Sep. 21, 2018).

<sup>&</sup>lt;sup>227</sup> CR/PR at I-9; Notice of Modification of Section 301 Action: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 84 Fed. Reg. 20459 (May 9, 2019). A subsequent modification was provided for subject goods exported from China prior to May 10, 2019, not to be subject to the escalated 25 percent duty, as long as such goods entered the United States prior to June 1, 2019. Implementing Modification to Section 301 Action: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 84 Fed. Reg. 21892 (May 15, 2019).

#### C. Heavy Castings

### 1. Likely Volume of Subject Imports

### a. The Original Investigations and Prior Five-Year Reviews

In the original investigations, imports of heavy castings from Canada increased from 5.4 million pounds in 1982 to 21.0 million pounds in 1985, representing an increase in market share from 1.5 percent of domestic consumption in 1982 to 3.7 percent in 1985. Imports of heavy castings from Brazil increased from 23,000 pounds in 1982 to 19.5 million pounds in 1985, increasing in market share from less than 1 percent of domestic consumption in 1982 to 3.4 percent in 1985. Imports of heavy castings from China increased from 4.1 million pounds in 1982, accounting for 1.2 percent of domestic consumption, to 19.5 million pounds in 1985, or 3.4 percent of domestic consumption. Accordingly, in 1985, imports of heavy castings from Brazil, Canada, and China totaled 60.0 million pounds, and represented 10.5 percent of domestic consumption. <sup>228</sup>

In the first five-year reviews, the Commission observed that cumulated subject imports of heavy castings from Brazil, Canada, and China totaled 12.62 million pounds in 1997, or 1.8 percent of domestic consumption, and 11.53 million pounds in 1998, or 1.7 percent of domestic consumption. The Commission viewed the sharp reduction in subject imports as reflecting the remedial effects of the orders. It found that, in the case of Canada, a number of factors suggested that exports of heavy castings to the United States could increase: \*\*\*.<sup>229</sup>

<sup>&</sup>lt;sup>228</sup> Original Investigations, USITC Pub. 1838 at A-45 to A-46.

<sup>&</sup>lt;sup>229</sup> First Reviews, USITC Pub. 3247 at 21-22; First Reviews Confidential Views at 22 (EDIS Document No. 761859).

The Commission noted that the record in the first five-year reviews did not include information on current heavy castings production capacity in China or Brazil. It found, however, that the information available from the original investigations showed that China's annual exports of both heavy and light castings to all markets, including the United States, ranged between 135 million pounds and 201.6 million pounds annually between 1981 and 1985, which the Commission found were significant quantities in relation to current total consumption in the United States. It also observed that Brazil's exports of all cast iron products to all markets, including the United States, ranged from 102 million pounds (51,000 short tons) to 224 million pounds (112,000 short tons) annually between 1981 and 1985, which exceeded total U.S. consumption. The Commission found, therefore, that the record in the first reviews indicated that subject producers in Brazil, Canada, and China had ample production capacity to increase their shipments to the United States if the orders were revoked, and that the record did not indicate that there would be any limitations on resumption of significant export shipments from those countries to the United States if the orders were revoked. Accordingly, the Commission found that subject imports would be likely to increase significantly in the reasonably foreseeable future if the orders were revoked.<sup>230</sup>

In both the second and third five-year reviews, the Commission explained that the volume of cumulated subject imports was considerably lower than in the original investigations, reflecting the restraining effects of the orders. Based on the available information in those reviews, the Commission concluded that the producers in the subject countries were

<sup>&</sup>lt;sup>230</sup> First Reviews, USITC Pub. 3247 at 22.

significantly export oriented and had ample production capacity to increase their shipments to the United States if the orders were revoked. In the absence of any indication of limitations on producers in the subject countries resuming significant exports to the United States if the orders were revoked, the Commission found that the likely volume of the cumulated subject imports would be significant.<sup>231</sup>

In the full fourth reviews, the Commission found that subject producers in Brazil,

Canada, and China would likely direct significant volumes of heavy castings to the U.S. market if
the orders were revoked. As the Commission explained, the cumulated subject industries had
substantial capacity and unused capacity, and were active in export markets. The Commission
found that, in the event of revocation, the subject industries would be likely to direct additional
exports to the U.S. market, in light of their continued presence in the U.S. market during the
period of review even under the discipline of the orders, and the relative importance of the
United States as an export market. Moreover, the Commission observed that subject imports
had demonstrated the ability during the original period of investigation to increase exports to
the United States substantially in a short period of time.<sup>232</sup> While conducting a cumulated
analysis, the Commission also considered information pertaining to each subject country
individually, due to the low questionnaire coverage of the subject industries, and found that the
subject industry in each country had the ability and the incentive to increase exports to the
United States after revocation.<sup>233</sup> The Commission concluded that cumulated subject import

<sup>&</sup>lt;sup>231</sup> Second Reviews, USITC Pub. 3781 at 15; Third Reviews, USITC Pub. 4191 at 17.

<sup>&</sup>lt;sup>232</sup> Fourth Reviews, USITC Pub. 4655 at 40-41.

<sup>&</sup>lt;sup>233</sup> Fourth Reviews, USITC Pub. 4655 at 38-40.

volumes would likely be significant, both in absolute terms and relative to U.S. consumption, upon revocation of the orders.<sup>234</sup>

#### b. The Current Reviews

Cumulated subject imports of heavy castings from Brazil, Canada, and China maintained a presence in the U.S. market – even under the disciplining effects of the orders -- throughout the period of review, though at lower levels than during the original investigations. The volume of cumulated subject imports of heavy castings was 5.2 million pounds in 2016, 4.3 million pounds in 2017, 5.3 million pounds in 2018, 5.0 million pounds in 2019, and 2.7 million pounds in 2020.<sup>235</sup>

Due to the expedited nature of these reviews, the record contains limited information on the heavy castings industries in Brazil, Canada, and China. The information available in the current reviews indicates that the heavy castings industries in Brazil, Canada, and China have the means and incentive to increase exports to the United States to significant levels upon revocation of the orders. Information provided by Domestic Producers indicates that the heavy castings industries in Brazil, Canada, and China continue to maintain substantial capacity. Specifically, the Domestic Producers identified 98 possible producers of castings in Brazil, 14 possible producers of castings in Canada, and 283 possible producers of castings in China. The information available also indicates that a subject producer in Canada expanded its

<sup>&</sup>lt;sup>234</sup> Fourth Reviews, USITC Pub. 4655 at 40-41.

<sup>&</sup>lt;sup>235</sup> CR/PR at Table I-7.

<sup>&</sup>lt;sup>236</sup> Domestic Producers' Substantive Response at 15-19, and Exhs. 3, 5, 7; Domestic Producers' Final Comments at 8-11.

<sup>&</sup>lt;sup>237</sup> CR/PR at I-27, I-29, I-30.

capacity in 2016; that two new heavy castings production facilities opened in China in 2016 and 2019, including one with an annual capacity of 8,000 metric tons; and that a Chinese producer of subject castings expanded its capacity to 60,000 metric tons in 2020.<sup>238</sup> Furthermore, China was the world's largest exporting country of iron construction castings (including both heavy castings and light castings) in each year from 2016 to 2020, indicating that the cumulated subject heavy castings industries continue to have a substantial degree of export orientation.<sup>239</sup>

The record also indicates that the United States remains an attractive export market for subject producers of heavy castings in Brazil, Canada, and China. While under the disciplining effects of the orders, cumulated subject imports were present in the U.S. market throughout the period of review and accounted for 0.4 percent of apparent U.S. consumption in 2020, indicating that subject producers remained interested in the U.S. market and maintained contacts with U.S. customers. <sup>240</sup> In 2020, the United States was the largest destination for exports of iron construction castings (including both heavy and light castings) from Canada, the second largest destination for such exports from Brazil, and the third largest destination for such exports from China. <sup>241</sup> Furthermore, prices for iron construction castings (including both heavy and light castings) are relatively higher in the United States than in third country markets, based upon average unit value ("AUV") export data. <sup>242</sup> Consequently, subject heavy castings producers are likely to have both the ability and the incentive to increase their exports of

<sup>&</sup>lt;sup>238</sup> CR/PR at Tables I-12, I-14.

<sup>&</sup>lt;sup>239</sup> CR/PR at Table I-16.

<sup>&</sup>lt;sup>240</sup> CR/PR at Tables I-7, I-9.

<sup>&</sup>lt;sup>241</sup> CR/PR at Tables I-11, I-13, I-15.

<sup>&</sup>lt;sup>242</sup> Domestic Producers' Final Comments at 13; Domestic Producers' Substantive Response at 24 and Exhs. 4, 6, 9.

subject heavy castings to the United States upon revocation of the orders, as they did during the original investigations.

Given the significant volume of cumulated subject imports during the original investigations, the subject industries' substantial capacity and export orientation, and the attractiveness of the U.S. market to subject producers, we find that the volume of subject imports would likely be significant, both in absolute terms and relative to consumption in the United States, if the orders were revoked.<sup>243</sup>

#### 2. Likely Price Effects of Subject Imports

## a. The Original Investigations and Prior Five-Year Reviews

In the original investigations, the Commission found general underselling by the subject imports of heavy castings. It confirmed that the domestic industry lost sales of heavy castings to subject imports on the basis of price. It found that prices were flat over the period of investigation at a time of a marked rise in domestic consumption, indicating price suppression.<sup>244</sup>

In the full first reviews, the Commission did not receive any pricing data with respect to subject imports from Brazil or China. The Commission found significant underselling by subject imports of heavy castings from Canada in each quarter examined from January 1997 to March 1999. The Commission noted that, because the market was fairly price competitive, if the orders were revoked, cumulated subject imports would have to be priced aggressively to regain

<sup>&</sup>lt;sup>243</sup> There were no known trade remedy investigations or existing antidumping or countervailing duty orders in any other countries with respect to imports of heavy castings from Brazil, Canada, or China during the period of review. CR/PR at I-32. The record does not contain data addressing existing inventories of the subject merchandise or the potential for product shifting.

<sup>&</sup>lt;sup>244</sup> Original Investigations, USITC Pub. 1838 at 14-15.

market share. It observed that cumulated subject imports, in turn, would be likely to have significant depressing and suppressing effects on prices of the domestic like product.

Accordingly, the Commission found that the likely volume of cumulated subject imports from Brazil, Canada, and China resulting from revocation of the orders would be likely to have significant price effects.<sup>245</sup>

In the expedited second five-year reviews, there was no new product-specific pricing information on the record. The Commission noted, however, that the AUVs of the cumulated subject imports of heavy castings were below the AUVs for the domestic like product in 2003, the only year since the first five-year reviews for which comparable data were available. Based on information available in those reviews and in the prior proceedings, the Commission found that the market for the subject merchandise was fairly price competitive. If the orders were revoked, the Commission found, the subject imports would likely undersell the domestic like product and have significant depressing and suppressing effects on prices of the domestic like product.<sup>246</sup>

In the expedited third five-year reviews, the Commission noted that there was no new product-specific pricing information on the record, but observed that AUV data showed that the AUV of cumulated subject imports of heavy castings was below the AUV for the domestic like product in 2009. The Commission found, based on the record in the third reviews, that the market for subject merchandise was fairly price competitive, and that if the orders were

<sup>245</sup> First Reviews, USITC Pub. 3247 at 22-23.

<sup>&</sup>lt;sup>246</sup> Second Reviews, USITC Pub. 3781 at 16.

revoked, the cumulated subject imports would likely undersell the domestic like product and have significant depressing and suppressing effects on prices of the domestic like product.<sup>247</sup>

In the full fourth reviews, the Commission obtained product-specific pricing data for two heavy castings products, and these data showed mixed underselling and overselling by cumulated subject imports during the period of review. Specifically, these data showed that prices for heavy castings from Canada were lower than those of the domestic like product in all quarterly comparisons, while prices for heavy castings from Brazil were higher than those of the domestic like product in all quarterly comparisons. Although pricing data showed overselling by subject imports from Brazil, the Commission found that these data were not necessarily representative of the product mix and pricing behavior of subject Brazilian heavy castings that would exist in the U.S. market upon revocation of the orders.<sup>248</sup>

The Commission found that, given the importance of price in purchasing decisions and the substitutability of the products, suppliers of subject merchandise would likely engage in significant underselling if the orders were revoked, as they did during the original investigations, to increase their sales in the U.S. market and gain market share. The Commission explained that the domestic industry, if faced with increasing volumes of low-priced subject imports, would be forced to cut prices and/or forego necessary price increases to retain sales. Consequently, the Commission concluded that cumulated subject imports of

<sup>&</sup>lt;sup>247</sup> Third Reviews. USITC Pub. 4191 at 18-19.

<sup>&</sup>lt;sup>248</sup> Fourth Reviews, USITC Pub. 4655 at 42-43.

heavy castings were likely to have a significant effect on prices for the domestic like product upon revocation of the orders.<sup>249</sup>

#### **b.** The Current Reviews

As discussed above, we continue to find that domestically produced heavy castings and subject imports are moderately to highly substitutable, and that price remains a very important factor in purchasing decisions.

The record does not contain recent product-specific pricing information due to the expedited nature of these reviews. Based on the information available, including subject import underselling during the original investigations and prior reviews, the moderate to high degree of substitutability of subject imports and the domestic like product, and the importance of price in purchasing decisions, we find that underselling by subject imports would likely be significant. Absent the discipline of the orders, the significant volumes of low-priced subject imports would likely force the domestic heavy castings industry either to lower prices, restrain price increases necessary to cover increasing costs, or else lose sales and market share to subject imports. Consequently, we find that if the orders were revoked, cumulated subject imports of heavy castings would likely have significant price effects.

### 3. Likely Impact of Subject Imports

## a. The Original Investigations and Prior Five-Year Reviews

In the original investigations, the Commission found that the rates at which the domestic producers of heavy castings increased production, shipments, capacity, capacity

<sup>&</sup>lt;sup>249</sup> Fourth Reviews, USITC Pub. 4655 at 43.

utilization, and employment were considerably below the rate at which apparent U.S. consumption had increased. In finding an adverse impact by reason of the subject imports, the Commission explained that, while the domestic industry had shown some improvement during the period of investigation, six of the fifteen domestic producers reported operating losses during the entire period of investigation. The Commission found it particularly significant that the industry had net operating losses in the first year of the period of investigation and marginal operating income in the other years, notwithstanding the increases in domestic consumption, production, and shipments.<sup>250</sup>

In the full first five-year reviews, the Commission observed that the domestic industry's operating income as a percentage of net sales was 12.9 percent in 1997 and 15.5 percent in 1998. Production exceeded capacity in both 1997 and 1998, and U.S. shipments, net sales, and number of production workers in 1998 exceeded levels in 1997. Domestic producers' share of apparent U.S. consumption, 78.6 percent in 1997 and 79.6 percent in 1998, was comparable to their share at the beginning of the original period of investigation, 79.8 percent in 1983. The Commission found that the domestic industry producing heavy castings was not then currently vulnerable; however, given the generally substitutable nature of the subject imports and the domestic like product, it found that the significant potential volume of LTFV and subsidized subject imports, when combined with the expected adverse price effects of these imports, would have a significant adverse impact on the production, shipments, sales, and revenue levels of the domestic industry. This reduction in the industry's production, sales, and revenue

<sup>&</sup>lt;sup>250</sup> Original Investigations, USITC Pub. 1838 at 10-11.

levels would have a direct adverse impact on the industry's profitability and employment levels, as well as its ability to raise capital and make and maintain necessary capital investments.

