Large Vertical Shaft Engines from China

Investigation Nos. 701-TA-637 and 731-TA-1471 (Final)

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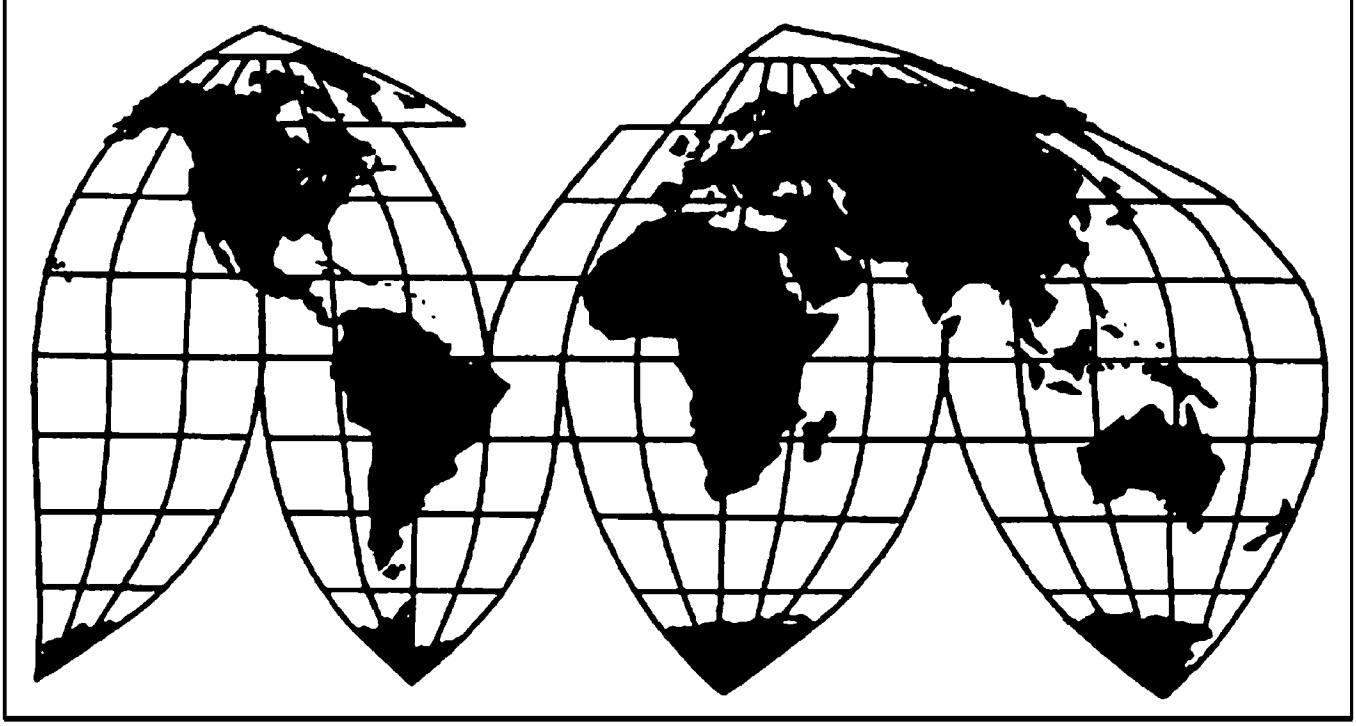
U.S. International Trade Commission



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CONTENTS

Page

CONTENTS

Page

CONTENTS

Page

CONTENTS

Page

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-637 and 731-TA-1471 (Final)

Large Vertical Shaft Engines from China

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that an industry in the United States is materially injured by reason of imports of large vertical shaft engines from China, provided for in subheadings 8407.90.10, 8407.90.90, and 8409.91.99 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value ("LTFV"), and to be subsidized by the government of China.[2]

BACKGROUND

The Commission instituted these investigations effective January 15, 2020, following receipt of petitions filed with the Commission and Commerce by the Coalition of American Vertical Engine Producers (Kohler Co., Kohler, Wisconsin and Briggs & Stratton Corporation, Wauwatosa, Wisconsin). The final phase of the investigations was scheduled by the Commission following notification of preliminary determinations by Commerce that imports of large vertical shaft engines from China were subsidized within the meaning of section 703(b) of the Act (19 U.S.C. 1671b(b)) and sold at LTFV within the meaning of 733(b) of the Act (19 U.S.C. 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigations 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 September 18, 2020 (85 FR 58384). In light of

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

[2] The Commission also finds that imports subject to Commerce's affirmative critical circumstances determination are not likely to undermine seriously the remedial effect of the antidumping duty order on large vertical shaft engines from China.

the restrictions on access to the Commission building due to the COVID–19 pandemic, the Commission conducted its hearing through written testimony and video conference on January 5, 2021. All persons who requested the opportunity were permitted to participate.

