

# Clad Steel Plate from Japan

Investigation No. 731-TA-739 (Third Review)

Publication 4370

January 2013

**U.S. International Trade Commission**



Washington, DC 20436

# U.S. International Trade Commission

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# U.S. International Trade Commission

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**Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.**





**UNITED STATES INTERNATIONAL TRADE COMMISSION**  
Investigation No. 731-TA-739 (Third Review)

CLAD STEEL PLATE FROM JAPAN

**DETERMINATION**

On the basis of the record<sup>1</sup> developed in the subject five-year review, the United States International Trade Commission (Commission) determines, pursuant to section 751(c) of the Tariff Act of 1930 (19 U.S.C. § 1675(c)), that revocation of the antidumping duty order on clad steel plate from Japan 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>2</sup>

**BACKGROUND**

The Commission instituted this review on February 1, 2012 (77 F.R. 5052) and determined on May 7, 2012 that it would conduct a full review (77 F.R. 37439, June 21, 2012). Notice of the scheduling of the Commission's review and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* on June 29, 2012 (77 F.R. 38825). The hearing was held in Washington, DC, on December 6, 2012, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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

<sup>2</sup> Commissioners Pearson and Broadbent dissenting.



## VIEWS OF THE COMMISSION

Based on the record in this five-year review, we determine under section 751(c) of the Tariff Act of 1930, as amended (“the Act”), that revocation of the antidumping duty order on clad steel plate from Japan 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>1</sup>

### I. BACKGROUND

*Original Investigation.* In September 1995, Lukens Steel Co. filed a petition alleging that an industry in the United States was materially injured and threatened with material injury by reason of imports of clad steel plate from Japan that were being sold in the United States at less than fair value (“LTFV”). The Commission reached a final affirmative determination in June 1996,<sup>2</sup> and the U.S. Department of Commerce (“Commerce”) published the resulting antidumping duty order in July 1996.<sup>3</sup>

*First Review.* In the first five-year review, the Commission received one response to its notice of institution from a domestic producer<sup>4</sup> and conducted an expedited review.<sup>5</sup> It reached an affirmative determination in October 2001; therefore, the order remained in place.<sup>6</sup>

*Second Review.* In the second five-year review, the Commission again received one response to its notice of institution from a domestic producer<sup>7</sup> and again conducted an expedited review.<sup>8</sup> It reached an affirmative determination in March 2007; therefore, the order remained in place.<sup>9</sup>

*Current Review.* The Commission instituted the current review on February 1, 2012. Having received adequate group responses from both the domestic industry and respondents, the Commission determined on May 7, 2012 to conduct a full review.<sup>10</sup>

The Commission sent questionnaires to six U.S. producers of clad steel plate, four of which provided the Commission with information on their clad steel plate operations. These producers are

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<sup>1</sup> Commissioners Daniel R. Pearson and Meredith Broadbent determine that revocation of the order would not be likely to lead to continuation or recurrence of material injury to the domestic clad steel plate industry within a reasonably foreseeable time. They join sections I - IV of this opinion, and as noted. See their Dissenting Views.

<sup>2</sup> Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Final), USITC Pub. 2972 (June 1996) (“Original Determination”).

<sup>3</sup> Confidential Staff Report (“CR”) at I-2, Public Staff Report (“PR”) at I-2.

<sup>4</sup> The response was from Bethlehem Lukens Plate Corp. (“Lukens”), a domestic producer of clad steel plate. Lukens was the successor to the petitioner in the original investigation. Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Review), USITC Pub. 3459 (Oct. 2001), at 3 (“First Review Determination”).

<sup>5</sup> First Review Determination, USITC Pub. 3459 at 3.

<sup>6</sup> First Review Determination, USITC Pub. 3459 at 13.

<sup>7</sup> The Commission received a response from domestic producer Mittal Steel USA., Inc. (“Mittal”). Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Second Review), USITC Pub. 3907 (Mar. 2007), at 3 (“Second Review Determination”). Mittal is the predecessor to current domestic producer ArcelorMittal USA (“AMUSA”) and the successor in interest to Bethlehem Lukens and petitioner Lukens Steel. CR at I-21, PR at I-18.

<sup>8</sup> Second Review Determination, USITC Pub. 3907 at 3.

<sup>9</sup> Second Review Determination, USITC Pub. 3907 at 13.

<sup>10</sup> See 77 Fed. Reg. 37439 (June 21, 2012); Explanation of Commission Determination on Adequacy, referenced in CR and PR at App. A.

believed to account for almost all known domestic production in 2011.<sup>11</sup> The Commission also sent importers' questionnaires to eight firms believed to be importers of subject clad steel plate. It received usable questionnaire responses from three companies, representing all known U.S. imports of clad steel plate from Japan and almost all known U.S. imports of clad steel plate from other sources during January 2006-June 2012.<sup>12</sup> The Commission sent foreign producer questionnaires to four producers of clad steel plate in Japan that are believed to have accounted for all known current Japanese production of clad steel plate during January 2006-June 2012. All four producers responded with usable data.<sup>13</sup>

The Commission received prehearing and posthearing submissions from domestic producers AMUSA and Dynamic Materials Corp. ("DMC") (collectively "the domestic industry" or "the domestic producers"). The Commission also received prehearing and posthearing submissions from respondent Japanese producers JFE Steel Corporation ("JFE"), Nippon Steel & Sumikin Stainless Steel Corporation ("NSSC"), and The Japan Steel Works, Ltd. ("JSW") (collectively "the Japanese producers").<sup>14</sup> Representatives of the domestic industry and JFE (on behalf of the respondent Japanese producers) appeared at the Commission's hearing accompanied by counsel.

## II. DOMESTIC LIKE PRODUCT AND INDUSTRY

### A. Domestic Like Product

In making its determination under section 751(c) of the Act, the Commission first defines the "domestic like product" and the "industry."<sup>15</sup> The 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>16</sup> The Commission's practice in five-year reviews is to examine the domestic like product definition from the original investigation and any completed reviews and consider whether the record indicates any reason to revisit the prior findings.<sup>17</sup>

In its expedited five-year review determination, Commerce defined the subject merchandise as it had in its original investigation and the prior five-year reviews, as follows:

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<sup>11</sup> CR at I-12 & n.24, PR at I-11 & n.24.

<sup>12</sup> CR at I-24, PR at I-20.

<sup>13</sup> CR at I-12, PR at I-11.

<sup>14</sup> We note that because no representative of the Japanese producers signed on to an administrative protective order, they did not have access to business proprietary information during the course of this proceeding. Thus, their arguments were based on publicly available data; in particular, their analysis of shipments of clad steel plate was primarily based on data obtained from Global Trade Atlas, which may also include data for nonsubject merchandise. See, e.g., Japanese Producers' Prehearing Brief, Exh. 12 & note.

<sup>15</sup> 19 U.S.C. § 1677(4)(A).

<sup>16</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>17</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 (Jul. 2003); Steel Concrete Reinforcing Bar From Turkey, Inv. No. 731-TA-745 (Review), USITC Pub. 3577 at 4 (Feb. 2003).

all clad<sup>1</sup> steel plate of a width of 600 millimeters (mm) or more and a composite thickness of 4.5 mm or more. Clad steel plate is a rectangular finished steel mill product consisting of a layer of cladding material (usually stainless steel or nickel) which is metallurgically bonded to a base or backing of ferrous metal (usually carbon or low alloy steel) where the latter predominates by weight. Stainless clad steel plate is manufactured to American Society for Testing and Materials (ASTM) specifications A263 (400 series stainless types) and A264 (300 series stainless types). Nickel and nickel-base alloy clad steel plate is manufactured to ASTM specification A265. These specifications are illustrative but not necessarily all-inclusive.<sup>18</sup>

<sup>1</sup> Cladding is the association of layers of metals of different colors or natures by molecular interpenetration of the surfaces in contact. This limited diffusion is characteristic of clad products and differentiates them from products metalized in other manners (e.g., by normal electroplating). The various cladding processes include pouring molten cladding metal onto the basic metal followed by rolling; simple hot-rolling of the cladding metal to ensure efficient welding to the basic metal; any other method of deposition or superimposing of the cladding metal followed by any mechanical or thermal process to ensure welding (e.g., electrocladding), in which the cladding metal (nickel, chromium, etc ) is applied to the basic metal by electroplating, molecular interpenetration of the surfaces in contact then being obtained by heat treatment at the appropriate temperature with subsequent cold rolling. See Harmonized Commodity Description and Coding System Explanatory Notes, Chapter 72, General Note (IV)(C)(2)(e).

In the original determination, the Commission found one domestic like product that was coextensive with Commerce's scope of the investigation and that included all clad steel plate of a width of 600 mm or more and a composite thickness of 4.5 mm or more.<sup>19</sup> The Commission adopted the same definition of the domestic like product in the first and second five-year reviews.<sup>20</sup>

Clad steel plate is used to manufacture vessels or structures for heavy industry projects in which corrosion-resistance qualities are essential. End users of clad steel plate include chemical and petrochemical companies, the shipbuilding industry, electric utilities, pulp and paper companies, and other producers of industrial and defense equipment. The petrochemical industry, specifically the hydrocarbon processing industry (which includes petroleum refining and petrochemical and chemical processing), consistently has been the largest market for clad steel plate, likely consuming as much as \*\*\* percent of clad products used in the United States in the mid-1990s, according to petitioner's estimates during the original investigation. Processing vessels for the chemical and petroleum refining industries continue to be a major end use market for clad steel plate. Clad steel plate also is used in flue gas desulfurization systems that remove sulfur from exhaust gas in coal-fired power plants.<sup>21</sup>

Clad steel plate is produced either by roll bonding or by explosion bonding. Roll bonding is accomplished by heating and rolling, on a conventional steel plate mill, a pack comprising plates of

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<sup>18</sup> 77 Fed. Reg. 31834 (May 30, 2012).

<sup>19</sup> Original Determination, USITC Pub. 2972 at 5.

<sup>20</sup> First Review Determination, USITC Pub. 3459 at 4; Second Review Determination, USITC Pub. 3907 at 5.

<sup>21</sup> CR at I-15, PR at I-21.

cladding alloy and steel backing welded together around the edges.<sup>22</sup> Explosion bonding is accomplished by placing a sheet or plate of cladding material over a plate of backing steel and then covering the cladding plate with a layer of explosive. An explosion is initiated on one edge of the cladding material and travels across the surface, forcing the two metal components together and creating a metallurgical bond between them.<sup>23</sup> For either method, heat treatment is sometimes required after rolling or explosive bonding, but is more common for roll bonded steel.<sup>24</sup> In the United States, DMC is the largest U.S. producer using explosion bonding;<sup>25</sup> in Japan, Asahi is the only such producer.<sup>26</sup>

The record in this review contains no information suggesting that the characteristics and uses of domestically produced clad steel plate have changed since the prior proceedings or that the like product definition should be revisited.<sup>27</sup> All responding parties agreed with the Commission's past definition of the domestic like product.<sup>28</sup> We therefore find a single domestic like product that is coextensive with Commerce's scope of the investigation, including all clad steel plate of a width of 600 mm or more and a composite thickness of 4.5 mm or more.

## **B. Domestic Industry**

Section 771(4)(A) of the 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."<sup>29</sup> 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.

Given our definition of the domestic like product, we define the domestic industry, as we did in the original investigation and the prior reviews, to include all domestic producers of all clad steel plate of a width of 600 mm or more and a composite thickness of 4.5 mm or more, coextensive with Commerce's scope of the investigation.<sup>30</sup>

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<sup>22</sup> CR at I-16, PR at I-14. Heavier gauge (*i.e.*, thicker) roll-bonded clad steel plate may be produced using a 2-ply pack comprising a single backing plate and a single cladding plate. CR at I-16 n.38, PR at I-13 n.38.

<sup>23</sup> CR at I-19, PR at I-16.

<sup>24</sup> CR at I-19 & n.42, PR at I-16 & n.42. For explosion-bonded clad steel plate, the component cladding and backing plates normally have been heat-treated by their manufacturers. *Id.*

<sup>25</sup> CR at I-19 n.41, PR at I-16 n.41.

<sup>26</sup> CR at I-19, PR at I-16; Tr. at 140-41 (Mr. Asano).

<sup>27</sup> *See generally* CR at I-15 - I-20, PR at I-13 - I-17.

<sup>28</sup> Domestic Industry's Response to Notice of Institution at 13; Domestic Industry's Prehearing Brief at 4-5; JFE's Response to Notice of Institution at 7; JSW's Response to Notice of Institution at 5. NSSC did not provide comments on this issue. NSSC's Response to Notice of Institution at 6.

<sup>29</sup> 19 U.S.C. § 1677(4)(A). The definitions in 19 U.S.C. § 1677 apply 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.

<sup>30</sup> There are no related party issues in this review. *See* 19 U.S.C. § 1677(4)(B).

### III. LIKELIHOOD OF CONTINUATION OR RECURRENCE OF MATERIAL INJURY IF THE ANTIDUMPING DUTY ORDER IS REVOKED

#### A. Legal Standards

In a five-year review conducted under section 751(c) of the Tariff Act, Commerce will revoke an antidumping 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 and/or countervailing duty order “would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time.”<sup>31</sup> The Statement of Administrative Action (“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>32</sup> Thus, the likelihood standard is prospective in nature.<sup>33</sup> The CIT has found that “likely,” as used in the five-year review provisions of the Tariff Act, means “probable,” and the Commission applies that standard in five-year reviews.<sup>34</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.”<sup>35</sup> According to the SAA, a “‘reasonably foreseeable time’ will vary from case-to-case, but normally will exceed the ‘imminent’ timeframe applicable in a threat of injury analysis in original investigations.”<sup>36</sup>

Although the standard in a five-year review is not the same as the standard applied in an original antidumping duty investigation, it contains some of the same fundamental elements. The statute provides that the Commission is to “consider the likely volume, price effects, and impact of imports of the subject

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<sup>31</sup> 19 U.S.C. § 1675a(a).

<sup>32</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>33</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>34</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*, Slip Op. 02-105 at 20 (Ct. Int’l Trade Sept. 4, 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>35</sup> 19 U.S.C. § 1675a(a)(5).

<sup>36</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.*

merchandise on the industry if the orders are revoked or the suspended investigation is terminated.”<sup>37</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 under review, whether the industry is vulnerable to material injury if the order were revoked, and any findings by Commerce regarding duty absorption pursuant to 19 U.S.C. § 1675(a)(4).<sup>38</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>39</sup>

## **B. Conditions of Competition**

In evaluating the likely impact of the subject imports on the domestic industry, 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>40</sup>

### **1. The Prior Proceedings**

In the original investigation and first review, the Commission found that demand for clad steel plate was derived from demand for the downstream products produced by purchasers, mainly in the petrochemical industry, and to a lesser extent by purchasers in the power/utilities, pulp and paper, and shipbuilding industries.<sup>41</sup> In the second review, the Commission found that the record indicated that demand for clad steel plate continued to be derived from demand for downstream products, mainly in the petrochemical industry, but that the product was also used in newer applications, namely desulfurization of flues in coal-fired power plants.<sup>42</sup> In the first review, the Commission also found that apparent U.S. consumption of clad steel plate had declined since the time of the original investigation.<sup>43</sup> In the second review, the Commission found that the trend had continued.<sup>44</sup>

Regarding supply, in the original investigation the Commission found that the domestic industry consisted of four firms (Ametek, DuPont, DMC, and Lukens).<sup>45</sup> In the first review, four firms also comprised the domestic industry (Ametek, DMC, Lukens – subsequently Bethlehem Lukens – and Vee Cee Metals).<sup>46</sup> Vee Cee Metals exited the industry after the first review, leaving DMC, Ametek, and

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<sup>37</sup> 19 U.S.C. § 1675a(a)(1).

<sup>38</sup> 19 U.S.C. § 1675a(a)(1). Commerce has not issued any duty absorption findings in this review. CR at I-13 n.27, PR at I-11 n.27.

<sup>39</sup> 19 U.S.C. § 1675a(a)(5). Although the Commission must consider all factors, no one factor is necessarily dispositive. SAA at 886.

<sup>40</sup> 19 U.S.C. § 1675a(a)(4).

<sup>41</sup> Original Determination, USITC Pub. 2972 at 7 & nn.23-24; First Review Determination, USITC Pub. 3459 at 7.

<sup>42</sup> Second Review Determination, USITC Pub. 3907 at 8.

<sup>43</sup> First Review Determination, USITC Pub. 3459 at 7.

<sup>44</sup> Second Review Determination, USITC Pub. 3907 at 8.

<sup>45</sup> See Original Determination, USITC Pub. 2972 at 5.

<sup>46</sup> First Review Determination, USITC Pub. 3459 at 8-9.



Mittal (the successor company to Bethlehem Lukens) as the remaining domestic producers during the second review. Mittal reported that it accounted for the majority of domestic production in 2005.<sup>47</sup>

The Commission noted in the second review that production of clad steel plate in the United States had declined since the imposition of the antidumping duty order in July 1996.<sup>48</sup> It found that, as in the original investigation and first review, the domestic industry remained the dominant supplier to the U.S. market. Following imposition of the order, subject imports from Japan had dropped to minimal levels, and nonsubject imports had occupied a relatively minor, but growing, share of the clad steel plate market.<sup>49</sup>

In the original investigation, the Commission found that subject imports were able to compete directly with the domestic like product.<sup>50</sup> In the first review, the Commission observed that the U.S. market was price sensitive because price played a key role in determining which supplier would win a bid. Given the apparent high substitutability between domestic and Japanese clad steel plate, relatively small changes in price could result in significant shifts in market share. The Commission also found that contract negotiations in the industry were characterized by a relatively small number of major bids and that sales were made through a multi-level, competitive bidding process.<sup>51</sup> In the second review, the Commission did not make specific findings regarding substitutability, but simply stated that the conditions of competition were not likely to change significantly in the reasonably foreseeable future.<sup>52</sup>

## 2. The Current Review

*Demand.* U.S. demand for clad steel plate is derived from the demand for downstream products. These products include pressure vessels for the petrochemical industry; pressure vessels for the power, polysilicon and titanium industries; liquid chillers incorporating pressure vessels for HVAC uses; magnesium reservoir containers; magnesium storage containers; and towers. Two of the three responding producers, \*\*\* responding importer, all 10 responding purchasers, and all four responding Japanese producers reported no changes in end uses since the second five-year review.<sup>53</sup>

In this review, apparent U.S. consumption in 2011, as measured by quantity, was lower than in the periods examined in the original investigation and first review, although it was somewhat higher than in the period examined during the second review.<sup>54</sup>

Clad steel plate is typically purchased on a spot basis and consumed for specific projects. Thus, demand tends to fluctuate over time, rather than being continuous. All three responding U.S. producers, four of 12 responding purchasers, and one of two responding Japanese producers reported that demand

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<sup>47</sup> Second Review Determination, USITC Pub. 3907 at 8.

<sup>48</sup> Second Review Determination, USITC Pub. 3907 at 8.

<sup>49</sup> Second Review Determination, USITC Pub. 3907 at 8.

<sup>50</sup> See Original Determination, USITC Pub. 2972 at 7 nn.23-24.

<sup>51</sup> First Review Determination, USITC Pub. 3459 at 7-8, 11.

<sup>52</sup> Second Review Determination, USITC Pub. 3907 at 9.

<sup>53</sup> CR at II-6, PR at II-4.

<sup>54</sup> Apparent U.S. consumption was \*\*\* short tons in 1993 (the first year of the original period of investigation), \*\*\* short tons in 1995 (the last year of the original period of investigation), and \*\*\* short tons in 2000 (the last year examined in the first five-year review). Apparent U.S. consumption was \*\*\* short tons in 2005 (the last year examined in the second five-year review). During the current review period, it ranged between \*\*\* short tons in 2010 and \*\*\* short tons in 2008. It was \*\*\* short tons in 2011. CR/PR at Table I-1. It was \*\*\* short tons in interim 2011 and \*\*\* short tons in interim 2012. CR/PR at Table C-1.

for clad steel plate in the U.S. market has fluctuated since 2006. \*\*\* and five purchasers reported that demand for clad steel plate in the U.S. market has not changed since 2006, while three purchasers and \*\*\* indicated that U.S. demand has decreased, and \*\*\* reported that demand has increased.<sup>55</sup>

Regarding expected U.S. demand, all three responding U.S. producers reported that they anticipate demand will fluctuate, while the \*\*\* reported that it expected U.S. demand to increase. Only one responding purchaser reported that it expects U.S. demand to increase, with five reporting that they expect no change. The one responding Japanese producer reported that it also expects demand to increase.<sup>56</sup> In light of the fluctuations in apparent consumption during the period of review and the mixed perceptions of market participants, future demand is likely to fluctuate with no clear trend.<sup>57</sup>

*Supply.* U.S. producers have, by far, the largest share of the market, followed by nonsubject imports and then subject imports. Notwithstanding imposition of the order, U.S. producers' market share fell significantly between the time of the original investigation and the first review. Between the first and second reviews, however, domestic industry market share rose to nearly the level present during the original investigation and, in 2011, it was higher than it was during 1993-95.<sup>58</sup> The market share of subject imports also fell significantly between the time of the original investigation and that of the first review, then increased somewhat in 2005, and declined again during the period covered by the current review.<sup>59</sup> Nonsubject imports followed a divergent trend, as they gained the market share lost by U.S. producers and subject imports between the original investigation and first review. Their market share declined between the first and second reviews and fell even further during the current review.<sup>60</sup>

There are currently six U.S. producers, with DMC being the largest producer \*\*\*.<sup>61</sup> The domestic industry's capacity increased during the period of the current review, as \*\*\*.<sup>62</sup> It is planning \*\*\*, which will serve as \*\*\*.<sup>63</sup>

*Substitutability.* Although nonprice factors are important in this market,<sup>64</sup> price is also important. Ten of 13 responding firms indicated that price is a very important factor in making purchases.<sup>65</sup> Twelve responding firms cited price as one of the top three factors in their purchasing decisions.<sup>66</sup>

All responding U.S. producers reported that domestically produced product and the subject imports are "always" interchangeable. \*\*\* reported that they are "sometimes" interchangeable. Most

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<sup>55</sup> CR/PR at Table II-2.

<sup>56</sup> CR/PR at Table II-2.

<sup>57</sup> CR at II-7, II-9, PR at II-5 - II-6, CR/PR at Table II-2.

<sup>58</sup> U.S. producers' market share fell from \*\*\* percent in 1995 to \*\*\* percent in 2000, then rose to \*\*\* percent in 2005. It was \*\*\* percent in 2011. CR/PR at Table I-1.

<sup>59</sup> Subject import market share declined from \*\*\* percent in 1995 to \*\*\* percent in 2000, then increased to \*\*\* percent in 2005. It was \*\*\* percent in 2011. CR/PR at Table I-1.

<sup>60</sup> Nonsubject import market share climbed from \*\*\* percent in 1995 to \*\*\* percent in 2000, then fell to \*\*\* percent in 2005. It was \*\*\* percent in 2011. CR/PR at Table I-1.

<sup>61</sup> DMC was responsible for \*\*\* percent of U.S. production in 2011. The next largest responding producer, AMUSA, was responsible for \*\*\* percent of U.S. production in that year. CR/PR at Table I-3.

<sup>62</sup> CR/PR at Table III-1. In addition, U.S. producer Regal Technology Corp. \*\*\*. *Id.*

<sup>63</sup> CR/PR at III-1 - III-2.

<sup>64</sup> *See* CR/PR at Table II-9 (\*\*\*) and three of five reporting purchasers indicated that differences other than price are a significant factor in their sales/purchases of clad steel plate).

<sup>65</sup> CR/PR at Table II-4.

<sup>66</sup> CR/PR at Table II-3.

responding purchasers reported that they were “always” interchangeable. No producers, importers or purchasers said that domestically produced clad plate and subject imports were “never” interchangeable.<sup>67</sup> Clad steel plate products produced by the explosion-bonding and roll-bonding methods are largely interchangeable. Roll bonding is more commonly used for thin plate, whereas explosion bonding is more common for thick plate.<sup>68</sup>

The domestic like product and the subject imports were reported by most purchasers to be comparable with respect to several nonprice factors that were most frequently identified as “very important” in purchasing decisions, such as product consistency and quality meeting industry standards. However, for two of the other factors most frequently deemed “very important,” availability and delivery time, most purchasers deemed the U.S. product superior.<sup>69</sup> Thus, the record indicates there is a moderate degree of substitutability between U.S.-produced clad steel plate and that imported from Japan and other countries.<sup>70</sup>

*Other Conditions.* Three of four responding producers (\*\*\*), \*\*\* responding importers, and three of 12 responding purchasers indicated that the market was subject to business cycles or special conditions of competition. Reasons given for demand cycles included individual industry-specific cycles; global investment cycles; seasonal cycles in oil refining; political cycles; demand cycles for coke drums and vacuum towers; and refining cycles related to refined fuels and quality of crude source.<sup>71</sup>

Both responding producers (\*\*) and two of three responding purchasers reported changes in business cycles or conditions of competition since 2006. Reported changes included the fact that refineries have canceled or put significant projects on hold because of EPA regulations and administrative actions; the impact of the recession; and that cycles have become more severe and competitive as a result of U.S. energy policy as well as the political instability in the Middle East and its effect on global energy markets.<sup>72</sup>

Most U.S. producers reported selling exclusively on a transaction-by-transaction basis.<sup>73</sup> These transactions typically occur through a multi-level competitive bidding process.<sup>74</sup> To bid on a project, vessel manufacturers typically first solicit price bids for the clad plate to determine the cost of the clad plate. After the selection of the vessel manufacturer, there may be a second round of bidding on the plate to determine if quotes are still valid or to renegotiate prices, among other reasons.<sup>75</sup> As in the original investigation and prior reviews, there are currently a relatively small number of major bids in the

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<sup>67</sup> CR at II-18 - II-19, PR at II-13, CR/PR at Table II-7.

<sup>68</sup> CR at I-19, PR at I-17. \*\*\*. CR at I-19, PR at I-16. In the original investigation and prior reviews, the Commission found that clad steel plate products produced by these two methods are largely interchangeable; the record continues to support this finding. Original Determination, USITC Pub. 2972 at 4; First Review Determination, USITC Pub. 3459 at 10; Second Review Determination, USITC Pub. 3907 at 9.

<sup>69</sup> CR/PR at Tables II-4, II-6.

<sup>70</sup> CR at II-12 & n.27, PR at II-8 & n.27.

<sup>71</sup> CR at II-8, PR at II-5.

<sup>72</sup> CR at II-8, PR at II-5.

<sup>73</sup> CR at V-5, PR at V-3. Only one U.S. producer (\*\*) reported selling any clad steel plate under contracts. It reported that \*\* percent of its sales were under short-term contracts that averaged 180 days. Id.

<sup>74</sup> Tr. at 25 (Mr. Blakely).

<sup>75</sup> CR at V-6 & n.8, PR at V-3 & n.8.

market.<sup>76</sup> In view of the importance of price in the bidding process and the key role price plays in determining which supplier wins a bid, we find the market to be price sensitive, as we have in the prior reviews, because a relatively small change in price may result in a significant shift in purchasing patterns and thus in market share.<sup>77</sup>

There are a number of substitutes for clad steel plate, namely solid alloys, carbon steel plate with weld alloys, and non-metallic plate. These materials are only substitutes as pertains to specific downstream products, however. The majority of responding firms reported no changes in substitutes since 2006.<sup>78</sup>

Raw material costs differ among the various types of clad steel plate products and between producers, particularly with respect to the type of steel backing plate used. The domestic industry's cost of raw materials as a share of sales ranged from \*\*\* percent in 2006 to \*\*\* percent in 2011. Changes in this ratio, however, reflect not only movements in the prices of inputs, but also changes in the types of clad steel plate sold and different shares of production by the different producers.<sup>79</sup>

Based on the record of this review, we find that current conditions of competition in the U.S. clad steel plate market are not likely to change significantly in the reasonably foreseeable future. Accordingly, in this review, we find that current conditions of competition provide us with a reasonable basis on which to assess the likely effects of revocation of the order in the reasonably foreseeable future.

### C. Likely Volume of Subject Imports<sup>80</sup>

In evaluating the likely volume of imports of subject merchandise if the antidumping order is revoked, 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.<sup>81</sup> 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.<sup>82</sup>

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<sup>76</sup> CR at V-16 & n.19, PR at V-6 & n.19; see also CR/PR at Table I-1 (U.S. apparent consumption totaled only \*\*\* short tons in 2011); Original Determination, USITC Pub. 2972 at 9; First Review Determination, USITC Pub. 3459 at 8 n.30; Second Review Determination, USITC Pub. 3907 at 9.

<sup>77</sup> See First Review Determination, USITC Pub. 3459 at 7-8, 11; Second Review Determination, USITC Pub. 3907 at 9.

<sup>78</sup> CR at II-10 - II-11, PR at II-7 - II-8

<sup>79</sup> CR/PR at V-1. U.S. producers reported that changes in raw material costs are built into their prices because all product is produced to order. Japanese producer JFE reported that it was able to pass along price increases for raw materials. Id.

<sup>80</sup> Commissioners Pearson and Broadbent do not join the remainder of this opinion. See their Dissenting Views.