Accordingly, the Commission concluded that, if the antidumping duty orders were revoked, the subject imports would be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time.<sup>251</sup>

In the expedited second five-year reviews, the Commission found that, although the record did not permit a determination of whether the industry was then currently vulnerable to material injury in the event of revocation, apparent U.S. consumption declined in 2003 compared with apparent U.S. consumption in the first review period, and the domestic producers' share of total consumption in 2003 declined to its lowest level in any year for which data were obtained in the original investigations or the two review periods. The Commission also found that the likely volume and price effects of the subject imports would likely have a significant adverse impact on the industry's production, sales, and revenue levels and would have a direct adverse impact on the industry's profitability and employment levels as well as its ability to raise capital and make and maintain necessary capital investments. Accordingly, the Commission concluded that, if the orders on heavy castings from Brazil, Canada, and China were revoked, subject imports would be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time. 252

<sup>251</sup> First Reviews, USITC Pub. 3247 at 24.

<sup>&</sup>lt;sup>252</sup> Second Reviews, USITC Pub. 3781 at 18.

In the expedited third five-year reviews, the Commission did not find the industry producing heavy castings was in a vulnerable condition.<sup>253</sup> It found that the likely volume and price effects of the subject imports would likely have a significant adverse impact on the industry's production, sales, and revenue levels and would have a direct adverse impact on the industry's profitability and employment levels as well as its ability to raise capital and make and maintain necessary capital investments. Accordingly, the Commission concluded that, if the orders on subject imports of heavy castings from Brazil, Canada, and China were revoked, subject imports would be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time.<sup>254</sup>

In the full fourth five-year reviews, the Commission found that almost all of the domestic industry's performance indicators improved between 2013 and 2015, including production, capacity utilization, shipments, net sales, productivity, revenues, and operating income. The Commission observed that the domestic industry remained profitable throughout the period of review, and accordingly did not find that the industry was in a vulnerable condition.<sup>255</sup>

The Commission found that revocation of the orders would likely result in a significant increase in cumulated subject import volume that would likely have significant price effects on the domestic industry and an adverse impact on the industry's production, shipments, sales,

<sup>&</sup>lt;sup>253</sup> Three Commissioners found that the information on the record was insufficient for them to make a determination as to whether the industry producing heavy castings was currently vulnerable, while three Commissioners found that the domestic industry was not vulnerable to material injury. *Third Reviews*, USITC Pub. 4191 at 21 nn.95, 96.

<sup>&</sup>lt;sup>254</sup> Third Reviews, USITC Pub. 4191 at 21.

<sup>&</sup>lt;sup>255</sup> Fourth Reviews, USITC Pub. 4655 at 46-47.

market share, and revenues, and by extension the industry's profitability, employment, and ability to raise capital and make and maintain necessary capital investments. The Commission therefore concluded that, if the orders were revoked, subject imports from Brazil, Canada, and China would be likely to have a significant impact on the domestic industry within a reasonably foreseeable time. <sup>256</sup>

In considering the role of nonsubject imports of heavy castings in the U.S. market, the Commission observed that the volume of nonsubject imports increased over the period of review, while the market share of nonsubject imports remained generally stable. While recognizing that nonsubject imports would likely continue to be in the U.S. market after revocation, the Commission found that the likely increase in subject import volume after revocation would come at least in part at the expense of the domestic industry, regardless of any effects from nonsubject imports.<sup>257</sup>

#### b. The Current Reviews

Due to the expedited nature of these reviews, the record contains limited information concerning the domestic industry's performance since the last reviews.<sup>258</sup>

The information available indicates that the domestic heavy casting industry's performance in 2020 was stronger than the industry's performance in the prior proceedings by many measures. The capacity of the domestic industry was 920.3 million pounds in 2020, which was similar to the industry's capacity in 2015, lower than the industry's capacity in 2009,

<sup>&</sup>lt;sup>256</sup> Fourth Reviews, USITC Pub. 4655 at 47.

<sup>&</sup>lt;sup>257</sup> Fourth Reviews, USITC Pub. 4655 at 47.

<sup>&</sup>lt;sup>258</sup> CR/PR at Table I-5.

and higher than the industry's capacity in 1998 and 1985.<sup>259</sup> In 2020, the industry's production was 512.3 million pounds, its capacity utilization rate was 55.7 percent, and its U.S. shipments were 521.1 million pounds, which were higher than in 2015, 2009, and 2003, but lower than in 1998.<sup>260</sup> The industry's operating income was \$48.7 million in 2020, which was higher than in 2015, 2009, and 1998, and the ratio of its operating income to net sales was 9.9 percent, which was higher than in 2015 and 2009 but lower than in 1998.<sup>261</sup> The domestic industry's share of apparent U.S. consumption was 83.6 percent in 2020, which was higher than in 2015, 2009, 2003, 1998, and 1985.<sup>262</sup> This limited information on the record, however, is insufficient for us to make a finding on whether the domestic industry is vulnerable to the continuation or recurrence of material injury in the event of revocation of the orders.

Based on the limited information on the record, we find that, should the orders be revoked, there would likely be a significant volume of cumulated subject imports of heavy castings from Brazil, Canada, and China, and that these imports would likely undersell the domestic like product to gain market share. Given the moderate to high degree of substitutability between subject imports and the domestic like product and the importance of price to purchasers, the likely significant volume of low-priced subject imports would likely force domestic producers to either cut prices or forego necessary price increases to retain sales. Consequently, the likely significant volume of low-priced subject imports and their significant

<sup>&</sup>lt;sup>259</sup> CR/PR at Table I-5.

<sup>&</sup>lt;sup>260</sup> CR/PR at Table I-5. The domestic industry's production and U.S. shipments were higher in 2020 than in 2015, but its capacity was lower. *Id.* 

<sup>&</sup>lt;sup>261</sup> CR/PR at Table I-5. The domestic industry's operating income and operating income margins are unavailable for 1985 and 2003. *Id.* 

<sup>&</sup>lt;sup>262</sup> CR/PR at Table I-9.

price effects would likely have a significant adverse impact on the production, shipments, sales, market share, and revenues of the domestic industry, which, in turn, would have a direct adverse impact on the industry's profitability and employment, as well as its ability to raise capital and make and maintain necessary capital investments. We conclude that, if the orders were revoked, subject imports of heavy castings from Brazil, Canada, and China would be likely to have a significant impact on the domestic industry within a reasonably foreseeable time.

We have also considered the role of factors other than subject imports of heavy castings, including the presence of nonsubject imports, so as not to attribute injury from other factors to the subject imports. The market share of nonsubject imports has remained relatively stable since the original investigations, and was slightly lower, at 16.0 percent of apparent U.S. consumption of heavy castings, in 2020 than in 1985, at 16.7 percent. <sup>263</sup> Nor did the presence of nonsubject imports during the period of review prevent the domestic heavy castings industry from experiencing a higher operating income in 2020 than in 2015, 2009, or 1998, and a higher operating income margin in 2020 than in 2015 or 2009. <sup>264</sup> Furthermore, given the moderate to high degree of substitutability between subject imports and the domestic like product, the importance of price in purchasing decisions, and the domestic heavy casting industry's position as the predominant supplier in the market, the presence of nonsubject imports in the U.S. market would not prevent the significant volumes of low-priced subject imports that are likely after revocation from taking market share, at least in substantial part, from the domestic

 $<sup>^{263}</sup>$  CR/PR at Table I-9. Nonsubject import market share has ranged from \*\*\* percent to 18.8 percent in 2015, 2009, 1998, and 1985, but was 27.0 percent in 2003. *Id.* 

<sup>&</sup>lt;sup>264</sup> CR/PR at Table I-5.

industry, or from forcing domestic producers to either lower prices or forgo price increases to retain market share. Consequently, we find that subject imports of heavy castings would likely cause adverse effects on the domestic industry that are distinct from any impact of nonsubject imports in the event of revocation.

Accordingly, we conclude that, if the antidumping and countervailing duty orders were revoked, cumulated subject imports from Brazil, Canada, and China would likely have a significant impact on domestic producers of heavy castings within a reasonably foreseeable time.

### D. Light Castings

## 1. Likely Volume of Subject Imports

### a. The Original Investigations and Prior Five-Year Reviews

In the original investigations, the Commission made affirmative determinations of threat of material injury with respect to subject imports of light castings from Brazil and China on an individual, non-cumulated, basis. It found that imports of light castings from Brazil increased from zero pounds in 1982 to 1.64 million pounds in 1985, resulting in a market share increase over the period of investigation of 1.7 percentage points. Moreover, capacity utilization in Brazil declined over the period of investigation. Accordingly, the Commission found that the presence of underutilized capacity along with the rapid increase in market penetration pointed to "continued increases in imports of Brazilian light castings." The Commission indicated that imports of light castings from China increased from 95,000 pounds in 1982 to 1.64 million pounds in 1985, resulting in a market share increase from 0.1 percent in 1982 to 1.7 percent in 1985. The Commission also stated that its finding of a threat of material injury by reason of

subject imports from China was supported by the substantial increase in Chinese producers' production capacity during the period of investigation and significant year-end inventories in the final years of the period.<sup>265</sup>

In the full first five-year reviews, the Commission stated that there were no imports of light castings from Brazil or China in 1997. In 1998, imports from China totaled \*\*\* pounds, and imports from Brazil remained at zero pounds. The Commission observed that, in assessing the likely volume of cumulated subject imports if the orders were revoked, it viewed the near absence of subject imports from the U.S. market as reflecting the remedial effects of the antidumping duty orders. By contrast, Brazil's exports of all cast-iron products to all markets, including the United States, ranged from 102 million pounds to 224 million pounds annually between 1981 and 1985. Available export information from the original investigations showed that China's annual exports of iron construction castings, both heavy and light, to all markets, including the United States, ranged between 135 million pounds and 201.6 million pounds between 1981 and 1985. The Commission found no record information indicating any likely limitations on the resumption of significant export shipments from Brazil or China to the United States if the orders were revoked. Accordingly, the Commission found in the first reviews that cumulated imports of light castings into the United States from Brazil and China would be likely to increase significantly in the reasonably foreseeable future if the orders were revoked.<sup>266</sup>

<sup>265</sup> Original Investigations, USITC Pub. 1838 at 22-24.

<sup>&</sup>lt;sup>266</sup> First Reviews, USITC Pub. 3247 at 18; First Reviews Confidential Views at 18-19 (EDIS Document No. 761859).

In the expedited second five-year reviews, the volume of cumulated subject imports of light castings fluctuated during the review period. It was 258,000 pounds in 1999, 1.4 million pounds in 2000, 2.3 million pounds in 2001, 1.8 million pounds in 2002, 3.4 million pounds in 2003, and 1.6 million pounds in 2004. Cumulated subject imports of light castings accounted for \*\*\* percent of apparent U.S. consumption in 2003, compared with 3.4 percent in 1985, even though the volume in 2003 was larger in absolute terms than it was in 1985. Based on the available information in the second reviews, the Commission concluded that subject producers in Brazil and China were significantly export oriented and had ample production capacity to increase their shipments to the United States if the orders were revoked. The Commission found that, rather than indicate any limitations on the likely resumption of significant export shipments from Brazil or China to the United States if the orders were revoked, the record showed broad fluctuations in the volume of subject imports under the orders, including a 2003 increase above the prior record volume in 1985, which the Commission found confirmed that the subject producers were able to increase their exports to the United States quickly. Accordingly, the Commission found that the likely volume of the cumulated subject imports, both in absolute terms and relative to production and consumption, would be significant absent the orders.<sup>267</sup>

In the expedited third five-year reviews, cumulated subject imports were 794,000 pounds in 2009 compared with 3.2 million pounds in 1985, and were \*\*\* percent of apparent U.S. consumption in 2009 compared with 3.5 percent in 1985, reflecting reduced import

<sup>&</sup>lt;sup>267</sup> Second Reviews, USITC Pub. 3781 at 18-19; Second Reviews Confidential Views at 28-29 (EDIS Document No. 761860).

volume under the restraining effect of the orders. The Commission concluded that producers in Brazil and China were largely export oriented and had ample production capacity to increase their shipments to the United States if the orders were revoked. It found that the record did not indicate that there would be any limitations on Brazilian or Chinese producers resuming significant exports to the United States upon revocation. Accordingly, the Commission found that the likely volume of the cumulated subject imports would be significant, both in absolute terms and relative to production and consumption in the United States, if the orders were revoked.<sup>268</sup>

In the full fourth reviews, the Commission found that subject producers in Brazil and China would likely direct significant volumes of light castings to the U.S. market if the orders were revoked. As the Commission explained, the cumulated subject industries had substantial capacity and unused capacity, as well as an appreciable degree of export orientation. The Commission stated that, in the event of revocation, the subject industries were likely to direct additional exports to the U.S. market in light of their continued presence in the U.S. market even under the discipline of the orders during the period of review, as well as the relative importance of the United States as an export market. Moreover, the Commission observed that the subject imports demonstrated during the original investigations the ability to increase exports to the United States substantially in a short period of time.<sup>269</sup> While conducting a cumulated analysis, the Commission also considered information pertaining to each subject

<sup>&</sup>lt;sup>268</sup> *Third Reviews*, USITC Pub. 4191 at 22-23; Third Reviews Confidential Views at 33-34 (EDIS Document No. 761862).

<sup>&</sup>lt;sup>269</sup> Fourth Reviews, USITC Pub. 4655 at 51.

country individually, given the absence of questionnaire responses from any producers of light castings from either Brazil or Canada, and found that the subject industry in each country had the ability and the incentive to increase exports to the United States after revocation.<sup>270</sup> The Commission concluded that cumulated subject import volumes would likely be significant, both in absolute terms and relative to U.S. consumption, upon revocation of the orders.<sup>271</sup>

#### b. The Current Reviews

Cumulated subject imports of light castings from Brazil and China maintained a presence in the U.S. market under the disciplining effects of the orders throughout the period of review, though at lower levels than during the original investigations. The volume of cumulated subject imports of light castings was 1.0 million pounds in 2016 and 2017, 2.0 million pounds in 2018, 391,000 pounds in 2019, and 319,000 pounds in 2020.<sup>272</sup>

Due to the expedited nature of these reviews, the record contains limited information on the light castings industries in Brazil and China. The information available in the current reviews indicates that the cumulated light castings industries in Brazil and China have the means and incentive to increase exports to the United States to significant levels upon revocation of the orders. Information provided by Domestic Producers in these reviews indicates that the cumulated light castings industries in Brazil and China continue to maintain and operate substantial capacity.<sup>273</sup> Specifically, the Domestic Producers identified 98 possible

<sup>&</sup>lt;sup>270</sup> Fourth Reviews, USITC Pub. 4655 at 49-51.

<sup>&</sup>lt;sup>271</sup> Fourth Reviews, USITC Pub. 4655 at 51.

<sup>&</sup>lt;sup>272</sup> CR/PR at Table I-8.

<sup>&</sup>lt;sup>273</sup> Domestic Producers' Substantive Response at 16, 18; Domestic Producers' Final Comments at 9, 10-11.

producers of castings in Brazil and 283 possible producers of castings in China.<sup>274</sup> The information available also indicates that a Chinese producer of subject castings expanded its capacity to 60,000 metric tons in 2020.<sup>275</sup>

China was by far the world's largest exporting country of iron construction castings (including both heavy castings and light castings) in each year from 2016 to 2020, confirming that the cumulated subject light castings industries continue to have a substantial degree of export orientation.<sup>276</sup>

The record also indicates that the United States remains an attractive export market for subject producers of light castings in Brazil and China. While under the disciplining effects of the orders, cumulated subject imports were present in the U.S. market throughout the period of review and accounted for \*\*\* percent of apparent U.S. consumption in 2020, indicating that subject producers remained interested in the U.S. market and maintained contacts with U.S. customers.<sup>277</sup> In 2020, the United States was the second largest destination for exports of iron construction castings from Brazil, and the third largest destination for exports of iron construction castings from China.<sup>278</sup> Furthermore, prices for iron construction castings (including both heavy and light castings) are relatively higher in the United States than in third country markets, based upon AUV export data.<sup>279</sup> Consequently, subject light castings

<sup>&</sup>lt;sup>274</sup> CR at I-27, I-30.