Views of the Commission

Based on the record in the final phase of these investigations, we determine that an industry in the United States is materially injured by reason of imports of large vertical shaft engines ("LVSEs") from China found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value, and to be subsidized by the government of China. We also find that critical circumstances do not exist with respect to imports of the subject merchandise from China subject to Commerce's affirmative critical circumstances determination in the antidumping duty investigation.

I. Background

The Coalition of American Vertical Engine Producers, consisting of U.S. producers Kohler Co. ("Kohler") and Briggs & Stratton, LLC ("Briggs & Stratton") (collectively "Petitioners"), filed the petitions in these investigations on January 15, 2020.[1] Witnesses for Briggs & Stratton and Kohler appeared at the hearing with counsel and each firm separately submitted written witness testimony, prehearing and posthearing briefs, and final comments.[2]

Respondents MTD Products, Inc. ("MTD"), The Toro Company and Toro Purchasing Company (collectively "Toro") and American Honda Motor Company, Inc. and Honda Power Equipment Mfg., Inc. (collectively "Honda") participated in the final phase of these investigations. MTD, Toro, and Honda (collectively "OEM Respondents") are importers and end-users of the subject merchandise; each is an original equipment manufacturer ("OEM") of lawn mowers that incorporates LVSEs into its product. MTD and Toro appeared at the Commission hearing represented by counsel. OEM Respondents filed a joint prehearing brief; MTD filed a posthearing brief and final comments; Toro and Honda filed a joint posthearing brief and Toro filed final comments.[3] Chinese LVSE producers and exporters Loncin Motor

[1] Confidential Report, INV-TT-008 (Jan.25, 2021) ("CR") at I-1; Public Report ("PR") at I-1.

[2] In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, the Commission conducted its hearing through a video teleconference held on January 5, 2021, as set forth in procedures provided to the parties on December 22, 2020. *Large Vertical Shaft Engines From China; Scheduling of the Final Phase of Countervailing and Antidumping Duty Investigations,* 85 Fed. Reg. 58384 (Sept. 18, 2020).

Briggs & Stratton Prehearing Brief dated December 22, 2020 ("Briggs & Stratton's Prehearing Brief") at 1. Briggs & Stratton also filed a posthearing brief dated January 12, 2021 ("Briggs & Stratton's Posthearing Brief"). Kohler Prehearing Brief dated December 22, 2020 ("Kohler's Prehearing Brief") at 44. Kohler also filed a posthearing brief on January 12, 2021 ("Kohler's Posthearing Brief").

[3] OEM Respondents' Prehearing Brief dated December 22, 2020 ("OEM Respondents' Prehearing Brief"); MTD's Posthearing Brief dated January 12, 2021 ("MTD's Posthearing Brief"); Toro and Honda's (Continued...)

Company, Ltd. ("Loncin") and Chongqing Zongshen Power Machinery ("Zongshen") (collectively "Chinese Respondents") appeared at the hearing represented by counsel, and submitted a joint prehearing brief and a joint posthearing submission.[4]

U.S. industry data are based on questionnaire responses from three domestic producers that accounted for 100 percent of U.S. production of LVSEs in 2019.[5] U.S. import data are based on questionnaire responses of 10 U.S. importers of LVSEs which accounted for an estimated 130.7 percent of total U.S. imports from China and 17.1 percent of imports from nonsubject sources imported under HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080, the three primary HTS statistical reporting numbers under which LVSEs are imported.[6] Data concerning the subject industry is based on foreign producer questionnaire responses from five Chinese producers of LVSEs whose reported exports to the United States accounted for an estimated 137.5 percent of total U.S. imports from China reported under the three primary HTS statistical reporting numbers referenced above.[7]

II. Domestic Like Product

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the "domestic like product" and the "industry."[8] Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Tariff Act"), defines the relevant domestic industry as the "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."[9] In turn, the Tariff Act defines "domestic like product" as "a product which is like,

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Posthearing Brief dated January 12, 2021 ("Toro and Honda's Posthearing Brief"). Honda is related to a Chinese producer of LVSEs, Honda Power Products (China) Co. Ltd., which filed a joint entry of appearance with Honda. CR/PR at VII-3; EDIS Doc. No. 723465.