<sup>81</sup> 19 U.S.C. § 1675a(a)(2).

<sup>82</sup> 19 U.S.C. § 1675a(a)(2)(A-D).

## 1. The Prior Proceedings

In the original determination, the Commission found the levels of subject imports and import penetration to be significant. The Commission placed particular emphasis on the importance to domestic producers of securing a sufficient number of the relatively few large-volume contracts in a given year to allow maintenance of adequate levels of capacity utilization and the fact that subject imports compete directly for those critical sales. Because the Commission found the market to be price sensitive, it found relatively small volumes of subject imports to be significant.<sup>83</sup>

In the first review, the Commission found, based on the facts available, that subject import volume was likely to increase significantly and would be significant if the order were revoked. As it did in the original investigation, the Commission concluded that given the apparent high substitutability between domestic and Japanese clad steel plate, relatively small changes in price can result in significant shifts in market share. The Commission found that the Japanese industry was export oriented, as it exported over half of its production volume during the original investigation and still depended on substantial quantities of exports. This indicated that the Japanese industry would likely seek to re-enter the U.S. market with significant quantities of subject merchandise, as it did during the original investigation, if the order were revoked.<sup>84</sup>

In the second review, the Commission found that Japanese producers had increased their production capability since the order went into effect. It once again found that the Japanese industry was export oriented and that it would likely seek to re-enter the U.S. market with significant quantities of subject merchandise if the order were revoked. The Commission also noted that subject producers appeared to have the ability to divert exports to the U.S. market. The vast majority of Japanese exports of clad steel plate were shipped into markets other than the United States, including Mexico.<sup>85</sup>

## 2. The Current Review

During the period of review, with the order in place, there were no subject imports in any year except 2009, when subject imports were only \*\*\* short tons.<sup>86</sup> Based on the record in this review, we find that a significant volume of subject clad steel plate imports is likely if the order were revoked.

The industry in Japan has more than ample excess capacity to produce additional subject merchandise and the incentive to ship it to the U.S. market in large quantities absent the restraining effect of the order. Japanese producers' clad steel plate capacity increased between 2006 and 2011.<sup>87</sup> However, capacity utilization decreased significantly over the period by more than \*\*\* percentage points.<sup>88</sup> Excess

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<sup>83</sup> Original Determination, USITC Pub. 2972 at 15-16.

<sup>84</sup> First Review Determination, USITC Pub. 3459 at 9-10.

<sup>85</sup> Second Review Determination, USITC Pub. 3907 at 10-11.

<sup>86</sup> CR/PR at Table IV-1. As discussed above, subject imports have consistently had a very small presence in the U.S. market since imposition of the order.

<sup>87</sup> Capacity increased from \*\*\* short tons in 2006 to \*\*\* short tons in 2007, \*\*\* short tons in 2008, and \*\*\* short tons in 2009 through 2011. It was \*\*\* short tons in both interim periods. CR/PR at Table IV-3.

<sup>88</sup> Capacity utilization rose from \*\*\* percent in 2006 to \*\*\* percent in 2007 and \*\*\* percent in 2008, fell to \*\*\* percent in 2009, climbed to \*\*\* percent in 2010, then fell to \*\*\* percent in 2011. It was \*\*\* percent in interim 2011 and \*\*\* percent in interim 2012. CR/PR at Table IV-3.

capacity in 2011 totaled \*\*\* short tons,<sup>89</sup> more than \*\*\* times the \*\*\* short tons of apparent U.S. consumption in that year.<sup>90</sup> Should the order be revoked, Japanese producers would have the ability to ship substantial quantities of subject merchandise to the United States without diverting exports from other markets.<sup>91</sup>

In the original investigation, Japanese producers exported more than half of their production volume; they remained export oriented through the second review<sup>92</sup> and continue to export significant quantities of their production currently. In fact, the percentage of Japanese producers' exports relative to total shipments increased from 2006 to 2011.<sup>93</sup>

During the period of review, the Japanese producers' primary export market was Asia.<sup>94</sup> The demand for clad steel plate in Asia, however, is not expected to grow substantially in the reasonably foreseeable future. In fact, it has declined and is expected to decline further.<sup>95</sup> As a result, exports of the subject producers to Asia did not show vigorous growth. Instead, they fluctuated during the period, although they did increase during 2010 and 2011. The record does not indicate that this increase is likely

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<sup>89</sup> CR/PR at Table IV-3.

<sup>90</sup> CR/PR at Table I-1. In interim 2012, excess Japanese clad steel plate capacity was \*\*\* short tons, CR/PR at Table IV-3, and apparent U.S. consumption was \*\*\* short tons. CR/PR at Table C-1.

<sup>91</sup> JFE argues that at least some its excess capacity cannot be practically used in light of heat treatment capacity limits and claims that almost all of its exports require heat treatment. Tr. at 153 (Mr. Asano); Declaration of Mr. Asano at 3 & Att. 5. However, JFE reported that, for certain months, as little as \*\*\* percent of its clad steel plate was heat treated in 2011 and as little as \*\*\* percent was heat treated in 2012. CR at IV-5, PR at IV-3. Thus, a substantial portion of its clad steel plate does not require heat treatment.

In addition, Japanese producers argue that because demand for clad steel plate is not constant or stable, but cyclical or sporadic, they must maintain substantial excess capacity in order to be able to respond to large orders when received. Thus, they claim that capacity is viewed in the industry as the ability to respond to specific orders when they occur. Japanese Producers' Prehearing Brief at 20. Respondents also argue that, because product mix affects production quantities, theoretical production capacity does not reflect actual production capacity, Japanese Producers' Prehearing Brief at 21, and that depending on the capacity available for an order, bottlenecks in production result because most customers request short-term delivery. Tr. at 148 (Mr. Asano). We reject Japanese producers' argument. The record does not indicate that significant excess capacity is required in order to meet spikes in demand. Idle capacity is costly to maintain, see Domestic Industry's Posthearing Brief at 2 & Exh. 1 at 4-5, and while producers cannot be expected to match capacity to demand perfectly in a market characterized by fluctuating and episodic orders, respondents offer no basis with sufficient support on the record for needing excess capacity of the magnitude observed during the period of review. Moreover, JSW has produced \*\*\* during the period of review, indicating it has experienced no "bottleneck." Its capacity utilization was \*\*\* percent in 2007 and \*\*\* percent in 2010. Similarly, the capacity utilization of NSSC and Asahi in 2008 was \*\*\* percent and \*\*\* percent, respectively. See Foreign Producers' Questionnaire Responses. Finally, given the large absolute volume of Japanese producers' excess capacity, they could produce significant additional volumes for export to the United States and still maintain substantial excess capacity.

<sup>92</sup> First Review Determination, USITC Pub. 3459 at 10; Second Review Determination, USITC Pub. 3907 at 10.

<sup>93</sup> Total exports increased from \*\*\* percent of shipments in 2006 to \*\*\* percent of shipments in 2011. They totaled \*\*\* percent in interim 2011 and \*\*\* percent in interim 2012. CR/PR at Table IV-3.

<sup>94</sup> CR/PR at Table IV-3.

<sup>95</sup> Demand in Asia was stronger at the beginning of the period of review, declined in the middle of the period due to the worldwide recession, then improved to a level that was below the level at the beginning of the period. Domestic Industry's Posthearing Brief, Exh. 1 at 17-19. Most reporting U.S. producers, importers and purchasers expect demand outside the United States to fluctuate in the future. CR/PR at Table IV-7; see Domestic Industry's Prehearing Brief, Exh. 6.

to continue; exports to Asia were lower in interim 2012 than in interim 2011.<sup>96</sup> Japanese producers' shipments and orders for shipments likewise declined by nearly \*\*\* between July-September 2012 and April-June 2013.<sup>97</sup>

The record does not indicate that Japanese producers will be able to substantially increase their exports to Korea, currently Japan's largest export market for clad steel plate.<sup>98</sup> The Korean market is supplied by at least two of its own producers, and one Korean producer tripled its production during the last five years.<sup>99</sup> In addition, exports from Japan to China are limited, as there are many local producers supplying that market.<sup>100</sup>

Although Asia is the Japanese industry's largest export market for clad plate, it exported significant quantities to other markets during the period of review.<sup>101</sup> The record does not support the Japanese producers' claim that they have "long since abandoned the . . . European market[ ]."<sup>102</sup> To the contrary, the Japanese producers exported clad steel plate to the European Union ("EU") in every year of the period of review, and these exports increased toward the end of the period.<sup>103</sup> Japan's exports of clad steel plate to non-Asian markets were equivalent, on average, to \*\*\* percent of apparent U.S. consumption from 2006-11; in interim 2012, this figure was \*\*\* percent.<sup>104</sup>

Among the markets supplied by the Japanese industry outside of Asia and the EU is the Canadian market. Notwithstanding the Japanese producers' argument, there is no evidence that their inclination to serve North America would be limited to the Canadian market if the order under review were revoked. Although the Japanese producers claim shipments to Canada have been sporadic and mainly to legacy customers,<sup>105</sup> \*\*\* clad steel plate to Canada during the period of review, and these shipments were greater in January-October 2012 than in any of the four prior full years.<sup>106</sup> The Japanese producers were asked to

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<sup>96</sup> Japanese producers' exports to Asia increased from \*\*\* short tons in 2006 to \*\*\* short tons in 2011. They were \*\*\* short tons in interim 2011 and \*\*\* short tons in interim 2012. CR/PR at Table IV-3.

<sup>97</sup> Japanese producers' shipments and/or orders for shipments were \*\*\* short tons in July-September 2012, \*\*\* short tons in October-December 2012, \*\*\* short tons in January-March 2013, and \*\*\* short tons in April-June 2013. CR/PR at Table IV-5.

<sup>98</sup> CR at IV-13, PR at IV-7.

<sup>99</sup> Tr. at 23 (Mr. Nicol).

<sup>100</sup> Tr. at 150 (Mr. Asano); CR/PR at Table IV-4. One Japanese producer, \*\*\*, reported that exports of clad steel plate are subject to an eight percent tariff in China. CR at IV-6, PR at IV-4.

<sup>101</sup> CR/PR at Table IV-4.

<sup>102</sup> Japanese Producers' Posthearing Brief at 9.

<sup>103</sup> Japanese producers' exports to the EU were \*\*\* short tons in 2006, \*\*\* short tons in 2007, \*\*\* short tons in 2008, \*\*\* short tons in 2009, \*\*\* short tons in 2010, and \*\*\* short tons in 2011. They were \*\*\* short tons in interim 2011 and \*\*\* short tons in interim 2012. CR/PR at Table IV-3.

<sup>104</sup> Compare CR/PR at Table IV-3 with CR/PR at Table C-1.

<sup>105</sup> Japanese Producers' Posthearing Brief at 9.

<sup>106</sup> CR/PR at Table IV-4. \*\*\* shipped \*\*\* short tons of clad steel plate to Canada in 2006, \*\*\* short tons in 2007, and \*\*\* short tons in interim 2012. CR at IV-5 n.10, PR at IV-4 n.10. \*\*\* shipped \*\*\* short tons of clad steel plate to Canada in interim 2012. CR at IV-6 n.11, PR at IV-4 n.11. Global Trade Atlas data show that Japanese clad steel plate exports to Canada totaled 215 short tons in 2006, 930 short tons in 2007, 353 short tons in 2008, 228 short tons in 2009, 47 short tons in 2010, and 13 short tons in 2011. They totaled 687 short tons in January-October 2012. CR/PR at Table IV-4.

support their assertion that they had no business plan to export clad steel plate to the U.S. market in the future, but did not do so.<sup>107</sup>

There are no significant restraints to reentry into the U.S. market by the subject producers if the order is revoked. They currently maintain sales offices in New York and Houston, and while they claim it would be costly to maintain a trained clad plate salesperson in the United States given the small size of the market,<sup>108</sup> Japanese producers currently sell clad plate without sales offices in many export markets, typically through global trading companies.<sup>109</sup> Qualification/certification for new suppliers requires a maximum of 90 days, with 30 to 45 days being the general rule.<sup>110</sup> Given that \*\*\*,<sup>111</sup> it is likely that qualification/certification for Japanese producers seeking to compete in the U.S. market would occur within a shorter time period.

The Japanese producers argue that competition between clad steel plate produced by the roll bonding method and that produced by the explosion bonding method is attenuated and that the U.S. industry, which primarily produces clad plate using the explosion bonding method, would face only limited competition from the Japanese producers, who primarily produce clad plate using the roll bonding method.<sup>112</sup> As we have indicated above, clad steel plate products produced by these two methods are largely interchangeable, notwithstanding the fact that the explosion bonding process is more commonly used to produce thick plate and the roll bonding process is more commonly used to produce thin plate. In fact, in 2011, \*\*\*,<sup>113</sup> those shipments, totaling \*\*\* short tons, were equivalent to \*\*\* percent of U.S. apparent consumption that year.

The Japanese producers also claim that they have begun to emphasize the production of higher-value products, such as clad steel pipe and tube, which are produced from internally consumed clad steel plate.<sup>114</sup> Even if such production is increasing, there is no evidence in the record that the small share of excess capacity that such production will require<sup>115</sup> will significantly reduce the significant volume of clad steel plate that is likely to enter the U.S. market if the order is revoked.

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<sup>107</sup> Tr. at 133 (Mr. Esumi), 170 (Commissioner Aranoff). The Japanese producers argue that NSSC has never exported clad steel plate to any country and that Asahi has no plans to export to the U.S. market if the order were revoked. Japanese Producers' Prehearing Brief at 19. Even if we agreed with respondents that we should disregard the capacity of these two Japanese producers, they comprise only \*\*\* percent of the Japanese clad steel plate industry. CR/PR at Table IV-2. Moreover, the record indicates that NSSC has announced plans to become an exporter and \*\*\*. CR/PR at IV-6; see Domestic Industry's Prehearing Brief, Exh. 14; Tr. at 42 (Ms. Cannon).

<sup>108</sup> Tr. at 140 (Mr. Asano).

<sup>109</sup> Domestic Industry's Posthearing Brief, Exh. 10. Further, evidence in the record indicates that it takes a minimal amount of time to train a salesperson to sell clad plate (approximately one to two weeks). Id.

<sup>110</sup> CR at II-16, PR at II-11.

<sup>111</sup> Domestic Industry's Posthearing Brief, Exh. 5.

<sup>112</sup> Japanese Producers' Prehearing Brief at 15.

<sup>113</sup> CR at I-19, PR at I-17.

<sup>114</sup> Japanese Producers' Prehearing Brief at 17.

<sup>115</sup> Japanese producers report that in February 2012, JSW announced two contracts for approximately 15,000 tons of clad steel tube and that in early October 2012, JFE completed over 2000 tons of stainless clad steel plate orders for natural gas development projects in southeastern Asia. Japanese Producers' Prehearing Brief at 17-18.



In addition, the U.S. market was an attractive one during the original investigation, and the record indicates that it continues to be so today.<sup>116</sup> Evidence in the record indicates that prices are generally higher in the U.S. market than in other Japanese export markets, including those in Asia.<sup>117</sup>

Finally, the Japanese producers maintain that most jobs in the U.S. market are too small to warrant their bids.<sup>118</sup> The evidence in the record, however, does not support this argument. During the original investigation, the Japanese producers bid on jobs in the U.S. market. In addition, although they ship large volumes of clad steel plate to the Asian market, they ship smaller volumes to Canada.<sup>119 120</sup>

In view of the subject producers' significant excess capacity and increased capacity, their incentive to produce and export more product, the fact that demand in Asia is not expected to increase significantly enough in the reasonably foreseeable future to absorb these exports, and the small size of the U.S. market, we find the volume of subject imports, both in absolute terms and relative to production and consumption in the United States, would likely be significant in the reasonably foreseeable future absent the restraining effect of the order.

#### **D. Likely Price Effects of Subject Imports**

When examining the likely price effects of subject imports if the order under review were to be revoked, 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>121</sup>

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<sup>116</sup> Japanese producers maintain that the low level of nonsubject imports demonstrates that the U.S. market is not attractive. Japanese Producers' Prehearing Brief at 8-9, 11-12. However, the domestic producers claim that the low level of nonsubject imports over the period of review was at least in part due to corporate affiliations between major nonsubject producers and domestic producers, Domestic Industry's Posthearing Brief, Exh. 1 at 50-52, and the Japanese producers themselves point out that AMUSA and DMC are global producers with affiliates in various countries. Japanese Producers' Prehearing Brief at 4. Nonsubject import volumes fluctuated even during the original period of investigation, when they fell from \*\*\* short tons in 1993 to \*\*\* short tons in 1994 and \*\*\* short tons in 1995. Nonsubject imports also fluctuated during the prior periods of review, totaling \*\*\* short tons in 2000 and \*\*\* short tons in 2005. CR/PR at Table I-1. We do not find that the level of nonsubject imports during the current period of review outweighs the evidence supporting our finding that significant volumes of subject imports would likely reenter the U.S. market upon revocation of the order.

<sup>117</sup> CR at IV-15 - IV-16, PR at IV-9; Domestic Industry's Posthearing Brief, Exh. 1 at 33. Japanese producers did not attempt to refute this point.

<sup>118</sup> See Japanese Producers' Prehearing Brief at 11-12; Japanese Producers' Posthearing Brief at 5, 8.

<sup>119</sup> See CR/PR at Table IV-4.

<sup>120</sup> We note that inventories are not as important in this industry as in some others, as clad steel plate is typically made to order. CR at III-10, PR at III-3. Only one U.S. importer reported any inventories of clad steel plate, and it imported subject merchandise \*\*\*. CR at IV-3, PR at IV-2. Reporting Japanese producers' inventories were less than \*\*\* percent of production and total shipments in every year of the period of review. \*\*\* was the only Japanese producer to report inventories. CR at IV-7, PR at IV-4, CR/PR at Table IV-3.

We also note that product shifting is not an issue in this review.

<sup>121</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.

## 1. The Prior Proceedings

In the original investigation, the Commission found that subject imports were having a significant adverse effect on U.S. prices. It stated that the market for clad steel plate is price sensitive, with price playing a key role in determining which supplier will win a bid. While a relatively small number of reported bids involved competition between the domestic like product and subject imports, the sales quantities involved in those bids where there was competition were significant. In light of the price sensitive nature of the market, the significant underbidding by Japanese suppliers of clad plate on significant volumes of product, the success of Japanese suppliers in winning important large contracts on the basis of price, and the domestic industry's inability to recoup increases in its cost of goods sold and SG&A expenses, the Commission found price suppression to a significant degree.<sup>122</sup>

In the first review, the Commission noted that the record contained very little current pricing data. It found that the market was price sensitive such that price played a key role in determining which supplier wins a bid. It further found it likely that if the order were revoked, subject Japanese exporters would offer attractively low prices to U.S. purchasers in order to regain market share. Consequently, prices for domestically produced clad steel plate in the United States would likely decline to a significant degree due to the effects of increased volumes of highly substitutable subject clad steel plate offered at lower prices. The Commission then found that revocation of the order would be likely to result in significant price effects, including significant underselling by the subject imports, as well as significant price depression and suppression in the reasonably foreseeable future.<sup>123</sup>

In the second review, there was no new product-specific pricing information on the record. Based on the information available in the record, the Commission found that the market for subject merchandise was price competitive. As in the original investigation, subject imports would likely undersell the domestic like product to regain market share if the order were revoked. The volume of subject imports at those prices would be likely to have significant depressing or suppressing effects on prices of the domestic like product. The Commission concluded that, were the order to be revoked, the significant volume of subject imports would likely significantly undersell the domestic like product and those imports would have a significant depressing or suppressing effect on prices for the domestic like product.<sup>124</sup>

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<sup>122</sup> Original Determination, USITC Pub. 2972 at 20-21.

<sup>123</sup> First Review Determination, USITC Pub. 3459 at 11.

<sup>124</sup> Second Review Determination, USITC Pub. 3907 at 12.

## 2. The Current Review

The pricing data obtained in this review are limited given the significantly reduced volume of subject imports in the U.S. market during the period of review.<sup>125</sup> As explained above, price remains an important consideration in purchasing decisions. We have also found that the domestic like product and the subject imports are moderately substitutable and that the market is price sensitive.

We have found that the volume of subject imports is likely to increase significantly in the reasonably foreseeable future if the order is revoked. Japanese producers would have to price their product aggressively to gain market share. They would therefore likely undersell the domestic like product, as they did in the original investigation. At these volumes, and at low prices, the subject imports would be likely to have a significant depressing or suppressing effect on the prices of the domestic like product.<sup>126</sup>

Accordingly, we find that, upon revocation of the order, subject imports would likely significantly undersell the domestic like product and have a significant depressing or suppressing effect on prices within a reasonably foreseeable time.

### E. Likely Impact of Subject Imports<sup>127</sup>

In analyzing the likely impact of imports of subject merchandise if the order under review was to be revoked, 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

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<sup>125</sup> Of the five pricing products for which the Commission sought data in these reviews, it obtained only two quarterly observations for the subject imports. See CR/PR at Table V-2. These observations do not \*\*\* and thus could not be used for direct price comparisons. CR at V-17, PR at V-7.

<sup>126</sup> We do not rely on the domestic industry's arguments alleging extensive price undercutting in third country markets by subject imports. See, e.g., Domestic Industry's Prehearing Brief at 45-47. We have obtained no information regarding the conditions of competition in these markets. The Commission has previously found similar arguments concerning "aggressive pricing" by the subject imports in third country markets to be entitled to little or no weight absent a showing that the third country markets were characterized by conditions of competition analogous to those in the U.S. market. See Hot-Rolled Flat-Rolled Carbon-Quality Steel Products from Brazil, Japan, and Russia, Inv. Nos. 701-TA-384 and 731-TA-806-808 (Second Review), USITC Pub. 4237 (June 2011), at 44 n.279, aff'd, U.S. Steel Corp. v. United States, 856 F. Supp.2d 1318, 1326-27 (Ct. Int'l Trade 2012), appeal pending. See also Committee for Fair Beam Imports v. United States, 477 F. Supp.2d 1313, 1328 (Ct. Int'l Trade 2007), aff'd mem., 260 F. App'x 302 (Fed. Cir. 2008).

<sup>127</sup> Under the statute, "the Commission may consider the magnitude of the margin of dumping" in making its determination in a five-year review. 19 U.S.C. § 1675a(a)(6). The statute defines the "magnitude of the margin of dumping" to be used by the Commission in five-year reviews as "the dumping margin or margins determined by the administering authority under section 1675a(c)(3) of this title." 19 U.S.C. § 1677(35)(C)(iv); see also SAA at 887. Commerce expedited its determination in this five-year review. It determined that revocation would likely lead to continuation or recurrence of dumping at the following margins: 118.53 percent for JSW and 118.53 percent for all others. 77 Fed. Reg. at 31835. These margins were the same margins that Commerce found in the original determination and the first and second reviews.

the domestic like product.<sup>128</sup> 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 at issue and whether the industry is vulnerable to material injury if the orders were revoked.<sup>129</sup>

## 1. The Prior Proceedings

In the original investigation, the Commission found that the domestic industry's financial performance worsened substantially as subject import volumes increased. Although the Commission recognized that fluctuations in the market for clad steel plate may have contributed to the industry's problems, the industry had not achieved operating income levels that were close to positive since the year when subject imports were at their lowest level. The Commission stated that because price was important, industry performance was not strong, and subject imports competed with the domestic like product for a significant volume of critical sales, it found the industry to be materially injured by subject imports.<sup>130</sup>

In the first review, the Commission found the domestic industry to be vulnerable. It found that the volume and price effects of the subject imports would have a significant negative impact on the domestic industry and would likely cause the industry to lose market share. In addition, the price and volume declines would likely have a significant adverse impact on the industry's production, shipments, sales, and revenue levels. These reductions would likely have a direct adverse impact on the industry's profitability.<sup>131</sup>

In the second review, the Commission stated that the limited evidence in the expedited review was insufficient for it to make a finding on whether the domestic industry was vulnerable. It did find that if the order were revoked, the significant likely volume of low-priced subject clad steel plate, when combined with the likely adverse price effects of those imports, would likely have a significant adverse impact on the production, shipments, sales, and revenue levels of the domestic industry. These reductions would likely 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. It concluded that if the order were revoked, subject imports would be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time.<sup>132</sup>

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<sup>128</sup> 19 U.S.C. § 1675a(a)(4).

<sup>129</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.

<sup>130</sup> Original Determination, USITC Pub. 2972 at 24.

<sup>131</sup> First Review Determination, USITC Pub. 3459 at 12-13.

<sup>132</sup> Second Review Determination, USITC Pub. 3907 at 13.

## 2. The Current Review

The indicators of the domestic industry's performance are mixed. The domestic industry's capacity increased relatively steadily over the period of review,<sup>133</sup> while production fluctuated and then fell at the end of the period.<sup>134</sup> Consequently, capacity utilization decreased.<sup>135</sup> U.S. shipments declined as well.<sup>136</sup> The domestic industry's market share was relatively steady over the period.<sup>137 138</sup>

The employment data are likewise mixed. The number of production and related workers increased between 2006 and 2011, although it was lower in interim 2012 than in interim 2011.<sup>139</sup> The number of hours worked<sup>140</sup> and wages paid<sup>141</sup> followed the same trend. Productivity decreased overall, however.<sup>142</sup>

Although the industry was profitable, its operating income declined substantially from 2006 to 2011 and was lower in interim 2012 than in interim 2011.<sup>143</sup> During the latter portion of the period, two of the three responding producers sustained operating losses.<sup>144</sup> The quantity of net sales fluctuated over

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<sup>133</sup> Capacity was \*\*\* short tons in 2006, \*\*\* short tons in 2007, \*\*\* short tons in 2008, \*\*\* short tons in 2009, \*\*\* short tons in 2010, and \*\*\* short tons in 2011. It was \*\*\* short tons in interim 2011 and \*\*\* short tons in interim 2012. CR/PR at Table III-2.

<sup>134</sup> Production was \*\*\* short tons in 2006, \*\*\* short tons in 2007, \*\*\* short tons in 2008, \*\*\* short tons in 2009, \*\*\* short tons in 2010, and \*\*\* short tons in 2011. It was \*\*\* short tons in interim 2011 and \*\*\* short tons in interim 2012. CR/PR at Table III-2.

<sup>135</sup> Capacity utilization was \*\*\* percent in 2006, \*\*\* percent in 2007, \*\*\* percent in 2008, \*\*\* percent in 2009, \*\*\* percent in 2010, and \*\*\* percent in 2011. It was \*\*\* percent in interim 2011 and \*\*\* percent in interim 2012. CR/PR at Table III-2.

<sup>136</sup> U.S. shipments were \*\*\* short tons in 2006, \*\*\* short tons in 2007, \*\*\* short tons in 2008, \*\*\* short tons in 2009, \*\*\* short tons in 2010, and \*\*\* short tons in 2011. They were \*\*\* short tons in interim 2011 and \*\*\* short tons in interim 2012. CR/PR at Table III-3.

<sup>137</sup> The domestic industry's market share was \*\*\* percent in 2006, \*\*\* percent in 2007, \*\*\* percent in 2008, \*\*\* percent in 2009, \*\*\* percent in 2010, and \*\*\* percent in 2011. It was \*\*\* percent in both interim periods. CR/PR at Table C-1.

<sup>138</sup> As noted above, clad steel plate is a product that is made to order and not usually held in inventory. Only one U.S. producer reported end-of period inventories, which declined substantially at the end of the period of review. CR/PR at Table III-5.

<sup>139</sup> The number of production and related workers was \*\*\* in 2006, \*\*\* in 2007, \*\*\* in 2008, \*\*\* in 2009, \*\*\* in 2010, and \*\*\* in 2011. It was \*\*\* in interim 2011 and \*\*\* in interim 2012. CR/PR at Table III-6.

<sup>140</sup> The number of hours worked was \*\*\* in 2006, \*\*\* in 2007, \*\*\* in 2008, \*\*\* in 2009, \*\*\* in 2010, and \*\*\* in 2011. It was \*\*\* in interim 2011 and \*\*\* in interim 2012. CR/PR at Table III-6.

<sup>141</sup> Wages paid were \$\*\*\* in 2006, \$\*\*\* in 2007, \$\*\*\* in 2008, \$\*\*\* in 2009 and 2010, and \$\*\*\* in 2011. They were \$\*\*\* in interim 2011 and \$\*\*\* in interim 2012. CR/PR at Table III-6.

<sup>142</sup> Per 1,000 hours, productivity was \*\*\* short tons in 2006, \*\*\* short tons in 2007, \*\*\* short tons in 2008, \*\*\* short tons in 2009, \*\*\* short tons in 2010, and \*\*\* short tons in 2011. It was \*\*\* short tons in interim 2011 and \*\*\* short tons in interim 2012. CR/PR at Table III-6.

<sup>143</sup> Operating income was \$\*\*\* in 2006, \$\*\*\* in 2007, \$\*\*\* in 2008, \$\*\*\* in 2009, \$\*\*\* in 2010, and \*\*\* in 2011. It was \$\*\*\* in interim 2011 and \$\*\*\* in interim 2012. CR/PR at Table III-7.