<sup>&</sup>lt;sup>275</sup> CR/PR at Table I-14.

<sup>&</sup>lt;sup>276</sup> CR/PR at Table I-16.

<sup>&</sup>lt;sup>277</sup> CR/PR at Tables I-8, I-10.

<sup>&</sup>lt;sup>278</sup> CR/PR at Tables I-11, I-15.

<sup>&</sup>lt;sup>279</sup> Domestic Producers' Final Comments at 13; Domestic Producers' Substantive Response at 24 and Exhs. 4, 6, 9.

producers are likely to have both the ability and the incentive to increase shipments of subject light castings to the United States upon revocation of the orders, as they did during the original investigations.

Given the significant volume of cumulated subject imports during the original investigations, the subject industries' substantial capacity and export orientation, and the attractiveness of the U.S. market to subject producers, we find that the volume of subject imports would likely be significant, both in absolute terms and relative to consumption in the United States, if the orders were revoked.<sup>280</sup>

### 4. Likely Price Effects of Subject Imports

### a. The Original Investigations and Prior Five-Year Reviews

In the original determinations, the Commission found that the available pricing data for one Brazilian light castings product demonstrated margins of underselling in excess of 10 percent throughout 1985. In addition, light castings from China undersold the domestic product in each quarter from 1983 to 1985, in most periods by margins of approximately 30 percent.<sup>281</sup>

In the full first five-year reviews, the Commission found that there were no current pricing data on imports from Brazil and China and that prices for domestically produced light castings generally declined over 1997 and 1998. The Commission explained that purchasers considered price to be one of the most important factors in purchasing decisions and

<sup>&</sup>lt;sup>280</sup> There were no known trade remedy investigations or existing antidumping or countervailing duty orders in any other countries with respect to imports of light castings from Brazil or China during the period of review. CR/PR at I-32. The record does not contain data addressing existing inventories of the subject merchandise or the potential for product shifting.

<sup>&</sup>lt;sup>281</sup> Original Investigations, USITC Pub. 1838 at 23.

referenced the finding in the original determinations that the domestic like product and subject imports were essentially fungible. Thus, the Commission found it likely that Brazilian and Chinese producers would offer low prices to U.S. purchasers in order to regain market share if the orders were revoked, and found that the likely volume of subject imports would be likely to enter the United States at prices that would significantly undersell domestic producers and have a significant depressing or suppressing effect on prices for the domestic like product.<sup>282</sup>

In both the expedited second and expedited third five-year reviews, the Commission noted the absence of new product-specific pricing information, but stated that available AUV data showed that the AUV of the cumulated subject imports was below the AUV for the domestic like product in 2003 (in the second reviews) and 2009 (in the third reviews). The Commission found, in the absence of any evidence of the contrary, that the likely increased volume of subject imports would likely undersell the domestic like product if the orders were revoked and would be likely to have significant depressing and suppressing effects on prices of the domestic like product. Accordingly, the Commission found that the likely volume of subject imports from Brazil and China resulting from revocation of the antidumping duty orders would be likely to have significant adverse price effects on domestic prices for light castings.<sup>283</sup>

In the full fourth five-year reviews, the Commission requested pricing data for two light castings products, but received no responses from any U.S. importers of light castings from Brazil or China.<sup>284</sup> The Commission found that, given the importance of price in purchasing

<sup>&</sup>lt;sup>282</sup> First Reviews, USITC Pub. 3247 at 19; see Original Investigations, USITC Pub. At 6.

<sup>&</sup>lt;sup>283</sup> Second Reviews, USITC Pub. 3781 at 20; Third Reviews, USITC Pub. 4191 at 23-24.

<sup>&</sup>lt;sup>284</sup> Fourth Reviews, USITC Pub. 4655 at 53.

decisions and the substitutability of the products, suppliers of subject merchandise would need to offer light castings at low prices in order to increase their sales in the U.S. market and gain market share, and were therefore likely to resume their underselling strategy from the original investigations after revocation. The Commission also explained that the domestic industry, faced with increasing volumes of low-priced subject imports, would be forced to cut prices and/or forego necessary price increases to retain sales. Consequently, the Commission concluded that the increasing volumes of cumulated subject imports of light castings were likely to have a significant effect on prices for the domestic like product.<sup>285</sup>

#### **b.** The Current Reviews

As discussed above, we continue to find that domestically produced light castings and subject imports are moderately to highly substitutable, and that price remains a very important factor in purchasing decisions.

The record does not contain recent product-specific pricing information due to the expedited nature of these reviews. Based on the information available, including subject import underselling during the original investigations, the moderate to high degree of substitutability of subject imports and the domestic like product, and the importance of price in purchasing decisions, we find that underselling by subject imports is likely to be significant.

Absent the discipline of the orders, the significant volumes of low-priced subject imports would likely force the domestic light castings industry either to cut prices or forego necessary price

<sup>&</sup>lt;sup>285</sup> Fourth Reviews, USITC Pub. 4655 at 53.

increases to retain sales. Consequently, we find that if the orders were revoked, cumulated subject imports of light castings would likely have significant price effects.

### 5. Likely Impact of Subject Imports

### a. The Original Investigations and Prior Five-Year Reviews

In concluding in the original determinations that the domestic industry producing light castings was threatened with material injury by reason of subject imports from Brazil and China considered individually, the Commission found that the domestic industry was beginning to experience difficulties and was vulnerable to material injury from subject imports, as reflected in particular in the industry's declining income toward the end of the period and flat or decreasing prices for the domestic product.<sup>286</sup>

In the full first five-year reviews, the Commission found that the domestic industry producing light castings was vulnerable to material injury if the orders were revoked. It based that finding primarily upon the operating losses experienced by the domestic industry of \$\*\*\* in 1997 and \$\*\*\* in 1998. The Commission stated that, given the generally substitutable nature of the subject imports and the domestic like product, the likely significant volume of low-priced subject imports, when combined with the expected adverse price effects of these imports, would have a significant adverse impact on the production, shipments, sales, and revenue levels of the domestic industry. This reduction in the industry's production, sales, and revenue levels would have a direct adverse impact on the industry's profitability and employment levels as well as its ability to raise capital and make and maintain necessary capital investments.

<sup>&</sup>lt;sup>286</sup> Original Investigations, USITC Pub. 1838 at 17-19.

Accordingly, the Commission concluded that, if the orders were revoked, subject imports would be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time.<sup>287</sup>

In the expedited second five-year reviews, the Commission found that the limited information available did not provide a basis for departing from the Commission's prior findings that the domestic industry producing light castings was vulnerable to material injury if the orders were revoked. The Commission noted that the industry's share of apparent U.S. consumption in 2003 was only \*\*\* percent, \*\*\* its market share in \*\*\*. Although the domestic producers' market share had been lost largely to nonsubject imports rather than subject imports, the Commission found that the loss of market share indicated that the domestic industry might be more vulnerable than it had been previously. The Commission found that, in the event of revocation, the volume and price effects of the subject imports would likely have a significant adverse impact on the industry's production, sales, and revenue levels and would have a direct adverse impact on the industry's profitability and employment levels as well as its ability to raise capital and make and maintain necessary capital investments. Therefore, the Commission concluded that, if the orders on subject imports from Brazil and China were revoked, subject imports would be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time.<sup>288</sup>

<sup>&</sup>lt;sup>287</sup> First Reviews, USITC Pub. 3247 at 20; First Reviews Confidential Views at 21 (EDIS Document No. 761859).

<sup>&</sup>lt;sup>288</sup> Second Reviews, USITC Pub. 3781 at 21; Second Reviews Confidential Views at 31-32 (EDIS Document No. 761860).

In the expedited third five-year reviews, the Commission was evenly divided on the issue of the domestic industry's vulnerability.<sup>289</sup> It found that, in the event of revocation, the likely volume and price effects of the subject imports would likely have a significant adverse impact on the industry's production, sales, and revenue levels and would have a direct adverse impact on the industry's profitability and employment levels as well as its ability to raise capital and make and maintain necessary capital investments. Accordingly, the Commission concluded that, if the orders on subject imports from Brazil and China were revoked, subject imports would be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time.<sup>290</sup>

In the full fourth five-year reviews, the Commission found that the domestic industry's performance had improved by most measures during the period of review, including production, capacity utilization, net sales, shipments, revenues, and employment indicators, and did not conclude that the industry was in a vulnerable condition, although the Commission recognized that the industry's financial performance had declined.<sup>291</sup>

The Commission found that revocation of the orders would likely result in a significant increase in cumulated subject import volume that would likely have adverse price effects on

<sup>&</sup>lt;sup>289</sup> Three Commissioners found that the information on the record was insufficient for them to make a determination as to whether the industry was currently vulnerable, while three Commissioners found that the domestic industry was vulnerable to material injury. *Third Reviews*, USITC Pub. 4191 at 25 nn.114, 115.

<sup>&</sup>lt;sup>290</sup> Third Reviews, USITC Pub. 4191 at 25.

<sup>&</sup>lt;sup>291</sup> Fourth Reviews, USITC Pub. 4655 at 56. Commissioners Pinkert and Schmidtlein found the domestic industry producing light castings to be vulnerable given its low market share, low capacity utilization rate, and decreased operating income from 2013 to 2015, notwithstanding increased apparent U.S. consumption during that period. *Id.* at n.292.

the domestic industry, and an adverse impact on the industry's production, shipments, sales, market share, and revenues, and by extension the industry's profitability, and its ability to raise capital and make and maintain necessary capital investments. The Commission therefore concluded that, if the orders were revoked, subject imports from Brazil and China would be likely to have a significant impact on the domestic industry within a reasonably foreseeable time.

In its consideration of the role of nonsubject imports of light castings in the U.S. market, the Commission observed that the volume of nonsubject imports had increased over the period of review, and that nonsubject imports supplied a larger share of the U.S. market than the domestic industry, increasing from \*\*\* percent in 2013 to \*\*\* percent in 2015. Noting that U.S. producers of light castings competed directly with nonsubject imports in the U.S. market, the Commission found that competition from low-priced subject imports after revocation would not exclusively affect nonsubject imports, but would also likely have an adverse effect on both the domestic industry's prices and its market share.<sup>293</sup>

#### b. The Current Reviews

Due to the expedited nature of these reviews, the record contains limited information concerning the domestic industry's performance since the last reviews.<sup>294</sup>

<sup>&</sup>lt;sup>292</sup> Fourth Reviews, USITC Pub. 4655 at 57.

<sup>&</sup>lt;sup>293</sup> Fourth Reviews, USITC Pub. 4655 at 57-58; Fourth Reviews Confidential Views at 92-93 (EDIS Document No. 761863).

<sup>&</sup>lt;sup>294</sup> CR/PR at Table I-6.

The information available indicates that the domestic light casting industry's performance in 2020 was stronger with respect to some factors and weaker with respect to others, as compared to the industry's performance in the prior proceedings.<sup>295</sup> The capacity of the domestic industry was \*\*\* pounds in 2020, which was \*\*\* above the levels during the original period of investigation and the previous reviews for which capacity data were available.<sup>296</sup> However, the industry's capacity utilization rate in 2020 of \*\*\* percent was \*\*\* below the levels during the original period of investigation and the previous reviews for which capacity data were available. In 2020, the industry's production was \*\*\* pounds and its U.S. shipments were \*\*\* pounds, which were lower than in 2003, 1998 and 1985, but higher than in 2015 and 2009.<sup>297</sup> The industry's operating income was \$\*\*\* in 2020, which was higher than in 2015, 2009, and 1998, while its ratio of operating income to net sales was \*\*\* percent, which was higher than in 2009 and 1998 but lower than in 2015. 298 U.S. light castings producers' share of apparent U.S. consumption was \*\*\* percent in 2020, which was higher than in 2015 and 2003 but lower than in 2009 and 1998.<sup>299</sup> This limited information is insufficient for us to make a finding on whether the domestic industry is vulnerable to the continuation or recurrence of material injury in the event of revocation of the orders.

<sup>&</sup>lt;sup>295</sup> We recognize that the domestic industry's performance data may be understated in 2020 relative to 2015, 2009, and 2003 by the relatively lower coverage of the domestic light castings industry in these reviews (\*\*\* percent) relative to the second, third, and fourth reviews (ranging from \*\*\* to \*\*\* percent). CR/PR at I-13 to I-14.

<sup>&</sup>lt;sup>296</sup> CR/PR at Table I-6.

<sup>&</sup>lt;sup>297</sup> CR/PR at Table I-6.

<sup>&</sup>lt;sup>298</sup> CR/PR at Table I-6.

<sup>&</sup>lt;sup>299</sup> CR/PR at Table I-10.

Based on the limited information on the record, we find that, should the orders be revoked, there would likely be a significant volume of cumulated subject imports of light castings from Brazil and China, and that these imports would likely undersell the domestic like product to gain market share. Given the moderate to high degree of substitutability between subject imports and the domestic like product and the importance of price to purchasers, the likely significant volume of low-priced subject imports would likely force domestic producers to choose to either cut prices or forego necessary price increases to retain sales. Consequently, the likely significant volume of low-priced subject imports and their significant price effects would likely have a significant adverse impact on the production, shipments, sales, market share, and revenues of the domestic industry, which, in turn, would have a direct adverse impact on the industry's profitability and employment, as well as its ability to raise capital and make and maintain necessary capital investments. We conclude that, if the orders were revoked, subject imports of light castings from Brazil and China would be likely to have a significant impact on the domestic industry within a reasonably foreseeable time.

We have also considered the role of factors other than cumulated subject imports, including the presence of nonsubject imports, so as not to attribute injury from other factors to the subject imports. Although nonsubject imports of light castings have increased their presence in the U.S. market since 1998, and their market share was \*\*\* percent in 2020, 300 the record provides no indication that the presence of nonsubject imports would prevent cumulated subject imports from entering the U.S. market in significant quantities upon

<sup>&</sup>lt;sup>300</sup> CR/PR at Table I-10.

revocation of the orders. Given the moderate to high degree of substitutability between subject imports and the domestic like product and the importance of price in purchasing decisions, the significant volume of subject imports upon revocation would likely undersell the domestic like product and take market share from both the domestic industry and nonsubject imports. Furthermore, the increased presence of nonsubject imports in 2020 compared to 1998 did not prevent the domestic light castings industry from improving its profitability in 2020 relative to 1998.<sup>301</sup> Consequently, we find that any effects of nonsubject imports would be distinct from the likely effects attributable to the subject imports.

We have also considered the likely effects of demand trends on the domestic light castings industry. We recognize that apparent U.S. consumption of light castings was lower in 2020 than in 2015. Nevertheless, apparent U.S. consumption was higher in 2020 than in 2009, and the only responding purchaser (\*\*\*) reported that \*\*\*. Given this, we find that the adverse effects likely to be caused by subject imports upon revocation of the orders would be distinct from any likely effects resulting from demand trends.

Accordingly, we conclude that, if the antidumping duty orders were revoked, cumulated subject imports from Brazil and China would likely have a significant impact on domestic producers of light castings within a reasonably foreseeable time.

<sup>&</sup>lt;sup>301</sup> CR/PR at Table I-6.