[4] Chinese Respondents' Prehearing Brief dated December 22, 2020 ("Chinese Respondents' Prehearing Brief"); Chinese Respondents' Post-Hearing Submission dated January 12, 2021 ("Chinese Respondents' Posthearing Submission").

[5] CR/PR at I-4.

[6] CR/PR at I-4. LVSEs may also be imported under HTS statistical reporting numbers 8407.91.5085, 8409.91.9990, 8407.90.9060, and 8407.90.9080. The U.S. importer and foreign producer questionnaire coverage estimates are both over 100 percent when coverage is based on the three primary statistical reporting numbers. CR/PR at I-4, n.6.

[7] CR/PR at I-4.

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(4)(A).

or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."[10]

By statute, the Commission's "domestic like product" analysis begins with the "article subject to an investigation," *i.e.*, the subject merchandise as determined by Commerce.[11] Therefore, Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value is "necessarily the starting point of the Commission's like product analysis."[12] The Commission then defines the domestic like product in light of the imported articles Commerce has identified.[13] The decision regarding the appropriate domestic like product in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[14] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[15] The

[10] 19 U.S.C. § 1677(10).

[11] 19 U.S.C. § 1677(10). The Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value. *See*, *e.g.*, *USEC, Inc. v. United States*, 34 Fed. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States,* 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

[12] *Cleo Inc. v. United States*, 501 F.3d 1291, 1298 (Fed. Cir. 2007); *see also Hitachi Metals, Ltd. v. United States*, Case No. 19-1289, slip op. at 8-9 (Fed. Circ. Feb. 7, 2020) (the statute requires the Commission to start with Commerce's subject merchandise in reaching its own like product determination).

[13] *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Hosiden Corp. v. Advanced Display Mfrs.,* 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Torrington Co. v. United States*, 747 F. Supp. 744, 748–52 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

[14] *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); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors, including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996).

[15] *See*, *e.g.*, S. Rep. No. 96-249 at 90-91 (1979).

Commission looks for clear dividing lines among possible like products and disregards minor variations.[16]

B. Product Description

Commerce defined the scope of the imported merchandise under investigation as follows:

> {S}park-ignited, non-road, vertical shaft engines, whether finished or unfinished, whether assembled or unassembled, primarily for riding lawn mowers and zero-turn radius lawn mowers. Engines meeting this physical description may also be for other non-hand-held outdoor power equipment such as, including but not limited to, tow-behind brush mowers, grinders, and vertical shaft generators. The subject engines are spark ignition, single or multiple cylinder, air cooled, internal combustion engines with vertical power take off shafts with a minimum displacement of 225 cubic centimeters (cc) and a maximum displacement of 999cc. Typically, engines with displacements of this size generate gross power of between 6.7 kilowatts (kw) to 42 kw.
>
> Engines covered by this scope normally must comply with and be certified under Environmental Protection Agency (EPA) air pollution controls title 40, chapter I, subchapter U, part 1054 of the Code of Federal Regulations standards for small non-road spark-ignition engines and equipment. Engines that otherwise meet the physical description of the scope but are not certified under 40 CFR part 1054 and are not certified under other parts of subchapter U of the EPA air pollution controls are not excluded from the scope of this proceeding. Engines that may be certified under both 40 CFR part 1054 as well as other parts of subchapter U remain subject to the scope of this proceeding.
>
> For purposes of this investigation, an unfinished engine covers at a minimum a sub-assembly comprised of, but not limited to, the following components: Crankcase, crankshaft, camshaft, piston(s), and connecting rod(s). Importation of these components together, whether assembled or unassembled, and whether or not accompanied by additional components such as an oil pan, manifold, cylinder head(s), valve train, or valve cover(s), constitutes an unfinished engine for purposes of this investigation. The inclusion of other products such as spark plugs fitted into the cylinder head or electrical devices (*e.g.,* ignition modules, ignition coils) for synchronizing with the motor to supply

[16] *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748-49; *see also* S. Rep. No. 96-249 at 90-91 (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

> tension current does not remove the product from the scope. The inclusion of any other components not identified as comprising the unfinished engine subassembly in a third country does not remove the engine from the scope.
>
> The engines subject to this investigation are typically classified in the Harmonized Tariff Schedule of the United States (HTSUS) at subheadings: 8407.90.1020, 8407.90.1060, and 8407.90.1080. The engine subassemblies that are subject to this investigation enter under HTSUS 8409.91.9990. Engines subject to this investigation may also enter under HTSUS 8407.90.9060 and 8407.90.9080. The HTSUS subheadings are provided for convenience and customs purposes only, and the written description of the merchandise under investigation is dispositive.[17]