<sup>144</sup> \*\*\* sustained operating losses in 2010, 2011 and interim 2011, and \*\*\* sustained operating losses in 2009, 2010, and both interim periods. CR/PR at Table III-8.

the period of review, but increased slightly in 2011 relative to 2006.<sup>145</sup> The industry's operating income margin fell by over \*\*\* percentage points from 2006 to 2011, although it was higher in interim 2012 than in interim 2011.<sup>146</sup> Capital expenditures decreased,<sup>147</sup> and research and development expenses increased<sup>148</sup> over the period.

In light of the foregoing, we decline to find the domestic industry currently vulnerable to injury if the order is revoked. Although the industry's production, capacity utilization and shipments declined overall during the period of review, its market share was quite high and remained so throughout this period of declining demand. The quantity of net sales increased, and although operating income declined, the industry overall had unmistakably profitable performance throughout the period. Although the employment indicators exhibited downward trends from interim 2011 to interim 2012, they fluctuated during the calendar years, and most increased at the end of the full-year period.

Should the order under review be revoked, we have found that the volume of subject imports would likely increase significantly relative to the size of the U.S. market. We have further found that these additional volumes of subject imports would be priced in a manner that would likely undersell the domestic like product and likely have significant depressing or suppressing effects on prices for the domestic like product. Consequently, the domestic industry would need either to respond to subject imports by foregoing sales and ceding market share, or by cutting and/or restraining prices. The resulting loss of production and/or revenues would likely cause further deterioration in the financial performance of the domestic industry when demand is not likely to increase substantially in the reasonably foreseeable future. Further deterioration in financial performance would result in likely losses of employment and declining investment.

We have also considered the role of nonsubject imports in the U.S. market. As previously discussed, nonsubject imports hold a very small portion of the market. No party has alleged other causes for the likely adverse impact on the domestic industry described above, nor are any such causes apparent from the record.

## CONCLUSION

For the foregoing reasons, we determine that revocation of the antidumping duty order on subject clad steel plate from Japan would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

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<sup>145</sup> The quantity of net sales was \*\*\* short tons in 2006, \*\*\* short tons in 2007, \*\*\* short tons in 2008, \*\*\* short tons in 2009, \*\*\* short tons in 2010, and \*\*\* short tons in 2011. It was \*\*\* short tons in interim 2011 and \*\*\* short tons in interim 2012. CR/PR at Table III-7.

<sup>146</sup> The operating income margin was \*\*\* percent in 2006, \*\*\* percent in 2007, \*\*\* percent in 2008, \*\*\* percent in 2009, \*\*\* percent in 2010, and \*\*\* percent in 2011. It was \*\*\* percent in interim 2011 and \*\*\* percent in interim 2012. CR/PR at Table III-7.

<sup>147</sup> Capital expenditures were \$\*\*\* in 2006, \$\*\*\* in 2007, \$\*\*\* in 2008, \$\*\*\* in 2009, \$\*\*\* in 2010, and \$\*\*\* in 2011. They were \$\*\*\* in interim 2011 and \$\*\*\* in interim 2012. CR/PR at Table III-10.

<sup>148</sup> Research and development expenses were \$\*\*\* in 2006, \$\*\*\* in 2007, \$\*\*\* in 2008, \$\*\*\* in 2009, \$\*\*\* in 2010, and \$\*\*\* in 2011. They were \$\*\*\* in interim 2011 and \$\*\*\* in interim 2012. CR/PR at Table III-10.

**SEPARATE AND DISSENTING VIEWS OF COMMISSIONER DANIEL R. PEARSON AND  
COMMISSIONER MEREDITH M. BROADBENT**

**I. INTRODUCTION**

Section 751(d)(2) of the Tariff Act of 1930, as amended (“the Act”), requires that the U.S. Department of Commerce (“Commerce”) revoke a countervailing duty or an antidumping duty order or terminate a suspended investigation in a five-year review unless Commerce determines that dumping or a countervailable subsidy would be likely to continue or recur and the U.S. International Trade Commission (“Commission”) determines that material injury to a U.S. industry would be likely to continue or recur within a reasonably foreseeable time.<sup>1</sup> Based on the record in this five-year review, we determine that material injury is not likely to continue or recur within a reasonably foreseeable time if the antidumping duty order imposed in 1996 on subject imports of clad steel plate from Japan is revoked.

We join the discussion of the Commission majority regarding domestic like product, domestic industry, the legal standard concerning five-year reviews, and the relevant conditions of competition in the U.S. market. We write separately to assess the likely volume, price effects, and impact of the subject imports and to provide the basis for our negative determination on subject imports.

**II. REVOCATION OF THE ORDER ON SUBJECT IMPORTS FROM JAPAN WOULD NOT BE LIKELY TO LEAD TO CONTINUATION OR RECURRENCE OF MATERIAL INJURY WITHIN A REASONABLY FORESEEABLE TIME**

**A. Likely Volume of Subject Imports**

In evaluating the likely volume of imports of subject merchandise if an antidumping duty order is revoked, 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.<sup>2</sup> In doing so, the Commission must consider “all relevant economic factors,” including: (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.<sup>3</sup>

We find that the volume of the subject imports from Japan is not likely to be significant if the order is revoked.<sup>4</sup> We recognize that the Japanese industry has \*\*\* excess capacity compared to U.S.

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<sup>1</sup> 19 U.S.C. § 1675(d)(2).

<sup>2</sup> 19 U.S.C. § 1675a(a)(2).

<sup>3</sup> 19 U.S.C. § 1675a(a)(2)(A-D).

<sup>4</sup> In the original investigation in 1996, the Commission found that subject import volume from Japan was significant. The volume of subject imports from Japan increased from \*\*\* short tons in 1993 to \*\*\* short tons in 1994 before falling to \*\*\* short tons in 1995. CR/PR at table I-1. The market share of U.S. shipments of imports from Japan increased from \*\*\* percent in 1993 to \*\*\* percent in 1994 before falling to \*\*\* percent in 1995. *Id.* In the two subsequent expedited reviews conducted in 2000 and 2005, the quantity and market penetration of subject imports from Japan were dramatically lower. In both 2000 and 2005, the annual quantity of U.S. shipments of subject imports from Japan did not exceed 44 short tons, and annual market penetration did not exceed \*\*\* percent.

(continued...)

apparent consumption.<sup>5</sup> The Japanese industry's capacity utilization in 2011 was \*\*\* at \*\*\* percent, representing approximately \*\*\* short tons of excess capacity.<sup>6</sup> Nonetheless, we do not believe that the existence of this excess capacity indicates that Japanese producers will likely increase exports to the United States significantly upon revocation.

We have come to this conclusion based primarily on three factors. First, during the period of review, the U.S. market was completely dominated by the domestic like product, without meaningful competition from imports of clad steel plate from either Japan or nonsubject sources. Subject imports have been almost completely absent from the U.S. market since the original period of investigation. Indeed, subject imports did not account for more than \*\*\* percent of U.S. apparent consumption at any time since the imposition of the order in 1996, almost seventeen years ago.<sup>7</sup> During the current review period, in 2009, \*\*\* short tons of subject merchandise entered the market.<sup>8</sup> While we believe that, in some respects, the virtual absence of subject merchandise from the U.S. market since imposition of the order reflects the effectiveness of the order, we also conclude that it indicates both a lack of Japanese interest in the U.S. market and a lack of interest on the part of U.S. purchasers in obtaining supplies from distant sources. We note that, since the order was put in place in 1996, no company within the Japanese industry has ever requested an administrative review from Commerce.<sup>9</sup> Had the Japanese industry been interested in penetrating the U.S. market, it is likely that the Japanese suppliers would have made small volumes of sales to the U.S. market followed by requests for administrative reviews in order to lower their antidumping duty margins.

Moreover, the Japanese industry's apparent lack of interest in or ability to enter the U.S. market does not appear to be unique. Despite the fact that there are several major global producers and exporters of clad steel plate in other countries, particularly those in Europe, that face zero duties in the United States, U.S. nonsubject imports have also been virtually nonexistent in the U.S. market during the current period of review. U.S. shipments of nonsubject imports were \*\*\* percent of U.S. apparent consumption in 2008, which was also the peak year of apparent U.S. consumption during the period of review.<sup>10</sup> In all other years of the review period, however, U.S. shipments of nonsubject imports never accounted for

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<sup>4</sup> (...continued)

Id.

<sup>5</sup> CR/PR at table IV-3. The Japanese industry's capacity to produce clad steel plate increased by \*\*\* percent, or \*\*\* short tons. This increase in capacity came largely as the result of \*\*\* increasing capacity at points throughout the period of review. CR at IV-4-5, PR at IV-3.

<sup>6</sup> Id. Capacity utilization peaked at \*\*\* percent in 2008, and was lowest at \*\*\* percent in 2009. Representatives from JFE discussed capacity bottlenecks due to JFE's heat treatment process, which it said is required for virtually all exports. CR/PR at IV-5. In addition, respondents argued that the cyclical and sporadic nature of demand in the clad steel plate market requires companies to maintain substantial excess capacity in order to be able to respond to large orders as they come in. Japanese Producers' Prehearing Brief at 20. When asked about their own excess capacity, representatives of \*\*\* acknowledged that the sporadic nature of the marketplace requires companies producing clad steel plate to hold excess capacity, but did not find it plausible that this capacity buffer accounted for the total sum of Japanese excess capacity. Tr. at 65-66. We conclude that it is likely that the holding of buffer capacity and the existence of capacity bottlenecks leads to an overstatement of the Japanese industry's excess capacity.

<sup>7</sup> CR/PR at table I-1.

<sup>8</sup> In any event, only \*\*\* short tons of that shipment entered U.S. apparent consumption in \*\*\*, with the remainder being \*\*\*. CR at IV-3, PR at IV-2.

<sup>9</sup> CR at I-13, PR at I-11. While Commerce did initiate an administrative review at the request of Dana Glacier Daido America LLC ("Dana") in 2000, Dana informed Commerce that the merchandise that it imported is not subject to the antidumping duty order on clad steel plate from Japan, and withdrew its request for an administrative review. Commerce rescinded the review. 65 FR 60615.

<sup>10</sup> CR/PR at table I-1.



more than \*\*\* percent of apparent consumption, and nonsubject imports never entered in quantities greater than \*\*\* short tons. This represents a departure from trends in nonsubject imports during the original investigation and the first review, when nonsubject imports entered in relatively large volumes in several years.<sup>11</sup> It appears, therefore, that in recent years, nonsubject foreign producers have been unable or unwilling to seek market share aggressively in the United States despite the absence of duty orders on nonsubject merchandise. Given this, the record suggests that factors unrelated to antidumping duty orders have limited the presence of imports from all sources in the U.S. market.

Second, the record indicates that the Japanese industry is currently focused on serving its home market and non-U.S. markets, particularly growing markets in Asia. All major global producers, including those in the United States, Japan, and Europe, have been focused on supplying three primary markets throughout the period of review: their home market, their nearby regional markets, and Asia. U.S. producers reported exporting primarily to North America, South America, and Asia.<sup>12</sup> Official trade statistics from the European Union (EU) show that the majority of extra-EU exports were shipped to Asia and the Middle East.<sup>13</sup> Japanese producers also report that the vast majority of export shipments were destined for Asia throughout the period of review, and this concentration has actually increased.<sup>14</sup> In 2011, Korea was the largest destination for exports from Japan and the European Union, and was also listed as a major destination for \*\*\* exports.<sup>15</sup> In our view, the focus of Japanese producers on global markets other than the United States indicates that imports from Japan are unlikely to increase significantly in the reasonably foreseeable future.

Domestic interested parties have argued that the presence of Japanese exports to Canada during the period of review, particularly in interim 2012, indicate that Japanese producers of clad steel plate are interested in and capable of serving North America, including the U.S. market.<sup>16</sup> We note that the record contains no information regarding demand-side competitive conditions in the Canadian market and how such conditions might differ from those in the United States. There are believed to be no producers of clad steel plate in Canada,<sup>17</sup> however. Given that the record indicates that Canada relies entirely on imports, while the U.S. market is supplied almost entirely by domestic production, we do not believe that the presence of subject imports in the Canadian market necessarily predicts how or even whether subject imports would enter the United States absent an antidumping duty order.<sup>18</sup>

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<sup>11</sup> Id.

<sup>12</sup> CR at III-4, fn. 3; PR at III-2, fn. 3. \*\*\*, which accounted for less than \*\*\* of exports, also reported exports to \*\*\*. Id.

<sup>13</sup> CR/PR at table IV-6. Official trade statistics also show that EU exports to Brazil were also significant, accounting for 4.3 percent of extra-EU exports during 2006-11, but were still minor compared to non-EU destinations in Asia and the Middle East.

<sup>14</sup> CR/PR at table IV-3. Between 2008 and 2011, Japanese exports as a share of total shipments of clad steel plate increased from \*\*\* percent to \*\*\* percent. Over the same period, Japanese exports to all non-Asian destinations as a share of total shipments decreased steadily from \*\*\* percent in 2008 to \*\*\* percent in 2011.

<sup>15</sup> CR at III-4, fn. 3; PR at III-2, fn. 3; CR/PR at tables IV-4 & IV-6.

<sup>16</sup> Domestic interested parties' prehearing brief at 31.

<sup>17</sup> CR at IV-14, PR at IV-7.

<sup>18</sup> U.S. producers also argue that U.S. clad steel plate prices are higher than they are in Asia, where much of the Japanese product is sold. CR at IV-16, PR at IV-9. The record, however, does not contain sufficient evidence to establish that clad steel plate prices are higher in the U.S. market than in either the Japanese home market or third-country markets, which would provide an incentive for Japanese producers to divert shipments from other export markets or the home market to the United States. We also note that comparisons of average unit values are mixed. For example, the average unit value of domestic shipments was higher than the average unit value of U.S. exports between 2006 and 2008 as well as in 2010, but the opposite was true in 2009, 2011, and interim 2012.

Third, \*\*\*. This development represents a dramatic change in conditions of competition that will likely serve to constrain subject imports from increasing rapidly as they did during the original investigation period. As stated above, U.S. shipments of subject imports as a share of apparent U.S. consumption increased from \*\*\* percent in 1993 to \*\*\* percent in 1994.<sup>19</sup> This sudden increase in subject imports took place, however, within the context of a U.S. market that at that time was \*\*\* by roll-bonded clad steel plate. As noted in the majority's discussion of conditions of competition, the roll-bonding method is primarily used to produce thinner clad steel plate (plate less than two inches thick).<sup>20</sup> In its original determination, the Commission found that the two largest suppliers in the U.S. market for roll-bonded clad steel plate in this size range were Lukens, the petitioner, and JSW, the sole respondent and source of subject imports.<sup>21</sup> At that time, clad steel plate produced using the explosion-bonding method represented a minority of domestic shipments and did not compete directly with imports for orders that required thinner size ranges.<sup>22</sup> The explosion-bonding method is more efficient for the production of thicker clad steel plate \*\*\*.<sup>23</sup>

The situation now is different, as market dominance has shifted from \*\*\*. \*\*\* to the U.S. market in 2011, representing \*\*\* percent of 2011 production.<sup>24</sup> The record shows that \*\*\* percent of clad steel plate produced in the United States in 2011 was greater than 2 inches thick, while only \*\*\* percent was 1 inch or less in thickness.<sup>25</sup> In contrast, only \*\*\* percent of Japanese-produced clad steel plate in 2011 was greater than 2 inches thick, while \*\*\* percent was one inch or less in thickness.<sup>26</sup> The only Japanese producer of explosion-bonded clad steel plate (\*\*\*) was also the \*\*\* producer that reported that the majority of its shipments were greater than 2 inches in thickness.<sup>27</sup> Moreover, \*\*\* production and capacity represented less than \*\*\* percent of the Japanese industry in 2011, and \*\*\* did not export \*\*\* during the period of review.<sup>28</sup>

Hence, during the original period of investigation, the subject imports competed for sales in the largest segment of the U.S. market for clad steel plate, and competed head-to-head against the largest U.S. producer. In the most recent period of review, the Japanese industry continues to produce roll-bonded clad steel plate primarily, but the U.S. industry \*\*\*. Because supply is largely driven by the need to meet inelastic demand in the U.S. market for clad steel plate,<sup>29</sup> we conclude that U.S. production of thick, explosion-bonded clad steel plate is the result of higher demand for clad steel plate that fits these specifications. The U.S. market's shift toward explosion-bonded clad steel plate is embodied by the expansion of \*\*\* and the contraction of production by \*\*\*). While we are mindful that there is some current overlap in competition between the productive capacity of the Japanese industry and demand in the United States, we observe that competition is limited to a far narrower demand segment compared to the original period of investigation. Furthermore, we note that this attenuation of competition between current U.S. shipments and potential Japanese shipments tempers any concerns over the relative size of Japanese excess capacity compared to apparent U.S. consumption.

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<sup>19</sup> Id.

<sup>20</sup> CR at I-19, PR at I-17.

<sup>21</sup> Original Determination at 9.

<sup>22</sup> Id.

<sup>23</sup> CR at I-19, PR at I-16.

<sup>24</sup> CR/PR at table I-3.

<sup>25</sup> CR/PR at figure III-5.

<sup>26</sup> CR/PR at figure IV-3.

<sup>27</sup> CR at I-19, PR at I-17.

<sup>28</sup> CR at IV-6, PR at IV-4, CR/PR at table IV-2.

<sup>29</sup> CR/PR at II-6.

With regard to the other statutory factors, we find that the record does not support a determination that the Japanese industry is likely to increase shipments to the U.S. market if the order is revoked. Inventories, whether held in Japan or in the United States, remained insignificant throughout the period of review.<sup>30</sup> The Japanese industry's reported inventories as a share of production ranged between \*\*\* percent and \*\*\* percent during the period of review. The Japanese industry's reported inventories as a share of shipments ranged between \*\*\* percent and \*\*\* percent. Moreover, only one U.S. importer, \*\*\*, reported any inventories of U.S. subject imports of clad steel plate during the period of review. These inventories amounted to the remaining \*\*\* short tons that \*\*\*. With regard to third-country trade barriers, one Japanese producer (\*\*\*) reported that exports of clad steel plate are subject to an eight percent tariff in China.<sup>31</sup> We find this barrier of little significance because there is no record evidence indicating that China was an important export market for Japanese producers during the period.<sup>32</sup> Furthermore, there is no evidence on the record of trade barriers imposed on Japanese exports of clad steel plate in any other third-country market. Finally, with regard to the potential for product-shifting, only one Japanese producer (\*\*\*) indicated that there was a potential for product shifting between \*\*\* and clad steel plate.<sup>33</sup>

Accordingly, we find that the Japanese industry has limited ability and incentive to increase shipments of subject merchandise to the United States upon revocation. As stated above, the Japanese industry's lack of interest and/or inability to enter the U.S. market is established by the absence of subject imports from the domestic market since 1996. It is clear, moreover, that the lack of interest of foreign parties in the U.S. market is not attributable to whether such parties are subject to antidumping or countervailing duty orders, given that nonsubject imports have also been generally absent throughout the period of review. Instead, the U.S. industry has come to dominate a market that increasingly relies on explosion-bonded clad steel plate as opposed to the thinner, roll-bonded clad steel plate that is produced by the major Japanese producers. For their part, Japanese producers focus on nearby growing Asian markets and their home market, behavior that is in line with the shipment trends of all major global producers of clad steel plate. Given these factors, there is no indication that Japanese producers will shift significant volumes of subject merchandise from their traditional Asian markets to the U.S. market. We consequently conclude from the evidence on the record that any increase in subject imports from Japan would not be significant, either in absolute terms or relative to consumption or production in the United States, if the antidumping duty order were revoked.

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<sup>30</sup> CR at IV-3, PR at IV-2, CR/PR at table IV-3.

<sup>31</sup> CR at IV-6, PR at IV-4.

<sup>32</sup> CR at IV-14, fn. 20; PR at IV-7, fn. 20.

<sup>33</sup> CR/PR at II-5.

## B. Likely Price Effects of Subject Imports

In the original investigation, the Commission found that subject imports from Japan undersold the domestic like product on significant volumes of sales, suppressing domestic prices to a significant degree.<sup>34</sup> The Commission's determination was based on an analysis of rounds of bidding where both the domestic industry and importers of clad steel plate from Japan competed for domestic purchases. In all but one bid comparison, the low bidder won. In five out of twelve such bid comparisons, the imported Japanese product was priced lower than the domestic product. In the remaining seven comparisons, the domestic like product was priced lower than the subject merchandise. The Commission found that, notwithstanding the fact that domestic producers won bids more frequently, the amount and value of sales for which importers of Japanese product won bids based on lower prices were significant.<sup>35</sup>

In the current review, as in the two prior expedited reviews, there are no data on direct price comparisons between subject imports and the domestic like product.<sup>36</sup> This is due to the fact that so few subject imports have entered the U.S. market since the original period of investigation. Thus, the only evidence that supports any likelihood of underselling by subject imports is limited data from the original period of investigation that actually show that the instances of underselling by subject imports were outnumbered by instances of overselling by subject imports.<sup>37</sup> We do not find that the mixed data on this issue from the original investigation are sufficient to support a determination that subject imports from Japan would likely undersell the domestic like product upon revocation of the order.

In light of the above analysis, and our finding that the likely volume of subject imports would not be significant, we do not find that, upon revocation, subject imports would be likely to have significant price-depressing or -suppressing effects on prices for the domestic like product, or otherwise have significant negative effects on domestic prices.

## C. Likely Impact of Subject Imports

In the original investigation, the Commission determined that the domestic industry was materially injured by reason of subject imports from Japan. It based this finding on declines in several key performance indicators, particularly shipments and employment, and also cited low capacity utilization rates and poor financial results, including operating losses throughout the period of investigation. The Commission noted a correlation between the industry's poor financial performance and subject import penetration, particularly in 1994 when subject imports peaked.<sup>38</sup> The Commission found that there was a causal connection between subject imports and injury, relying significantly on the importance of price. The Commission found that subject imports had underbid the domestic like product for substantial volumes of critical sales, and concluded that price suppression had contributed directly to the industry's operating losses.<sup>39</sup>

In this current period of review, we consider the domestic industry to be in a radically different condition from the industry that existed during the original investigation period. At that time, the

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<sup>34</sup> Original Determination at 21.

<sup>35</sup> Original Determination at 24. The five bid comparisons in which importers of Japanese products submitted lower bids represented \*\*\* short tons of clad steel plate. *Id.*

<sup>36</sup> CR/PR at table V-2. \*\*\*. *Id.*

<sup>37</sup> Domestic interested parties argued that price underselling in Canada and Korea by the Japanese industry provides an indication that subject imports would undersell the domestic like product upon revocation of the order. Domestic interested parties' prehearing brief at 42-47. \*\*\*.

<sup>38</sup> Original Determination at 24-25.

<sup>39</sup> Original Determination at 24.

domestic industry was largely comprised of a single domestic producer: Lukens. Lukens, like many of the smaller U.S. producers, did not then have any global affiliates, but in 1997 began a process of incorporation into a series of companies that eventually led to its consolidation within ArcelorMittal, one of the largest multinational steel producers in the world.<sup>40</sup> DMC, the \*\*\* U.S. producer in 2011, also has affiliates in Germany, Sweden, and France.<sup>41</sup> The U.S. industry has also become more export-oriented and globally competitive. U.S. exports of clad steel plate ranged between \*\*\* percent and \*\*\* percent of the industry's total shipments during the original period of investigation, peaking at \*\*\* short tons in 1994.<sup>42</sup> During the current period of review, in contrast, U.S. exports ranged between \*\*\* percent and \*\*\* percent of total shipments, never falling below \*\*\* short tons and rising to as high as \*\*\* short tons in 2010.<sup>43</sup> Accordingly, the domestic industry is now far more internationally vested, more globally competitive, and more immune to domestic demand swings.

From this position of comparative strength, the U.S. industry has been able to operate at consistently high profitability levels. Specifically, the industry's operating income margins remained very high between 2006 and 2009, falling slightly from \*\*\* percent to \*\*\* percent.<sup>44</sup> In the post-recession years, its operating income margins fell to\*\*\* percent in 2010 before increasing to \*\*\* percent in 2011.<sup>45</sup> Although there was a decrease in operating income margins in 2010 and 2011 from earlier years, the industry was still able to achieve robust margins in 2010, 2011, and interim 2012, which means that the industry remained healthy and profitable throughout a turbulent economic period that has been far harder on many other U.S. manufacturing industries.<sup>46</sup> The industry's high levels of profitability during the period of review are explained in part by similarly healthy ratios of cost of goods sold to net sales ("COGS/net sales") throughout the period of review. While COGS/net sales ratios increased throughout the period of review, particularly in 2010, they remained below \*\*\* percent in all years.<sup>47</sup> This indicates that the domestic industry was, on an aggregate basis, consistently able to command prices that were substantially higher than its costs.

Domestic interested parties have argued that positive operating income margins mask a significant reduction in net sales and total operating income that occurred over the period of review.<sup>48</sup> Industry witnesses stated at the hearing that the industry's low sales volumes made the continued maintenance of unused capacity costly and unsustainable.<sup>49</sup> The record, however, does not support this statement. The industry's return on assets, which is the ratio of operating income to total net assets,

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<sup>40</sup> ArcelorMittal also has an affiliate in France that produces clad steel plate. CR/PR at table I-3.

<sup>41</sup> Id.

<sup>42</sup> CR/PR at table I-1.

<sup>43</sup> Id.

<sup>44</sup> CR/PR at table C-1.

<sup>45</sup> Id.

<sup>46</sup> Domestic interested parties argue that the significant declines in the industry's performance indicators, including operating margins, were the result of substantially lower demand after 2009. Domestic interested parties' prehearing brief at 55. They refer to the drop in domestic demand as "a tale of two markets," where the post-2009 period represents a significant departure from relatively prosperous years before the decrease in demand. Domestic interested parties' prehearing brief at 53. We agree with the domestic interested parties that many of the domestic industry's performance indicators declined as a result of decreased demand resulting from the economic downturn, but we also observe that the industry's profitability remained strong throughout the later years of the period of review, despite the recessionary conditions in the United States in those years.

<sup>47</sup> Id.

<sup>48</sup> Domestic interested parties' prehearing brief at 56. The value of net sales decreased \*\*\* percent between 2006 and 2011, while the value of operating income decreased by \*\*\* percent. CR/PR at table C-1.

<sup>49</sup> Hearing testimony at 79-80. The domestic industry's capacity utilization fell from \*\*\* percent in 2006 to \*\*\* percent in 2011.

decreased from \*\*\* percent in 2006 to \*\*\* percent in 2011.<sup>50</sup> These rates of return on assets show that the U.S. industry is an industry that has been able to make substantial profits from low total assets even during a period of general economic difficulty. We therefore conclude that, although the industry experienced reduced sales and income as a result of decreased demand throughout the period of review, its profits remained strong and sustainable relative to assets.

In conclusion, although some indicators of the industry's health, such as production, capacity utilization, and the volume of U.S. shipments, declined between 2006 and 2011, we believe that these declines reflect the impact of the economic recession, and that the industry's financial performance nonetheless remained strong throughout the period of review. The industry had high operating income margins sustained by low COGS/net sales ratios, and achieved a high rate of return on its assets. Given that we believe that the industry is not vulnerable to injury by reason of subject imports if the order is revoked, that revocation of the antidumping order on subject imports from Japan would not be likely to lead to a significant increase in the volume of subject imports, and that the subject imports from Japan would not significantly undersell the domestic like product and significantly suppress or depress U.S. prices, we find that such imports would not be likely to have a significant adverse impact on the production, shipments, sales, market share, and revenues of the domestic industry if the order on imports from clad steel plate from Japan were revoked. Accordingly, we conclude that, if the order on imports of clad steel plate from Japan were revoked, subject imports would not be likely to have a significant adverse impact on the domestic industry within a reasonably foreseeable time.

### **III. CONCLUSION**

For the above-stated reasons, we determine that revocation of the antidumping duty order on clad steel plate from Japan, in effect since 1996, 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.

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<sup>50</sup> CR/PR at table III-11.

## PART I: INTRODUCTION AND OVERVIEW

### BACKGROUND

On February 1, 2012, the U.S. International Trade Commission (“Commission” or “USITC”) gave notice, pursuant to section 751(c) of the Tariff Act of 1930, as amended (“the Act”),<sup>1</sup> that it had instituted a review to determine whether revocation of the antidumping duty order on clad steel plate from Japan would likely lead to the continuation or recurrence of material injury to a domestic industry.<sup>2 3</sup> On May 7, 2012, the Commission determined that it would conduct a full review pursuant to section 751(c)(5) of the Act.<sup>4</sup> The following tabulation presents information relating to the schedule of this proceeding:<sup>5</sup>

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

<sup>2</sup> *Clad Steel Plate from Japan*, 77 FR 5052, February 1, 2012. All interested parties were requested to respond to this notice by submitting the information requested by the Commission.

<sup>3</sup> In accordance with section 751(c) of the Act, the U.S. Department of Commerce (“Commerce”) published a notice of initiation of five-year review of the subject antidumping duty order concurrently with the Commission’s notice of institution. *Initiation of Five-Year (“Sunset”) Review of Clad Steel Plate (3<sup>rd</sup> Review)*, 77 FR 4995, February 1, 2012.