<sup>&</sup>lt;sup>302</sup> CR/PR at Table I-10. We recognize that apparent U.S. consumption in 2020 may be understated due to the relatively lower coverage of the domestic industry in these reviews (\*\*\* percent) relative to the fourth five-year reviews (100 percent). *See id.* at I-14.

<sup>&</sup>lt;sup>303</sup> CR/PR at Table I-8; *SRC Pipe and Tube from Vietnam Final Determination*, USITC Pub. 5216 at 14; CR/PR at Appendix D-3-4. Furthermore, the Domestic Producers reported that demand in 2020 was "fundamentally unchanged from 2010." Response at 15.

# V. Conclusion

For the foregoing reasons, we determine that revocation of the countervailing duty order on heavy castings from Brazil, the antidumping duty orders on heavy castings from Brazil, Canada, and China, and the antidumping duty orders on light castings from Brazil and China would be likely to lead to continuation or recurrence of material injury to pertinent industries in the United States within a reasonably foreseeable time.

# Information obtained in these reviews

# **Background**

On December 1, 2021, the U.S. International Trade Commission ("Commission") gave notice, pursuant to section 751(c) of the Tariff Act of 1930, as amended ("the Act"), that it had instituted reviews to determine whether revocation of the countervailing duty order on heavy iron construction castings ("heavy castings") from Brazil, the antidumping duty orders on heavy castings from Brazil, Canada, and China, and the antidumping duty orders on light iron construction castings ("light castings") from Brazil and China would likely lead to the continuation or recurrence of material injury to a domestic industry.<sup>2</sup> All interested parties were requested to respond to this notice by submitting certain information requested by the Commission.<sup>3 4</sup> Table I-1 presents information relating to the background and schedule of this proceeding:

Table I-1 Castings: Information relating to the background and schedule of this proceeding

Applicable date	Action
December 1, 2021	Notice of initiation by Commerce (86 FR 68220, December 1, 2021)
December 1, 2021	Notice of institution by Commission (86 FR 68283, December 1, 2021)
March 7, 2022	Commission's vote on adequacy
March 16, 2022	Commerce's results of its expedited reviews AD (87 FR 14821, March 16, 2022)
April 4, 2022	Commerce's results of its expedited review CVD (87 FR 19484, April 4, 2022)
May 13, 2022	Commission's determinations and views

<sup>&</sup>lt;sup>1</sup> 19 U.S.C. 1675(c).

<sup>&</sup>lt;sup>2</sup> 86 FR 68283, December 1, 2021. In accordance with section 751(c) of the Act, the U.S. Department of Commerce ("Commerce") published a notice of initiation of five-year reviews of the subject antidumping and countervailing duty orders. 86 FR 68220, December 1, 2021. Pertinent Federal Register notices are referenced in app. A, and may be found at the Commission's website (www.usitc.gov).

<sup>&</sup>lt;sup>3</sup> As part of their response to the notice of institution, interested parties were requested to provide company-specific information. That information is presented in app. B. Summary data compiled in the original investigations and subsequent full reviews are presented in app. C.

<sup>&</sup>lt;sup>4</sup> Interested parties were also requested to provide a list of three to five leading purchasers in the U.S. market for the domestic like product and the subject merchandise. Presented in app. D are the responses received from purchaser surveys transmitted to the purchasers identified in this proceeding.

# Responses to the Commission's notice of institution

# **Individual responses**

The Commission received one submission in response to its notice of institution in the subject reviews. It was filed on behalf of the following entities:

1. D&L Foundry, Inc. ("D&L Foundry"), EJ USA, Neenah Foundry Company ("Neenah Foundry"), Tyler Union, a Division of McWane, Inc. ("Tyler Union"), and U.S. Foundry & Manufacturing Corp. ("U.S. Foundry"), domestic producers of iron construction castings ("castings") (collectively referred to herein as "domestic interested parties").

A complete response to the Commission's notice of institution requires that the responding interested party submit to the Commission all the information listed in the notice. Responding firms are given an opportunity to remedy and explain any deficiencies in their responses. A summary of the number of responses and estimates of coverage for each is shown in table I-2.

Table I-2
Castings: Summary of completed responses to the Commission's notice of institution

Interested party	Туре	Number of firms	Coverage
U.S. producer, heavy	Domestic	4	***%
U.S. producer, light	Domestic	3	***%

Note: The U.S. producer coverage figure presented is the domestic interested parties' estimate of their share of total U.S. production of heavy and light castings during 2020. Domestic interested parties' response to the notice of institution, January 3, 2022, p. 32 and exh.11.

Note: \*\*\*. Domestic interested parties' response to the notice of institution, January 3, 2022, exh.11.

# Party comments on adequacy

The Commission received party comments on the adequacy of responses to the notice of institution and whether the Commission should conduct expedited or full reviews from D&L Foundry, EJ USA, Neenah Foundry, Tyler Union, and U.S Foundry. The domestic interested parties request that the Commission conduct expedited reviews of the antidumping and countervailing duty orders on castings.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> Domestic interested parties' comments on adequacy, February 3, 2022, p. 4.

# The original investigations and subsequent reviews

# The original investigations

The original investigations resulted from petitions filed on May 13, 1985, with Commerce and the Commission by Municipal Castings Fair Trade Council, a trade association representing 15 domestic producers of castings. The petitioners filed antidumping petitions with respect to imports from Brazil, Canada, China, and India, and a countervailing duty petition with respect to Brazil.<sup>6</sup> On February 19, 1986, the Commission determined that an industry in the United States was materially injured by reason of imports from Canada of heavy and light castings which were being sold at less than fair value ("LTFV").<sup>7</sup> On March 5, 1986, Commerce issued its antidumping duty order with respect to Canada; the final weighted average dumping margins as amended on September 25, 1986 ranged from 3.90 to 9.80 percent for imports from Canada.<sup>8</sup>

The Commission determined on April 25, 1986 that the domestic industry was materially injured by reason of subsidized imports of heavy castings from Brazil and LTFV imports of heavy castings from Brazil, China, and India. The Commission also determined that the domestic industry was threatened with material injury by reason of LTFV imports of light castings from Brazil, China, and India. On May 9, 1986, Commerce issued its antidumping duty orders with the final weighted-average dumping margins ranging from 5.95 to 58.74 percent for imports from Brazil and 11.66 percent for imports from China. The antidumping duty order with respect to imports from India was also issued on May 9, 1986. On May 15, 1986, Commerce published a countervailing duty order with respect to Brazil with a country-wide margin of 3.40 percent.

<sup>&</sup>lt;sup>6</sup> Iron Construction Castings from Brazil, India, and the People's Republic of China, Inv. Nos. 701-TA-249 and 731-TA-262, 264, and 265 (Final), USITC Publication 1838, April 1986 ("Original publication"), p. A-1.

<sup>&</sup>lt;sup>7</sup> 51 FR 7646, March 5, 1986.

<sup>&</sup>lt;sup>8</sup> 51 FR 7600, March 5, 1986; 51 FR 34110, September 25, 1986. As the result of a 1998 changed circumstances review, Commerce revoked the antidumping duty order in part to exclude light castings. 63 FR 49687, September 17, 1998; and 63 FR 50881, September 23, 1998.

<sup>&</sup>lt;sup>9</sup> 51 FR 16906, May 7, 1986. The Commission made a negative preliminary determination with respect to subsidized imports of light castings from Brazil. 50 FR 27498, July 3, 1985.

<sup>&</sup>lt;sup>10</sup> 51 FR 17220, May 9, 1986.

<sup>&</sup>lt;sup>11</sup> 51 FR 17222, May 9, 1986.

<sup>&</sup>lt;sup>12</sup> 51 FR 17221, May 9, 1986. This order was revoked by Commerce in 1991. 56 FR 4789, February 6, 1991.

<sup>&</sup>lt;sup>13</sup> 51 FR 17786, May 15, 1986.

# The first five-year reviews

On February 4, 1999, the Commission determined that it would conduct full reviews of the countervailing duty order on heavy castings from Brazil, the antidumping duty orders on heavy castings from Brazil, Canada, and China, and the antidumping duty orders on light castings from Brazil and China. <sup>14</sup> On June 7, 1999, Commerce determined that revocation of the antidumping and countervailing duty orders on castings from Brazil, Canada, and China would be likely to lead to continuation or recurrence of dumping and subsidization. <sup>15</sup> On October 25, 1999, the Commission determined that material injury would be likely to continue or recur within a reasonably foreseeable time. <sup>16</sup> Following affirmative determinations in the five-year reviews by Commerce and the Commission, effective November 12, 1999, Commerce issued a continuation of the antidumping and countervailing duty orders on imports of castings from Brazil, Canada, and China. <sup>17</sup>

# The second five-year reviews

On January 4, 2005, the Commission determined that it would conduct expedited reviews of the countervailing duty order on heavy castings from Brazil, the antidumping duty orders on heavy castings from Brazil, Canada, and China, and the antidumping duty orders on light castings from Brazil and China. On May 10, 2005, Commerce determined that revocation of the antidumping and countervailing duty orders on castings from Brazil, Canada, and China would be likely to lead to continuation or recurrence of dumping and subsidization. On June 7, 2005, the Commission determined that material injury would be likely to continue or recurrence within a reasonably foreseeable time. Following affirmative determinations in the five-year reviews by Commerce and the Commission, effective June 29, 2005, Commerce issued a

<sup>&</sup>lt;sup>14</sup> 64 FR 9176, February 24, 1999. The Commission also determined that it would conduct a full review of the countervailing duty order on iron metal castings from India (Inv. No. 303-TA-13). Ibid.

<sup>&</sup>lt;sup>15</sup> 64 FR 30310, June 7, 1999; and 64 FR 30313, June 7, 1999.

<sup>&</sup>lt;sup>16</sup> 64 FR 58442, October 29, 1999. The Commission also determined that revocation of the countervailing duty order on iron metal castings from India would not be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time. Ibid.

<sup>&</sup>lt;sup>17</sup> 64 FR 61590, November 12, 1999; and 64 FR 61591, November 12, 1999.

<sup>&</sup>lt;sup>18</sup> 70 FR 7967, February 16, 2005.

<sup>&</sup>lt;sup>19</sup> 70 FR 24511, May 10, 2005; 70 FR 24512, May 10, 2005; 70 FR 24513, May 10, 2005; and 70 FR 24529, May 10, 2005.

<sup>&</sup>lt;sup>20</sup> 70 FR 34505, June 14, 2005.

continuation of the antidumping and countervailing duty orders on castings from Brazil, Canada, and China.<sup>21</sup>

# The third five-year reviews

On August 6, 2010, the Commission determined that it would conduct expedited reviews of the countervailing duty order on heavy castings from Brazil, the antidumping duty orders on heavy castings from Brazil, Canada, and China, and the antidumping duty orders on light castings from Brazil and China. <sup>22</sup> On September 8, 2010, Commerce determined that revocation of the antidumping and countervailing duty orders on castings from Brazil, Canada, and China would be likely to lead to continuation or recurrence of dumping and subsidization. <sup>23</sup> On October 27, 2010, the Commission determined that material injury would be likely to continue or recur within a reasonably foreseeable time. <sup>24</sup> Following affirmative determinations in the five-year reviews by Commerce and the Commission, effective November 19, 2010, Commerce issued a continuation of the antidumping and countervailing duty orders on castings from Brazil, Canada, and China. <sup>25</sup>

# The fourth five-year reviews

On January 4, 2016, the Commission determined that it would conduct full reviews of the countervailing duty order on heavy castings from Brazil, the antidumping duty orders on heavy castings from Brazil, Canada, and China, and the antidumping duty orders on light castings from Brazil and China. On February 5, 2016, Commerce determined that revocation of the countervailing duty order on Brazil would be likely to lead to continuation or recurrence of subsidization. On February 10, 2016, Commerce determined that revocation of the antidumping duty orders on Brazil, Canada, and China would be likely to lead to continuation or recurrence of dumping. On December 21, 2016, the Commission determined that material injury would be likely to continue or recur within a reasonably foreseeable time.

<sup>&</sup>lt;sup>21</sup> 70 FR 37326, June 29, 2005.

<sup>&</sup>lt;sup>22</sup> 75 FR 49945, August 16, 2010.

<sup>&</sup>lt;sup>23</sup> 75 FR 54595, September 8, 2010; and 75 FR 54596, September 8, 2010.

<sup>&</sup>lt;sup>24</sup> 75 FR 67395, November 2, 2010.

<sup>&</sup>lt;sup>25</sup> 75 FR 70900, November 19, 2010.

<sup>&</sup>lt;sup>26</sup> 81 FR 1967, January 14, 2016.

<sup>&</sup>lt;sup>27</sup> 81 FR 6237, February 5, 2016.

<sup>&</sup>lt;sup>28</sup> 81 FR 7083, February 10, 2016.

<sup>&</sup>lt;sup>29</sup> 81 FR 95639, December 28, 2016.

affirmative determinations in the five-year reviews by Commerce and the Commission, effective January 6, 2017, Commerce issued a continuation of the antidumping and countervailing duty orders on imports of castings from Brazil, Canada, and China.<sup>30</sup>

# **Previous and related investigations**

The Commission has conducted a number of previous import relief investigations on castings or similar merchandise. Table I-3 presents information on previous and related investigations.

Table I-3
Castings: Previous and related Commission proceedings and status of orders

Date	Number(s)	Countr(ies)	Outcome
1980	731-TA-37	India	Affirmative Commission
			preliminary determination;
			Negative Commerce final
			determination
1984	332-176	Global	Report transmitted to
			Office of United States
			Trade Representative
1985	TA-201-58	Global	Negative Commission
			determination
2004	332-460	Global	Report transmitted to the
			House Committee on
			Ways and Means

Source: U.S. International Trade Commission publications and Federal Register notices.

Note: "Date" refers to the year in which the investigation or review was instituted by the Commission.

# Commerce's five-year reviews

Commerce announced that it would conduct expedited reviews with respect to the orders on imports of castings from Brazil, Canada, and China with the intent of issuing the final results of these reviews based on the facts available not later than March 31, 2022. 31 Commerce publishes its Issues and Decision Memoranda and its final results concurrently, accessible upon publication at <a href="http://enforcement.trade.gov/frn/">http://enforcement.trade.gov/frn/</a>. Issues and Decision Memoranda contain complete and up-to-date information regarding the background and

<sup>&</sup>lt;sup>30</sup> 82 FR 1699, January 6, 2017.

<sup>&</sup>lt;sup>31</sup> Letter from Abdelali Elouaradia, Director, AD/CVD Operations, Enforcement and Compliance, U.S. Department of Commerce to Nannette Christ, Director of Investigations, January 20, 2022.

history of the order, including scope rulings, duty absorption, changed circumstances reviews, and anticircumvention, as well as any decisions that may have been pending at the issuance of this report. Any foreign producers/exporters that are not currently subject to the antidumping and countervailing duty orders on imports of castings from Brazil, Canada, and China are noted in the sections titled "The original investigations" and "U.S. imports," if applicable.

# The product

# Commerce's scope

Commerce has defined the scope as follows:32

The merchandise covered by the AD orders is as follows:

Brazil—Certain iron construction castings from Brazil, limited to manhole covers, rings, and frames, catch basin grates and frames, cleanout covers and frames used for drainage or access purposes for public utility, water and sanitary systems, classifiable as heavy castings under Harmonized Tariff Schedule ("HTS")item number 7325.10.0010; and to valve, service, and meter boxes which are placed below ground to encase water, gas, or other valves, or water and gas meters, classifiable as light castings under HTS item number 7325.10.0050. The HTS item numbers are provided for convenience and customs purposes only. The written product description remains dispositive.