LVSEs are spark-ignited, single or multiple cylinder, air cooled, internal combustion, non-road engines with vertical power take off shafts with a minimum displacement of 225cc and a maximum displacement of 999cc. Most engines with this size displacement generate a gross power between 6.7 kW and 42 kW.[18] The scope also includes subassemblies (unassembled or unfinished vertical shaft engines) but does not include engines with a displacement of 224cc or less or engines with a horizontal shaft.[19] Subassemblies are designed to become part of a completed vertical shaft engine or a replacement assembly; they have no independent use and no separate markets.[20] LVSEs are primarily used in riding lawn mowers and zero-turn radius lawn mowers, although engines meeting this physical description may also be used in other non-hand-held outdoor power equipment. Engine displacements between 225cc and 999cc correspond to horsepower ranges for riding lawn mowers and are generally not used for non-riding lawn mowers or other types of vehicles.[21]

LVSEs must comply with and be certified to meet U.S. Environmental Protection Agency ("EPA") air pollution control standards. These standards must be met over the useful life of the

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[17] *Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof From the People's Republic of China: Final Affirmative Countervailing Duty Determination and Final Negative Critical Circumstances Determination*, 86 Fed. Reg. 1933, 1934-35 (Dep't Commerce, Jan. 11, 2021); ("Commerce Final CVD Determination"); *Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value and Final Affirmative Critical Circumstances Determination*, 86 Fed. Reg. 1936, 1938 (Dep't Commerce, Jan. 11, 2021) ("Commerce Final AD Determination").

[18] CR/PR at I-10.

[19] Vertical shaft engines with a displacement of less than 225cc are currently subject to separate investigations. *See Small Vertical Shaft Engines from China*, Inv. Nos. 701-TA-643 and 731-TA-1493 (Preliminary), USITC Pub. 5054 at 5-7 (May 2020).

[20] CR/PR at I-10.

[21] CR/PR at I-10.

engine; the EPA regulations establish the nominal useful life for each of three categories: residential, extended life residential, and commercial LVSEs. LVSEs covered by the scope of these investigations are all EPA class II engines, which are defined as "nonhandheld equipment engines greater than or equal to 225cc in displacement."[22]

C. Arguments of the Parties

Petitioners' Arguments. Petitioners argue that the Commission should define a single domestic like product, consisting of LVSEs that are coextensive with the scope.[23] They argue that subassemblies and replacement engines are part of the same domestic like product as completed LVSEs sold to OEMs, under the Commission's semi-finished product like product analysis.[24]

Respondents' Arguments. Chinese Respondents accept the Commission's definition in the preliminary determinations of a single domestic like product coextensive with the scope of the investigations.[25] None of the other respondents made any domestic like product arguments.

D. Domestic Like Product Analysis

In its preliminary determinations the Commission defined a single domestic like product consisting of those LVSEs and subassemblies described in the scope.[26] The issue was not disputed.[27] The Commission applied a semi-finished like product analysis and found that subassemblies should be included in the same domestic like product as finished LVSEs.[28]

The record in the final phase of these investigations does not contain any information that would cause us to revisit and revise the findings the Commission made in the preliminary phase.[29] As discussed above, no party contests the Commission's definition in the preliminary

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[22] CR/PR at I-11-12.

[23] Kohler's Prehearing Brief at 4-8; Briggs & Stratton's Prehearing Brief at 11, n.58.

[24] Kohler's Prehearing Brief at 6.

[25] Chinese Respondents' Prehearing Brief at 3.

[26] *Vertical Shaft Engines from China,* Inv. Nos. 701-TA-637 and 731-TA-1471 (Preliminary), USITC Pub. 5034 (March 2020) ("Preliminary Determinations, USITC Pub. 5034") at 4-9.

[27] Preliminary Determinations, USITC Pub. 5034 at 7.

[28] Preliminary Determinations, USITC Pub. 5034 at 8-9. The Commission found that subassemblies were dedicated for use as finished LVSEs or sold as replacement parts, that subassemblies were not sold in any markets other than the market for LVSEs, that subassemblies had no function separate from their eventual inclusion in a finished engine, that the short block subassembly reportedly constituted 50 percent of the value of a finished engine, and that subassemblies required additional parts and further processing to be transformed into finished engines. *Id.*

[29] *See generally* CR/PR at I-10-17.

determinations that there is a single domestic like product coextensive with the scope. Therefore, we again define a single domestic like product corresponding to Commerce's scope of investigation.

III. Domestic Industry

The domestic industry is defined 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."[30] 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.