<sup>4</sup> *Clad Steel Plate from Japan; Notice of Commission Determination to Conduct a Full Five-Year Review*, 77 FR 37439, June 21, 2012. On May 7, 2012, the Commission determined that it should proceed to a full review in the subject five-year review pursuant to section 751(c)(5) of the Act. The Commission found that both the domestic and respondent interested party group responses to its notice of institution (77 FR 5052, February 1, 2012) were adequate.

<sup>5</sup> The Commission’s statement on adequacy and Commissioners’ votes on whether to conduct an expedited or full review, as well as pertinent *Federal Register* notices, are referenced in appendix A and may be found at the Commission’s website ([www.usitc.gov](http://www.usitc.gov)). Appendix B presents the witnesses appearing at the Commission’s hearing.

<b>Effective date</b>	<b>Action</b>
July 2, 1996	Commerce's antidumping duty order on clad steel plate from Japan (61 FR 34421)
June 1, 2001	Commerce's initiation and the Commission's institution of first five-year review (66 FR 29771, 29829)
November 16, 2001	Commerce's continuation of the antidumping duty order on clad steel plate from Japan (66 FR 57703)
October 2, 2006	Commerce's initiation and the Commission's institution of second five-year review (71 FR 57921, 57996)
March 22, 2007	Commerce's continuation of the antidumping duty order on clad steel plate from Japan (72 FR 13478)
February 1, 2012	Commerce's initiation and the Commission's institution of third five-year review (77 FR 4995, 5052)
May 7, 2012	Commission's determination to conduct a full five-year review (77 FR 37439, June 21, 2012)
May 30, 2012	Commerce's final results of expedited five-year review of the antidumping duty order on clad steel plate from Japan (77 FR 31834)
June 25, 2012	Commission's scheduling of the review (77 FR 38825, June 29, 2012)
December 6, 2012	Commission's hearing
January 15, 2013	Commission's vote
January 28, 2013	Commission's determination transmitted to Commerce

### **The Original Investigation**

The original investigation resulted from a petition filed by Lukens Steel Co., Coatesville, PA, on September 29, 1995, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value ("LTFV") imports of clad steel plate from Japan. Following notification of a final determination by Commerce that imports of clad steel plate from Japan were being sold at LTFV, the Commission determined on June 25, 1996, that a domestic industry was materially injured by reason of LTFV imports of clad steel plate from Japan.<sup>6</sup> Commerce published the antidumping duty order on clad steel plate from Japan on July 2, 1996.<sup>7</sup>

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<sup>6</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Final)*, USITC Publication 2972, June 1996.

<sup>7</sup> *Notice of Antidumping Duty Order: Clad Steel Plate from Japan*, 61 FR 34421, July 2, 1996.



### **Subsequent Expedited Five-Year Reviews**

In October 2001, the Commission completed an expedited five-year review of the subject order and determined that revocation of the antidumping duty order on clad steel plate from Japan 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> Following affirmative determinations in the first five-year review by Commerce and the Commission,<sup>9</sup> Commerce issued a continuation of the antidumping duty order on imports of clad steel plate from Japan, effective November 16, 2001.<sup>10</sup>

In March 2007, the Commission completed a second expedited five-year review of the subject order and determined that revocation of the antidumping duty order on clad steel plate from Japan 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>11</sup> Following affirmative determinations in the second five-year review by Commerce and the Commission,<sup>12</sup> Commerce issued a continuation of the antidumping duty order on imports of clad steel plate from Japan, effective March 22, 2007.<sup>13</sup>

### **SUMMARY DATA**

Table I-1 presents a summary of data from the original investigation, the two prior expedited reviews, and the current full five-year review.

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<sup>8</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Review)*, USITC Publication 3459, October 2001.

<sup>9</sup> *Final Results of Expedited Sunset Review: Clad Steel Plate from Japan*, 66 FR 51007, October 5, 2001; *Clad Steel Plate from Japan*, 66 FR 55697, November 2, 2001.

<sup>10</sup> *Continuation of Countervailing and Antidumping Duty Orders: Pasta from Italy and Turkey, and Clad Steel Plate from Japan*, 66 FR 57703, November 16, 2001.

<sup>11</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Second Review)*, USITC Publication 3907, March 2007.

<sup>12</sup> *Clad Steel Plate from Japan; Final Results of the Expedited Sunset Review (Second Review) of the Antidumping Duty Order*, 72 FR 4482, January 31, 2007; *Clad Steel Plate from Japan; Determination*, 72 FR 10556, March 8, 2007.

<sup>13</sup> *Clad Steel Plate from Japan: Continuation of Antidumping Duty Order*, 72 FR 13478, March 22, 2007.

Table I-1

Clad steel plate: Comparative data from the original investigation, the first and second expedited reviews, and the third full review, 1993-95, 2000, 2005, and 2006-11

(Quantity in short tons, value in 1,000 dollars, shares/ratios in percent)

Item	1993	1994	1995		2000	
<b>U.S. consumption quantity:<sup>1</sup></b>						
Amount	***	***	***		***	
U.S. producers' share <sup>2</sup>	***	***	***		***	
<b>U.S. importers' share:<sup>2</sup></b>						
Japan	***	***	***		***	
All other sources	***	***	***		***	
Total imports	***	***	***		***	
<b>U.S. imports from:</b>						
Japan:						
Quantity	***	***	***		4	
Value	***	***	***		15	
Unit value	\$***	\$***	\$***		\$3,712	
All other sources:						
Quantity	***	***	***		1,884	
Value	***	***	***		8,921	
Unit value	\$***	\$***	\$***		\$4,736	
Total:						
Quantity	***	***	***		1,888	
Value	***	***	***		8,936	
Unit value	\$***	\$***	\$***		\$4,734	

Table I-1--Continued

2005		2006	2007	2008	2009	2010	2011
***		***	***	***	***	***	***
***		***	***	***	***	***	***
***		***	***	***	***1	***1	***
***		***	***	***	***	***	***
***		***	***	***	***	***	***
44		***	***	***	***	***	***
238		***	***	***	***	***	***
\$5,472		( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )	\$***	( <sup>3</sup> )	( <sup>3</sup> )
392		***	***	***	***	***	***
1,704		***	***	***	***	***	***
\$4,345		\$***	( <sup>3</sup> )	\$***	( <sup>3</sup> )	( <sup>3</sup> )	\$***
436		***	***	***	***	***	***
1,942		***	***	***	***	***	***
\$4,458		\$***	( <sup>3</sup> )	\$***	\$***	( <sup>3</sup> )	\$***

**Table I-1--Continued**

**Clad steel plate: Comparative data from the original investigation, the first and second expedited reviews, and the third full review, 1993-95, 2000, 2005, and 2006-11**

**(Quantity in short tons, value in 1,000 dollars, shares/ratios in percent)**

Item	1993	1994	1995		2000	
<b>U.S. producers':</b>						
Capacity quantity	***	***	***		( <sup>4</sup> )	
Production quantity	***	***	***		***	
Capacity utilization (percent)	***	***	***		( <sup>4</sup> )	
<b>U.S. shipments:</b>						
Quantity	***	***	***		( <sup>5</sup> )	
Value	***	***	***		( <sup>5</sup> )	
Unit value	\$***	\$***	\$***		( <sup>5</sup> )	
<b>Export shipments:</b>						
Quantity	***	***	***		( <sup>4</sup> )	
Value	***	***	***		( <sup>4</sup> )	
Unit value	\$***	\$***	\$***		( <sup>4</sup> )	
Production workers	***	***	***		( <sup>4</sup> )	
Hours worked (1,000)	***	***	***		( <sup>4</sup> )	
Hourly wage	\$***	\$***	\$***		( <sup>4</sup> )	
Net sales quantity	***	***	***		( <sup>4</sup> )	
Net sales value	***	***	***		( <sup>4</sup> )	
Operating income or (loss)/sales	***	***	***		( <sup>4</sup> )	
Ratio of operating income or (loss)/sales	***	***	***		( <sup>4</sup> )	

<sup>1</sup> Apparent U.S. consumption and market shares are calculated as follows: for 1993-95, U.S. producers' U.S. shipments and adjusted official import statistics; for 2000, estimated total U.S. production and unadjusted official import statistics; for 2005, estimated total U.S. shipments and unadjusted official Commerce statistics; and, for 2006-11, U.S. producers' U.S. shipments and U.S. shipments of imports.

<sup>2</sup> Reported data are in percent.

<sup>3</sup> Undefined.

<sup>4</sup> Unavailable.

<sup>5</sup> Bethlehem Lukens reported U.S. shipments of \*\*\* short tons, valued at \$\*\*\*, with a unit value of \$\*\*\* per short ton.

<sup>6</sup> Mittal Steel USA, Inc. reported U.S. shipments of \*\*\* short tons. Mittal was the only firm to respond to the second expedited review.

Note.— Import data for 1993-95 are based on adjusted official Commerce statistics. Imports were adjusted to exclude imports of clad steel plate from Kawasaki which were less than 4.5 mm in thickness (not within the scope of the investigation) and temporary importation under bond ("TIB") imports. TIB is a procedure whereby merchandise may be entered into the customs territory of the United States duty-free by posting a bond. Under the terms of the bond, the importer agrees to export the merchandise within a specified time (usually a year) or pay liquidated damages, generally equal to twice the normal duty. There have been no TIB imports reported since 1998. *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Second Review)*, USITC Publication 3907, March 2007, p. I-17 n. 82, and table I-4; official Commerce statistics (general imports).

Table I-1--Continued

2005	2006	2007	2008	2009	2010	2011
( <sup>4</sup> )	***	***	***	***	***	***
***	***	***	***	***	***	***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>6</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	\$***	\$***	\$***	\$***	\$***	\$***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	\$***	\$***	\$***	\$***	\$***	\$***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	\$***	\$***	\$***	\$***	\$***	\$***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	***	***	***	***	***	***
( <sup>4</sup> )	***	***	***	***	***	***

Note.— For 2000, domestic industry data are based on the response of Bethlehem Lukens to the notice of institution for the first expedited review; production data are estimated for all known domestic producers (Ametek, DMC, DuPont/DMC, Lukens/Bethlehem Lukens, and Vessel Clads/Vee Cee Metals). For 2000, import data are based on official Commerce statistics and may include imports of nonsubject clad steel plate (i.e., clad steel plate less than 4.5 mm in thickness).

Note.— For 2005, domestic industry data are based on the response of Mittal Steel USA, Inc. to the notice of institution for the second expedited review; production and shipment data are based on staff estimates derived from Mittal's estimate that it accounted for \*\*\* percent of the domestic industry in 2005. For 2005, import data are based on official Commerce statistics and may include imports of nonsubject clad steel plate. Two figures were reported for apparent U.S. consumption, one calculated using U.S. production and one calculated using U.S. shipment data. The figures were \*\*\* short tons and \*\*\* short tons, respectively. Both are based on Mittal's response to the notice of institution in which it estimated it accounted for \*\*\* percent of the domestic industry in 2005.

Source: Data for 1993-95 are compiled from confidential staff report, *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Final)*, Memorandum INV-T-044, June 3, 1996, table C-1; data for 2000 are compiled from confidential staff report, *Clad Steel Plate from Japan Inv. No. 731-TA-739 (Review)*, Memorandum INV-Y-196, October 1, 2001, tables I-2 and I-4; data for 2005 are compiled from confidential staff report, *Clad Steel Plate from Japan Inv. No. 731-TA-739 (Second Review)*, Memorandum INV-EE-010, February 1, 2007, tables I-3, I-4, and I-6; data for 2006-11 are compiled from questionnaire responses.

## PREVIOUS AND RELATED INVESTIGATIONS

Following a petition filed on October 6, 1981, by Lukens Steel Co., the Commission conducted an antidumping duty investigation on stainless steel clad plate from Japan. Following a determination of sales at LTFV by Commerce, on July 20, 1982, the Commission determined that an industry in the United States was materially injured by reason of imports from Japan.<sup>14</sup> Commerce issued an antidumping duty order on stainless steel clad plate from Japan on August 6, 1982, which it subsequently revoked on September 20, 1985.<sup>15</sup>

On June 30, 1992, petitions<sup>16</sup> were filed with Commerce and the Commission alleging that an industry in the United States was materially injured by reason of subsidized imports of CTL plate from 10 countries; hot-rolled products from 7 countries; cold-rolled products from 11 countries; and corrosion-resistant products (including clad steel plate) from 8 countries. The petitions further alleged that an industry in the United States was materially injured by reason of dumped imports of CTL plate from 15 countries; hot-rolled products from 9 countries; cold-rolled products from 15 countries; and corrosion-resistant products (including clad steel plate) from 9 countries.<sup>17</sup> Following affirmative final determinations of subsidization and sales at LTFV by Commerce, the Commission found clad steel plate to be a separate domestic like product produced by a separate domestic industry. The Commission reached negative determinations with respect to subject imports of clad steel plate from France and Japan, and noted that, to the extent that any such determination was deemed necessary, it would have reached negative determinations with respect to other subject countries because there were no imports of clad steel plate from those countries during the period examined.<sup>18</sup>

### Safeguard Investigations

In 1984, the Commission determined that carbon and alloy steel plates were being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry producing such articles, and recommended quantitative restrictions of imports for a period of five years.<sup>19</sup> President Ronald Reagan determined that import relief under section 201 of the Trade Act of 1974 was not in the national interest.<sup>20</sup> At the President's direction, quantitative limitations under voluntary restraint agreements ("VRAs") for a five-year period ending September 30, 1989, were negotiated. In July 1989, the VRAs were extended for two and one half years until March 31, 1992.

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<sup>14</sup> *Stainless Steel Clad Plate from Japan, Inv. No. 731-TA-50 (Final)*, USITC Publication 1270, July 1982, p. 1.

<sup>15</sup> *Stainless Steel Clad Plate from Japan; Antidumping Duty Order*, 47 FR 34178, August 6, 1982, and *Stainless Steel Clad Plate from Japan; Final Results of Changed Circumstances and Revocation of Antidumping Duty Order*, 50 FR 38151, September 20, 1985.

<sup>16</sup> The petitions were filed by Armco, Bethlehem, Geneva, Gulf States, Ispat/Inland, Laclede Steel, LTV, Lukens, National, Sharon, USX, and WCI.

<sup>17</sup> *Certain Flat-Rolled Carbon Steel Products from Argentina, Australia, Austria, Belgium, Brazil, Canada, Finland, France, Germany, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Poland, Romania, Spain, Sweden, Taiwan, and the United Kingdom, Inv. Nos. 701-TA-319-354 and 731-TA-573-620 (Preliminary)*, USITC Publication 2549, August 1992, pp. 2-4.

<sup>18</sup> *Certain Flat-Rolled Carbon Steel Products from Australia, Austria, Belgium, Brazil, Canada, Finland, France, Germany, Italy, Japan, Korea, Mexico, the Netherlands, New Zealand, Poland, Romania, Spain, Sweden, and the United Kingdom, Inv. Nos. 701-TA-319-322, 334, 336-342, 344, and 347-353 and 731-TA-573-579, 581-592, 594-597, 599-609, and 612-619 (Final)*, USITC Publication 2664, August 1993, pp. 1-5.

<sup>19</sup> *Carbon and Alloy Steel Products, Inv. No. TA-201-51*, USITC Publication 1553, July 1984, p. 2.

<sup>20</sup> *Steel Import Relief Determination*, 49 FR 36813, September 20, 1984.

In 2001, the Commission determined that certain carbon and alloy steel, including clad steel plate, was being imported into the United States in such increased quantities as to be a substantial cause of serious injury to the domestic industry producing such articles, and recommended additional duties on imports for a period of four years.<sup>21</sup> On March 5, 2002, President George W. Bush announced the implementation of steel safeguard measures. Import relief relating to clad steel plate consisted of an additional tariff for a period of three years and one day (30 percent *ad valorem* on imports in the first year, 24 percent in the second year, and 18 percent in the third year).<sup>22</sup> Following receipt of the Commission's mid-term monitoring report in September 2003, and after seeking information from the U.S. Secretary of Commerce and U.S. Secretary of Labor, President Bush determined that the effectiveness of the action taken had been impaired by changed circumstances. Therefore, he terminated the U.S. measure with respect to increased tariffs on December 4, 2003.<sup>23</sup>

## STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

### Statutory Criteria

Section 751(c) of the Act requires Commerce and the Commission to conduct a review no later than five years after the issuance of an antidumping or countervailing duty order or the suspension of an investigation to determine whether revocation of the order or termination of the suspended investigation “would be likely to lead to continuation or recurrence of dumping or a countervailable subsidy (as the case may be) and of material injury.”

Section 752(a) of the Act provides that in making its determination of likelihood of continuation or recurrence of material injury—

*(1) IN GENERAL.-- . . . the Commission shall determine whether revocation of an order, or termination of a suspended investigation, would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time. The Commission shall consider the likely volume, price effect, and impact of imports of the subject merchandise on the industry if the order is revoked or the suspended investigation is terminated. The Commission shall take into account--*

*(A) its prior injury determinations, including the volume, price effect, and impact of imports of the subject merchandise on the industry before the order was issued or the suspension agreement was accepted,*

*(B) whether any improvement in the state of the industry is related to the order or the suspension agreement,*

*(C) whether the industry is vulnerable to material injury if the order is revoked or the suspension agreement is terminated, and*

*(D) in an antidumping proceeding . . . , (Commerce's findings) regarding duty absorption . . .*

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<sup>21</sup> *Steel; Import Investigations*, 66 FR 67304, December 28, 2001.

<sup>22</sup> *Presidential Proclamation 7529 of March 5, 2002, To Facilitate Positive Adjustment to Competition From Imports of Certain Steel Products*, 67 FR 10553, March 7, 2002. The President also instructed the Secretaries of Commerce and the Treasury to establish a system of import licensing to facilitate steel import monitoring.

<sup>23</sup> *Presidential Proclamation 7741 of December 4, 2003, To Provide for the Termination of Action Taken With Regard to Imports of Certain Steel Products*, 68 FR 68483, December 8, 2003. Import licensing, however, remained in place through March 21, 2005, and continues in modified form at this time.

(2) *VOLUME.*--In evaluating the likely volume of imports of the subject merchandise if the order is revoked or the suspended investigation is terminated, the Commission shall consider whether the likely volume of imports of the subject merchandise would be significant if the order is revoked or the suspended investigation is terminated, either in absolute terms or relative to production or consumption in the United States. In so doing, the Commission shall consider all relevant economic factors, including--

(A) any likely increase in production capacity or existing unused production capacity in the exporting country,

(B) existing inventories of the subject merchandise, or likely increases in inventories,

(C) the existence of barriers to the importation of such merchandise into countries other than the United States, and

(D) 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.

(3) *PRICE.*--In evaluating the likely price effects of imports of the subject merchandise if the order is revoked or the suspended investigation is terminated, the Commission shall consider whether--

(A) there is likely to be significant price underselling by imports of the subject merchandise as compared to domestic like products, and

(B) imports of the subject merchandise are likely to enter the United States at prices that otherwise would have a significant depressing or suppressing effect on the price of domestic like products.

(4) *IMPACT ON THE INDUSTRY.*--In evaluating the likely impact of imports of the subject merchandise on the industry if the order is revoked or the suspended investigation is terminated, the Commission shall consider all relevant economic factors which are likely to have a bearing on the state of the industry in the United States, including, but not limited to--

(A) likely declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity,

(B) likely negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, and

(C) 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.

*The Commission shall evaluate all such relevant economic factors . . . within the context of the business cycle and the conditions of competition that are distinctive to the affected industry.*

Section 752(a)(6) of the Act states further that in making its determination, “the Commission may consider the magnitude of the margin of dumping or the magnitude of the net countervailable subsidy. If a countervailable subsidy is involved, the Commission shall consider information regarding the nature of



the countervailable subsidy and whether the subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement.”

## Organization of the Report

Information obtained during the course of the review that relates to the statutory criteria is presented throughout this report. A summary of trade and financial data for clad steel plate as collected in the review is presented in appendix C. U.S. industry data are based on the questionnaire responses of four firms that are believed to have accounted for nearly all domestic production of clad steel plate in 2011.<sup>24</sup> U.S. import data and related information are based on questionnaire responses covering the activities of three U.S. importers<sup>25 26</sup> of clad steel plate that are believed to have accounted for all known U.S. imports of clad steel plate from Japan and for nearly all U.S. imports of clad steel plate from other sources during the period for which data were collected (January 2006-June 2012). Foreign industry data and related information are based on the questionnaire responses of four producers of clad steel plate in Japan that are believed to have accounted for all current Japanese production of clad steel plate. Responses by U.S. producers, importers, purchasers, and foreign producers of clad steel plate to a series of questions concerning the significance of the existing antidumping duty order and the likely effects of revocation of such order are presented in appendix D.

## COMMERCE’S REVIEWS

### Administrative Reviews<sup>27</sup>

Commerce has initiated only one administrative review for firms covered by the antidumping duty order on clad steel plate from Japan. In 2000, Commerce initiated, and subsequently rescinded, a review for the period January 4, 1999 through July 30, 2000.<sup>28</sup>

### Five-Year Review

On May 30, 2012, Commerce issued the final results of its expedited review with respect to clad steel plate from Japan. In its final results, Commerce found that revocation of the antidumping duty order on clad steel plate from Japan would be likely to lead to continuation or recurrence of dumping at margins determined in its original final determination.<sup>29</sup> Table I-2 presents the dumping margins as calculated by Commerce in its original investigation, first review, second review, and third review.

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<sup>24</sup> Two U.S. producers, Pacific Aerospace and High Energy Metals, Inc., did not respond to the Commission’s questionnaire but provided information which indicated that their firms account for a minor amount of U.S. clad steel plate production. Pacific Aerospace estimated that from \*\*\*. Email from \*\*\*, September 26, 2012. High Energy Metals, Inc. estimated that \*\*\*. Email from \*\*\*, October 5, 2012.

<sup>25</sup> \*\*\*.

<sup>26</sup> \*\*\*’ purchaser questionnaire response identified imports of clad steel plate from \*\*\*. Proprietary Customs’ data confirmed imports of clad steel plate from \*\*\*. These imports are included in the data reported throughout the staff report. The \*\*\* value of imports may be somewhat overstated because it is based on the purchase price reported by \*\*\* rather than landed duty paid value.

<sup>27</sup> Commerce has not issued any duty absorption findings with respect to clad steel plate from Japan.

<sup>28</sup> *Clad Steel Plate from Japan: Rescission of Antidumping Duty Administrative Order*, 65 FR 60615, October 12, 2000.

<sup>29</sup> *Clad Steel Plate from Japan: Final Results of the Expedited Third Sunset Review of the Antidumping Duty Order*, 77 FR 31834, May 30, 2012.

**Table I-2****Clad steel plate: Commerce’s original, first five-year review, second five-year review, and third five-year review antidumping duty margins for producers/exporters in Japan**

<b>Producer/exporter</b>	<b>Original margin (percent)</b>	<b>First five-year review margin (percent)</b>	<b>Second five-year review margin (percent)</b>	<b>Third five-year review margin (percent)</b>
The Japan Steel Co. (Japan Steel Works, Ltd.)	118.53	118.53	118.53	118.53
All others	118.53	118.53	118.53	118.53

Source: *Notice of Antidumping Duty Order: Clad Steel Plate from Japan*, 61 FR 34421, July 2, 1996; *Final Results of Expedited Sunset Review: Clad Steel Plate from Japan*, 66 FR 51007, October 5, 2001; *Clad Steel Plate from Japan; Final Results of the Expedited Sunset Review (Second Review) of the Antidumping Duty Order*, 72 FR 4482, January 31, 2007; *Clad Steel Plate from Japan: Final Results of the Expedited Third Sunset Review of the Antidumping Duty Order*, 77 FR 31834, May 30, 2012.

## THE SUBJECT MERCHANDISE

### Commerce’s Scope

The imported product subject to this review, as defined by Commerce in its original antidumping duty order, is as follows.

The scope of the order is all clad<sup>30</sup> steel plate of a width of 600 millimeters (mm) or more and a composite thickness of 4.5 mm or more. Clad steel plate is a rectangular finished steel mill product consisting of a layer of cladding material (usually stainless steel or nickel) which is metallurgically bonded to a base or backing of ferrous metal (usually carbon or low alloy steel) where the latter predominates by weight. Stainless clad steel plate is manufactured to American Society for Testing and Materials (ASTM) specifications A263 (400 series stainless types) and A264 (300 series stainless types). Nickel and nickel–base alloy clad steel plate is manufactured to ASTM specification A265. These specifications are illustrative but not necessarily all–inclusive.<sup>31</sup>

<sup>30</sup> Cladding is the association of layers of metals of different colors or natures by molecular interpenetration of the surfaces in contact. This limited diffusion is characteristic of clad products and differentiates them from products metalized in other manners (*e.g.*, by normal electroplating). The various cladding processes include pouring molten cladding metal onto the basic metal followed by rolling; simple hot-rolling of the cladding metal to ensure efficient welding to the basic metal; any other method of deposition or superimposing of the cladding metal followed by any mechanical or thermal process to ensure welding (*e.g.*, electrocladding), in which the cladding metal (nickel, chromium, etc.) is applied to the basic metal by electroplating, molecular interpenetration of the surfaces in contact then being obtained by heat treatment at the appropriate temperature with subsequent cold rolling. *See* Harmonized Commodity Description and Coding System Explanatory Notes, Chapter 72, General Note (IV) (C) (2) (e).

<sup>31</sup> *Notice of Antidumping Order: Clad Steel Plate from Japan*, 61 FR 34421, July 2, 1996.

## Tariff Treatment

Clad steel plate is classifiable in the Harmonized Tariff Schedule of the United States (“HTS”) under subheading 7210.90.10. The column 1-general rate of duty for HTS subheading 7210.90.10 is “free.” At the time of the original investigation (1996), the normal trade relations tariff rate was 5.2 percent *ad valorem*. However, this subheading was accorded staged reductions starting in 1995, such that the normal trade relations tariff rate was reduced to 2.0 percent *ad valorem* at the time the first review was instituted in 2001. By the time of the second review, clad steel plate that entered under this subheading was free of duty.<sup>32</sup>

## THE PRODUCT

### Description and Applications

The imported product subject to this review is clad steel plate, of a width of 600 mm (approximately 24 inches) or more and a thickness of 4.5 mm (approximately 3/16 inch) or more.<sup>33</sup> The product is a flat-rolled, corrosion-resistant, steel plate product composed of a cladding plate that is metallurgically bonded to a steel backing plate. The cladding plate is of a corrosion-resistant metal such as stainless steel, nickel-based alloy, copper, or titanium, and is generally 10 to 20 percent of the total thickness of the composite. The backing plate, which is the remainder of the composite, is usually of carbon steel and provides the required physical strength of the clad composite.

Clad steel plate is used to manufacture vessels or structures for heavy industry projects where corrosion-resistance qualities are essential. End users of clad steel plate include chemical and petrochemical companies, the shipbuilding industry, electric utilities, pulp and paper companies, and other producers of industrial and defense equipment.<sup>34</sup> The petrochemical industry, specifically the hydrocarbon processing industry, which includes petroleum refining and petrochemical and chemical processing, consumed as much as \*\*\* percent of clad products used in the United States in the mid-1990s according to estimates made by Lukens during the original investigation. Processing vessels for the chemical and petroleum refining industries continue to be a major end use market for clad steel plate.<sup>35</sup> Clad steel plate also is used in flue gas desulfurization systems that remove sulfur from exhaust gas in coal-fired power plants.

The manufacture of clad steel pipe for sour drilling applications and ocean development of natural gas, particularly in Asia, is an increasingly important application for clad steel plate.<sup>36</sup>

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<sup>32</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Review)*, USITC Publication 3907, March 2007, p. I-7.

<sup>33</sup> Clad steel flat-rolled products of a thickness of less than 4.5 mm would generally be considered sheet, rather than plate.

<sup>34</sup> See, e.g., “Industries” <http://dynamicmaterials.com/industries.html>. Accessed October 25, 2012.

<sup>35</sup> Hearing transcript, pp. 15-16 (Insetta).

<sup>36</sup> Hearing transcript, p. 134 (Esumi) and p. 146 (Moran).

## Manufacturing Processes

Clad steel plate is produced by *roll bonding* and *explosion bonding*. Roll bonding<sup>37</sup> is accomplished by heating and rolling, on a conventional steel plate mill, a pack comprising plates of cladding alloy and steel backing welded together around the edges. For most roll-bonded clad steel plate, each pack comprises two backing-steel plates and two cladding inserts and yields two finished clad steel plates.<sup>38</sup> The flow chart for the manufacture of roll-bonded clad steel plate at ArcelorMittal Coatesville is shown in figure I-1. The process is illustrated schematically in figure I-2. The thickness and surface dimensions of the cladding plate and the backing plate are chosen to produce the required finished dimensions after rolling. As illustrated in figure I-2, the backing plates are on the top and bottom of each pack, and the cladding plates are in between. A parting compound is spread on the surfaces between the two cladding plates so that they do not bond to one another during processing. The packs are welded around the outside to hold them together during rolling. Heating and rolling reduces the thickness and metallurgically bonds the cladding to the backing steel. A reduction in thickness of at least 3:1 is normally required for metallurgical reasons. After rolling, packs may be heat treated to develop the required strength and corrosion resistance of the clad steel plates.<sup>39</sup> The edges of the packs are cut, each pack yielding two separate clad steel plates.