Canada—Certain iron construction castings from Canada, limited to manhole covers, rings, and frames, catch basin grates and frames, clean-out covers, and frames used for drainage or access purposes for public utility, water and sanitary systems, classifiable as heavy castings under HTS item number 7325.10.0010. The HTS item number is provided for convenience and customs purposes only. The written product description remains dispositive.

China—Certain iron construction castings from the PRC, limited to manhole covers, rings and frames, catch basin grates and frames, cleanout covers and drains used for drainage or access purposes for public utilities, water and sanitary systems; and valve, service, and meter boxes

<sup>&</sup>lt;sup>32</sup> 82 FR 1699, January 6, 2017.

which are placed below ground to encase water, gas, or other valves, or water or gas meters. These articles must be of cast iron, not alloyed, and not malleable. This merchandise is currently classifiable under HTS item numbers 7325.10.0010 and 7325.10.0050. The HTS item numbers are provided for convenience and customs purposes. The written product description remains dispositive.

The merchandise subject to the CVD order consists of certain heavy iron construction castings from Brazil. The merchandise is defined as manhole covers, rings and frames; catch basin grates and frames; and cleanout covers and frames used for drainage or access purposes for public utility, water and sanitary systems. The merchandise is currently classified under HTS item number 7325.10.00. The HTS item number is provided for convenience and customs purposes. The written product description remains dispositive.

#### **Tariff treatment**

Heavy and light castings subject to these reviews currently are classified under HTS subheading 7325.10.00, as other cast articles of nonmalleable cast iron. The general or NTR rate of duty for merchandise entering the United States under HTSUS subheading 7325.10.00 is "free" and applies to products from Brazil, Canada, and China. Castings are imported under the statistical reporting numbers reported below, with explanatory descriptors added for clarity. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

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7325.10.0010 – Manhole covers, rings and frames (heavy)
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7325.10.0020 – Catch basins, grates and frames (heavy)

7325.10.0025 – Cleanout covers and frames (heavy)

7325.10.0030 – Valve and service boxes (light)

7325.10.0035 - Meter boxes (light)

7325.10.0080 - Other34

<sup>&</sup>lt;sup>33</sup> HTSUS (2022) Preliminary, USITC publication 5272, January 2022, p. 73-41.

<sup>&</sup>lt;sup>34</sup> HTS statistical reporting number 7325.10.0080 contains light and heavy castings not used for drainage or access purposes for public utility, water and sanitary systems.

### **Section 232 tariff treatment**

Castings classifiable under HTS subheading 7325.10 were not included in the enumeration of steel mill products that were subject to the additional 25 percent ad valorem section 232 national-security duties under HTS chapter 99 as of March 23, 2018.<sup>35</sup>

### **Section 301 tariff treatment**

Castings originating in China that enter the United States under HTS subheading 7325.10 are currently subject to additional 25 percent section 301 ad valorem duties,<sup>36</sup> effective May 10, 2019.<sup>37</sup> See also U.S. notes 20(e) and 20(f), subchapter III of chapter 99.

<sup>&</sup>lt;sup>35</sup> Section 232 of the Trade Expansion Act of 1962, as amended (19 U.S.C. 1862) authorizes the President, on advice of the Secretary of Commerce, to adjust the imports of an article and its derivatives that are being imported into the United States in such quantities or under such circumstances as to threaten to impair the national security. Adjusting Imports of Steel Into the United States, Presidential Proclamation 9705, March 8, 2018; 83 FR 11625, March 15, 2018.

<sup>&</sup>lt;sup>36</sup> Section 301 of the Trade Act of 1974, as amended (19 U.S.C. § 2411) authorizes the Office of the United States Trade Representative ("USTR"), at the direction of the President, to take appropriate action to respond to a foreign country's unfair trade practices. On August 18, 2017, USTR initiated an investigation into certain acts, policies, and practices of the Government of China related to technology transfer, intellectual property, and innovation (82 FR 40213, August 24, 2017). On April 6, 2018, USTR published its determination that the acts, policies, and practices of China under investigation are unreasonable or discriminatory and burden or restrict U.S. commerce and are thus actionable under section 301(b) of the Trade Act (83 FR 14906, April 6, 2018).

<sup>&</sup>lt;sup>37</sup> HTS subheading 7325.10 was included in the USTR's third enumeration ("Tranche 3") of products originating in China that became subject to an additional 10 percent ad valorem section 301 duties (Annexes A and C of 83 FR 47974), on or after September 24, 2018. Tranche 3 covered 6,031 tariff subheadings, with an approximate annual trade value of \$200 billion (83 FR 47974, September 21, 2018). Escalation of this duty to 25 percent ad valorem was rescheduled from January 1, 2019 (annex B of 83 FR 14906, April 6, 2018) to March 2, 2019 (83 FR 65198, December 19, 2018), but was subsequently postponed until further notice (84 FR 7966, March 5, 2019), and then was implemented as of May 10, 2019 (84 FR 20459, May 9, 2019). A subsequent modification was provided for subject goods exported from China prior to May 10, 2019 not to be subject to the escalated 25 percent duty, as long as such goods entered the United States prior to June 1, 2019 (84 FR 21892, May 15, 2019).

# The product

# Description and applications<sup>38</sup>

Castings are described by the industry as either "light" or "heavy", depending on their weight and end-use. Iron castings are cast from either gray iron<sup>43</sup> (containing flakes of graphite), which provides excellent machinability, good wear resistance, and high vibration absorption, but has lower elasticity, or are cast from ductile iron (containing high carbon and silicon content), having a high modulus of elasticity and high strength to permit heavier loads with less deflection.

U.S. purchasers stated in their questionnaire responses during the fourth review that they consider dimensional conformity, product appearance (i.e., surface finish, patterns, fittings, and sharp edges), and applicable specifications as important quality characteristics when purchasing castings. Castings must meet industry specifications for some end-use applications, including standards from ASTM, American Association of State Highway and Transportation Officials (AASHTO), American Water Works Association (AWWA), or Standard Plans for Public Works Construction (SPPWC). ASTM A-48 is the most common standard for both heavy and light castings. The standard specification for heavy castings related to drainage structure castings, such as frames, grates, rings, and manhole covers, is AASHTO M306. Many light castings used in roads, such as valve and meter boxes, may need to comply with AWWA specifications if they are used to cover water distribution systems, in addition to ASTM A-48 standards.

### **Heavy castings**

Heavy castings are used principally for drainage or access purposes by utilities and municipalities in storm drainage, water transportation and water treatment, sanitary systems, natural gas transmission, and highways systems (see figure I-1). Heavy castings are typically installed by general contractors or more rarely by municipal work crews. Manhole sets, consisting of a cover and a frame, and sometimes accessory parts such as rings, constitute the bulk of domestic production. Heavy castings generally range in weight from 250 to 1,000 pounds (123 to 454 kg) and are produced by the sand cast method. High-performance castings,

<sup>&</sup>lt;sup>38</sup> Unless otherwise noted, this information is based on Iron Construction Castings from Brazil, Canada, and China, Investigation Nos. 701-TA-249 and 731-TA-262-263 and 265 (Fourth Review), Publication 4655, December 2016 ("Fourth review publication") pp. I-18-I-20.

such as those used in airport runways, are increasingly being made of ductile iron, a stronger and more expensive material than gray iron.

Figure I-1 Examples of heavy castings



Source: Deeter Foundry, http://www.deeter.com/products/trench-covers/, accessed January 31, 2022.

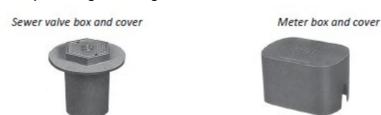
Although the basic configuration of the heavy castings included in these reviews varies little, there are many models of each of these products. Individual models are distinguished by their dimensions, markings, vents, pick holes, and other characteristics. Some differences in the models result from the diverse weather and wear problems characteristic of the various regions in which they are used. For example, castings used in the Northwest are designed to handle heavy rain runoff, whereas those sold in the Southwest are designed to prevent clogging with sand. Other differences result from the preferences of the individual municipalities and utilities that are the end users of these products. Domestic foundries, by virtue of their proximity to the end users and construction supply distributors, require relatively short lead times and can fill most orders for less popular or customized models without maintaining inventories of such items. Importers, with their longer lead times, generally handle only the faster-moving, more standardized models because of the resulting inventory carrying costs incurred by supplying a complete range of products. Thus, while domestic producers may typically handle 4,000 to 5,000 items, importers may carry only 150 to 200.

### **Light Castings**

Light castings primarily consist of valve, service, and meter boxes (see figure I-2). These products are used by utilities and municipalities to encase the underground valves and meters of water, gas, or other utilities, and to provide access to this equipment for periodic adjustment or readings. Light castings are also manufactured in sets, usually containing three pieces — a base, a top, and a cover with lettering and/or a pattern. Light castings generally range in weight from 10 to 120 pounds (4.5 to 55 kg) and are produced in the United States by sand cast, shell mold, or permanent mold processes. Such castings are manufactured in a range of dimensions but are relatively standardized nationwide. Valve, service, and meter boxes must reach below

the frost line and consequently the type of boxes used in Northern regions may differ from those used in Southern regions. Light castings are typically made of gray iron, but other materials are increasingly being used. For natural gas applications, the underground sections and, occasionally, the covers of valve, service, and meter boxes, are increasingly made of plastic.

Figure I-2
Examples of light castings



Source: U.S. Foundry, http://www.usfoundry.com/usfoundry-products/catalog/valuebox, accessed January 31, 2022.

# Manufacturing processes<sup>39</sup>

### **Heavy castings**

Foundries produce castings by pouring molten iron into sand molds, allowing the iron to cool and solidify, then removing ("shaking out") the solidified casting from the mold for finishing and sale. The molten iron is produced from pig and scrap iron, coke, and limestone in cupola furnaces, but can also be made in electric furnaces. The molds into which the iron is poured are produced in several ways. The sand-cast method is used to produce heavy castings and, in some foundries, light castings. In this process, green sand is packed into metal frames ("flasks") fitted with wood or metal patterns bearing the external shapes of the finished castings. Each mold consists of two flasks of sand – the "cope" with the pattern of the casting's top half and the "drag" with the bottom half. After the sand has been packed firmly, the patterns are removed and the cope and drag are joined such that an internal cavity having the shape of the entire casting is created. Molten iron is poured into this cavity via a hole cut through the sand. After a cooling period, the green sand mold is shaken loose from the iron casting. Once completely cooled, the casting is finished, stored, and allowed to rust slightly to protect the casting from further deterioration. The green sand is reprocessed and used for further molds.

<sup>&</sup>lt;sup>39</sup> Fourth review publication, p. I-21.

#### **Light castings**

Light castings have some inner surfaces that can be formed only with sand "cores" inserted into the cavity before the cope and drag are closed. Molten iron is poured into the mold cavity via a hole ("sprue") cut through the sand. After the iron cools, the casting is shaken out of the sand on shaker belts, and the sand from the molds and cores is reprocessed for further use. The casting is then particle blasted or ground to remove rough edges and overpourings, and then dip-painted or sold as is.

The shell mold process used by some producers to make light castings is similar to the sand cast method, except that the cores are made of resin-treated sand, which is baked and placed inside a metal mold. The sand-resin mold is designed to burn and separate itself from the iron casting at 1,200 degrees Fahrenheit.

Some foundries also produce light castings in permanent molds. These molds are made of a metal with a higher melting point than that of the cast gray iron and, instead of being discarded after each pour, are used for up to several thousand pours. However, initial tooling costs for permanent molds are high; therefore, the process is economical only for high-volume, standardized production.

## The industry in the United States

#### **U.S.** producers

During the final phase of the original investigations, there were approximately 40 U.S. producers of castings, believed to account for the majority of U.S. production. The top eight producers of castings accounted for 60 percent of U.S. production in 1985.<sup>40</sup>

During the first five-year reviews, the Commission received U.S. producer questionnaires from 13 firms, which accounted for the majority of known domestic heavy and light castings production. Of the 13 firms, 9 were producers of heavy castings and 4 were producers of light castings. 41

During the second five-year reviews, the domestic interested parties provided a list of 12 known and currently operating U.S. producers of castings. Of the seven responding firms, seven firms accounted for approximately \*\*\* percent of U.S. production of heavy castings and

<sup>&</sup>lt;sup>40</sup> Original publication, p. A-11.

<sup>&</sup>lt;sup>41</sup> Iron Metal Castings From India; Heavy Iron Construction Castings From Brazil; and Iron Construction Castings From Brazil, Canada, and China (Review), Inv. No. 303-TA-13 (Review), Inv. No. 731-TA-249 (Review), Inv. Nos. 731-TA-262, 263, and 265 (Review), USITC Publication 3247, October 1999, ("First review publication"), p. I-25.

two firms accounted for approximately \*\*\* percent of U.S production of light castings during 2003.<sup>42</sup>

During the third five-year reviews, the domestic interested parties identified 10 domestic producers of castings, of which seven produced heavy castings and six produced light castings. <sup>43</sup> U.S. industry data were based on data provided by four firms that accounted for an estimated \*\*\* percent of U.S. production of heavy castings and three firms that accounted for an estimated \*\*\* percent of U.S. production of light castings in 2009. <sup>44</sup>

During the fourth five-year reviews, the Commission received U.S. producer questionnaires from eight firms, which were believed to account for all U.S. production of heavy and light castings during 2015. Of the responding firms, five were producers of heavy castings and five were producers of light castings.<sup>45</sup>

In response to the Commission's notice of institution in these current reviews, domestic interested parties provided a list of eight known and currently operating U.S. producers of castings. <sup>46</sup> Of the five firms providing U.S. industry data in response to the Commission's notice of institution, four firms accounted for approximately \*\*\* percent of U.S. production of heavy castings and three firms accounted for \*\*\* percent of U.S. production of light castings during 2020. <sup>47</sup>

#### **Recent developments**

Table I-4 displays recent developments in the U.S. industry since the last five-year reviews. In their response to the notice of institution, the domestic interested parties reported no new entrants or departures from the U.S. domestic industry.<sup>48</sup>

<sup>&</sup>lt;sup>42</sup> Inv. Nos. 701-TA-249 and 731-TA-262, 263, and 265 (Second Review): Certain Iron Construction Castings from Brazil, Canada, and China, Confidential Report, INV-CC-060, May 3, 2005, as revised in INV-CC-068, May 19, 2005, and INV-CC-072, May 24, 2005 ("Second review confidential report"), pp. I-14-I-15.

<sup>&</sup>lt;sup>43</sup> Iron Construction Castings from Brazil, Canada, and China, Inv. Nos. 701-TA-249 and 731-TA-262, 263, and 265 (Third Review), USITC Publication 4191, October 2010 ("Third review publication"), p. I-32.

<sup>&</sup>lt;sup>44</sup> Inv . Nos. 701-TA-249 and 731-TA-262, 263, and 265 (Third Review): Iron Construction Castings from Brazil, Canada, and China, Confidential Report, INV-HH-091, September 16, 2010 ("Third review confidential report"), p. I-32 and tables I-10 and I-11.

<sup>&</sup>lt;sup>45</sup> Fourth review publication, p. I-24, tables I-7 and I-8.

<sup>&</sup>lt;sup>46</sup> Domestic interested parties' response to the notice of institution, January 3, 2022, pp. 29-30.

<sup>&</sup>lt;sup>47</sup> Domestic interested parties' response to the notice of institution, January 3, 2022, exh. 11.

<sup>&</sup>lt;sup>48</sup> Domestic interested parties' response to the notice of institution, January 3, 2022, p. 32.