Petitioners argue that the Commission should find that all U.S. producers of LVSEs should be included in its definition of the domestic industry and note that no party has disputed that the domestic industry consists of Briggs & Stratton, Kawasaki Motors Mfg. Corp. USA ("Kawasaki"), and Kohler.[31] Petitioners contend that firms that manufacture machined parts are not part of the domestic industry.[32] Respondents do not raise any domestic industry arguments.[33]

In its preliminary determinations, the Commission found that the domestic industry consisted of all U.S. producers of LVSEs: Briggs & Stratton, Kawasaki, and Kohler. The Commission found that firms that supplied and machined components for U.S. producers' production of LVSEs did not engage in sufficient production-related activities to be considered domestic producers as they supplied a wide variety of industries and were not dedicated to the production of components of LVSEs, and the components they produced accounted for only a fraction of the value of the finished engines.[34] There were no issues with respect to the related parties provision.[35]

With respect to what activities constitute sufficient production-related activities, there is no new information in the final phase of these investigations nor any new arguments. Consequently, for the reasons stated in the preliminary determinations, we again find that

[30] 19 U.S.C. § 1677(4)(A).
[31] Kohler Prehearing Brief at 8.
[32] Kohler Prehearing Brief at 8.
[33] OEM Respondents' Prehearing Brief at 1.
[34] Preliminary Determinations, USITC Pub. 5034 at 9-10.
[35] Preliminary Determinations, USITC Pub. 5034 at 10.

firms that supply and machine components for U.S. producers' production of LVSEs do not engage in sufficient production-related activities to be considered domestic producers of LVSEs.

There are also no related parties issues, as no domestic producer imported subject merchandise during the January 2017 to June 2020 period of investigation ("POI"), or is related to an importer or exporter of subject merchandise.[36] Therefore, we define the domestic industry to include all domestic producers of LVSEs: Briggs & Stratton, Kawasaki, and Kohler.

IV. Material Injury by Reason of Subject Imports[37]

Based on the record in the final phase of these investigations, we find that an industry in the United States is materially injured by reason of subject imports from China.

A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[38] In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.[39] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[40] In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[41] No single factor is dispositive, and all relevant factors are considered "within the

[36] Kawasaki is owned by ***. Kawasaki is ***. CR/PR at III-2, n.1 & Table III-2.

[37] Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that accounts for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall generally be deemed negligible. 19 U.S.C. § 1677(24)(A)(i). The exceptions to this general rule are not pertinent here.

Negligibility is not an issue in these investigations. The petitions were filed on January 15, 2020. Subject imports from China accounted for *** percent of total imports of LVSEs by quantity in the 12-month period (January to December 2019) preceding the filing of the petitions. CR/PR at Table IV-5. Accordingly, we find that subject imports are not negligible.

[38] 19 U.S.C. §§ 1671d(b), 1673d(b).

[39] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[40] 19 U.S.C. § 1677(7)(A).

[41] 19 U.S.C. § 1677(7)(C)(iii).

context of the business cycle and conditions of competition that are distinctive to the affected industry."[42]

Although the statute requires the Commission to determine whether the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[43] it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the Commission's reasonable exercise of its discretion.[44] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[45]

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold.[46] In performing its examination, however, the Commission need not isolate

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[42] 19 U.S.C. § 1677(7)(C)(iii).

[43] 19 U.S.C. §§ 1671d(b), 1673d(b).

[44] *Angus Chemical Co. v. United States*, 140 F.3d 1478, 1484-85 (Fed. Cir. 1998) ("{T}he statute does not 'compel the commissioners' to employ {a particular methodology}."), *aff'g,* 944 F. Supp. 943, 951 (Ct. Int'l Trade 1996).

[45] The Federal Circuit, in addressing the causation standard of the statute, observed that "{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement." *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was further ratified in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), where the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that "this court requires evidence in the record 'to show that the harm occurred "by reason of" the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.'" *See also Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1357 (Fed. Cir. 2006); *Taiwan Semiconductor Industry Ass'n v. USITC*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

[46] Uruguay Round Agreements Act Statement of Administrative Action (SAA), H.R. Rep. 103-316, vol. I at 851-52 (1994) ("{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports."); S. Rep. 96-249 at 75 (1979) (the Commission "will consider information which indicates that harm is caused by factors other than less-
(Continued...)

the injury caused by other factors from injury caused by unfairly traded imports.[47] Nor does the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[48] It is clear that the existence of injury caused by other factors does not compel a negative determination.[49]

Assessment of whether material injury to the domestic industry is "by reason of" subject imports "does not require the Commission to address the causation issue in any particular way" as long as "the injury to the domestic industry can reasonably be attributed to the subject imports."[50] The Commission ensures that it has "evidence in the record" to "show that the

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than-fair-value imports."); H.R. Rep. 96-317 at 47 (1979) ("in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;" those factors include "the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry"); *accord Mittal Steel*, 542 F.3d at 877.