The roll-bonding process used by JFE is similar to that used by ArcelorMittal and is illustrated in figure I-3.

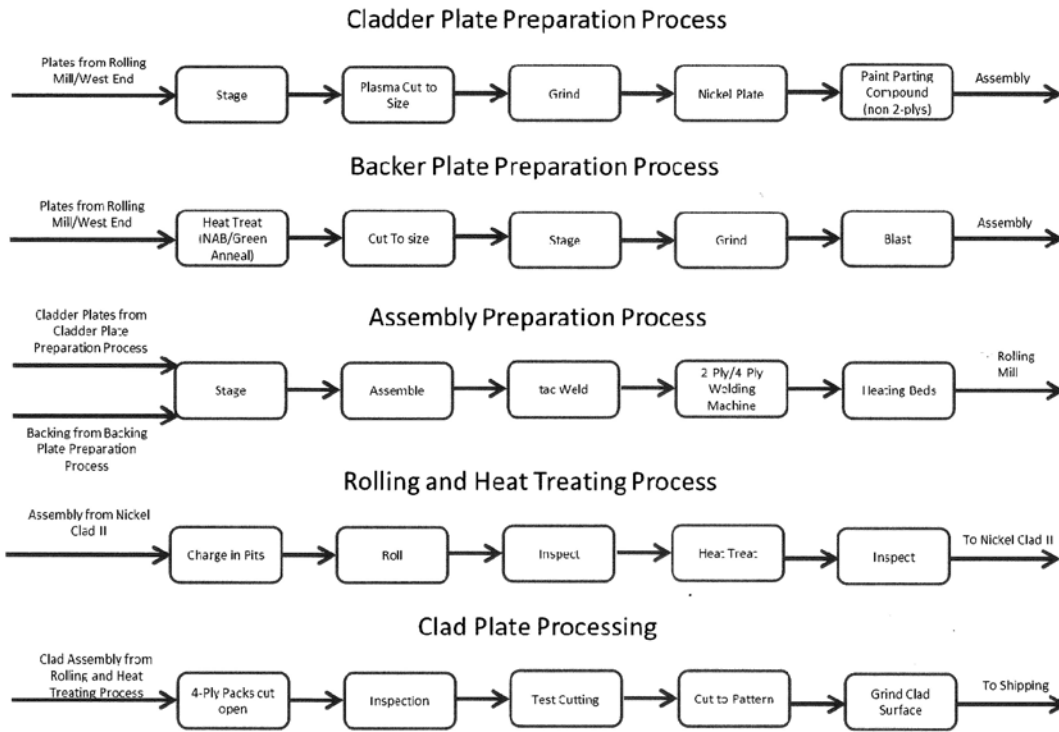
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<sup>37</sup> This description of the roll bonding process is based upon a plant visit to ArcelorMittal, Coatesville, PA, October 10, 2012.

<sup>38</sup> Heavier gauge (i.e., thick) roll-bonded clad steel plate may be produced using a 2-ply pack comprising a single backing plate and a single cladding plate. See attachment to \*\*\*.

<sup>39</sup> The heat treatment normally required for clad steel plate involves heating of the plate and cooling in air at a controlled rate. Such heat treatment usually takes place in a continuous furnace (one through which the plate is conveyed on rollers) although it may be done in any type of furnace that allows close control of the temperature. \*\*\*. \*\*\*.

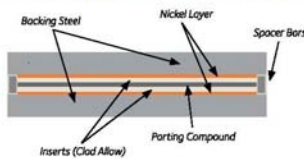
**Figure I-1**  
**Clad steel plate: Roll bonding process as used by ArcelorMittal**



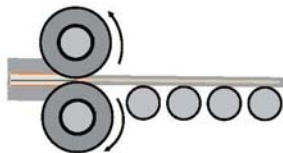
Source: ArcelorMittal USA LLC.

**Figure I-2**  
**Clad steel plate: Roll bonding process as used by ArcelorMittal**

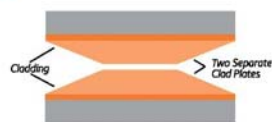
**Figure 1**  
**Schematic Assembly of 4-Ply Roll-Bonded Clad**



**Figure 2**  
**Hot Rolling Schematic 4-Ply Roll-Bonded Clad**

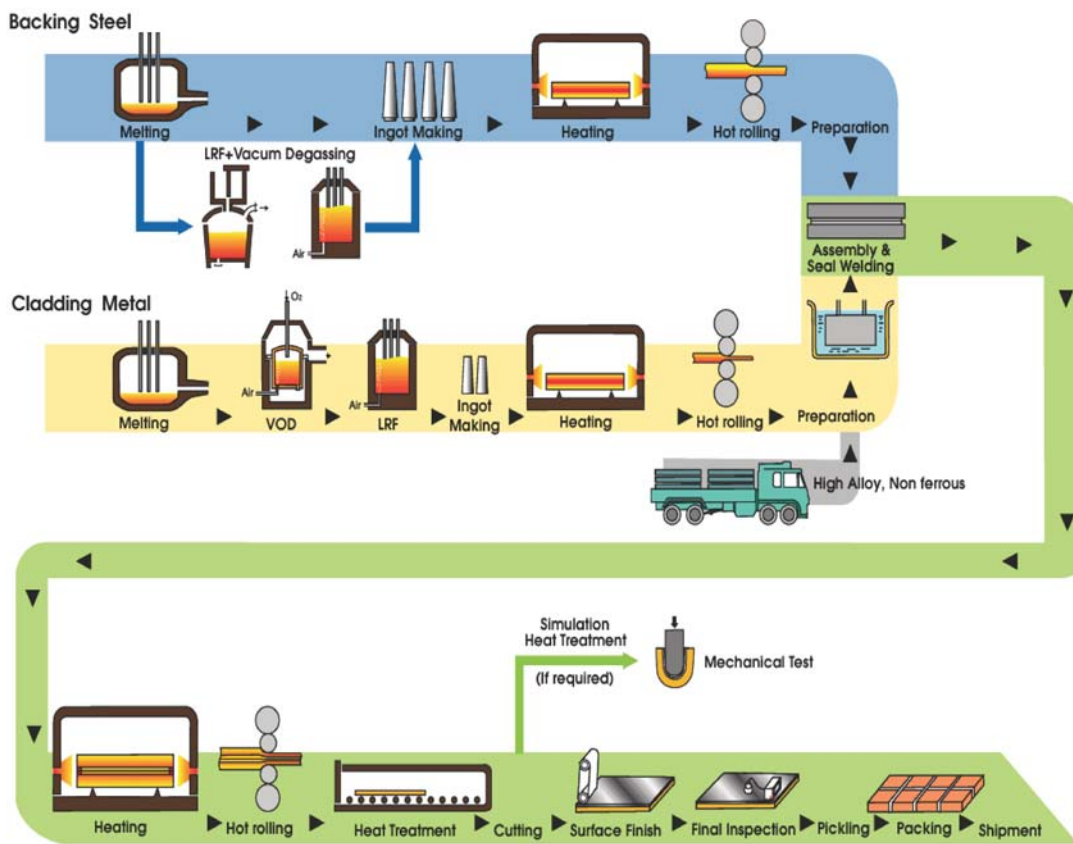


**Figure 3**



Source: ArcelorMittal USA LLC.

**Figure I-3**  
**Clad steel plate: Roll bonding process as used by JFE**



Source: JFE Steel Corporation.

Explosion bonding<sup>40</sup> is accomplished by placing a sheet or plate of cladding material over a plate of backing steel and then covering the cladding plate with a layer of explosive. An explosion is initiated on one edge of the cladding material and travels across the surface, forcing the two metal components together and creating a metallurgical bond between them.<sup>41</sup> Because there is no rolling or reduction in the thickness of the plate, the thickness and surface dimensions of the cladding and of the backing steel plate are the same as in the finished clad steel plate. In addition, because the heat generated in the explosion bonding affects only a small part of the thickness of the clad steel plate, heat treatment of the clad steel plate is normally not required.<sup>42</sup> Figure I-4 illustrates the explosion-bonding process.

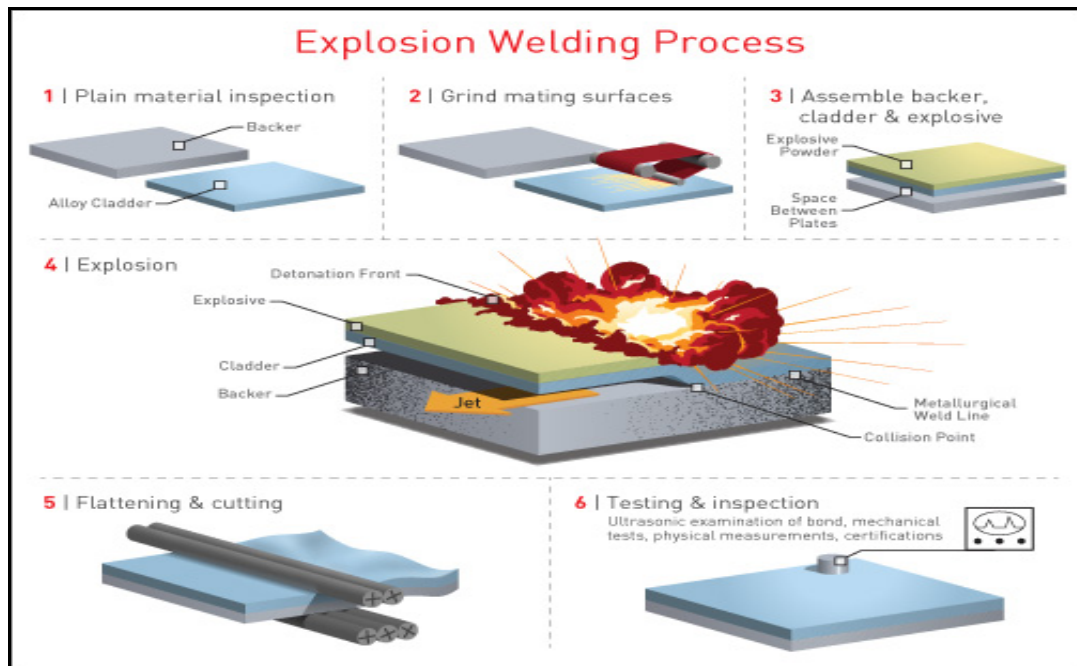
Finishing of clad steel plate, whether produced by roll bonding or by explosion bonding, consists of flattening, cleaning of surfaces by grit blasting or other means, polishing of the cladding surface by belt grinding, cutting to final surface dimensions, inspection, and testing.

<sup>40</sup> This description of explosion bonding is based upon a plant visit to DMC, Mt. Braddock, PA, September 6, 2012.

<sup>41</sup> DMC, the largest U.S. producer of explosion-bonded clad steel plate, detonates in an underground location located in a former limestone mine. \*\*\*. Other producers of explosion-bonded clad steel plate detonate in remote outdoor locations.

<sup>42</sup> The component cladding and backing plates normally have been heat-treated by their manufacturers.

**Figure I-4**  
**Clad steel plate: Explosion bonding process as used by DMC**



Source: Dynamic Materials Corporation.

While roll bonding and explosion bonding are distinctly different processes, clad steel plate products produced by these two methods are largely interchangeable. Roll bonding is more commonly used for thin plate, whereas explosion bonding is more common for thick plate. \*\*\*.

### DOMESTIC LIKE PRODUCT ISSUES

In its original determination, the Commission defined the domestic like product as clad steel plate coextensive with Commerce's scope.<sup>43</sup> In its first and second reviews, the Commission likewise defined the domestic like product as clad steel plate coextensive with Commerce's scope.<sup>44</sup> In its notice of institution in this current five-year review, the Commission solicited comments from interested parties regarding the appropriate domestic like product and domestic industry.<sup>45</sup> Domestic interested parties ArcelorMittal and DMC agree with the Commission's definitions of the domestic like product.<sup>46</sup> Two of the three responding Japanese producers, JFE and JSW, agree with the Commission's definitions of the domestic like product, but reserved the right to further analyze the issue.<sup>47</sup> The third responding Japanese producer, Nippon, did not have any comments.<sup>48</sup> No party requested the collection of like product information in the questionnaires.

<sup>43</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Final)*, USITC Publication 2972, June 1996, pp. 4-5.

<sup>44</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Review)*, USITC Publication 3459, October 2001, p. 4; *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Second Review)*, USITC Publication 3907, March 2007, p. 5.

<sup>45</sup> *Clad Steel Plate from Japan; Institution of a Five-Year Review*, 77 FR 5052, February 1, 2012.

<sup>46</sup> Domestic interested parties' prehearing brief, p. 5.

<sup>47</sup> *Substantive Response* of JFE and JSW, p. 7 and answer to question 13, respectively.

<sup>48</sup> *Substantive Response* of Nippon, p. 6.

## U.S. MARKET PARTICIPANTS

### U.S. Producers

During the original investigation, U.S. producers Ametek, DuPont, and Lukens supplied the Commission with information on their U.S. clad steel plate operations. In 1994, domestic producers estimated their share of domestic production to be: Ametek \*\*\* percent; DuPont \*\*\* percent; DMC \*\*\* percent; Lukens \*\*\* percent; and Vessel Clads \*\*\* percent. In 1995, Lukens accounted for \*\*\* percent; DuPont accounted for \*\*\* percent; and Ametek accounted for \*\*\* percent of reported U.S. production.<sup>49</sup>

In 2000, Bethlehem Lukens accounted for \*\*\* percent; DMC accounted for \*\*\* percent; Ametek accounted for \*\*\* percent; and Vee Cee Metals (formerly Vessel Clads) accounted for \*\*\* percent of U.S. production.<sup>50</sup> Bethlehem Lukens is the successor in interest to Lukens.

In 2005, Mittal estimated that it accounted for \*\*\* percent of U.S. production. Mittal also indicated that DMC and Ametek were still active in the market. Mittal is the successor in interest to Bethlehem Lukens. Vee Cee Metals was believed to have exited the industry.<sup>51</sup>

Lukens, Inc., the original petitioner, was acquired in 1997 by Bethlehem Steel Corp., and renamed Bethlehem Lukens. In 2003, Bethlehem Steel underwent bankruptcy and its assets, including Bethlehem Lukens, were acquired by International Steel Group. In 2005, International Steel Group was bought by Mittal Steel. Finally, in 2006, Mittal Steel and Arcelor merged, forming ArcelorMittal. ArcelorMittal is the largest steel company in the world, and is incorporated in Luxembourg.

Also in 2003, International Steel Group acquired the steel plate rolling mill and associated equipment owned by United States Steel Corp. and located at Gary, IN. U.S. Steel had \*\*\* to Ametek. When ISG subsequently shut down that plate rolling mill, it \*\*\* to Ametek, but at the Coatesville, PA, location. ArcelorMittal \*\*\*.<sup>52</sup>

DMC began production of clad steel plate shortly after its incorporation in 1976 under licenses from DuPont covering the explosion-bonding process. In 1996, DMC purchased DuPont's Detaclad Division; DuPont is no longer a producer of clad steel plate.<sup>53</sup>

In this current proceeding, the Commission issued producers' questionnaires to six firms, four of which provided the Commission with information on their clad steel plate operations. These firms are believed to account for almost all U.S. production of clad steel plate in 2011.<sup>54</sup> Table I-3 presents a list of current domestic producers of clad steel plate and each company's position on continuation of the order, production location(s), related and/or affiliated firms, and share of reported production of clad steel plate in 2011.

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<sup>49</sup> Confidential staff report, *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Final)*, Memorandum INV-T-044, June 3, 1996, p. III-1 n. 3 and table III-1.

<sup>50</sup> Confidential staff report, *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Review)*, Memorandum INV-Y-196, October 1, 2001, p. I-10.

<sup>51</sup> Confidential staff report, *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Second Review)*, Memorandum INV-EE-010, February 1, 2007, p. I-1 n. 4 and *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Second Review)*, USITC Publication 3907, March 2007, p. I-14.

<sup>52</sup> \*\*\*.

<sup>53</sup> <http://dynamicmaterials.com/about/history.html>.

<sup>54</sup> As previously mentioned, the two firms, Pacific Aerospace and High Energy Metals, Inc., that did not respond to the Commission's questionnaire account for a very limited amount of U.S. clad steel plate production.



**Table I-3**

**Clad steel plate: U.S. producers, positions on the orders U.S. production locations, related and/or affiliated firms, and shares of 2011 reported U.S. production**

<b>Firm</b>	<b>Position on continuation of the order</b>	<b>U.S. production location(s)</b>	<b>Related and/or affiliated firms</b>	<b>Share of production in 2011 (percent)</b>
Ametek	***	Eighty Four, PA	None	***
ArcelorMittal	Support	Coatesville, PA	Industeel (France)	***
DMC	Support	Mt. Braddock, PA	DynaPlat (Germany); NitroMetall (Sweden); and NobelClad (France)	***
High Energy Metals, Inc.	( <sup>1</sup> )	Sequim, WA	( <sup>1</sup> )	( <sup>1</sup> )
Pacific Aerospace	( <sup>1</sup> )	Sequim, WA	( <sup>1</sup> )	( <sup>1</sup> )
Regal Technology, Corp.	***	Columbus, OH	None	***
<sup>1</sup> Unavailable.				
Note.—Because of rounding, shares may not total to 100.0 percent.				
Source: Compiled from data submitted in response to Commission questionnaires.				

As indicated in the table above, no U.S. producers are related to Japanese producers of clad steel plate and none are related to U.S. importers of the subject merchandise. No U.S. producers directly import the subject merchandise and none purchase the subject merchandise from U.S. importers.

### **U.S. Importers**

In the original investigation, four U.S. importers supplied the Commission with usable information on their operations involving the importation of clad steel plate from Japan. These firms accounted for \*\*\* percent and \*\*\* percent of U.S. imports of clad steel plate in 1994 and 1995, respectively. The four U.S. importers that supplied the Commission with usable questionnaire information during the original investigation were \*\*\*. Two additional U.S. importers, \*\*\*, reported imports of clad steel plate from nonsubject countries, \*\*\*, respectively.<sup>55</sup> The first expedited review stated that supply from foreign producer, Voestalpine, had increased.<sup>56</sup> The second expedited review stated that U.S. imports of clad steel plate declined overall. Prior to U.S. safeguard measures on steel, France, Germany, the United Kingdom, and Austria, were sources of clad steel plate.<sup>57</sup>

<sup>55</sup> Confidential staff report, *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Final)*, Memorandum INV-T-044, June 3, 1996, p. IV-1 and n. 3.

<sup>56</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (First Review)*, USITC Publication 3459, October 2001, p. I-12.

<sup>57</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Second Review)*, USITC Publication 3907, March 2007, p. I-19.

In this current proceeding, the Commission issued importers' questionnaires to eight firms believed to be importers of clad steel plate, as well as to all six U.S. producers of clad steel plate.<sup>58</sup> The Commission received information and data from three companies regarding U.S. imports, representing 100 percent of clad steel plate imports from Japan and almost all known imports from all other countries. ConocoPhillips and Phillips 66 ("Phillips") (Houston, TX) imported clad steel plate from \*\*\*; Voestalpine USA Corp. ("Voestalpine") (Houston, TX) imported clad steel plate from \*\*\*; and York International Corp. ("York") imported clad steel plate from \*\*\*.<sup>59</sup>

### U.S. Purchasers

The Commission issued questionnaires to 19 purchasers,<sup>60</sup> 13 of which responded, and reported that they had purchased clad steel plate. Eleven of the 13 responding purchasers were end users or fabricators, one was a distributor, and one reported supplying clad steel plate to fabricators. The largest purchasers were \*\*\*. The other purchasers purchased less than 700 tons. Two purchased no U.S.-produced product since 2006 (\*\*\*). \*\*\*. Three firms purchased clad steel plate from nonsubject countries, \*\*\*.

### APPARENT U.S. CONSUMPTION

Table I-4 presents apparent U.S. consumption of clad steel plate during the period for which data were collected in this proceeding. Apparent U.S. consumption increased from 2006 through 2008, then declined in 2009 and 2010, consistent with trends in the broader economy.<sup>61</sup> Apparent U.S. consumption rose in 2011, though to levels still below 2006-08. Apparent U.S. consumption averaged approximately nine thousand short tons during 2006-08 but only approximately five thousand short tons during 2009-11. Annualized apparent U.S. consumption for 2012 is within the lower 2009-11 range.

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<sup>58</sup> The Commission received nine responses indicating that the firms did not import clad steel plate at any time during the period examined. One firm, \*\*\*, indicated it had imported \*\*\* under the incorrect HTS subheading and had since corrected its reporting with Customs. Email from \*\*\* August 10, 2012. Six firms reported that the product they entered into the United States did not meet the scope definition because it was wear resistant plate, welded overlay plate, and/or was plate less than 600 mm in width. See questionnaire responses for \*\*\*; email explanations for \*\*\*; and phone note for \*\*\*. The two remaining responses were received from U.S. producer \*\*\* and \*\*\*.

<sup>59</sup> Imports from \*\*\* were identified by purchaser \*\*\* and confirmed by proprietary Customs data. \*\*\* was the importer of record according to proprietary Customs data. \*\*\* appears to no longer exist as an independent entity. \*\*\* imported \*\*\* short tons in \*\*\*. These imports have been included in the data reported throughout the staff report. However, the \*\*\* value of imports may be somewhat overstated because it is based on the purchase price reported by \*\*\* rather than landed duty paid value.

<sup>60</sup> \*\*\*.

<sup>61</sup> DMC reports, "{w}e were only minimally impacted in 2008 by the global economic slowdown. However, during 2009 and 2010, we experienced a significant slowdown in Explosive Metalworking sales to some of the markets we serve." DMC 10Q for the quarterly period ended September 30, 2012, p. 17.

**Table I-4**

**Clad steel plate: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

**U.S. MARKET SHARES**

U.S. market share data are presented in table I-5.

**Table I-5**

**Clad steel plate: U.S. consumption and market shares, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*



## PART II: CONDITIONS OF COMPETITION IN THE U.S. MARKET

### U.S. MARKET CHARACTERISTICS

Between 2006 and 2011, U.S. production accounted for between \*\*\* percent (2008) and \*\*\* percent (2007 and 2009) of apparent U.S. consumption of clad steel plate, and most recently accounted for \*\*\* percent in 2011 and \*\*\* percent in January-June 2012. Imports of subject clad steel plate from Japan accounted for \*\*\* percent of apparent U.S. consumption in \*\*\*, the only year in which they were shipped (consumed). Imports of clad steel plate from nonsubject countries accounted for between \*\*\* percent of (2007, 2009, and 2010) and \*\*\* percent of apparent U.S. consumption (2008). Apparent U.S. consumption declined overall from \*\*\* short tons in 2006 to \*\*\* short tons in 2011 and peaked at \*\*\* short tons in 2008.

#### Channels of Distribution

Nearly all shipments of clad steel plate in the United States during 2006-11 were made directly to end users. Less than \*\*\* of U.S. producers' sales were to distributors \*\*\*, the only years with sales to distributors. The only importer of Japanese clad steel plate imported the product for its own use. U.S. importers of clad steel plate from nonsubject countries sold \*\*\* to end users.

#### Geographic Distribution<sup>1</sup>

U.S. producers (\*\*\*) reported selling clad steel plate to all regions in the contiguous United States. The only importer of clad steel plate from Japan reported \*\*\* and the one responding importer of clad steel plate from a nonsubject country (Austria) reported supplying the \*\*\* (table II-1). Three of four responding U.S. producers reported selling the majority of their product at distances greater than 1,000 miles, with \*\*\* selling \*\*\* percent at distances greater than 1,000 miles. Two producers (\*\*\*) reported selling 5 to 10 percent within 100 miles of their plant. Three producers reported selling 20 to 30 percent of their product over 100 miles but under 1,000 miles from their production facility.<sup>2</sup>

**Table II-1**

**Clad steel plate: Geographic market areas in the United States served by U.S. producers and importers**

Region	U.S. producers	Imports from Japan	Imports from other countries
	Number of firms		
Northeast	4	***	***
Midwest	4	***	***
Southeast	4	***	***
Central Southwest	3	***	***
Mountains	3	***	***
Pacific Coast	3	***	***
Other <sup>1</sup>	1	***	***

<sup>1</sup> All other U.S. markets, including AK, HI, PR, and VI, among others.

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

<sup>1</sup> No importers sold Japanese product. One importer purchased Japanese product for its own use.

<sup>2</sup> \*\*\* of its product in this range.

## SUPPLY AND DEMAND CONSIDERATIONS

### U.S. Supply

#### **Domestic Production**

Based on available information, U.S. clad steel plate producers are able to respond to changes in demand with relatively large changes in the quantity of shipments of U.S.-produced clad steel plate to the U.S. market. The main contributing factors to the high degree of responsiveness of supply are the availability of unused capacity and the existence of large exports which could be sold in the United States.

#### ***Industry capacity***

Reported domestic capacity increased from \*\*\* short tons in 2006 to \*\*\* short tons in 2011. Capacity utilization decreased from \*\*\* to \*\*\* percent between 2006 and 2011; in 2007 capacity utilization peaked at \*\*\* percent while it reached its lowest level at \*\*\* percent in 2009. This relatively low level of capacity utilization suggests that U.S. producers may have a large amount of capacity available to increase production of clad steel plate in response to an increase in prices.

#### ***Alternative markets***

U.S. producers' exports increased irregularly from \*\*\* short tons in 2006 to \*\*\* short tons in 2011; and as a percentage of total shipments, increased irregularly from \*\*\* percent of shipments in 2006 to \*\*\* percent in 2011. These data indicate that U.S. producers may have great ability to shift shipments between the U.S. market and other markets in response to price changes. Two U.S. producers (\*\*\*) reported no tariffs or barriers to trade in foreign markets. \*\*\* reported that it is "virtually impossible" for the company to sell product into \*\*\*.

#### ***Inventory levels***

U.S. producers' inventories decreased irregularly from \*\*\* short tons in 2006 to \*\*\* short tons in 2011; and inventories as a ratio to total shipments decreased irregularly from \*\*\* percent in 2006 to \*\*\* percent in 2011.<sup>3</sup> These inventory levels, along with the fact that almost all product is produced-to-order, suggest that U.S. producers may have limited ability to use inventories to respond to changes in demand.

#### ***Production alternatives***

All four responding producers stated that they could not switch production from clad steel plate to other products. Three of four responding producers indicated that they did not produce or anticipate producing other products on the same equipment and machinery used in the production of clad steel plate and/or using the same production and related workers employed to produce clad steel plate. \*\*\* reported that it did use equipment, machinery, and/or workers for clad steel in the production of \*\*\*.

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<sup>3</sup> \*\*\*. Email from \*\*\*, November 2, 2012.

## **Subject Imports from Japan**

Based on available information, Japanese producers are able to respond to changes in demand with relatively large changes in the quantity of shipments of clad steel plate to the U.S. market. The main contributing factors to the high degree of responsiveness of supply are the availability of unused capacity and the existence of alternate markets.

### ***Industry capacity***

Japanese capacity allocated to clad steel plate increased from \*\*\* short tons in 2006 to \*\*\* short tons in 2011. Japanese capacity is more than \*\*\* times apparent U.S. consumption in any year between 2006 and 2011. Japanese producers' reported capacity utilization rates decreased from \*\*\* percent in 2006 to \*\*\* percent in 2011.<sup>4</sup> This high level of capacity and moderate capacity utilization rate indicates that Japanese producers have large amounts of unused capacity with which they could increase production of clad steel plate in the event of a price change.

### ***Alternative markets***

Japanese producers reported no shipments to the United States.<sup>5</sup> Shipments to other export markets increased from \*\*\* percent of shipments to \*\*\* percent of shipments between 2006 and 2011. In 2011, \*\*\* percent of shipments went to Asia, \*\*\* percent to the EU, and \*\*\* percent went to other markets. Internal consumption increased from \*\*\* percent in 2006 to \*\*\* percent in 2011.<sup>6</sup> Other shipments to the Japanese home market decreased from \*\*\* percent of shipments in 2006 to \*\*\* percent of shipments in 2011, thus Japan's overall share of shipments fell from \*\*\* percent in 2006 to \*\*\* percent in 2011. These data indicate that producers in Japan can divert shipments from alternative markets to the U.S. market in response to changes in the price of clad steel plate.

### ***Inventory levels***

Japanese producers' reported inventories ranged from \*\*\* percent of total shipments in 2007 to \*\*\* percent of shipments in 2006. The low level of inventories reflects the made-to-order nature of clad steel plate. Japanese producers have little ability to use inventories as a means of increasing shipments of clad steel plate to the U.S. market.

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<sup>4</sup> Japanese producers report that capacity for clad steel plate is more difficult to measure than capacity for steel products with continuous production runs. Production efficiency, they contend, is dictated by "production bottlenecks and by other factors such as welding, thickness of plate, width of plate and types or grades of steel." Hearing transcript, pp. 136-137 (Asano). U.S. producers, however, point to instances in which Japanese producers reached or exceeded reported capacity levels, indicating that Japanese producers' low capacity utilization reflects low demand rather than inability to produce at high capacity utilization rates. Domestic interested parties' posthearing brief, ex. 1, pp. 2-3

<sup>5</sup> The only Japanese subject imports reported \*\*\*.