Table I-4

Castings: Recent developments in the United States industry

Date	Туре	Company	Details
November 2018	Plant opening	EJ USA	In November 2018, EJ USA opened a new production facility in Warner Township, Michigan. The facility replaced the company's original foundry that was located in East Jordan, Michigan. The foundry produces both light and heavy castings which are subject to these reviews. The new facility contains four electric melt furnaces, two molding lines, and state-of-the-art automation and technology.
November 2021	Acquisition	Neenah Enterprises Inc.	In November 2021, the holding company for Neenah Foundry, Neenah Enterprises Inc., acquired certain assets of U.S. Foundry for a reported \$17.43 million. Neenah Foundry and U.S. Foundry will continue to be operated as independent entities. The acquired property in Medley, Florida covers 18.7 acres with 139,592 square feet of manufacturing space in six buildings, according to a local report. It is unclear whether this acquisition is related to castings production.

Sources: EJ Group, Manufacturing Facilities, <a href="https://www.ejco.com/am/en/about-us/manufacturing-facilities">https://www.ejco.com/am/en/about-us/manufacturing-facilities</a>, accessed February 17, 2022; Foundry Management and Technology, "Neenah Proceeds with U.S. Foundry Purchase," November 9, 2021, <a href="https://www.foundrymag.com/issues-and-ideas/article/21180781/neenah-proceeds-with-us-foundry-purchase-neenah-enterprises">https://www.foundrymag.com/issues-and-ideas/article/21180781/neenah-proceeds-with-us-foundry-purchase-neenah-enterprises</a>, accessed February 1, 2022; and Domestic interested parties' response to the notice of institution, January 3, 2022, p. 32 n.19.

## U.S. producers' trade and financial data

The Commission asked domestic interested parties to provide trade and financial data in their response to the notice of institution in the current five-year reviews.<sup>49</sup> Tables I-5 and I-6 present a compilation of the trade and financial data submitted from all responding U.S. producers in the original investigations and subsequent five-year reviews for heavy and light castings, respectively.

 $^{
m 49}$  Individual company trade and financial data are presented in app. B.

Table I-5
Heavy castings: Trade and financial data submitted by U.S. producers, by period

Quantity in 1,000 pounds; value in 1,000 dollars; unit value in dollars per pound; ratio is in percent

Item	Measure	1985	1998	2003	2009	2015	2020
Capacity	Quantity	458,432	533,763	N/A	***	***	920,270
Production	Quantity	313,723	542,637	446,955	***	***	512,259
Capacity utilization	Ratio	68.4	101.7	N/A	***	***	55.7
U.S. shipments	Quantity	407,000	543,430	448,273	***	***	521,099
U.S. shipments	Value	N/A	***	202,445	***	***	491,338
	Unit						
U.S. shipments	value	N/A	***	0.45	***	***	0.94
Net sales	Value	N/A	257,939	N/A	253,979	***	494,521
COGS	Value	N/A	182,262	N/A	180,640	***	347,488
COGS to net sales	Ratio	N/A	70.7	N/A	N/A	***	70.3
Gross profit or (loss)	Value	N/A	75,677	N/A	73,339	***	147,053
SG&A expenses	Value	N/A	35,611	N/A	54,300	***	98,316
Operating income or							
(loss)	Value	N/A	40,066	N/A	19,039	***	48,737
Operating income or							
(loss) to net sales	Ratio	N/A	15.5	N/A	7.5	***	9.9

Source: For the years 1985, 1998, 2003, 2009, and 2015, data are compiled using data submitted in the Commission's original investigations and subsequent reviews. For the year 2020, data are compiled using data submitted by the domestic interested parties. Domestic interested parties' response to the notice of institution, exhibit 11.

Note: For a discussion of data coverage, please see "U.S. producers" section.

Table I-6 Light castings: Trade and financial data submitted by U.S. producers, by period

Quantity in 1,000 pounds; value in 1,000 dollars; unit value in dollars per pound; ratio is in percent

ltem	Measure	1985	1998	2003	2009	2015	2020
Capacity	Quantity	70,236	***	N/A	***	***	***
Production	Quantity	45,694	***	***	***	***	***
Capacity utilization	Ratio	65.1	***	N/A	***	***	***
U.S. shipments	Quantity	57,000	***	***	***	***	***
U.S. shipments	Value	N/A	***	***	***	***	***
	Unit						
U.S. shipments	value	N/A	***	***	***	***	***
Net sales	Value	N/A	***	N/A	***	***	***
COGS	Value	N/A	***	N/A	***	***	***
COGS to net sales	Ratio	N/A	***	N/A	N/A	***	***
Gross profit or (loss)	Value	N/A	***	N/A	***	***	***
SG&A expenses	Value	N/A	***	N/A	***	***	***
Operating income or							
(loss)	Value	N/A	***	N/A	***	***	***
Operating income or							
(loss) to net sales	Ratio	N/A	***	N/A	***	***	***

Source: For the years 1985, 1998, 2003, 2009, and 2015, data are compiled using data submitted in the Commission's original investigations and subsequent reviews. For the year 2020, data are compiled using data submitted by the domestic interested parties. Domestic interested parties' response to the notice of institution, exhibit 11.

Note: 2020 capacity is higher when compared to the last five-year reviews. This is due to \*\*\*. Follow up email from domestic interested parties' counsel Kelley Drye, February 22, 2022.

Note: For a discussion of data coverage, please see "U.S. producers" section.

## Definitions of the domestic like product and domestic industry

The domestic like product is defined as the domestically produced product or products which are like, or in the absence of like, most similar in characteristics and uses with, the subject merchandise. The domestic industry is defined as the U.S. producers as a whole of the domestic like product, or those producers whose collective output of the domestic like product constitutes a major proportion of the total domestic production of the product. Under the related parties provision, the Commission may exclude a U.S. producer from the domestic industry for purposes of its injury determination if "appropriate circumstances" exist.<sup>50</sup>

In its original determinations, its full first five-year review determinations, its expedited second and third five-year review determinations, and its full fourth five-year review determinations, the Commission found heavy iron construction castings and light iron construction castings to be separate domestic like products. The Commission also defined two domestic industries: (1) All domestic producers of "heavy" iron construction castings and (2) all domestic producers of "light" iron construction castings.<sup>51</sup>

In their response to the Commission's notice of institution, the domestic interested parties reported that D&L Foundry and Tyler Pipe are each related to a producer of subject merchandise. <sup>52</sup> D&L Foundry is affiliated to Chinese producer Dingzhou Dongfang Foundry Co., Ltd. through a joint venture that is 50 percent owned by a trust that owns an investment company, which in turn owns D&L Foundry Group. Also, D&L Foundry is related to Penticton Foundry, a producer of the subject product in Canada. Tyler Pipe is related to Canadian producer Bibby Ste. Croix. <sup>53</sup>

<sup>&</sup>lt;sup>50</sup> Section 771(4)(B) of the Tariff Act of 1930, 19 U.S.C. § 1677(4)(B).

<sup>&</sup>lt;sup>51</sup> 86 FR 68283, December 1, 2021.

<sup>&</sup>lt;sup>52</sup> Domestic interested parties' response to the notice of institution, January 3, 2022, p. 29.

<sup>&</sup>lt;sup>53</sup> Ibid.; and cure email from domestic interested parties' counsel Kelley Drye, January 13, 2022, \*\*\*.

## **U.S.** imports

#### **U.S.** importers

In the final phase of the original investigations, castings were imported regularly by approximately 40 firms.<sup>54</sup> Import data presented in the original investigations are based on questionnaire responses.

During the first reviews, the Commission received U.S. importer questionnaires from 23 firms. The three largest firms accounted for approximately 48.6 percent of total U.S. imports of heavy castings and the three largest firms accounted for approximately 71.5 percent of total U.S. imports of light castings during 1998. Import data presented in the first reviews are based on official Commerce statistics and questionnaire responses.<sup>55</sup>

The Commission did not receive responses from any respondent interested parties in the second and third five-year reviews. The number of firms that may have imported castings is not available. Import data presented in the second and third reviews are based on official Commerce statistics.

During the fourth five-year reviews, the Commission received U.S. importer questionnaires from 17 firms that reported imports of heavy castings and 13 firms that reported imports of light castings. These firms accounted for \*\*\* percent of total U.S. imports of heavy castings and \*\*\* percent of total U.S. imports of light castings during 2015. 56 Import data presented in the fourth reviews are based on official Commerce statistics.

Although the Commission did not receive responses from any respondent interested parties in these current reviews, in its response to the Commission's notice of institution, the domestic interested parties provided a list of 85 potential U.S. importers of castings.<sup>57</sup>

#### **U.S.** Imports

Table I-7 presents the quantity, value, and unit value for imports of heavy castings from Brazil, Canada, and China as well as the other top sources of U.S. imports. Table I-8 presents the

<sup>&</sup>lt;sup>54</sup> Original publication, p. A-18.

<sup>&</sup>lt;sup>55</sup> First review publication, p. I-33.

<sup>&</sup>lt;sup>56</sup> Fourth review publication, tables I-10 and I-11; and Investigation Nos. 701-TA-249 and 731-TA-262, 263, and 265 (Fourth Review): Iron Construction Castings from Brazil, Canada, and China, Confidential Report, INV-OO-105, November 15, 2016 as revised in INV-OO-108, November 18, 2016, and INV-OO-114, November 28, 2016 ("Fourth review confidential report"), pp. I-26, IV-1.

<sup>&</sup>lt;sup>57</sup> Domestic interested parties' response to the notice of institution, January 3, 2022, exhibit 10.

quantity, value, and unit value for imports of light castings from Brazil and China as well as the other top sources of U.S. imports.

Table I-7 Heavy castings: U.S. imports, by source and period

Quantity in 1,000 pounds; value in 1,000 dollars; unit value in dollars per pound

U.S. imports from	Measure	2016	2017	2018	2019	2020
Brazil	Quantity	864	1,077	1,546	740	790
Canada	Quantity	998	411	379	402	194
China	Quantity	3,294	2,780	3,373	3,890	1,720
Subject sources	Quantity	5,156	4,268	5,298	5,032	2,704
India	Quantity	94,270	98,207	101,563	98,083	93,899
Mexico	Quantity	4,891	4,272	5,203	4,869	4,014
Germany	Quantity	1,564	201	870	473	446
All other sources	Quantity	1,649	949	1,574	863	1,389
Nonsubject sources	Quantity	102,370	103,629	109,210	104,288	99,747
All import sources	Quantity	107,527	107,897	114,508	109,320	102,451
Brazil	Value	1,128	1,240	2,513	1,000	1,240
Canada	Value	843	358	467	648	396
China	Value	3,760	2,777	4,060	5,614	2,862
Subject sources	Value	5,731	4,375	7,040	7,262	4,499
India	Value	39,166	41,513	44,389	42,694	40,212
Mexico	Value	2,949	2,743	3,585	3,122	2,671
Germany	Value	890	103	538	378	427
All other sources	Value	1,942	972	1,887	1,135	1,624
Nonsubject sources	Value	44,952	45,330	50,399	47,329	44,934
All import sources	Value	50,682	49,705	57,440	54,591	49,433
Brazil	Unit value	1.31	1.15	1.63	1.35	1.57
Canada	Unit value	0.84	0.87	1.23	1.61	2.04
China	Unit value	1.14	1.00	1.20	1.44	1.66
Subject sources	Unit value	1.11	1.02	1.33	1.44	1.66
India	Unit value	0.42	0.42	0.44	0.44	0.43
Mexico	Unit value	0.60	0.64	0.69	0.64	0.67
Germany	Unit value	0.57	0.51	0.62	0.80	0.96
All other sources	Unit value	1.18	1.02	1.20	1.31	1.17
Nonsubject sources	Unit value	0.44	0.44	0.46	0.45	0.45
All import sources	Unit value	0.47	0.46	0.50	0.50	0.48

Source: Compiled from official Commerce statistics for HTS statistical reporting numbers 7325.10.0010, 7325.10.0020, and 7325.10.0025, accessed January 11, 2022.

Note: Because of rounding, figure may not add to total shown.

Table I-8 Light castings: U.S. imports, by source and period

Quantity in 1,000 pounds; value in 1,000 dollars; unit value in dollars per pound

U.S. imports from	Measure	2016	2017	2018	2019	2020
Brazil	Quantity	4		0		
China	Quantity	1,014	1,021	2,029	391	319
Subject sources	Quantity	1,018	1,021	2,029	391	319
India	Quantity	56,959	68,456	62,858	61,326	49,382
Canada	Quantity	608	706	690	448	477
Belgium	Quantity	21	101	154	123	87
All other sources	Quantity	92	77	237	248	48
Nonsubject sources	Quantity	57,680	69,341	63,939	62,145	49,994
All import sources	Quantity	58,698	70,362	65,968	62,536	50,314
Brazil	Value	22		5		
China	Value	855	970	2,313	430	401
Subject sources	Value	876	970	2,318	430	401
India	Value	24,743	30,132	27,676	27,615	22,175
Canada	Value	1,067	1,338	1,141	820	846
Belgium	Value	54	246	537	728	526
All other sources	Value	375	373	459	424	521
Nonsubject sources	Value	26,240	32,089	29,812	29,587	24,067
All import sources	Value	27,116	33,058	32,130	30,018	24,468
Brazil	Unit value	4.97	N/A	41.09	N/A	N/A
China	Unit value	0.84	0.95	1.14	1.10	1.25
Subject sources	Unit value	0.86	0.95	1.14	1.10	1.25
India	Unit value	0.43	0.44	0.44	0.45	0.45
Canada	Unit value	1.75	1.89	1.65	1.83	1.77
Belgium	Unit value	2.55	2.44	3.49	5.90	6.01
All other sources	Unit value	4.09	4.82	1.94	1.71	10.92
Nonsubject sources	Unit value	0.45	0.46	0.47	0.48	0.48
All import sources	Unit value	0.46	0.47	0.49	0.48	0.49

Source: Compiled from official Commerce statistics for HTS statistical reporting numbers 7325.10.0030 and 7325.10.0035, accessed January 11, 2022.

Note: The "0" quantity of imports from Brazil in 2018 represents imports greater than zero, but less than 1,000 pounds.

Note: Because of rounding, figure may not add to total shown.

## **Cumulation considerations**58

In assessing whether imports should be cumulated in five-year reviews, the Commission considers, among other things, whether there is a likelihood of a reasonable overlap of competition among subject imports and the domestic like product. Additional information concerning geographical markets and simultaneous presence in the market is presented below. 59

There were no reported U.S. imports of heavy castings from Brazil during 2016-20 other than in July 2018, which entered through New York, New York. Imports of heavy castings from Canada were reported in 58 of the 60 months between 2016 and 2020 and were entered primarily through Detroit, Michigan. Imports of heavy castings from China were reported in 53 of the 60 months between 2016 and 2020 and primarily entered through eastern borders of entry (Charleston, South Carolina, New York, New York, and Savannah, Georgia).

There were no reported U.S. imports of light castings from Brazil during 2016-20 other than in May 2016, which entered through New York, New York. Imports of light castings from China were reported in all 60 months between 2016 and 2020 and primarily entered through eastern and southern borders of entry (Charleston, South Carolina, Mobile, Alabama, and New Orleans, Louisiana).

## **Apparent U.S. consumption and market shares**

Tables I-9 and I-10 present data on U.S. producers' U.S. shipments, U.S. imports, apparent U.S. consumption, and market shares for heavy castings and light castings, respectively.

<sup>&</sup>lt;sup>58</sup> Unless otherwise noted, this information is based on official U.S. import statistics for HTS statistical reporting numbers 7325.10.0010, 7325.10.0020, and 7325.10.0025 for heavy castings and 7325.10.0030 and 7325.10.0035 for light castings.