[47] SAA at 851-52 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports."); *Taiwan Semiconductor Industry Ass'n,* 266 F.3d at 1345 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports." (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int'l Trade 2002) ("{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury" or make "bright-line distinctions" between the effects of subject imports and other causes.); *see also Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec. 2003) (Commission recognized that "{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e*., it is not an 'other causal factor,' then there is nothing to further examine regarding attribution to injury"), *citing Gerald Metals,* 132 F.3d at 722 (the statute "does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.").

[48] S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

[49] *See Nippon Steel Corp*., 345 F.3d at 1381 ("an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the 'dumping' need not be the sole or principal cause of injury.").

[50] *Mittal Steel*, 542 F.3d at 876 &78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.") *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its (Continued...)

harm occurred 'by reason of' the LTFV imports," and that it is "not attributing injury from other sources to the subject imports." [51] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[52]

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.[53] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[54]

B. Conditions of Competition and the Business Cycle

The following conditions of competition inform our analysis of whether there is material injury by reason of subject imports.

1. Demand Considerations

The demand for LVSEs is driven by demand for the downstream products in which they are contained — traditional riding mowers (also referred to as tractors) and zero-turn mowers, which are commonly used by professional landscapers (collectively "riding mowers"). Demand for riding mowers is associated with residential housing starts.[55] Outdoor Power Equipment Institute ("OPEI") data show that U.S. shipments of riding mowers fluctuated from 2017 to 2019 and were projected to increase in 2020. Market participants reported a wide range of views on U.S. demand for LVSEs since 2017.[56]

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decision in *Swiff-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in *Mittal*.

[51] *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 877-79. We note that one relevant "other factor" may involve the presence of significant volumes of price-competitive nonsubject imports in the U.S. market, particularly when a commodity product is at issue. In appropriate cases, the Commission collects information regarding nonsubject imports and producers in nonsubject countries in order to conduct its analysis.

[52] *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); *see also Mittal Steel*, 542 F.3d at 879 ("*Bratsk* did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was 'by reason' of subject imports.").

[53] We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

[54] *Mittal Steel*, 542 F.3d at 873; *Nippon Steel Corp*., 458 F.3d at 1350, *citing U.S. Steel Group*, 96 F.3d at 1357; S. Rep. 96-249 at 75 ("The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.").

[55] CR/PR at II-1 and II-13.

[56] CR/PR at Table II-5. One U.S. producer reported that demand for LVSEs had increased since January 1, 2017, one reported that it had not changed, and one reported that it had fluctuated; five U.S. (Continued...)

Most LVSEs are sold to the OEMs that manufacture riding mowers. The OEM market is concentrated among a small number of manufacturers including MTD, Husqvarna Outdoor Products ("Husqvarna"), Toro, and Deere & Co. ("Deere") (***).[57] These OEMs primarily sell their mowers to major home center retailers, such as Home Depot, Lowe's, Sears, and ***.[58]

LVSEs can be categorized by their nominal useful life ratings as either residential, extended life residential (or general purpose), or commercial.[59] The large majority of shipments of both the domestic like product and subject imports are of residential-grade products (including both residential and extended life residential); approximately *** percent of U.S. shipments of domestically produced LVSEs and approximately *** percent of U.S. shipments of subject imports were non-commercial LVSEs over the POI.[60]

Demand for LVSEs is seasonal, reflecting seasonal demand for riding mowers. OEMs usually make purchasing decisions for LVSEs in the spring of the year prior to any given model year, with sales of mowers to retailers occurring primarily in late winter and early spring. LVSE sales typically begin increasing in the fourth quarter of the year, peak in the first quarter, begin to decline in the second quarter, and are at their lowest level in the third quarter.[61]

Apparent U.S. consumption of LVSEs, by quantity, decreased overall from 2017 to 2019 and experienced a sharp decline in January-June ("interim") 2020. Apparent U.S. consumption increased from *** units in 2017 to *** units in 2018, declined to *** units in 2019, and was lower in interim 2020 (*** units) than in interim 2019 (*** units).[62] OPEI *** and projected that mower shipments would increase in 2020.[63] This could suggest that purchases of LVSEs were deferred until after June 2020, the end of the Commission's data collection period.