<sup>6</sup> Internal consumption is for pipe production. U.S. producers report that demand for pipe is more cyclical than demand for vessels. Hearing transcript, pp. 115-117 (Nicol and Blakely). Japanese producers report that they "expect significant increases in demand for clad plate for pipe end uses in the near future," increasing both internal consumption and sales of clad steel plate for use in pipe in Asia. Hearing transcript, pp. 138-139 (Asano).

## ***Production alternatives***

One of the four responding Japanese producers (\*\*\*) indicated that it produced or anticipated producing \*\*\* on the same equipment and machinery used in the production of clad steel plate and/or using the same production and related workers employed to produce clad steel plate.

## **Nonsubject Imports**

There was relatively little importation of clad steel plate from nonsubject countries. Nonsubject imports reached their peak in 2008 at \*\*\* percent of apparent U.S. consumption. The largest source of nonsubject imports during the review period was Austria, followed by Germany. Austria accounted for \*\*\* percent of all imports from nonsubject sources between 2006 and 2011. Germany accounted for all other imports from nonsubject sources.

Two of three responding U.S. producers (\*\*\*) indicated that the availability of nonsubject imported clad steel plate has changed since 2006. Both of these producers mentioned that Voestalpine of Austria has increased its capacity, and one reported that Voestalpine was aggressively pursuing sales in the U.S. market and that other nonsubject producers were also increasing capacity. \*\*\* responding importers reported no change in availability of clad steel plate from nonsubject countries.

## **New Suppliers**

None of the purchasers reported any new suppliers entering the U.S. market since 2006. One purchaser, however, expects new entrants from China in the future.

## **U.S. Demand**

Based on available information, the overall demand for clad steel plate is likely to have a small to moderate change in response to changes in price. The main contributing factors to the small-to-moderate degree of responsiveness of demand is the limited number of substitute products for clad steel plate and because demand for vessels made using clad steel plate appears to be relatively price insensitive. This responsiveness is somewhat mitigated by the fact that clad steel plate is an intermediate product.<sup>7</sup>

## **End Uses**

Demand for clad steel plate depends on the level of demand for the intermediate products in which it is used. End uses reported include: pressure vessels for the petrochemical industry (reported by 5 purchasers); pressure vessels for the power (2), polysilicon (1), and titanium industries (1); liquid chillers incorporating pressure vessels for HVAC (1); magnesium reservoir containers (1); magnesium storage containers (1); and tower construction (1).<sup>8</sup> Two of the three responding producers, \*\*\* responding importer, all 10 responding purchasers, and all four responding Japanese producers reported no changes in end uses.<sup>9</sup>

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<sup>7</sup> Domestic producers and Japanese producers report that demand for clad plate has declined as it has become common to import finished products rather than the clad plate. Hearing transcript, pp. 15, 155 (Insetta and Moran).

<sup>8</sup> Other uses reported include shipbuilding, pulp and paper making, defense applications, and pipe. Hearing transcript, pp. 21, 115-116 (Nicol).

<sup>9</sup> The one producer reporting a change in end uses reported the increasing availability of steel plate with weld overlay.



The Energy Information Administration reported that the number of operable U.S. “petroleum and other liquid” refineries increase from 149 in 2006 and 2007 to 150 in 2008 and 2009, decreased to 148 in 2010 and 2011 and 144 in 2012.<sup>10</sup> When asked about demand for their end-use product, three purchasers reported that demand had increased, three reported that it had decreased, three reported it had fluctuated, and one reported demand was unchanged. Seven purchasers reported that this downstream demand change had affected their demand for clad steel plate. Five purchasers explained how demand for clad steel plate had changed with demand for their products: one of these reported an increase in purchases since it had never purchased clad steel plate before; one reported decreased purchases because it had made no purchases since 2008; one reported fluctuating purchases as the product it produced was made to order; \*\*\*, and one reported that the expansion plans (of firms purchasing vessels) had slowed, reducing the need for clad steel plate for vessel fabrication.

Purchasers were asked how frequently they faced competition from imported vessels when they bid for contracts to build vessels. Three purchasers reported that they usually faced competition from potential importers of vessels, three reported they sometimes faced competition from importers of vessels, one rarely faced competition from importers of vessels, and two never faced competition from importers of vessels.<sup>11</sup> The amount of clad steel plate purchased becomes more sensitive to price when imported vessels can replace U.S.-produced vessels.

U.S. producers do not expect demand to increase to previous levels. Demand has fallen for use in scrubbers in coal fired power plants because of environmental regulations. Demand for use in nuclear powered plants is not expected to grow rapidly. Vessels are being imported into the country, displacing clad demand for these vessels.<sup>12</sup>

## **Business Cycles**

Three of four responding producers (\*\*\*), \*\*\* responding importers, and 3 of 12 responding purchasers indicated that the market was subject to business cycles or special conditions of competition. Reasons given for demand cycles included: individual industry specific cycles; global investment cycles; seasonal cycles in oil refining; political cycles (reflecting election years and the party in office in the domestic market and the world political scene); demand cycles for coke drums and vacuum towers; and refining cycles related to refined fuels and quality of crude source.

Both responding producers (\*\*\*) and two of three responding purchasers reported changes in business cycles or conditions of competition since 2006.<sup>13</sup> Reported changes include: refineries have canceled or put significant projects on hold because of EPA regulations and administrative actions; the recession has had a major impact; lack of “shop loading”; increased use of weld overlay in lieu of clad steel plates (although more clad steel plate will be used in the near future);<sup>14</sup> and cycles have become more severe and competitive as a result of U.S. energy policy and the situation in the Middle East.

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<sup>10</sup> The number of idle refineries was 7 in 2006, 4 in 2007 and 2008, 9 in 2009, 11 in 2010 and 2011, and 10 in 2012. [http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=8\\_NA\\_800\\_NUS\\_C&f=A](http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=8_NA_800_NUS_C&f=A). retrieved December 7, 2012.

<sup>11</sup> Twelve purchasers responded; three of these reported they did not know about competition from imported vessels.

<sup>12</sup> Hearing transcript, pp. 95-96, 100-101 (Insetta).

<sup>13</sup> The one importer that responded to this question, reported no changes.

<sup>14</sup> \*\*\*. Email from \*\*\*, November 2, 2012.

## Apparent Consumption

Available data indicate that total apparent U.S. consumption of clad steel plate increased from \*\*\* short tons in 2006 to \*\*\* short tons by 2008, decreased to \*\*\* short tons by 2010, and then increased to \*\*\* short tons in 2011. Overall, apparent U.S. consumption in 2011 was \*\*\* percent lower than in 2006.

## Demand Perceptions

All three responding U.S. producers (\*\*\*), 4 of 12 responding purchasers, and one of two responding Japanese producers reported that demand for clad steel plate in the U.S. market has fluctuated since 2006 (table II-2). \*\*\* and five purchasers reported that demand for clad steel plate in the U.S. market has not changed since 2006. Three purchasers and \*\*\* \*\*\* indicated that U.S. demand had decreased since 2006. \*\*\* reported demand had increased since 2006.

**Table II-2**  
**Clad steel plate: Firms' perceptions regarding demand inside the United States**

Item	Number of firms reporting			
	Increase	Decrease	Fluctuate	No change
<b>Demand for purchasers' final products since 2006</b>				
U.S. purchasers	3	3	4	2
<b>U.S. demand since 2006</b>				
U.S. producers	0	0	3	0
Importers	***	***	***	***
Purchasers	0	3	4	5
Foreign producers	0	1	1	0
<b>U.S. future demand</b>				
U.S. producers	0	0	3	0
Importers	***	***	***	***
Purchasers	1	2	3	5
Foreign producers	1	0	1	1

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

Firms' predictions of U.S. demand were similar to the changes they reported in demand since 2006, with a slight improvement anticipated.<sup>15</sup> Only two Japanese producers and two purchasers gave different responses on direction of change. One purchaser reported that demand had fluctuated since 2006 but that it expected future U.S. demand to increase as a result of increased demand for clad heat exchangers in the petrochemical industry. One purchaser reported decreased demand since 2006 due to

<sup>15</sup> Firms that expected changes in U.S. demand in the future to be similar to past changes in U.S. demand (since 2006) either gave similar answers for the reasons for these changes in the two periods or did not report why they expected future demand to change.

regulatory uncertainty, but reported that it expected future U.S. demand to fluctuate with regulatory restrictions.<sup>16</sup>

## Substitute Products

Firms were specifically asked if solid alloys<sup>17</sup> and carbon steel plate with weld alloys were substitutes for clad steel plate, as well as what other substitutes existed. All firms reporting substitutes for clad steel plate reported that solid alloys were substitutes including three U.S. producers,<sup>18</sup> \*\*\* importer, six purchasers,<sup>19</sup> and the one Japanese producer.<sup>20</sup> Firms reported that solid alloys could be used in vessels, tower construction, heat exchangers, braising pans,<sup>21</sup> and could be used by the power industry.<sup>22</sup> U.S. producers reported that solid alloys tended to be used to replace thinner product and that substitution varies with prices. Thus as the prices of alloys decline, use as solid alloy to replace clad steel plate increases. The Japanese producer reported that solid alloy could be used in chemical carriers, and to replace clad steel plate of 10 to 25 mm, and that the price of solid alloys substitutes did not affect the price of clad steel plate.<sup>23</sup>

Two U.S. producers (\*\*\*), \*\*\* importer, four purchasers, and one Japanese producer reported carbon steel plate with weld overlay was a substitute for clad steel plate. Carbon steel plate with weld overlay was reported to be used in vessels, tower construction, and heat exchangers. U.S. producers reported that carbon steel plate with weld overlay could substitute for clad steel plate over 2 or 3 inches in thickness and that the price of steel plate with weld overlay affected the price of clad steel plate. One U.S. producer (\*\*\*), however, reported that pricing pressure has increased as weld overlay producers have become more efficient.

Two U.S. producers<sup>24</sup> (\*\*\*) reported another substitute, non-metallic alternatives that were reported to be used in flue gas desulfurization and vessel construction. Both these producers reported that plate with non-metallic linings affected the price of clad steel plate.

The majority of responding firms reported no changes in substitutes since 2006. One U.S. producer (\*\*\*), however, reported the installation of more weld overlay equipment. Only one U.S.

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<sup>16</sup> One of the three purchasers that reported decreased demand since 2006 did not respond to the question on future demand. One Japanese producer expected future U.S. demand to increase because of shale gas development but it did not know how U.S. demand had changed since 2006; the other which had reported U.S. demand had declined since 2006 due to the antidumping duty order, expected future U.S. demand to be unchanged. However, ArcelorMittal observed that none of its clad steel plate was used in the natural gas market. Hearing transcript, p. 56, (Insetta).

<sup>17</sup> Solid alloys include duplex steel, a stainless steel product that should be as corrosion resistant as some used in clad steel plate and which is also particularly strong, although not as strong as carbon steel.

<sup>18</sup> \*\*\* reported that solid alloys was a substitute for clad steel plate. One U.S. producer reported that there were no substitutes for clad steel plate.

<sup>19</sup> Four purchasers reported that there were no substitutes for clad steel plate.

<sup>20</sup> Three Japanese producers reported that there were no substitutes for clad steel plate.

<sup>21</sup> These braising pans are used in large scale food preparation.

<sup>22</sup> [http://www.groenbraisingpan.com/groen\\_braising\\_pan\\_bpp\\_series\\_electric\\_braising\\_pan.html](http://www.groenbraisingpan.com/groen_braising_pan_bpp_series_electric_braising_pan.html), retrieved October 24, 2012.

<sup>23</sup> Purchasers provided inconsistent responses on the sizes for which clad steel plate could substitute for solid alloy.

<sup>24</sup> Since solid alloy plates are used in the production of clad steel plate, the price of the alloy used as an input affects the price of clad steel plate.

<sup>25</sup> No other firms reported other substitutes.

producer (\*\*\*) anticipates changes in the substitutability of other products for clad steel plate. It anticipated new technologies that improve weld overlay production.

## **Cost Share**

Clad steel plate accounts for a wide ranging share of the cost of the end-use products in which it is used. Reported cost shares ranged from 5 to 90 percent with seven firms reporting shares of 20 percent or less and six firms reporting shares of 60 percent or greater.<sup>25</sup> Responses also cover a wide range for the pressure vessels, the only product for which there were multiple answers.<sup>26</sup> Reported cost shares for different end uses are as follows:

- pressure vessels for petrochemical, power, or energy industry—5 to 75 percent
- pressure vessels for polysilicon—15 percent
- pressure vessels for titanium—80 percent
- pressure vessels for liquid chiller HVAC industry—6 percent
- magnesium reservoir containers—90 percent
- magnesium storage containers—60 percent
- flue gas scrubbing equipment—30 percent
- heat exchanges—20 percent
- cooking equipment—10 percent

## **SUBSTITUTABILITY ISSUES**

The degree of substitution between domestic and imported clad steel plate depends upon such factors as relative prices, quality (e.g., meeting industry standards, quality of the bond, surface quality, etc.), and conditions of sale (e.g., price, leadtimes between order and delivery dates, etc.). Based on available data, staff believes that there is a moderate degree of substitutability between U.S.-produced clad steel plate and that imported from Japan and other countries.<sup>27</sup>

## **Knowledge of Country Sources**

Ten of 13 responding purchasers indicated they had marketing/pricing knowledge of domestic clad steel plate (\*\*\*) one reported knowledge of Japanese clad steel plate (but not domestic clad steel plate), and two reported knowledge of product from another source (Austria).

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<sup>25</sup> Responses of firms that clearly did not understand the question were excluded, including firms that reported that clad steel plate was 100 percent of the cost of downstream products and firms that obviously reported the share of their clad steel plate used in different products, rather than cost shares.

<sup>26</sup> The cost of clad steel plate in pressure vessels reported were 5 percent, 10 percent, 20 percent, 50 percent, 65 percent, 70 percent, and 75 percent.

<sup>27</sup> U.S. producers argue that U.S. and Japanese products are highly substitutable rather than moderately substitutable. Domestic interested parties' prehearing brief, p. 16 footnote 7. The original investigation does not characterize the substitutability of U.S. and Japanese product as high or moderate but estimated the elasticity of substitution as being 2 to 4, as it is in this report. This is a moderate degree of substitution. Factors reducing their substitutability include: Japanese product is almost all roll bonded, U.S. product is mainly explosion bonded; Buy American provisions; preferences for U.S.-produced product; preference for continuing to use the same (U.S.) supplier; and differences in delivery times created by the need to transport produced-to-order clad steel plate product from Japan. U.S. producers report that "Buy American" provisions affect only a very small share of sales, less than 1 percent. Hearing transcript, pp. 102-104 (Blakely, Insetta, and Nicol).

As shown in the tabulation on the following page, most purchasers indicated that their firm only “sometimes” or “never” makes purchasing decisions for clad steel plate based on the producer or country of origin. Two purchasers reported that they “always” purchase based on the producer, with both these firms purchasing exclusively from \*\*\*. \*\*\*. The six purchasers which reported that they “sometimes” purchased based on the producer gave reasons including: different manufacturing process; preference for domestic materials; quality and destination of the clad material; customers make this decision; and purchase based on price and delivery. Six of 13 responding purchasers indicated that they “never” make purchasing decisions based on the country of origin of clad steel plate. The seven purchasers which reported that they “sometimes,” “usually,” or “always” purchase based on country of origin cited: perceived quality of domestic product, quality then price; prefer to purchase domestic product; and prefer domestic product, but price and availability are also important.<sup>28</sup>

<u>Purchaser/customer decision</u>	<u>Always</u>	<u>Usually</u>	<u>Sometimes</u>	<u>Never</u>
Purchaser makes decision based on producer	2	1	6	4
Purchaser's customer makes decision based on producer	1	2	4	5
Purchaser makes decision based on country	1	3	3	6
Purchaser's customer makes decision based on country	0	4	3	5

Five of 12 responding purchasers indicated that their customers “never” base their purchasing decisions on the producer, in contrast, 4 of the remaining 7 reporting their customers “sometimes” make decisions based on the producer. Seven of 12 responding purchasers indicated that their customers “usually” or “sometimes” base their purchasing decisions on the country of origin of clad steel plate and five purchasers reported that their customers “never” make purchasing decisions based either on the producer or on the country of origin of clad steel plate.

None of the 11 responding purchasers indicated that there are grades/types/sizes of clad steel plate available from only a single source.

### **Factors Affecting Purchasing Decisions**

The most often cited top three factors firms consider in their purchasing decisions for clad steel plate were price (12 firms), quality (9 firms), and delivery time (8 firms) (table II-3). Quality was the most frequently cited first most important factor (7 firms); delivery time was the most frequently reported second most important factor (5 firms); and price was reported as the third most important factor (6 firms).

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<sup>28</sup> One purchaser \*\*\*.

**Table II-3****Clad steel plate: Ranking of factors used in purchasing decisions as reported by U.S. purchasers**

Factor	Number of firms reporting			
	First	Second <sup>1</sup>	Third	Total
Quality	7	1	1	9
Price	3	3	6	12
Delivery time/lead time/delivery	1	5	2	8
Availability	2	3	0	5
Traditional supplier	0	1	1	2
Other <sup>2</sup>	0	1	3	4

<sup>1</sup> One purchaser responded both delivery and availability as their second most important factor; both are included in the table.

<sup>2</sup> Other factors include "process" as the second factor, terms, product range, and quality meets industry standards as the third factors.

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

Half of the responding purchasers (6 of 12) reported that they "usually" purchase the lowest-priced product, 3 "sometimes" purchased the lowest-priced product, and 3 "never" purchased the lowest-priced product.

The nine purchasers that reported purchasing clad steel plate from one source although a comparable product was available at a lower price from another source cited availability, transportation time, time to fill an order, \*\*\*, quality, customer approved manufacturer list, purchase only from one source and do not consider any other, purchase only from one source due to quality history, and the purchaser was not seeking other producers.

### Importance of Specified Purchase Factors

Purchasers were asked to rate the importance of 15 factors in their purchasing decisions (table II-4). The factors rated as "very important" by the majority of the responding purchasers were availability (13), delivery time, product consistency, and quality meets industry standards (11 each), reliability of supply and price (10 each), technical support/service (8), and minimum quantity requirement (7). Seven firms reported that packaging was not important, five firms reported that extension of credit was not important, and four firms reported that minimum quantity requirement was not important.

### Factors Determining Quality

Nine purchasers named one or more factors they consider in evaluating quality which included: meeting ASTM standards, or industry, purchaser or purchaser's customers' specifications; bonding quality such as bond strength, nonbonded areas, and depth of the bond; surface quality/finish; flatness; dimensions/thickness; \*\*\*, and timely response to quality issues. Two purchasers reported that their suppliers' quality was always high; one of these purchased from \*\*\* and the other purchased from \*\*\*.

**Table II-4****Clad steel plate: Importance of purchase factors, as reported by purchasers**

Factor	Very important	Somewhat important	Not important
	<i>Number of firms responding</i>		
Availability	13	0	0
Delivery terms	5	6	2
Delivery time	11	2	0
Discounts offered	3	7	2
Extension of credit	2	5	5
Price	10	3	0
Minimum quantity requirements	7	2	4
Packaging	1	4	7
Product consistency	11	2	0
Quality meets industry standard	11	1	0
Quality exceeds industry standard	4	8	1
Product range	4	9	0
Reliability of supply	10	2	1
Technical support/service	8	3	1
U.S. transportation costs	5	5	2

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

**Supplier Certification**

Nine of the 13 responding purchasers require ASTM certification of all the clad steel plate they purchase.<sup>29</sup> Four reported requiring other supplier qualifications. Eight purchasers provided details on the required qualification which included: quality, quality history, references, technical capability of supplier, finish, meet customer specifications, reliability, price, on-time delivery, \*\*\*, and delivery time. New supplier qualification times ranged from 2 to 90 days, with four of the seven responding purchasers reporting times of 30 to 45 days.

**Changes in Purchasing Patterns**

Purchasers were asked about changes in their purchasing patterns from different sources since 2006 (table II-5). Purchasers reported that purchases of U.S. product had fluctuated with customer/product requirements (reported by four purchasers) and construction of large buildings (reported by one purchaser). One purchaser reported its purchases of U.S. product increased because it began purchasing in 2008. The purchasers that reported a decrease in purchases of U.S. product reported that this was due to market conditions in refinery upgrades and slowing expansions. The \*\*\* reported it “seldom purchased” any product. All three firms that purchased clad steel plate from a nonsubject country purchased it only in one year; this was the explanation reported for all changes in nonsubject purchases. All 13 responding purchasers reported that they had not changed suppliers since 2006. Only one purchaser expected new suppliers in the future, and expected this new supply to be from China.

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<sup>29</sup> One purchaser reported requiring ASTM for some product but did not specify the amount. It has included as requiring it for all its purchases.

**Table II-5****Clad steel plate: Changes in purchase patterns from of clad steel plate produced in the United States, Japan, and nonsubject countries**

Source of purchase	Increased	Constant	Decreased	Fluctuated	Did not purchase
U.S.	3	1	2	6	1
Japan	0	1	0	0	12
Other	1	0	1	1	10

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

**Importance of Purchasing Domestic Product**

Seven of 13 responding purchasers reported that purchasing U.S.-produced product was not an important factor in their purchasing decisions. Two reported that U.S. purchasers were required by law (one of these reported the share covered by this law was \*\*\* percent).<sup>30</sup> Five<sup>31</sup> reported that domestic product was required by customers, and the share covered by this ranged for 5 to 100 percent. Three required domestic product for other reasons. One reported if all clad steel plate were sourced from outside, then the U.S. clad manufacturers will disappear and purchase of domestic product would no longer be an option (it did not report the share of domestic it purchased but the suppliers it reported were domestic producers). One preferred the high quality of the domestic product (it purchased only domestic product). One preferred U.S. product because of integrity of the MTR (material test report) and translations (it purchased only domestic product).

**Comparisons of Domestic Products, Subject Imports, and Nonsubject Imports**

Purchasers were asked to compare clad steel plate produced in the United States, Japan, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 15 factors (table II-6) for which they were asked to rate the importance. Five purchasers compared U.S. and Japanese clad steel plate. The majority of responding purchasers found U.S. product and Japanese product to be comparable for 10 factors. The majority of those making the comparison reported that U.S. product was superior for availability, delivery terms, and delivery time. Two each reported U.S. product was superior and that U.S. and Japanese were comparable, and one reported that Japanese product was superior for price and reliability of supply. One purchaser compared U.S. product with product from a nonsubject country (\*\*\*). It reported that product was comparable for all factors except product range for which U.S. product was superior and product consistency and quality exceeds industry standards for which it reported that the clad steel plate from \*\*\* was superior. No purchaser compared Japanese product with product from nonsubject countries.

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<sup>30</sup> The other did not report the share covered by law.

<sup>31</sup> This includes one company that reported that U.S.-produced product was not important for its purchases.



**Table II-6**

**Clad steel plate: Comparisons between U.S.-produced, subject and nonsubject imported product as reported by U.S. purchasers**

Factor	U.S. vs Japan			U.S. vs Nonsubject <sup>1</sup>		
	S	C	I	S	C	I
Availability	3	2	0	0	1	0
Delivery terms	3	2	0	0	1	0
Delivery time	3	1	1	0	1	0
Discounts offered	2	3	0	0	1	0
Extension of credit	2	3	0	0	1	0
Price <sup>2</sup>	2	2	1	0	1	0
Minimum quantity requirements	2	3	0	0	1	0
Packaging	1	4	0	0	1	0
Product consistency	1	4	0	0	0	1
Quality meets industry standard	1	4	0	0	1	0
Quality exceeds industry standard	1	4	0	0	0	1
Product range	1	4	0	1	0	0
Reliability of supply	2	2	1	0	1	0
Technical support/service	2	3	0	0	1	0
U.S. transportation costs <sup>2</sup>	2	3	0	0	1	0

<sup>1</sup> The only nonsubject country for which there was a response was Austria.

<sup>2</sup> A rating of superior means that price/U.S. transportation cost is generally lower. For example, if a firm reported "U.S. superior", it meant that the U.S. product was generally priced lower than the imported product.

Note.--S=first listed country's product is superior; C=both countries' products are comparable; I=first listed country's product is inferior. No firm compared Japanese with nonsubject product.

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

In order to determine whether U.S.-produced clad steel plate can generally be used in the same applications as imports from Japan, producers, importers, and purchasers were asked whether the products can "always," "frequently," "sometimes," or "never" be used interchangeably (table II-7). All three responding producers (\*\*\*) reported that product from all three country pairs were "always" interchangeable, \*\*\*. Purchasers responses were more varied with the majority or one-half of responding purchasers indicating that product from the compared sources were "always" interchangeable. Two firms provided details, one purchaser (\*\*\*) reported that product from North America, Western Europe, South Africa, Japan, and Korea meets its quality standards, and other sources are considered in a case by case basis, while another purchaser reported that U.S. and Voestalpine product were always interchangeable.

**Table II-7**

**Clad steel plate: Perceived interchangeability between clad steel plate produced in the United States, Japan, and nonsubject countries<sup>1</sup>**

Country comparison	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of U.S. purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. Japan	3	0	0	0	***	***	***	***	3	1	1	0
U.S. vs. nonsubject	3	0	0	0	***	***	***	***	2	1	1	0
Japan vs. nonsubject	3	0	0	0	***	***	***	***	2	0	1	0

<sup>1</sup> Producers, importers, and purchasers were asked if clad steel plate produced in the United States and in other countries is used interchangeably.

Note.--“A” = Always, “F” = Frequently, “S” = Sometimes, “N” = Never.

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

As seen in table II-8, 10 of 12 responding purchasers reported that domestically produced clad steel plate “always” meets minimum quality specifications and the remaining 2 reported that they “usually” meet minimum quality specifications. The only responding purchaser reported that Japanese clad steel plate “usually” met minimum quality specifications. None of these purchasers provided details.

**Table II-8**

**Clad steel plate: Ability to meet minimum quality specifications, by source**

Country <sup>2</sup>	Number of firms reporting <sup>1</sup>			
	Always	Usually	Sometimes	Never
United States	10	2	0	0
Japan	0	1	0	0

<sup>1</sup> Purchasers were asked how often domestically produced or imported clad steel plate meets minimum quality specifications for their own or their customers' uses.

<sup>2</sup> One firm also responded “always” for Austria.

Source: Compiled from responses to Commission questionnaires.

In addition, producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of clad steel plate from the United States, Japan, or nonsubject countries. As can be seen in table II-9, most producers reported that differences other than price were “sometimes” or “never” important for all country pairs, and \*\*\* importer responding stated that there were \*\*\* differences other than price between U.S. product and product from both Japan and nonsubject countries. Three of the five responding purchasers reported that U.S. and Japanese clad steel plate “frequently” had differences other than price and one each reported “sometimes” and “always.” Two of the four responding purchasers reported that U.S. and nonsubject product “frequently” had differences other than price and one each reported “sometimes” and “always.” Two of the three responding purchasers reported that Japanese and nonsubject product “frequently” had differences other than price, and one reported “always.” Two purchasers explained their answers. One reported that the delivery times were sometimes better from Japan, and one reported that U.S. product “frequently” had differences other than price with product by Voestalpine but did not report what these were. The one responding importer, \*\*\*, reported that quality was the most significant factor, and as a result it tended to purchase \*\*\*.

**Table II-9**

**Clad steel plate: Perceived significance of differences other than price between clad steel plate produced in the United States, Japan, and nonsubject countries<sup>1</sup>**

Country comparison	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of U.S. purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. Japan	0	0	0	3	***	***	***	***	1	3	1	0
U.S. vs. nonsubject	0	0	1	2	***	***	***	***	1	2	1	0
Japan vs. nonsubject	0	0	1	2	***	***	***	***	1	2	0	0

<sup>1</sup> Producers, importers and purchasers were asked if differences other than price between clad steel plate produced in the United States and in other countries were a significant factor in their sales (or purchases) of the products.

Note.--“A” = Always, “F” = Frequently, “S” = Sometimes, “N” = Never.

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

### ELASTICITY ESTIMATES

This section discusses elasticity estimates. Parties were asked to comment on these estimates in their briefs; comments were received from the U.S. producers. The comments did not specifically address the values reported for the substitution elasticities but disagreed with the characterization of U.S. and Japanese product as being moderately substitutable. This is addressed in footnote 27 above.

#### U.S. Supply Elasticity<sup>32</sup>

The domestic supply elasticity for clad steel plate measures the sensitivity of the quantity supplied by U.S. producers to a change in the U.S. market price of clad steel plate. The elasticity of domestic supply depends on several factors, including the level of excess capacity, the ease with which producers can alter capacity, producers’ ability to shift to the production of other products, the existence of inventories, and the availability of alternative markets for U.S.-produced clad steel plate. Analysis of these factors earlier indicates that the U.S. industry has a reasonably large ability to increase or decrease shipments to the U.S. market given a change in price levels. Staff estimates that the supply elasticity is between 5 and 10.