<sup>&</sup>lt;sup>59</sup> In addition, available information concerning subject country producers and the global market is presented in the next section of this report.

Table I-9 Heavy castings: Apparent U.S. consumption and market shares, by source and period

Quantity in 1,000 pounds; value in 1,000 dollars

Source	Measure	1985	1998	2003	2009	2015	2020
U.S. producers	Quantity	407,000	543,430	448,273	***	***	521,099
Brazil	Quantity	19,508	73	391	685	662	790
Canada	Quantity	21,004	10,178	9,557	6,619	1,273	194
China	Quantity	19,482	1,279	2,285	1,418	3,139	1,720
Subject sources	Quantity	59,994	11,530	12,233	8,722	5,074	2,704
Nonsubject sources	Quantity	93,792	128,388	170,255	65,531	111,441	99,747
Total imports	Quantity	153,786	139,918	182,488	74,253	116,515	102,451
Apparent U.S. consumption	Quantity	560,786	683,348	630,761	***	***	623,550
U.S. producers	Value	N/A	259,790	202,445	***	***	491,338
Brazil	Value	2,911	37	156	540	869	1,240
Canada	Value	5,128	3,558	3,359	3,588	1,114	396
China	Value	N/A	588	1,136	1,257	3,411	2,862
Subject sources	Value	N/A	4,183	4,651	5,385	5,393	4,499
Nonsubject sources	Value	N/A	29,704	38,819	31,615	58,267	44,934
All import sources	Value	N/A	33,887	43,470	37,000	63,660	49,433
Apparent U.S. consumption	Value	N/A	293,677	245,915	***	***	540,771

Table Continued.

**Table I-9 Continued** Heavy castings: Apparent U.S. consumption and market shares, by source and period

Share of quantity is the share of apparent U.S. consumption by quantity in percent; share of value is the

share of apparent U.S. consumption by value in percent

Source	Measure	1985	1998	2003	2009	2015	2020
U.S. producers	Share of quantity	72.6	79.5	71.1	***	***	83.6
Brazil	Share of quantity	3.5	0.0	0.1	***	***	0.1
Canada	Share of quantity	3.7	1.5	1.5	***	***	0.0
China	Share of quantity	3.5	0.2	0.4	***	***	0.3
Subject sources	Share of quantity	10.7	1.7	1.9	***	***	0.4
Nonsubject sources	Share of quantity	16.7	18.8	27.0	***	***	16.0
All import sources	Share of quantity	27.4	20.5	28.9	***	***	16.4
U.S. producers	Share of value	N/A	88.5	82.3	***	***	90.9
Brazil	Share of value	N/A	0.0	0.1	***	***	0.2
Canada	Share of value	N/A	1.2	1.4	***	***	0.1
China	Share of value	N/A	0.2	0.5	***	***	0.5
Subject sources	Share of value	N/A	1.4	1.9	***	***	0.8
Nonsubject sources	Share of value	N/A	10.1	15.8	***	***	8.3
All import sources	Share of value	N/A	11.5	17.7	***	***	9.1

Source: For the years 1985, 1998, 2003, 2009, and 2015, data are compiled using data submitted in the Commission's original investigations and subsequent reviews. See app. C. For the year 2020, U.S. producers' U.S. shipments are compiled from the domestic interested parties' response to the Commission's notice of institution and U.S. imports are compiled using official Commerce statistics under HTS statistical reporting numbers 7325.10.0010, 7325.10.0020, and 7325.10.0025, accessed January 11, 2022.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Note: For a discussion of data coverage, please see "U.S. producers" and "U.S. importers" sections

Note: Subtotals for 1985 were calculated in a prior review, as the original investigations would have considered India a subject country.

Table I-10 Light castings: Apparent U.S. consumption and market shares, by source and period

Quantity in 1,000 pounds; value in 1,000 dollars

Source	Measure	1985	1998	2003	2009	2015	2020
U.S. producers	Quantity	57,000	***	***	***	***	***
Brazil	Quantity	1,640		882	250		
China	Quantity	1,644	***	2,526	544	1,246	319
Subject sources	Quantity	3,284	***	3,408	794	1,246	319
Nonsubject sources	Quantity	33,933	***	83,776	34,835	69,915	49,960
Total imports	Quantity	37,217	***	87,184	35,631	71,161	50,314
Apparent U.S. consumption	Quantity	94,217	***	***	***	***	***
U.S. producers	Value	N/A	***	***	***	***	***
Brazil	Value	N/A		240	143	9	
China	Value	N/A	***	765	339	1,083	401
Subject sources	Value	N/A	***	1,005	482	1,092	401
Nonsubject sources	Value	N/A	***	21,675	17,381	33,456	24,067
All import sources	Value	N/A	***	22,680	17,863	34,547	24,468
Apparent U.S. consumption	Value	N/A	***	***	***	***	***

Table Continued.

Table I-10 Continued
Light castings: Apparent U.S. consumption and market shares, by source and period

Share of quantity is the share of apparent U.S. consumption by quantity in percent; share of value is the

share of apparent U.S. consumption by value in percent

Source	Measure	1985	1998	2003	2009	2015	2020
U.S. producers	Share of quantity	60.5	***	***	***	***	***
Brazil	Share of quantity	1.7		***	***	***	***
China	Share of quantity	1.7	***	***	***	***	***
Subject sources	Share of quantity	3.5	***	***	***	***	***
Nonsubject sources	Share of quantity	36.0	***	***	***	***	***
All import sources	Share of quantity	39.5	***	***	***	***	***
U.S. producers	Share of value	N/A	***	***	***	***	***
Brazil	Share of value	N/A		***	***	***	***
China	Share of quantity	N/A	***	***	***	***	***
Subject sources	Share of value	N/A	***	***	***	***	***
Nonsubject sources	Share of value	N/A	***	***	***	***	***
All import sources	Share of value	N/A	***	***	***	***	***

Source: For the years 1985, 1998, 2003, 2009, and 2015, data are compiled using data submitted in the Commission's original investigations and subsequent reviews. See app. C. For the year 2020, U.S. producers' U.S. shipments are compiled from the domestic interested parties' response to the Commission's notice of institution and U.S. imports are compiled using official Commerce statistics under HTS statistical reporting numbers 7325.10.0030 and 7325.10.0035, accessed January 11, 2022.

Note: Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

Note: For a discussion of data coverage, please see "U.S. producers" and "U.S. importers" sections.

Note: Subtotals for 1985 were calculated in a prior review, as the original investigations would have considered India a subject country.

## The industry in Brazil

During the original investigations, there were approximately 1,000 foundries in Brazil, of which some 490 produced iron castings.<sup>60</sup> Industry coverage of the data presented in the original investigations for Brazil is not available.

During the first five-year reviews, no producers of castings in Brazil responded to the Commission's questionnaire. In their response to the notice of institution, counsel for U.S. producers listed 79 producers of heavy and/or light castings in Brazil.<sup>61</sup>

Although the Commission did not receive responses from any respondent interested parties in its second and third five-year reviews, domestic interested parties identified 96 and 98 producers/exporters of castings in Brazil, respectively.<sup>62</sup>

In the fourth five-year reviews, there were \*\*\* foundries in Brazil believed to produce castings. During the fourth five-year reviews, the Commission received a foreign producer/exporter questionnaire from one firm, which accounted for \*\*\* percent of castings exports from Brazil to the United States during the period of investigation.<sup>63</sup>

Although the Commission did not receive responses from any respondent interested parties in these five-year reviews, the domestic interested parties provided a list of 98 possible producers of castings in Brazil.<sup>64</sup>

Industry research found no significant changes to the Brazilian industry since the last five-year reviews.

Table I-11 displays exports of iron construction castings from Brazil, by destination and period, in descending order of quantity for 2020.

<sup>61</sup> First review publication, pp. IV-8-IV-9.

<sup>&</sup>lt;sup>60</sup> Original publication, p. A-34.

<sup>&</sup>lt;sup>62</sup> Second review publication, p. I-10; and third review publication, p. IV-19.

<sup>&</sup>lt;sup>63</sup> Fourth review confidential report, IV-24.

<sup>&</sup>lt;sup>64</sup> Domestic interested parties' response to the notice of institution, January 3, 2022, exhibit 3.

Table I-11 Iron construction castings: Quantity of exports from Brazil, by destination and year

Quantity in 1,000 pounds

Destination market	2016	2017	2018	2019	2020
Argentina	357	725	412	274	597
United States	547	544	734	386	258
Poland	-	0	14	247	229
Romania	-	-	105	119	119
France	148	138	159	153	71
Portugal	-	30	60	157	57
Mexico	18	5	33	47	54
Czech Republic	-	5	11	37	15
Greece	-	1	14	14	14
Spain	37	58	143	198	0
All other markets	251	536	352	389	276
All markets	1,358	2,042	2,037	2,020	1,690

Source: Official Brazil exports statistics under HTS subheading 7325.10 as reported by Brazil's Foreign Trade Secretariat (SECEX) in the Global Trade Atlas (GTA) database, accessed January 21, 2022.

Note: Dashes represent zero exports while numbers displayed as 0 are rounded (i.e. less than 500 pounds). Existing data do not distinguish between light and heavy castings. HTS subheading 7325.10 is not believed to contain any non-subject merchandise.

## The industry in Canada

During the original investigations, there were approximately 120 iron foundries in Canada, with total production capacity estimated to be three billion pounds. The Commission received foreign producer/exporter questionnaires from seven firms in Canada. <sup>65</sup> Industry coverage of the data presented in the original investigations for Canada is not available. During the first five-year reviews, the Commission received one foreign producer/exporter questionnaire, which accounted for approximately \*\*\* percent of U.S. imports of heavy castings from Canada in 1998. <sup>66</sup>

In the second and third five-year reviews, domestic interested parties identified 13 and 11 producers/exporters, respectively, of castings in Canada.<sup>67</sup>

<sup>&</sup>lt;sup>65</sup> Iron Construction Castings from Canada, Inv. Nos. 731-TA-263, USITC Pub. 1811, February 1986, p. A-31.

<sup>&</sup>lt;sup>66</sup> First review confidential report, p. IV-9.

<sup>&</sup>lt;sup>67</sup> Second review publication, p. I-21; and third review publication, p. I-48.

Although the Commission did not receive responses from any respondent interested parties in these five-year reviews, the domestic interested parties provided a list of 14 possible producers of castings in Canada.<sup>68</sup>

Table I-12 displays recent developments in the Canadian industry since the last five-year reviews.

Table I-12
Recent developments in the Canadian industry

Date	Туре	Company	Details
2016	Expansion	Fonderie Laperle	In 2016, Fonderie Laperle invested \$5.5 million at its metal casting facility in the city of Saint-Oars in the province of Quebec to make improvements including a new melt deck and equipment. The \$5.5 million covered the addition of a new building that houses a new induction furnace, charging area, and transfer car. The addition of a second induction furnace reportedly did not alter the per hour capacity of the foundry, but it increased availability by allowing for second shifts or overtime as needed.

Source: Modern Casting, "New Melting at Fonderie Laperle," 2016, attached as Exhibit 5 in the domestic interested parties' response to the notice of institution, exh. 5, pp. 104-106.

Table I-13 displays exports of iron construction castings from Canada, by destination and period, in descending order of quantity.

Table I-13
Iron construction castings: Quantity of exports from Canada, by destination and year
Quantity in 1,000 pounds

Destination market	2016	2017	2018	2019	2020
United States	2,502	2,325	2,169	2,364	2,291
Australia	0	11	0	10	42
Peru	2	42	34	67	26
United Kingdom	-	-	ı	1	15
Panama	ı	-	•	•	15
Oman	1	19	5	6	4
Dominican Republic	1	1	ı	1	3
China	0	2	4	0	3
Mauritius	1	1	ı	1	2
Colombia	1	3	1	5	2
All other markets	268	128	26	43	7
All markets	2,775	2,532	2,239	2,496	2,411

<sup>&</sup>lt;sup>68</sup> Domestic interested parties' response to the notice of institution, January 3, 2022, p. exhibit 5.

Source: Official Canada exports statistics under HTS subheading 7325.10 as reported by Statistics Canada in the Global Trade Atlas (GTA) database, accessed January 21, 2022.

Note: Dashes represent zero exports while numbers displayed as 0 are rounded (i.e. less than 500 pounds). Existing data do not distinguish between light and heavy castings. HTS subheading 7325.10 is not believed to contain any non-subject merchandise.

## The industry in China

Production and most other data were not available for the foundry industry in China during the original investigations<sup>69</sup> The Commission did not receive responses from any Chinese respondent interested party during any of the previous five-year reviews, nor in these current reviews.<sup>70</sup> In each of the previous reviews, domestic interested parties identified growing numbers of possible producers of castings in China.<sup>71</sup> In these five-year reviews, the domestic interested parties provided a list of 283 possible producers of castings in China.<sup>72</sup>

Table I-14 shows recent developments in the Chinese industry since the last five-year reviews.

<sup>&</sup>lt;sup>69</sup> Original publication, pp. A-36 to A-37.

<sup>&</sup>lt;sup>70</sup> Fourth review publication, pp. IV-28.

<sup>&</sup>lt;sup>71</sup> Fourth review publication, pp. IV-29.

<sup>&</sup>lt;sup>72</sup> Domestic interested parties' response to the notice of institution, January 3, 2022, exhibit 7.

Table I-14
Recent developments in the Chinese industry

Date	Туре	Company	Details
2016	Plant opening	HangZhou Youruo Technology Co. Ltd	In 2016, HangZhou Youruo Technology Co. Ltd. (HangZhou Youruo) established a heavy castings facility with the United States, Europe, Africa, and Oceania as its target markets. The factory is located in the AnHui province of China. Further details about production capacity are not publicly available.
2019	Plant opening	Suzhou Sense Industry Co., Ltd (Suzhou Sense)	Heavy castings producer, Suzhou Sense was established in 2019. The company reported that its annual capacity is 8,000 metric tons and that 90 to 100 percent of its output is exported, including to the United States.
2020	Expansion	Hunan Castking Foundry	Hunan Castking Foundry, located in China's Hunan Province, invested 80 million yuan in 2020 to build a new production workshop which is believed to produce only subject castings. With the addition of the new production workshop, annual output was expected to reach 60,000 metric tons. No additional information was provided about how much of this increase in annual output is attributable to the new workshop.

Source: Domestic interested parties' response to the notice of institution, Exh. 7, pp 123, 140, and 170-172.

Table I-15 displays exports of iron construction castings from China, by destination and period, in descending order of quantity.

Table I-15
Iron construction castings: Quantity of exports from China, by destination and year Quantity in 1,000 pounds

Destination market	2016	2017	2018	2019	2020
Japan	19,543	21,209	20,484	21,655	18,840
Italy	27,737	24,106	19,617	18,448	17,138
United States	15,487	14,944	18,703	17,900	16,216
Korea, South	12,218	15,283	12,622	13,954	12,673
Spain	13,316	13,852	10,340	11,375	7,791
Algeria	8,102	3,916	5,115	7,830	6,738
Taiwan	7,843	7,914	6,120	6,213	6,104
Hong Kong	5,481	6,519	8,152	5,703	5,534
United Arab Emirates	6,630	6,282	5,975	6,243	5,271
Australia	6,399	5,708	6,271	4,888	5,014
All other markets	95,000	83,961	69,898	73,789	67,956
All markets	217,756	203,694	183,298	187,997	169,276

Source: Official China exports statistics under HTS subheading 7325.10 as reported by China Customs in the Global Trade Atlas (GTA) database, accessed January 21, 2022.