2. Supply Considerations

The domestic industry accounted for the largest share of the U.S. market throughout the POI. Its market share was *** percent in 2017, *** percent in 2018, *** percent in 2019, *** percent in interim 2019, and *** percent in interim 2020.[64] As previously discussed, the

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importers reported that it had increased and two reported that it had decreased; four U.S. purchasers reported that it had increased, one that it had not changed, three that it had decreased, and one that it had fluctuated. *Id.*

[57] CR/PR at II-2. OEM purchaser Husqvarna ***. *Id.* at II-3, n.19.

[58] CR/PR at II-1-2 & n.6.

[59] CR/PR at I-11-13.

[60] CR/PR at Table III-8 and Table IV-7.

[61] CR/PR at II-12 and Kohler Prehearing Brief at 11.

[62] CR/PR at Table IV-8.

[63] CR/PR at II-13 and MTD Prehearing Brief, Exhibit 2.

[64] CR/PR at Table IV-9.

domestic industry consists of three producers: Briggs & Stratton, Kawasaki, and Kohler. Briggs & Stratton, the largest domestic producer, also manufactures riding mowers which it sells to its dealer network but not to major retailers.[65] Kawasaki reportedly competes at the higher end of the market, in both price and quality.[66] The domestic industry's production capacity exceeded apparent U.S. consumption throughout the POI and increased by *** percent from 2017 to 2019, mostly due to ***.[67] Since 2017, *** has ***.[68] The domestic industry's production capacity was *** percent lower in interim 2020 than in interim 2019.[69]

Domestic producers generally remained operational despite the COVID-19 pandemic. Briggs & Stratton ***.[70] ***.[71]

There were several domestic industry developments that occurred during or shortly after the POI. ***.[72] ***.[73] ***.[74]

Subject imports accounted for the second largest share of the U.S. LVSE market during the POI. Subject imports' market share was *** percent in 2017, *** percent in 2018, *** percent in 2019, *** percent in interim 2019, and *** percent in interim 2020.[75] The largest importers of subject merchandise were ***, which collectively accounted for *** percent of reported subject imports in 2019.[76]

Nonsubject imports accounted for the smallest share of the U.S. LVSE market during the POI. Nonsubject imports' market share was *** percent in 2017, *** percent in 2018, *** percent in 2019, *** percent in interim 2019 and *** percent in interim 2020.[77] Approximately *** of the nonsubject imports were imported by Briggs & Stratton from ***.[78]

[65] CR/PR at II-1.
[66] CR/PR at II-1.
[67] CR/PR at III-4 & Table III-4.
[68] CR/PR at Table III-3.
[69] CR/PR at Table III-4 and Table C-1.
[70] CR/PR at III-4.
[71] CR/PR at III-4.
[72] CR/PR at Table III-3.
[73] CR/PR at Table III-3.
[74] CR/PR at Table III-3.
[75] CR/PR at Table IV-9 & Table C-1.
[76] As derived from CR/PR at Table IV-1.
[77] CR/PR at Table IV-9 & Table C-1.
[78] CR/PR at Table IV-1 & IV-10. The decrease in nonsubject imports over the POI is ***. CR/PR at IV-2, n.3.

3. Substitutability and Other Conditions

Both domestically produced LVSEs and subject imports are made in a range of power levels and are produced in both commercial and residential grades. OEMs typically pair engines with specific mowers and tailor the engines' performance characteristics to the mower platform.[79] All responding U.S. producers and the majority of U.S. purchasers reported that domestically produced LVSEs are always or frequently interchangeable with subject imports. A majority of responding importers reported that domestically produced LVSEs were sometimes or never interchangeable with subject imports, although two of seven responding importers reported that they were frequently interchangeable.[80] In comparisons between the domestic product and subject imports concerning 20 purchasing factors, a majority of the responding purchasers found the domestic product and the subject imports comparable with respect to every factor except price, availability, and delivery time.[81] Ten out of 11 responding purchasers reported that domestically produced product always or usually meets quality specifications and nine of these purchasers reported that subject imports always or usually meet quality specifications.[82]

Six of the 11 responding purchasers, including the four largest purchasers, require suppliers to become certified or qualified to sell LVSEs to their firm; two of the responding purchasers reported that a domestic or foreign supplier had failed in its attempt to qualify LVSEs or had lost its approved status since 2017. *** reported that no producers failed to qualify, although a particular LVSE offered by a producer may fail the firm's engine application approval process. *** reported that all of its suppliers have had initial failures in its qualification process but that engines are often improved and ultimately pass qualification after subsequent tests.[83] All LVSEs must also comply with and be certified to meet EPA air pollution

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[79] *See, e.g.*, CR/PR at II-24; MTD Posthearing Brief, Exhibit 1, Responses to the Commission's Questions at 43.