#### U.S. Demand Elasticity

The U.S. demand elasticity for clad steel plate measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of clad steel plate. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component share of clad steel plate in the production of downstream products. Based on available information, the demand elasticity for clad steel plate is likely to be in the range of -0.5 to -1.0.

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<sup>32</sup> A supply function is not defined in the case of a non-competitive market.

## Substitution Elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.<sup>33</sup> Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, size, thickness) and conditions of sale (e.g., availability, delivery). Based on this and other available information, the elasticity of substitution between U.S.-produced clad steel plate and subject imported clad steel plate is likely to be in the range of 2 to 4.<sup>34</sup>

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<sup>33</sup> The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and U.S. domestic like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject product (or vice versa) when prices change.

<sup>34</sup> Additionally, the elasticities of substitution between U.S.-produced clad steel plate and clad steel plate from nonsubject countries and between clad steel plate imports from Japan and nonsubject countries are likely to be in the same range. One exception would be Chinese clad steel plate which Japanese producers report does not compete with their product in third-country markets because of quality problems. Hearing transcript, p. 152 (Asano).

## PART III: CONDITION OF THE U.S. INDUSTRY

### OVERVIEW

#### Background

Information in this section is based on the questionnaire responses of four U.S. producers and is believed to account for nearly all U.S. production of clad steel plate. The four responding producers are located in Pennsylvania and Ohio, while two small non-responding producers are located in Washington.

#### Existing Operations

Domestic producers were asked to indicate whether their firm had experienced any plant openings, plant closings, relocations, expansions, acquisitions, consolidations, prolonged shutdowns or production curtailments, revised labor agreements, and any other changes in their clad steel plate operations since 2006. Three of the four responding producers experienced such changes; their responses are presented in table III-1.

**Table III-1**  
**Clad steel plate: Survey of industry events since January 1, 2006**

\* \* \* \* \*

#### Anticipated Changes in Existing Operations

The Commission asked domestic producers to report anticipated changes in the character of their operations relating to the production of clad steel plate. Three of the four firms did not anticipate such changes.<sup>1</sup> \*\*\* reported that an \*\*\* was being planned and was currently underway for its \*\*\* site. This \*\*\* will serve as \*\*\*.

### U.S. CAPACITY, PRODUCTION, AND CAPACITY UTILIZATION

U.S. producers' capacity, production, and capacity utilization data for clad steel plate are presented in table III-2. Capacity increased from 2006 to 2008 and remained relatively stable thereafter. The increase in reported capacity primarily reflects an expansion by \*\*\*. \*\*\* rolls 4-ply clad steel plate assemblies for \*\*\*. \*\*\*'s production of clad steel plate is limited by the \*\*\*.<sup>2</sup> While all companies experienced a decrease in capacity utilization from 2006-11, \*\*\*'s actual production was higher overall.

**Table III-2**  
**Clad steel plate: U.S. capacity, production, and capacity utilization, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

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<sup>1</sup> Producers \*\*\* reported that they anticipated no changes in the character of their operations.

<sup>2</sup> \*\*\*. *See also* \*\*\*.

## U.S. PRODUCERS' SHIPMENTS

Table III-3 presents U.S. producers' shipments of clad steel plate. The quantity of U.S. shipments fluctuated between 2006 and 2008, before declining sharply in 2009 and further declining in 2010. In 2011, U.S. shipments recovered to a level comparable to 2009, but still well below 2006-08 levels. Export shipments ranged from \*\*\* percent of total shipments in 2006 to a period high of \*\*\* percent of total shipments in 2010. \*\*\* accounted for the majority of export shipments followed by \*\*\*.<sup>3</sup> Exports to Asia are concentrated in Korea.<sup>4</sup>

Average unit values fluctuated over the period examined, due in part to product mix. \*\*\* reported the highest average unit values for U.S. shipments in three years, \*\*\* in one year, and the smaller producers in \*\*\* years. With respect to exports, \*\*\*'s average unit values were \*\*\* than \*\*\*'s average unit export values. \*\*\* reported internal consumption or transfers to related firms of clad steel plate. Figures III-1 and III-2 present U.S. shipments and U.S. exports by quantity and by share, respectively. Figures III-3, III-4, and III-5 present U.S. producers' U.S. shipments by cladding material, base metal, and total plate thickness, respectively.

**Table III-3**

**Clad steel plate: U.S. producers' shipments, by types, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

**Figure III-1**

**Clad steel plate: U.S. producers' U.S. shipments and exports, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

**Figure III-2**

**Clad steel plate: U.S. producers' U.S. shipments and exports, by share, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

**Figure III-3**

**Clad steel plate: U.S. producers' U.S. shipments by cladding material, 2011**

\* \* \* \* \*

**Figure III-4**

**Clad steel plate: U.S. producers' U.S. shipments by base metal, 2011**

\* \* \* \* \*

**Figure III-5**

**Clad steel plate: U.S. producers' U.S. shipments by total plate thickness, 2011**

\* \* \* \* \*

---

<sup>3</sup> \*\*\*. \*\*\*. \*\*\*.

<sup>4</sup> Hearing transcript, p. 49 (Cannon and Nicol).

Table III-4 presents U.S. producers' shipments of clad steel plate for July-September 2012; the quantity of clad steel plate shipped or on order for shipment during October-December 2012; and the quantity of clad steel plate on order for shipment during January-June 2013.

**Table III-4**

**Clad steel plate: U.S. producers' shipments and/or orders for shipments, July-September 2012, October-December 2012, January-March 2013, and April-June 2013**

\* \* \* \* \*

**U.S. PRODUCERS' INVENTORIES**

Table III-5 shows that inventories peaked in the first half of 2011 relative to production, U.S. shipments, and total shipments. Only \*\*\* reported end-of-period inventories of clad steel plate.<sup>5</sup> Clad steel plate is a product that is made to order and not usually held in inventory.

**Table III-5**

**Clad steel plate: U.S. producers' end-of-period inventories, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

**U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY**

The U.S. producers' aggregate employment data for clad steel plate are presented in table III-6. The number of production related workers fluctuated throughout the period examined. Although the number of production related workers increased overall between 2006 and 2011, employment was down relative to the peak years of 2007 and 2008. At the Commission's hearing, the President of the United Steelworkers Union, Local 1165, explained that layoffs had been avoided at ArcelorMittal's Coatesville facility, but that the clad plate operations had been downsizing through attrition. According to testimony about 20 to 25 positions were lost through attrition.<sup>6</sup>

**Table III-6**

**Clad steel plate: U.S. producers' employment-related data, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

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<sup>5</sup> \*\*\* held certain inventory but not at the end of the year. Email from \*\*\*, November 2, 2012.

<sup>6</sup> Hearing transcript, pp. 34-38, 125-126 (Gregg).

## FINANCIAL EXPERIENCE OF U.S. PRODUCERS

### Background

Three U.S. producers of clad steel plate, ArcelorMittal, DMC, and Regal, provided usable financial data.<sup>7</sup> No U.S. producer reported internal consumption or transfers to related firms of clad steel plate.

### Operations on Clad Steel Plate

Table III-7 presents the results of the responding U.S. producers' clad steel plate operations. Net sales quantity and value as well as operating income fluctuated between 2006 and 2011. Net sales value and operating income were at their lowest levels in 2010 while net sales quantity was at its lowest level in 2009. Although all three measures increased in 2011, net sales quantity and value and operating income were lower in January-June ("interim") 2012 than interim 2011.

From 2010 to 2011, despite an increase of \$\*\*\* in per-unit total costs, *i.e.*, cost of goods sold ("COGS") and selling, general, and administrative ("SG&A") expenses combined, operating income increased by \$\*\*\* per short ton due to an increase of sales value by \$\*\*\* per short ton in 2011. The operating income margin of \*\*\* percent in 2010 increased to \*\*\* percent in 2011. In 2011, all financial measures improved. However, the operating income and income margin in 2010 and 2011 were much lower than those measures for 2006, 2007, 2008, and 2009. The largest change in the operating income margin occurred between 2009 and 2010, as operating income of \$\*\*\* in 2009 fell to an operating income of \$\*\*\*, due primarily to a substantial decrease of per-unit sales value in 2010 (a \*\*\*-percent decrease in per-unit value from \$\*\*\* per short ton in 2009 to \$\*\*\* per short ton in 2010, a greater decline than the reduced total cost per short ton in 2010). Even though net sales quantity and value, and operating income were lower in interim 2012 than in interim 2011, the ratio of the domestic industry's operating income to net sales in interim 2012 was slightly higher, \*\*\* percent, compared to interim 2011 which was \*\*\* percent. Higher per-short ton net sales values in interim 2012 (\$\*\*\*) more than offset higher per-unit total costs (\$\*\*\*), resulting in an operating income of \$\*\*\* per short ton in interim 2012 compared to an operating income of \$\*\*\* per short ton in interim 2011, an improvement of \$\*\*\* per short ton in terms of profitability.<sup>8</sup>

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<sup>7</sup> All producers currently have their fiscal years ending on December 31. However, Regal changed its fiscal year end from March 31 to December 31 in 2010; therefore, its financial data between 2006 and 2009 were based on its fiscal year which ended on March 31. Ametek provided \*\*\* trade and price data and no usable financial data.

<sup>8</sup> Based on DMC's Form 10-Q submitted to the Securities and Exchange Commission (SEC) for the second quarter and the first six months of 2012 ended June 30, 2012, DMC has three reportable business segments; Explosive Metalworking, Oilfield Products, and AMK Welding. The Explosive Metalworking ("EM," also referred to as DMC Clad) segment uses explosives to perform metal cladding and shock synthesis of industrial diamonds. The most significant product of this group is clad metal which is used in the fabrication of pressure vessels, heat exchangers, and transition joints for various industries. For the six months ended June 30, 2012, EM accounted for 56 percent of its net sales and 67 percent of its income from operations before consideration of unallocated corporate expenses and stock-based compensation. EM's net sales for the six months ended June 30, 2012 decreased by \$6.9 million compared to the same period of 2011. Income from operations of the EM segment before unallocated corporate expenses and stock-based compensation was \$7.7 million for the first six months of 2012 compared to \$7.2 million for the first six months of 2011.



**Table III-7**

**Clad steel plate: Results of operations of U.S. producers, fiscal years 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

Selected company-by-company data are presented in table III-8. Total net sales (quantities and values), per-unit values (sales, COGS, SG&A, and operating income), operating income, and the ratio of operating income (loss) to net sales are presented in this table on a firm-by-firm basis. \*\*\*.<sup>9</sup> Two producers, \*\*\*, explained that the changes in the per-unit values (per unit net sales value, COGS, SG&A, and operating income/loss) were largely attributable to product mix.<sup>10 11</sup> While all three producers reported operating income between 2006 and 2008, \*\*\*. \*\*\*. \*\*\* operating income and \*\*\* operating income margins between 2006 and 2009. \*\*\*. None of three producers reported non-recurring charges in any year.

**Table III-8**

**Clad steel plate: Results of operations of U.S. producers (by firm), fiscal years 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

Selected cost data of the producers on their clad steel plate operations are presented in table III-9. Per-unit raw material cost fluctuated during the period examined, rising and falling in successive periods. The per-unit conversion cost (direct labor and factory overhead costs combined) fluctuated between 2006 and 2011, but was substantially higher in January-June 2012 than in January-June 2011. However, the changes in the per-unit values are not directly attributable to any single cost component but rather reflect the nature of product mix (see previous discussion of per-unit values).

**Table III-9**

**Clad steel plate: Average unit costs of U.S. producers, fiscal years 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

Product mix may have a substantial impact on the average per-short ton values. Because of the extensive product mix issues reflected in the U.S. producers' clad steel plate data, no variance analysis is presented.

### **Capital Expenditures and Research and Development Expenses**

The U.S. producers' capital expenditures and research and development ("R&D") expenses are presented in table III-10. Capital expenditures were higher in 2006 and 2007, due mainly to \*\*\*, especially in those two years, while they remained relatively small for the rest of the period.<sup>12</sup> \*\*\* reported relatively stable R&D expenses throughout the period.

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<sup>9</sup> \*\*\*. E-mails from \*\*\*, October 2, 4, and 9, 2012.

<sup>10</sup> \*\*\*. E-mail from \*\*\*, September 28, 2012.

<sup>11</sup> \*\*\*. E-mail from \*\*\*, October 2, 2012.

<sup>12</sup> E-mail from \*\*\*, September 25, 2012.

**Table III-10**

**Clad steel plate: Capital expenditures and R&D expenses by U.S. producers, fiscal years 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

**Assets and Return on Assets**

U.S. producers were requested to provide data on their assets used in the production and sale of clad steel plate during the period for which data were collected to assess their return on assets. Data on the U.S. producers' total net assets and their return on assets are presented in table III-11.

**Table III-11**

**Clad steel plate: Value of assets and return on assets of U.S. producers, fiscal years 2006-11**

\* \* \* \* \*

Total assets utilized by the U.S. producers in their operations to produce and sell clad steel plate increased substantially from 2006 to 2007, due to \*\*\*,<sup>13</sup> \*\*. Both producers' net assets generally decreased through 2010 before increasing somewhat in 2011. The return on assets trend over the period generally tracked the trend of the operating income margin shown in table III-7.

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<sup>13</sup> \*\*. E-mail from \*\*, September 25, 2012 and E-mail from \*\*, September 25, 2012.

## PART IV: U.S. IMPORTS AND THE FOREIGN INDUSTRY

### U.S. IMPORTS

#### Overview

The Commission issued questionnaires to eight firms believed to have imported clad steel plate between January 2006 and June 2012, as well as to all U.S. producers. Three firms provided data and information in response to the questionnaires,<sup>1</sup> while seven firms indicated that they had not imported clad steel plate during the period for which data were collected. Importers' questionnaire data accounted for almost all known imports of clad steel plate during 2006-11.<sup>2</sup> In light of the data coverage by the Commission's questionnaires, import data in this report are based on questionnaire responses for clad steel plate.<sup>3</sup>

#### Imports from Subject and Nonsubject Countries

Table IV-1 presents data for U.S. imports of clad steel plate from Japan and all other sources. There are very limited imports of clad steel plate into the United States. In 2009, \*\*\* imported clad steel plate from Japan. Two other firms reported imports of clad steel plate from other countries. \*\*\* reported sporadic imports from \*\*\* and purchaser \*\*\* identified imports from Germany in 2008 which have been included in the data presented below.

**Table IV-1**

**Clad steel plate: U.S. imports, by sources, 2006-11, January-June 2011, and January-June 2012**

\* \* \* \* \*

#### U.S. IMPORTERS' IMPORTS SUBSEQUENT TO JUNE 30, 2012

The Commission requested importers to indicate whether they had imported or arranged for the importation of clad steel plate from Japan for delivery after June 30, 2012. No responding importer indicated it had arranged for imports after this date.

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<sup>1</sup> As discussed in Part I, imports from \*\*\* were identified by purchaser \*\*\* and confirmed by proprietary Customs data. \*\*\* was the importer of record according to proprietary Customs data. \*\*\* appears to no longer exist as an independent entity. \*\*\* imported \*\*\* short tons in \*\*\*. These imports have been included in the data reported throughout the staff report. However, the \*\*\* value for imports may be somewhat overstated because it is based on the purchase price reported by \*\*\* rather than landed duty paid value.

<sup>2</sup> As discussed in Part I, according to proprietary Customs data, \*\*\* appeared to have imported products under HTS subheading 7210.90.10 from Japan (albeit with no duties having been assessed). The company explained that it had imported \*\*\* under the incorrect HTS subheading and had since corrected its error with Customs. Email from \*\*\*, August 10, 2012.

<sup>3</sup> As discussed in Part I, import data are based on questionnaire responses rather than official Commerce statistics because of the mis-reporting discussed above and because six of the firms reported that the products they were importing from nonsubject countries did not meet the scope definition. These firms explained they had imported wear resistant plate, welded overlay plate, and/or clad plate less than 600 mm in width. See questionnaire responses for \*\*\*; email explanations for \*\*\*; and phone note for \*\*\*. The two remaining responses were received from U.S. producer \*\*\* and \*\*\*.

## U.S. IMPORTERS' INVENTORIES

Only \*\*\* reported any inventories of clad steel plate. \*\*\*. \*\*\*. \*\*\*.

### THE INDUSTRY IN JAPAN

#### Overview

During the original investigation there were five known producers of clad steel plate in Japan: JSW, NKK, Nippon, Kawasaki, and Sumitomo. JSW was the only producer of the subject merchandise that was known to export to the United States.<sup>4</sup> Japanese producers did not participate in the first two expedited reviews. Four firms provided data in response to Commission questionnaires in the current review:

- Asahi Kasei Chemicals Corp. (“Asahi”),
- JFE Steel Corp. (formed from a merger of former NKK and former Kawasaki) (“JFE”),
- Japan Steel Works, Ltd. (“JSW”), and
- Nippon Steel & Sumikin Stainless Steel Corp. (formed from the 2003 consolidation of the stainless steel divisions of Nippon Steel Corp. and Sumitomo Metal Industries, Ltd.) (“Nippon”).

These firms are believed to account for virtually all Japanese production of clad steel plate. Asahi produces clad steel plate by the explosion bonding method, and JFE, JSW, and Nippon use the roll-bonding method. Presented in Table IV-2 is a list of the responding Japanese producers of clad steel plate, each company’s mill (location), capacity, production, and share of production.

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<sup>4</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Final)*, USITC Publication 2972, June 1996, p. VII-1. During the preliminary phase of the investigation, the Commission also received general information and specific data regarding the industry producing clad steel plate in Japan from the U.S. Embassy in Tokyo. However, additional information was not requested in the final phase investigation because JSW was the only exporter of clad steel plate to the United States and data were requested and supplied by counsel for JSW. *Id.*, p. VII-2 and n. 9

**Table IV-2**

**Clad steel plate: Japanese producers' mill (location), capacity, production, and share of 2011 reported Japanese production**

Producers name	Mill (location)	2011 Capacity (short tons)	2011 Production (short tons)	Share of production (percent)
Asahi	Chikushino Plant (Fukuoka)	***	***	***
JFE	West Japan Works (Fukuyama)	***	***	***
JSW	Muroran Plant (Hokkaido)	***	***	***
Nippon	Yawata Works (Kitakyushu-shi Fukuoka Pref.)	***	***	***
Total		***	***	100.0

Note.— The highest reported annual production by the Japanese producers during 2006-11 are as follows:

- Asahi: \*\*\* short tons
- JFE: \*\*\* short tons
- JSW: \*\*\* short tons
- Nippon: \*\*\* short tons

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

### Clad Steel Plate Operations

Table IV-3 presents data provided by the responding Japanese producers of clad steel plate. Capacity increased from 2006 to 2008 due to an increase in \*\*\*. Capacity increased further in 2008 due to an increase in \*\*\*. \*\*\*'s<sup>5</sup> and \*\*\*'s capacity to produce clad steel plate approximated their peak reported production in \*\*\*, when they \*\*\*. \*\*\*'s \*\*\* capacity (\*\* short tons) likewise approximated its peak production in \*\*\*, when it produced \*\*\* short tons of clad steel plate and operated at almost \*\*\* percent capacity utilization. In contrast, \*\*\*'s capacity utilization was highest in \*\*\*, at \*\*\* percent, when it produced \*\*\* short tons of clad steel plate. By 2008 the company was producing only \*\*\* short tons, a level which it generally maintained through 2011 (averaging \*\*\* short tons over this four-year period).

Representatives from JFE discussed capacity bottlenecks due to JFE's heat treatment ability. According to JFE, almost all of its exports require heat treatment.<sup>6</sup> JFE's \*\*\*.<sup>7</sup> JFE reported \*\*\* percent of the clad steel plate it produced was heat treated in 2011 and that between \*\*\* percent in 2012.<sup>8</sup> JFE reported that \*\*\* percent of the time or \*\*\* its factory had \*\*\*.<sup>9</sup>

Home market shipments fluctuated throughout the period examined, accounting for \*\*\*. Total exports also fluctuated throughout the period examined, accounting for between \*\*\* percent and \*\*\*

<sup>5</sup> \*\*\* reported capacity of \*\*\* short tons in \*\*\* and reported capacity of \*\*\* short tons in \*\*\*. Email from \*\*\*, December 21, 2012.

<sup>6</sup> Hearing transcript, p. 153 (Asano).

<sup>7</sup> Respondent JFE's posthearing brief, exh. 5 and email from \*\*\*, December 21, 2012.

<sup>8</sup> Respondent JFE's posthearing brief, exh. 5 and email from \*\*\*, December 21, 2012.

<sup>9</sup> Respondent JFE's posthearing brief (declaration of Shigeo Asano), p. 3.

percent of total shipments.<sup>10</sup> No responding Japanese producer exported clad steel plate to the United States during the period examined. However, as indicated by the import data presented throughout this report there was \*\*\* shipment from Japan in \*\*\*.

Three Japanese producers – \*\*\* – reported exports of clad steel plate in each full and partial year during the period for which data were collected. \*\*\*, in contrast, reported \*\*\* exports of clad steel plate between January 2006 and June 2012. \*\*\* accounted for the majority of clad steel plate exports by the Japanese industry throughout the period for which data were collected, including \*\*\* such exports to \*\*\* and \*\*\* of such exports to \*\*\* for every period except \*\*\*, when \*\*\* accounted \*\*\* of exports to \*\*\*.<sup>11</sup> \*\*\*’s exports of clad steel plate, in contrast, were exclusively to \*\*\* between January 2006 and June 2012. Only \*\*\* reported that its \*\*\*. \*\*\* reported that exports of clad steel plate are subject to an eight percent tariff in China.

During the original investigation only one firm, JSW, reported exports of clad steel plate to the United States.<sup>12</sup> At the hearing, Japanese respondents from JFE testified that given the size of the U.S. industry it would not invest in sales people necessary to support the sale of clad steel plate in the United States. Further, they believe this to be true of JSW and Nippon. Additionally, JFE understands that Asahi only exports clad steel plate to Asia and that Nippon supplies the domestic Japanese market and does not export clad steel plate.<sup>13</sup> Nippon reported that its \*\*\*.<sup>14</sup>

Inventories were less than \*\*\* percent of production and total shipments in every year of the period examined. \*\*\* is the only Japanese producer to report inventories. \*\*\* explained that its inventories were order accumulation.<sup>15</sup>

#### Table IV-3

#### Clad steel plate: Japanese industry data for capacity, production, shipments, and inventories, 2006-11, January-June 2011, and January-June 2012

\* \* \* \* \*

Figures IV-1 through IV-3 show Japanese producers’ total shipments by cladding material, base metal and total plate thickness, respectively. Both Japanese producers’ and U.S. producers’ cladding material is primarily stainless steel, while their base metal is primarily carbon steel. With respect to total plate thickness, Japanese producers reported slightly over \*\*\* of their total shipments were in the less than or equal to one inch category whereas U.S. producers reported slightly over \*\*\* of their U.S. shipments were in the greater than two inches category.

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<sup>10</sup> The principal export markets reported for Asia: China, India, Korea, Malaysia, and Taiwan; for the EU: Germany and Italy; and for all other countries: Brazil, Canada, Mexico, and certain Middle Eastern countries (e.g., Saudi Arabia). \*\*\*, the leading exporter of clad steel plate from Japan, explained that in 2006 its exports to all other (non-Asian and non-EU) markets were to Canada: \*\*\* short tons and Mexico: \*\*\* short tons. In 2007 its exports to all other markets were to Brazil: \*\*\* short tons and Canada: \*\*\* short tons. In January-June 2012, its exports to all other markets were to Canada: \*\*\* short tons and Brazil: \*\*\* short tons. Foreign producer questionnaire responses; email from \*\*\*, December 18, 2012; email from \*\*\*, December 21, 2012; and email from \*\*\*, December 28, 2012.

<sup>11</sup> \*\*\* reported its exports to all other markets included \*\*\* short tons to Canada, but primarily consisted of exports to Saudi Arabia (\*\*\* short tons). Email from \*\*\*, December 21, 2012

<sup>12</sup> *Clad Steel Plate from Japan, Inv. No. 731-TA-739 (Final)*, USITC Publication 2972, June 1996, VII-1.

<sup>13</sup> Hearing transcript, pp. 140-141 (Asano). Asahi and Nippon accounted for \*\*\* percent of Japanese production, \*\*\* percent of Japanese capacity, and \*\*\* percent of available Japanese capacity in 2011.

<sup>14</sup> \*\*\*’s questionnaire response, question II-4.

<sup>15</sup> Email from \*\*\*, October 28, 2012.

**Figure IV-1**

**Clad steel plate: Japanese producers' total shipments by cladding material, 2011**

\* \* \* \* \*

**Figure IV-2**

**Clad steel plate: Japanese producers' total shipments by base metal, 2011**

\* \* \* \* \*

**Figure IV-3**

**Clad steel plate: Japanese producers' total shipments by total plate thickness, 2011**

\* \* \* \* \*

Table IV-4 presents data from Global Trade Atlas and shows Japanese exports of clad steel plate to the world. Japan's largest export market is Korea. Domestic producer, DMC, explained it faced Japanese competition in the Canadian clad steel plate market and that it had recently lost Canadian purchase orders of clad steel plate to Japanese producers.<sup>16</sup> According to Japanese producers, sales to Canada have been only sporadic and mainly to legacy customers. Japanese producers understand that the alternate source of supply in Canada is Europe, specifically the Austrian producer Voestalpine.<sup>17</sup> In January-October 2012, there was an increase in Japanese exports to Canada. \*\*\* is the Japanese firm primarily responsible for these exports to Canada.<sup>18</sup>

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<sup>16</sup> Hearing transcript, p. 28 (Blakely).

<sup>17</sup> Japanese respondents' posthearing brief, p. 9.

<sup>18</sup> \*\*\* reported that for January-June 2012 it exported \*\*\* short tons to Canada and \*\*\* short tons to Brazil. Email from \*\*\*, December 28, 2012 and domestic interested parties' posthearing brief, exh. 5.

**Table IV-4**  
**Clad steel plate: Exports from Japan, 2006-11 and January–October 2012**

Item	Calendar year						January-October 2012
	2006	2007	2008	2009	2010	2011	
Quantity (short tons)							
Korea	17,368	14,301	11,991	13,088	18,213	25,900	13,141
Taiwan	2,514	951	601	250	893	1,522	672
Thailand	432	1,176	1,301	1,054	1,067	916	1,101
Malaysia	1,064	476	345	513	686	721	873
India	1,540	3,415	1,405	1,240	3,430	572	916
United Arab Emirates	2,920	1,814	2,079	103	165	570	33
China	1,459	4,346	2,913	1,188	1,193	355	683
Vietnam	( <sup>1</sup> )	482	( <sup>1</sup> )	( <sup>1</sup> )	129	321	401
Kuwait	( <sup>1</sup> )	( <sup>1</sup> )	540	99	83	192	247
Italy	265	302	266	163	44	74	101
Hong Kong	43	( <sup>1</sup> )	( <sup>1</sup> )	37	46	69	30
Saudi Arabia	704	548	10	11	925	56	1,344
Indonesia	28	161	336	46	96	39	399
Egypt	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	4	( <sup>1</sup> )	36	( <sup>1</sup> )
Canada	215	930	353	228	47	13	687
Singapore	( <sup>1</sup> )	302	158	299	33	11	349
United States	107	245	239	96	152	6	( <sup>1</sup> )
Germany	( <sup>1</sup> )	( <sup>1</sup> )	4	( <sup>1</sup> )	3	4	2,626
Argentina	( <sup>1</sup> )	19	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	58
Bahrain	153	( <sup>1</sup> )	355	( <sup>1</sup> )	29	( <sup>1</sup> )	( <sup>1</sup> )
Bangladesh	( <sup>1</sup> )	( <sup>1</sup> )	51	1,547	24	( <sup>1</sup> )	( <sup>1</sup> )
Belgium	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	34	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Brazil	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	30	141	( <sup>1</sup> )	192
Czech Republic	( <sup>1</sup> )	1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Finland	50	116	127	18	65	( <sup>1</sup> )	21
France	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	67	( <sup>1</sup> )	( <sup>1</sup> )
Mexico	252	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Netherlands	15	26	( <sup>1</sup> )	3	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Panama	( <sup>1</sup> )	20	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Peru	269	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Qatar	1,128	1,128	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Spain	( <sup>1</sup> )	( <sup>1</sup> )	8	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	88
Serbia	( <sup>1</sup> )	1	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
Oman	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	802
Uruguay	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )	40	( <sup>1</sup> )	( <sup>1</sup> )	( <sup>1</sup> )
World	30,526	30,761	23,081	20,091	27,535	31,376	24,856
<sup>1</sup> None reported.							
Note.– The data reported above may contain some nonsubject product.							
Source: Global Trade Atlas for HTS 7210.90.100.							



Table IV-5 presents Japanese producers' shipments of clad steel plate for July-September 2012; the quantity of clad steel plate shipped or on order for shipment during October-December 2012; and the quantity of clad steel plate on order for shipment during January-June 2013.