Note: Existing data do not distinguish between light and heavy castings. HTS subheading 7325.10 is not believed to contain any non-subject merchandise.

## Third-country trade actions

Based on available information, castings from Canada, Brazil, or China have not been subject to antidumping or countervailing duty investigations outside the United States over the period of review. <sup>73</sup>

<sup>&</sup>lt;sup>73</sup> World Trade Organization ("WTO"), "Anti-dumping," https://www.wto.org/english/tratop\_e/adp\_e.htm, accessed January 25, 2022; and WTO, "Subsidies and Countervailing Measures," <a href="https://www.wto.org/english/tratop\_e/scm\_e/scm\_e.htm">https://www.wto.org/english/tratop\_e/scm\_e/scm\_e.htm</a>, accessed January 25, 2022.

## The global market

Table I-16 displays global exports of iron construction castings, by reporter and period, in descending order of quantity for 2020.

Table I-16 Iron construction castings: Global exports, by reporter and year

Quantity in 1,000 pounds

Destination market	2016	2017	2018	2019	2020
China	217,756	203,694	183,298	187,997	169,276
Germany	106,481	113,902	111,171	93,299	80,348
Czech Republic	71,374	74,842	75,503	72,741	67,205
Poland	32,868	41,251	43,706	44,667	36,759
Turkey	21,238	24,832	29,350	33,939	31,124
Denmark	33,058	35,708	42,067	37,788	29,999
Belgium	31,179	36,679	34,060	33,594	29,564
India	18,567	25,904	37,189	36,682	24,254
Spain	11,517	12,340	11,367	22,680	23,567
Belarus	18,419	18,807	18,866	18,056	21,071
All other markets	135,305	139,576	142,375	139,902	100,540
All markets	697,762	727,533	728,951	721,346	613,708

Source: Global Trade Atlas (GTA) database, HS subheading 7325.10, accessed January 21, 2022.

Note: Because, of rounding, figures may not add up to the total shown. Existing data do not distinguish between light and heavy castings. HTS subheading 7325.10 is not believed to contain any non-subject merchandise.

# APPENDIX A FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations and reviews on its website, www.usitc.gov. In addition, the following tabulation presents, in chronological order, Federal Register notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
86 FR 68220	Initiation of Five-Year (Sunset)	https://www.govinfo.gov/content/pkg/FR-
December 1,	Reviews	2021-12-01/pdf/2021-26154.pdf
2021		
86 FR 68283	Iron Construction Castings	https://www.govinfo.gov/content/pkg/FR-
December 1,	From Brazil, Canada, and	2021-12-01/pdf/2021-26075.pdf
2021	China; Institution of Five-Year	
	Reviews	

# APPENDIX B COMPANY-SPECIFIC DATA

\* \* \* \* \* \* \*

**APPENDIX C** 

**SUMMARY DATA** 

Table C-1
Heavy castings: Summary data concerning the U.S. market, 2013-15, January to June 2015, and January to June 2016
(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent—exceptions noted)

	2012	Calendar year	Reported data	January to Ju	une 2016	2012 15	Period ch Calendar year	*	Jan-Jun
S. consumption quantity:	2013	2014	2015	2015	2016	2013-15	2013-14	2014-15	2015-16
Amount Producers' share (fn1)		***	***	***	***	***	***	***	
nporters' share (fn1):									
Brazil		***	***	***	***	***	***	***	
Canada	••	***	***	***	***	***	***	***	
Subject sources	***	***	***	***	***	***	***	***	
India		***	***	***	***	***	***	***	
All other Nonsubject sources		***	***	***	***	***	***	***	
All import sources		***	***	***	***	***	***	***	
S. consumption value:									
Amount		***	***	***	***	***	***	***	
Producers' share (fn1) mporters' share (fn1):									
Brazil		***	***	***	***	***	***	***	
Canada		***	***	***	***	***	***	***	
China	***	***	***	***	***	***	***	***	
India	***	***	***	***	***	***	***	***	
All other		***	***	***	***	***	***	***	
Nonsubject sources	***	***	***	***	***	***	***	***	
s. imports from:									
razil:									
Quantity		498	662	195	251	(37.0)	(52.7)	33.1	2
ValueUnit value		645 \$1.30	869 \$1.31	237 \$1.21	352 \$1.40	(26.5) 16.6	(45.4) 15.3	34.6 1.1	1
Ending inventory quantity	\$1.13	\$1.30 ***	\$1.31 ***	\$1.Z1 ***	\$1.40 ***	***	15.5	***	
anada:					a				
QuantityValue		937 747	1,273 1,114	577 515	677 576	(1.3) 8.9	(27.4) (27.0)	35.9 49.1	
Jnit value	\$0.79	\$0.80	\$0.87	\$0.89	\$0.85	10.3	0.5	9.8	
Ending inventory quantity		***	***	***	***	***	***	***	
ina: Quantity	2,982	3,350	3,139	1,460	1,835	5.3	12.3	(6.3)	
Quantity/alue/		3,350 4,934	3,139	1,460	2,130	(23.1)	11.2	(30.9)	
Unit value	\$1.49	\$1.47	\$1.09	\$1.04	\$1.16	(27.0)	(1.0)	(26.2)	
Ending inventory quantity	***	***	***	***	***	***	***	***	
bject sources: Quantity	5,323	4,784	5,074	2,231	2,763	(4.7)	(10.1)	6.1	
/alue		6,326	5,393	2,267	3,058	(18.8)	(4.8)	(14.8)	
Jnit value	\$1.25	\$1.32	\$1.06	\$1.02	\$1.11	(14.8)	6.0	(19.6)	
Inding inventory quantitylia:	***	***	***	***	***	***	***	***	
Quantity	86,263	93,613	101,630	51,648	49,556	17.8	8.5	8.6	
Value	40,165	42,783	44,674	23,410	20,609	11.2	6.5	4.4	(
Unit value		\$0.46	\$0.44	\$0.45	\$0.42	(5.6)	(1.8)	(3.8)	
Ending inventory quantity									
Quantity	9,275	11,813	9,811	5,703	3,681	5.8	27.4	(16.9)	(3
Value		18,518	13,593	8,946	2,526	1.6	38.4	(26.6)	(
Unit value Ending inventory quantity		\$1.57	\$1.39	\$1.57 ***	\$0.69	(3.9)	8.7	(11.6)	(
onsubject sources:									
Quantity		105,426	111,441	57,351	53,237	16.6	10.4	5.7	
Value		61,301 \$0.58	58,267 \$0.52	32,356 \$0.56	23,135 \$0.43	8.8 (6.7)	14.5 3.8	(4.9)	(
Unit value Ending inventory quantity		φυ.36 ***	\$U.52 ***	\$U.50 ***	\$U.43 ***	(6.7)	3.0	(10.1)	(:
import sources:									
Quantity	100,860	110,210	116,515	59,582	55,999	15.5	9.3	5.7	,
/alue Jnit value		67,628 \$0.61	63,660 \$0.55	34,624 \$0.58	26,193 \$0.47	5.8 (8.4)	12.4 2.8	(5.9) (11.0)	(
Inding inventory quantity		***	***	***	***	***	***	***	'
producers':		***	***	***	***	***	***	***	
erage capacity quantity		***	***	***	***	***	***	***	
oduction quantitypacity utilization (fn1)	***	***	***	***	***	***	***	***	
3. shipments:									
Quantity'alue		***	***	***	***	***	***	***	
raiueInit value	•••	***	***	***	***	***	***	***	
ort shipments:									
Quantity		***	***	***	***	***	***	***	
aluenit value		***	***	***	***	***	***	***	
ding inventory quantity		***	***	***	***	***	***	***	
entories/total shipments (fn1)	***	***	***	***	***	***	***	***	
duction workersurs worked (1,000s)	***	***	***	***	***	***	***	***	
urs worked (1,000s) des paid (\$1.000)	•••	***	***	***	***	***	***	***	
urly wages (dollars)	***	***	***	***	***	***	***	***	
ductivity (pounds per hour)	***	***	***	***	***	***	***	***	
t labor costs	***	***	***	***	***	***	***	***	
)uantity	***	***	***	***	***	***	***	***	
/alue	***	***	***	***	***	***	***	***	
Init value		***	***	***	***	***	***	***	
st of goods sold (COGS) oss profit or (loss)	***	***	***	***	***	***	***	***	
&A expenses	***	***	***	***	***	***	***	***	
erating income or (loss)	***	***	***	***	***	***	***	***	
income or (loss)	***	***	***	***	***	***	***	***	
pital expenditurest COGS		***	***	***	***	***	***	***	
t SG&A expenses	***	***	***	***	***	***	***	***	
it operating income or (loss)	***	***	***	***	***	***	***	***	
		***	***	***	***	***	***	***	
Unit net income or (loss)  COGS/sales (fn1)  Operating income or (loss)/sales (fn1)	*** 	*** *** ***	*** *** ***	*** *** ***	*** *** ***	*** *** ***	*** *** ***		***

Source: Compiled from data submitted in response to Commission questionnaires and from official statistics of the U.S. Department of Commerce. Notes: fn1.-Reported data are in percent and period changes are in percentage points. fn2.-Undefined. fn3.-Not available.

Table C-2
Light castings: Summary data concerning the U.S. market, 2013-15, January to June 2015, and January to June 20\*

(Quantity=1,000 pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per pound; Period changes=percent--exceptions noted)

Period ch

	Reported data		Period changes						
_	2013	Calendar year 2014	2015	January to J 2015	June 2016	2013-15	Calendar year 2013-14	2014-15	Jan-Jun 2015-16
U.S. consumption quantity:	***	***	***	***	***	***	***	***	***
Amount Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Brazil	***	***	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***	***	***
Subject sources	***	***	***	***	***	***	***	***	***
IndiaAll other	***	***	***	***	***	***	***	***	***
Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
U.S. consumption value:	***	***	***	***	***	***	***	***	***
Amount Producers' share (fn1)	***	***	***	***	***	***	***	***	***
Importers' share (fn1):									
Brazil	***	***	***	***	***	***	***	***	***
China	***	***	***	***	***	***	***	***	***
Subject sources	***	***	***	***	***	***	***	***	***
India	***	***	***	***	***	***	***	***	***
All other Nonsubject sources	***	***	***	***	***	***	***	***	***
All import sources	***	***	***	***	***	***	***	***	***
'									
U.S. imports from:									
Brazil:									
Quantity	104	123	0	0	4	(99.9)	17.8	(99.9)	[fn2]
Value Unit value	118 \$1.13	131 \$1.07	\$81.00	\$0.00	22 \$4.98	( <mark>92.4)</mark> 7,047.2	10.9 (5.9)	(93.2) 7,492.8	[fn2] [fn2]
Ending inventory quantity	ψ1.13 ***	φ1.07 ***	φ01.00 ***	***	ψ <del>1</del> .30	1,041.2	(5.9)	7,492.0	[iii2] ***
China:									
Quantity	3,435	1,384	1,246	518	805	(63.7)	(59.7)	(10.0)	55.5
Value	3,437	1,259	1,083	468	643	(68.5)	(63.4)	(14.0)	37.5
Unit value	\$1.00	\$0.91 ***	\$0.87 ***	\$0.90	\$0.80	(13.2)	(9.1)	(4.5)	(11.6)
Ending inventory quantity									
Quantity	3,539	1,507	1,246	518	809	(64.8)	(57.4)	(17.3)	56.3
Value	3,555	1,390	1,092	468	665	(69.3)	(60.9)	(21.5)	42.2
Unit value	\$1.00	\$0.92	\$0.88	\$0.90	\$0.82	(12.8)	(8.1)	(5.1)	(9.1)
Ending inventory quantity	***	***	***	***	***	***	***	***	***
India:									
Quantity	61,452 29,221	63,037 30,449	69,252 31,987	37,370 17,680	28,697 12,513	12.7 9.5	2.6 4.2	9.9 5.1	(23.2) (29.2)
Value Unit value	\$0.48	\$0.48	\$0.46	\$0.47	\$0.44	(2.9)	1.6	(4.4)	(7.8)
Ending inventory quantity	***	ψ0. <del>+</del> 0	***	***	***	***	***	***	***
All other sources:									
Quantity	388	392	663	375	453	70.8	1.1	68.9	20.8
Value	1,012	1,210	1,469	795	947	45.2	19.6	21.4	19.2
Unit value	\$2.61	\$3.08	\$2.22	\$2.12	\$2.09	(15.0)	18.2	(28.1)	(1.3)
Ending inventory quantity  Nonsubject sources:									
Quantity	61,840	63,429	69,915	37,745	29,149	13.1	2.6	10.2	(22.8)
Value	30,233	31,659	33,456	18,474	13,460	10.7	4.7	5.7	(27.1)
Unit value	\$0.49	\$0.50	\$0.48	\$0.49	\$0.46	(2.1)	2.1	(4.1)	(5.7)
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All import sources:  Quantity	65,380	64,936	71,161	38,263	29,958	8.8	(0.7)	9.6	(21.7)
Value	33,788	33,049	34,547	18,942	14,124	2.2	(2.2)	4.5	(25.4)
Unit value	\$0.52	\$0.51	\$0.49	\$0.50	\$0.47	(6.1)	(1.5)	(4.6)	(4.8)
Ending inventory quantity	***	***	***	***	***	***	***	***	***
U.S. producers':									
Average capacity quantity	***	***	***	***	***	***	***	***	***
Production quantity  Capacity utilization (fn1)	***	***	***	***	***	***	***	***	***
U.S. shipments:									
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Export shipments:	***	***	***	***	***	***	***	***	***
Quantity Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
Inventories/total shipments (fn1)	***	***	***	***	***	***	***	***	***
Production workers	***	***	***	***	***	***	***	***	***
Hours worked (1,000s)	***	***	***	***	***	***	***	***	***
Wages paid (\$1,000)	***	***	***	***	***	***	***	***	***
Hourly wages (dollars) Productivity (pounds per hour)	***	***	***	***	***	***	***	***	***
Unit labor costs	***	***	***	***	***	***	***	***	***
Net sales:	***	***	***	***	***	***	***	***	***
Quantity	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***	***	***	***	***
Net income or (loss)	***	***	***	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***	***	***	***
Unit COGS	***	***	***	***	***	***	***	***	***
Unit SG&A expenses.	***	***	***	***	***	***	***	***	***
Unit operating income or (loss)	***	***	***	***	***	***	***	***	***
Unit net income or (loss)	***	***	***	***	***	***	***	***	***
		***	***	***	***	***	***	*** ***	***

Source: Compiled from data submitted in response to Commission questionnaires and from official statistics of the U.S. Department of Commerce. Notes: fn1.-Reported data are in percent and period changes are in percentage points. fn2.-Undefined. fn3.-Not available.

## **APPENDIX D**

## **PURCHASER QUESTIONNAIRE RESPONSES**

As part of their response to the notice of institution, interested parties were asked to provide a list of three to five leading purchasers in the U.S. market for the domestic like product. A response was received from domestic interested parties and it named the following five firms as top purchasers of iron construction castings: \*\*\*. Purchaser questionnaires were sent to these five firms and one firm, \*\*\*, provided responses, which are presented below.

1. Have there been any significant changes in the supply and demand conditions for iron construction castings that have occurred in the United States or in the market for iron construction castings in Brazil, Canada, and/or China since January 1, 2016?

Purchaser	Yes / No	Changes that have occurred	
***	***	***	

2. Do you anticipate any significant changes in the supply and demand conditions for iron construction castings in the United States or in the market for iron construction castings in Brazil, Canada, and/or China within a reasonably foreseeable time?

Purchaser	Yes / No	Changes that have occurred	
***	***	***.	