**Table IV-5**

**Clad steel plate: Japanese producers' shipments and/or orders for shipments, July-September 2012, October-December 2012, January-March 2013, and April-June 2013**

\* \* \* \* \*

**GLOBAL MARKET**

**Supply**

There are no available data on global production of clad steel plate. In Europe, there are at least five producers of clad steel plate—three are owned by DMC and one by ArcelorMittal. The fifth producer, Voestalpine, is located in Austria. Although total production of clad steel plate is unknown, export data from the European Union are available and are shown in table IV-6.<sup>19</sup>

Korea is the largest destination market for exports of clad steel plate from both Japan and the EU. There are at least two producers of explosion-bonded clad steel plate in Korea. There are an unknown number of producers of clad steel plate in China, although information on the record indicates that there are producers and that it is difficult for both U.S. and Japanese producers to export clad steel plate to China.<sup>20</sup> There are believed to be no producers of clad steel plate in Canada.<sup>21</sup>

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<sup>19</sup> These data may include product that is outside the scope of this review, however, the data are considered to be almost all in-scope product.

<sup>20</sup> Hearing transcript, pp. 150-151 (Asano and Moran); hearing transcript, p. 49 (Nicol); and domestic interested parties' posthearing brief, exh. 1, p. 16.

<sup>21</sup> Hearing transcript, p. 195 (Asano).

**Table IV-6**

**Clad steel plate: EU exports, 2006-11 and January–September 2012**

Item	Calendar year						January-September 2012
	2006	2007	2008	2009	2010	2011	
	Quantity ( <i>short tons</i> )						
Korea	6,515	2,304	784	2,323	4,424	6,474	1,055
Malaysia	849	1,588	202	451	1,084	2,855	521
Thailand	276	66	( <sup>1</sup> )	32	105	2,732	268
Kuwait	351	15	1,485	861	137	2,120	691
United Arab Emirates	1,948	412	1,199	438	489	1,867	610
Brazil	10	29	157	798	2,060	1,572	1,181
India	3,376	656	1,133	688	2,862	1,365	903
Russia	780	507	703	651	1,163	801	1,252
Morocco	604	349	1,858	1,998	1,048	685	522
Saudi Arabia	459	1,274	780	1,644	624	610	4,561
Total - top ten countries (2011)	15,167	7,201	8,302	9,883	13,995	21,079	11,564
World	27,126	11,522	12,241	13,840	17,599	23,943	13,952
<sup>1</sup> None reported.  Note.—The data represent external exports from the European Union (27), intra-country exports between member countries have been excluded. Note.— The data reported above may contain some nonsubject product.  Source: Global Trade Atlas for HTS 7210.90.30.							

**Demand**

U.S. producers, importers, purchasers, and Japanese producers were asked how demand for clad steel plate has changed since 2006 and how they expect demand to change in the future (table IV-7). All three U.S. producers reported demand had fluctuated, three of four responding Japanese producers reported Japanese demand had fluctuated and two of three responding Japanese producers reported non-U.S., non-Japanese demand had fluctuated. Most responding purchasers reported demand was unchanged, while one importer each reported increase and no change. Predictions for future demand were similar to changes since 2006 except that three of four Japanese producers expect non-U.S., non-Japanese demand to increase.

**Table IV-7  
Clad steel plate: Firms' perceptions regarding demand outside the United States**

Item	Number of firms reporting			
	Increase	Decrease	Fluctuate	No change
<b>Non U.S. demand since 2006</b>				
U.S. producers	0	0	3	0
Importers	***	***	***	***
Purchasers	0	1	3	6
Foreign producer - home market	0	1	3	0
Foreign producer - other	1	0	2	0
<b>Non U.S. future demand</b>				
U.S. producers	0	0	3	0
Importers	***	***	***	***
Purchasers	1	1	2	6
Foreign producer - home market	0	1	2	1
Foreign producer - other	3	0	1	0

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

### Price

U.S. producers report that they compete with Japanese producers in “most of the major export markets” and that “Japanese producers consistently offer clad plate at prices well below U.S. producers prices”<sup>22</sup> DMC reported that it competed with Japanese producers in \*\*\*.<sup>23</sup> Customers that reported that Japanese bids in cases where DMC lost bids reported Japanese producers underbid it by “generally between \*\*\*”<sup>24</sup> \*\*\*.<sup>25</sup> U.S. producers report that U.S. prices are generally higher than those in export markets.<sup>26</sup> U.S. producers report that U.S. clad steel plate prices are higher than they are in Asia, where much of the Japanese product is sold.<sup>27</sup>

<sup>22</sup> Domestic interested parties’ posthearing brief, ex. 1, p. 11.

<sup>23</sup> Of the remaining \*\*\*. Domestic interested parties’ posthearing brief, ex. 1, p. 13.

<sup>24</sup> Domestic interested parties’ posthearing brief, ex. 1, p. 13.

<sup>25</sup> Domestic interested parties’ posthearing brief, ex. 1, p. 14.

<sup>26</sup> Domestic interested parties’ posthearing brief, ex. 1, p. 33.

<sup>27</sup> Hearing transcript, pp. 108-110 (Cannon and Nicol).



## PART V: PRICING AND RELATED INFORMATION

### FACTORS AFFECTING PRICES

#### Raw Material Costs

Raw material costs differ among the various types of clad steel plate products and between producers, particularly for the steel backing plate used. The cost of raw material as a share of sales ranged from \*\*\* percent in 2006 to \*\*\* percent in 2011. Changes, however, reflect not only movements in the prices of inputs but also changes in the types of clad steel plate sold and different shares of production by the different producers. U.S. producers report that changes in raw materials are built into their prices because all product is produced to order; and JFE reported that it was able to pass along price increases for raw material.<sup>1</sup>

There are two main inputs for clad steel plate: the cladding material and the steel backer. Producers typically purchase the cladding material, which normally is either stainless steel or a nickel product.<sup>2</sup> Cladding materials tend to have high nickel and/or high chromium content and are more expensive per ton than the steel backer. ArcelorMittal produces its own cut-to-length steel plate used as backing plate, therefore its raw materials are its inputs for steel production, chiefly scrap.<sup>3</sup> In contrast, DMC purchases cut-to-length steel plate.

The price of cut-to-length steel plate, typically used as the backer plate, fluctuated between 2006 and 2012, with September 2012 prices slightly lower than prices in January 2006. Cut-to-length prices published by American Metal Market peaked in September 2008 and reached their lowest levels in May and June 2009 (figure V-1). No prices are available for the products typically used for cladding material. Prices, however, are available for stainless steel 304 plate and 316 plate (figure V-2) as well as for important inputs used in the production of cladding material: high carbon ferrochromium, nickel, and ferromolybdenum. High carbon ferrochromium prices fluctuated between 2006 and 2012, but increased overall during the period. Ferrochromium prices peaked in May 2008, but did not fall as low as it had been in January 2006 in the decline that followed (figure V-3). Nickel prices increased slightly overall between January 2006 and November 2012 but fluctuated greatly within the period. Nickel prices peaked in May 2007, reached the lowest level in December 2008, and since then, have continued to fluctuate (figure V-4). Ferromolybdenum prices rose less than the prices of ferrochrome and nickel before the downturn in 2008, then after October 2008, prices fell to well below their 2006 levels. Although they have risen from their lows in April through July 2009, ferromolybdenum prices have not recovered to levels reported before the recession (figure V-5).

#### Figure V-1

Raw materials: Cut-to-length steel plate, monthly average prices, January 2006-November 2012

\* \* \* \* \*

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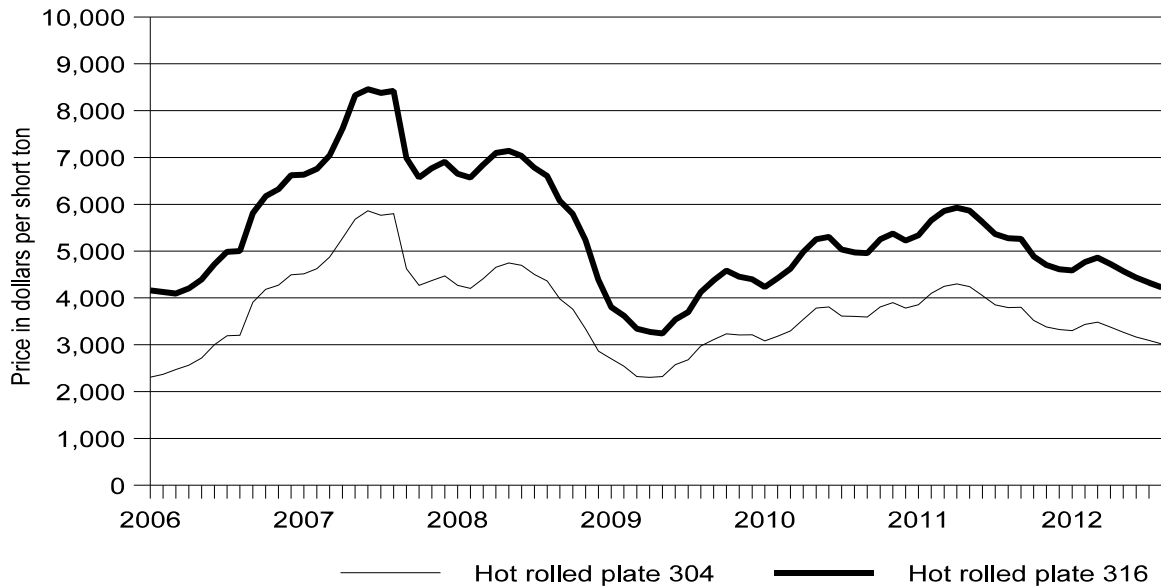
<sup>1</sup> Hearing transcript, pp. 93-94 (Nicol and Insetta) and JFE's posthearing brief, ex. 1, p. 19.

<sup>2</sup> \*\*\*. Memorandum of plant visit, October 17, 2012, p. 2.

<sup>3</sup> Memorandum of plant visit, October 17, 2012, p. 2.

**Figure V-2**

**Raw materials: Stainless steel plate, monthly average prices, January 2006-August 2012**



Source: *MEPS world stainless product price*, December 11, 2012.

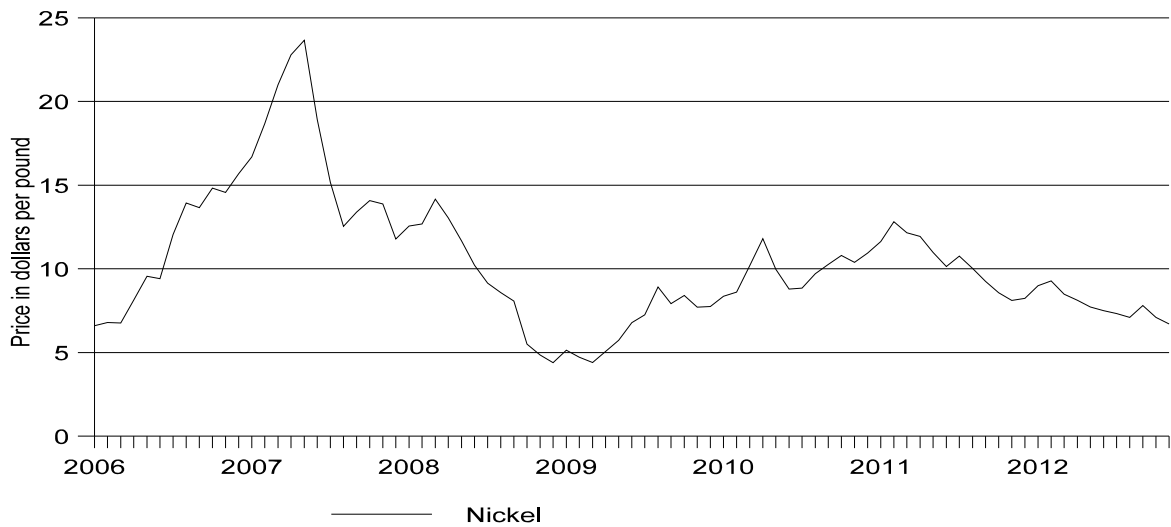
**Figure V-3**

**Raw materials: High carbon ferrochrome, monthly average prices, January 2006-November 2012**

\* \* \* \* \*

**Figure V-4**

**Raw materials: Nickel London Metal Exchange, monthly average prices, January 2006-November 2012**



Source: *Metal Bulletin*, December 11, 2012.

**Figure V-5**  
**Raw materials: Ferromolybdenum, monthly average prices, January 2006-November 2012**

\* \* \* \* \*

All four responding U.S. producers reported that changes in the prices of raw materials have affected their selling prices for clad steel plate since 2006. One reported that prices of clad steel plate are dependent on the prices of stainless and nickel alloys, and these prices had changed as a result of major changes in nickel and molybdenum prices. The others reported that prices fluctuated depending on raw material costs and that these raw material costs are passed through to end users. All four producers also anticipated future changes in raw material costs. One producer specifically linked fluctuations in raw materials prices to trends in world demand, and particularly demand in China, for key inputs.

### **U.S. Inland Transportation Costs**

Three of four responding producers (\*\*\*) indicated that they arrange for transportation to the customers' locations; the other producer indicated that the purchaser arranges for transportation.<sup>4</sup> Producers reported that U.S. transportation costs were between \*\*\* and \*\*\* percent of the total delivered cost of clad steel plate.<sup>5</sup>

## **PRICING PRACTICES<sup>6</sup>**

### **Pricing Methods**

Most U.S. producers reported selling exclusively on a transaction-by-transaction basis. Only one U.S. producer (\*\*\*) reported selling any clad steel plate under contracts. It reported that \*\*\*.

One purchaser reported that it purchased clad steel plate monthly, one reported that it typically purchased quarterly, and seven purchasers reported that purchases depended on job requirements.<sup>7</sup> One purchaser reported that it expected changes in purchase patterns in the next two years, reporting that fabricators purchase clad steel plate directly.

Clad steel plate purchasers typically bid for projects to produce vessels for their customers. To bid on a project, vessel manufacturers must first solicit price bids for the clad steel plate to determine its costs. After the selection of the vessel manufacturer, there may be a second round of bidding on the clad steel plate.<sup>8</sup> Eight of 10 responding purchasers reported contacting one or two suppliers both before getting a contract and after getting the contract.<sup>9</sup>

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<sup>4</sup> \*\*\*.

<sup>5</sup> No importer reported U.S. inland transportation cost.

<sup>6</sup> No importers sold Japanese product and therefore no importers reported the basis of their sales of Japanese product. \*\*\*.

<sup>7</sup> Of the three remaining purchasers, one purchaser each reported that it "seldom" made purchases, one that it had made eight purchases since 2008, and one that it had made no purchases in the last four years.

<sup>8</sup> Most purchasers reported that contracts were rebid because quotes had expired or to determine if quotes were still valid. Other reasons for rebidding were the prices were too high, the project had changed, the customer requested an update, and lead times were too long.

<sup>9</sup> One purchaser reported contacting 1 to 3 producers before getting a contract. One purchaser reported contacting 1 to 4 producers after getting a contract. \*\*\*.

## Sales Terms and Discounts

Two U.S. producers (\*\*\*) quoted prices on a delivered basis and two producers (\*\*\*), quoted prices on an f.o.b. basis. All four U.S. producers reported sales terms of net 30 days. None offer discounts.

Three of four responding producers reported that all of their sales were produced-to-order. The other producer, \*\*\*, reported selling 99 percent produced-to-order.<sup>10</sup> Lead times reported by producers for product made to order ranged from 45 to 168 days. \*\*\*. U.S. producers report that while lead times for clad steel plate from order to production are only a few months, the projects in which the product is used take 1 ½ -2 years from front-end engineering to purchase of materials. This provides time for any clad steel plate qualification process before the orders for clad steel plate are given.<sup>11</sup> Japanese producer JFE reports that its lead time from orders to delivery is typically 3 months, while its shortest lead times 9 weeks.<sup>12</sup>

Parties disagree about the level of commitment required for sales in the U.S. market. The U.S. producers posit that the availability of sales offices in the United States of Japanese producers JFE, JSW, and NSSC would provide a U.S. sales operation base.<sup>13</sup> JFE contends that clad steel plate requires dedicated resources and highly technical knowledge and would not be handled by its general sales staff.<sup>14</sup> According to Japanese producers, DMC's form 10-K indicates that its working relationships with customers act as a barrier to entry for new clad steel suppliers.<sup>15</sup>

## Price Leadership

Five purchasers reported that there were one or more price leaders in the U.S. market for clad steel plate. ArcelorMittal was listed as a price leader by four purchasers, DMC by three, and importer/foreign producer Voestalpine by one.<sup>16</sup>

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<sup>10</sup> \*\*\*. Email from \*\*\*, November 2, 2012.

<sup>11</sup> Hearing transcript, p. 59 (Nicol).

<sup>12</sup> Hearing transcript, pp. 148-149 (Asano).

<sup>13</sup> U.S. producers' prehearing brief, pp. 32-33.

<sup>14</sup> Hearing transcript, pp. 139-140 (Asano).

<sup>15</sup> Japanese producers' prehearing brief, pp. 16-17 and exhibits 4 and 5. DMC's 10-K states that "DMC Clad conducts its selling efforts by marketing its services to potential costumers through senior management, direct sales personnel, program managers, and independent sales representatives. ... By maintaining relationships with its existing customers, developing new relationships with prospective customers, and educating all its customers to the technical benefits for DMC Clad's products DMC Clad endeavors to have its products specified as early as possible in the design process."

<sup>16</sup> \*\*\* also reported that Industeel USA was as price leader. Industeel USA is a subsidiary of ArcelorMittal. <http://www.industeel.info/contact.aspx>. Retrieved 12/12/12.



## PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of five clad steel plate products with ASTM A516 grade 70<sup>17</sup> backer and stainless steel or nickel cladding. Data were provided for shipments to unrelated U.S. customers during January 2006-June 2012:

**Product 1.**-- Clad plate, 0.50" through 1" in thickness and 48" through 120" in width, with ASTM A516 grade 70 backer and 304L cladding 0.115" through 0.135" thick.

**Product 2.**-- Clad plate, over 1" through 2" in thickness and 48" through 120" in width, with ASTM A516 grade 70 backer and 304L cladding 0.115" through 0.135" thick.

**Product 3.**-- Clad plate, over 2" through 3" in thickness and 48" through 120" in width, with ASTM A516 grade 70 backer and 304L cladding 0.115" through 0.135" thick.

**Product 4.**--Clad plate, 0.50" through 1" in thickness and 48" through 120" in width, with ASTM A516 grade 70 backer and Type 317L cladding 0.115" through 0.135" thick.

**Product 5.**--Clad plate, 0.50" through 1" in thickness and 48" through 120" in width, with ASTM A516 grade 70 backer and UNS N10276 cladding 0.115" through 0.135" thick.

Three U.S. producers (\*\*\*) provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.<sup>18</sup> One firm \*\*\* reported importing Japanese product. \*\*\*. Price data reported by these firms accounted for \*\*\* percent of U.S. producers' commercial shipments of clad steel plate for January 2006-September 2012 and \*\*\* percent of Japanese imports. Price data for products 1 to 5 are presented in tables V-1 and V-2 and figures V-6 through V-10. Japanese data are not sales values but rather are acquisition costs.

**Table V-1**

**Clad steel plate: Weighted-average f.o.b. prices and quantities of domestic products 1 to 3, by quarters, January 2006-June 2012**

\*   \*   \*   \*   \*   \*   \*

**Table V-2**

**Clad steel plate: Weighted-average f.o.b. prices, landed duty paid value and quantities of domestic and Japanese products 4 and 5, by quarters, January 2006-June 2012**

\*   \*   \*   \*   \*   \*   \*

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<sup>17</sup> The ASTM standard for product A516 states that "Plates 1.50 in. and under in thickness are normally supplied in the as-rolled condition. The plates may be ordered normalized or stress relieved, or both. Plates over 1.50 in. in thickness shall be normalized. When notch-toughness tests are required on plates under 1.50 in. and under in thickness, the plates shall be normalized unless otherwise specified by the purchaser." ASTM Standards, 2009 Vol. 1, p. 277.

<sup>18</sup> \*\*\*.

**Figure V-6**  
**Clad steel plate: Weighted-average f.o.b. prices and quantities of domestic product 1, by quarters, January 2006- June 2012**

\* \* \* \* \*

**Figure V-7**  
**Clad steel plate: Weighted-average f.o.b. prices and quantities of domestic product 2, by quarters, January 2006- June 2012**

\* \* \* \* \*

**Figure V-8**  
**Clad steel plate: Weighted-average f.o.b. prices and quantities of domestic product 3, by quarters, January 2006- June 2012**

\* \* \* \* \*

**Figure V-9**  
**Clad steel plate: Weighted-average f.o.b. prices and quantities of domestic product 4, by quarters, January 2006- June 2012**

\* \* \* \* \*

**Figure V-10**  
**Clad steel plate: Weighted-average f.o.b. prices and quantities of domestic product 5, by quarters, January 2006- June 2012**

\* \* \* \* \*

### Price Trends

U.S. prices had large quarter-to-quarter fluctuations. Staff requested that \*\*\*, which provided almost all of the price data, explain why prices of the products varied so much between quarters. Reasons for price fluctuations included: the product description included a range of products with varying prices; differences in plate sizes and clad thickness affect price; the number of purchases in each quarter tended to be small;<sup>19</sup> changes in raw material prices; product price can vary depending upon the type of carbon steel required;<sup>20</sup> and lead times.<sup>21</sup> Table V-3 summarizes the price trends by product. For products for which prices were available in at least one quarter in 2006 and at least one quarter in 2012, domestic price decreases ranged from \*\*\* to \*\*\* percent between 2006 and 2012,<sup>22</sup> while the increases ranged from \*\*\* to \*\*\* percent.<sup>23</sup> Because prices for U.S.-produced clad steel plate fluctuated greatly between quarters, overall trends should be viewed with caution.

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<sup>19</sup> \*\*\*.

<sup>20</sup> Carbon steel with tight chemistry controls costs more than carbon steel with less restrictive requirements.

<sup>21</sup> \*\*\*.

<sup>22</sup> Prices were not available for product 3 in 2006 or in 2012. From 2007 to 2011, there were prices available for 5 quarters and the price declined by \*\*\* percent.

<sup>23</sup> Four of the five products had prices in both 2006 and 2012, although not necessarily for the first and last quarters of the period.

**Table V-3**

**Clad steel plate: Summary of weighted-average f.o.b. prices for products 1-5 from the United States and Japan**

<b>Item</b>	<b>Number of quarters</b>	<b>Low price (per short ton)</b>	<b>High price (per short ton)</b>	<b>Change in price<sup>1</sup> (percent)</b>
<b>U.S. product 1</b>	24	***	***	***
<b>U.S. product 2</b>	18	***	***	***
<b>U.S. product 3</b>	5	***	***	***
<b>U.S. product 4</b>	21	***	***	***
<b>U.S. product 5</b>	19	***	***	***
<b>Japanese product 4</b>	1	***	***	---
<b>Japanese product 5</b>	1	***	***	---

<sup>1</sup> Percentage change is based on unrounded data. Change in price represents the change in price from the earliest available price in the series to the most recent price in the series.

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

### **Price Comparisons**

There were no direct price comparisons in this review since the \*\*\*. In the one instance where U.S. prices and the acquisition costs for Japanese clad steel plate were available in the same quarter, the acquisition costs for the Japanese product were \*\*\* percent below U.S. prices.<sup>24</sup>

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<sup>24</sup> The Commission collected bid data in the initial investigation, therefore no information is available on the level of under/overselling in this report. \*\*\*.



**APPENDIX A**

***FEDERAL REGISTER* NOTICES AND THE  
COMMISSION'S STATEMENT ON ADEQUACY**



The Commission makes available notices relevant to its proceedings on its website, [www.usitc.gov](http://www.usitc.gov). In addition, the following tabulation presents, in chronological order, *Federal Register* notices issued by the Commission and Commerce during the current review.

Citation	Title	Link
77 FR 5052 February 1, 2012	Clad Steel Plate from Japan; Institution of a Five-Year Review	<a href="http://www.gpo.gov/fdsys/pkg/FR-2012-02-01/pdf/2012-1920.pdf">http://www.gpo.gov/fdsys/pkg/FR-2012-02-01/pdf/2012-1920.pdf</a>
77 FR 4995 February 1, 2012	Initiation of Five-Year ("Sunset") Review	<a href="http://www.gpo.gov/fdsys/pkg/FR-2012-02-01/pdf/2012-2224.pdf">http://www.gpo.gov/fdsys/pkg/FR-2012-02-01/pdf/2012-2224.pdf</a>
77 FR 31834 May 30, 2012	Clad Steel Plate from Japan: Final Results of the Third Expedited Sunset Review of the Antidumping Duty Order	<a href="http://www.gpo.gov/fdsys/pkg/FR-2012-05-30/pdf/2012-13103.pdf">http://www.gpo.gov/fdsys/pkg/FR-2012-05-30/pdf/2012-13103.pdf</a>
77 FR 37439 June 21, 2012	Clad Steel Plate from Japan; Notice of Commission Determination to Conduct a Full Five-Year Review	<a href="http://www.gpo.gov/fdsys/pkg/FR-2012-06-21/pdf/2012-15284.pdf">http://www.gpo.gov/fdsys/pkg/FR-2012-06-21/pdf/2012-15284.pdf</a>
77 FR 38825 June 29, 2012	Clad Steel Plate from Japan; Scheduling of a Full Five-Year Review Concerning the Antidumping Duty Order on Clad Steel Plate from Japan	<a href="http://www.gpo.gov/fdsys/pkg/FR-2012-06-29/pdf/2012-15917.pdf">http://www.gpo.gov/fdsys/pkg/FR-2012-06-29/pdf/2012-15917.pdf</a>
<p>Note.—The Commission's adequacy determination can be found at <a href="http://pubapps2.usitc.gov/sunset/caseProfSuppAttmnt/download/11486">http://pubapps2.usitc.gov/sunset/caseProfSuppAttmnt/download/11486</a>. In addition, the Commission's adequacy votes can be found at <a href="http://pubapps2.usitc.gov/sunset/caseProfSuppAttmnt/download/11485">http://pubapps2.usitc.gov/sunset/caseProfSuppAttmnt/download/11485</a>.</p>		





**APPENDIX B**  
**HEARING WITNESSES**



## CALENDAR OF PUBLIC HEARING

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

**Subject:** Clad Steel Plate from Japan  
**Inv. Nos.:** 731-TA-739 (Third Review)  
**Date and Time:** December 6, 2012 - 9:30 a.m.

Sessions were held in connection with this review in the Main Hearing Room, 500 E Street (room 101), SW, Washington, D.C.

### **OPENING REMARKS:**

In Support of Continuation of Order (**Paul C. Rosenthal**,  
Kelley Drye & Warren LLP)  
In Opposition to Continuation of Order (**William Moran**,  
White & Case LLP)

### **In Support of the Continuation of the Antidumping Duty Order:**

Kelley Drye & Warren LLP  
Washington, D.C.  
on behalf of

ArcelorMittal USA  
Dynamic Materials Corporation

**Robert Insetta**, Director of Specialty Plate,  
ArcelorMittal USA

**Michael Markward**, Sales Manager for Specialty  
Plate, ArcelorMittal USA

**Jeff Nicol**, Vice President & General Manager,  
Dynamic Materials Corporation

**Michael Blakely**, Director of Market Development,  
Dynamic Materials Corporation

**In Support of the Continuation of  
the Antidumping Duty Order (continued):**

**Sheldon Gregg**, President of the United Steelworkers  
Local 1165-00

**Brad Hudgens**, Economist, Georgetown Economic Services

**Gina Beck**, Economist, Georgetown Economic Services

**Paul C. Rosenthal** )  
**Kathleen W. Cannon** )  
 ) – OF COUNSEL  
**R. Alan Luberd** )  
**Brooke Ringel** )

**In Opposition to the Continuation of  
the Antidumping Duty Order:**

White & Case LLP  
Tokyo, Japan  
on behalf of

JFE Steel Corporation (“JFE”)  
Nippon Steel & Sumikin Stainless Steel Corporation (“NSSC”)  
The Japan Steel Works, Ltd. (“JSW”)

**Kaoru Okamoto**, Chief Representative, New  
York Office, JFE

**Shigeo Asano**, Manager, Titanium & Clad Steel  
Plate Sec. Plate Sales Dept., JFE

**Takeshi Esumi**, Staff Deputy General Manager,  
Sales Coordination & Operation Planning  
Dept., JFE

**William Moran** ) – OF COUNSEL

**REBUTTAL/CLOSING REMARKS:**

In Support of Continuation of Order (**Kathleen W. Cannon**, Kelley Drye & Warren LLP)  
In Opposition to Continuation of Order (**William Moran**, White & Case LLP)

**APPENDIX C**  
**SUMMARY DATA**



All data in appendix C contain information that would reveal confidential operations and therefore have been deleted from this report.





**APPENDIX D**  
**COMMENTS BY U.S. PRODUCERS, IMPORTERS, PURCHASERS, AND**  
**FOREIGN PRODUCERS REGARDING THE EFFECTS OF THE ORDERS**  
**AND THE LIKELY EFFECTS OF REVOCATION**



All responses in appendix D contain information that would reveal confidential operations and therefore have been deleted from this report.