[80] CR/PR at Table II-11.

[81] CR/PR at Table II-10. The 20 purchase factors included availability, brand, delivery time, engine features, engine safety, meet purchaser specifications, price, product consistency, product range, quality meets industry standards, quality exceeds industry standards, reliability of supply, technical support/service, and warranty. *Id*

A majority of purchasers reported that the price of the domestic like product was inferior (*i.e.* higher) than that of subject imports; a plurality of purchasers reported that the domestic like product was superior in terms of delivery time, and an equal number of purchasers reported that the domestic like product was superior, comparable, and inferior with respect to availability. *Id*.

[82] CR/PR at Table II-12.

[83] CR/PR at II-23.

control standards.[84] In light of the foregoing, we find that there is at least a moderate degree of substitutability between domestically produced LVSEs and subject imports, with higher substitutability among engines with similar power and performance characteristics for specific mower platforms.[85]

We find that price is an important factor in purchasing decisions for LVSEs, although reliability of supply/availability, quality/performance, and brand/reputation are also important.[86] Six out of 11 responding purchasers rated price as very important in purchasing decisions; the other five responding purchasers rated price as somewhat important.[87]

Price negotiations between LVSE manufacturers and OEMs for a particular model year mower typically begin in spring and summer of the prior year, with deliveries typically occurring in the late fall through early winter. Sales agreements establish a price for the engine but may not establish a volume of sales. OEMs typically provide volume forecasts to the engine manufacturer.[88] [89]

Domestically produced LVSEs are typically sold with warranty protection provided by the manufacturer. Briggs & Stratton and Kohler reported that warranty costs account for 2 to 3 percent of an LVSE's sales price. Five importers reported providing warranties for LVSEs, and

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[84] CR/PR at I-11-12.

[85] CR/PR at II-16. The degree of substitution between domestic and imported LVSEs depends upon such factors as relative prices, quality (e.g., grade standards, defect rates, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, reliability of supply, product services, etc.). *Id*. Petitioners provided some evidence that engines within the same power groups are generally substitutable. Kohler Posthearing Brief, Answers to Commissioner Questions at 34-35. *See also* Tr. at 43 (Hudak) ("A wide range of engine placements and horsepower are all capable of powering a given mower.")

[86] CR/PR at Table II-7. Purchasers were asked to rank the top three factors in their purchasing decisions. The most often reported factors were price (six firms), reliability of supply/availability (six firms), quality/performance (five firms), and brand/reputation (five firms). Quality/performance was most frequently reported as the most important factor. *Id.*

[87] CR/PR at Table II-8. Market participants reported mixed views as to the significance of differences other than price in comparing domestic product and subject imports. U.S. producers reported such differences as sometimes or never important, most importers reported such differences as always important, and purchasers were evenly divided between whether such differences were always or frequently important, on the one hand, or sometimes or never important, on the other. CR/PR at Table II-13.

[88] CR/PR at V-3-4.

[89] Most domestically produced LVSES are sold using long-term or annual contracts; most subject imports that are sold to OEMs by importers (rather than directly imported by OEMs) are sold via short-term contracts. CR/PR at Table V-2.

that this accounted for 0.3 to 2 percent of the price of an engine. Some OEMs that import subject merchandise ***.[90]

LVSEs may be branded with the engine manufacturer's name or sold under the brand name of the mower OEM; the latter are termed "private label."[91] U.S. producers generally sell branded LVSEs, with the exception of ***.[92] LVSEs produced in China for MTD and Toro are labeled with those OEMs' respective brand names.[93]

Most subject imports became subject to additional 25 percent *ad valorem* import duties under Section 301 of the Trade Act of 1974 ("section 301 tariffs") [94] in August 2018.[95] USTR granted exclusions to some of the LVSEs subject to the section 301 tariffs between July and October 2019. These exclusions expired December 31, 2020.[96]

The main raw materials used to produce LVSEs are machined cast iron and aluminum parts. The price of aluminum and steel scrap decreased overall from January 2017 to June 2020, by *** and *** percent, respectively.[97] During the POI, raw materials constituted between *** percent of U.S. producers' cost of goods sold ("COGS").[98] The domestic industry's raw material costs increased on a unit basis from $*** in 2017 to $*** in 2018 and $*** in 2019; these unit costs were $*** in interim 2019 and $***, in interim 2020.[99] Since 2017, some of the raw materials used to produce LVSEs have been subject to additional duties pursuant to Section 232 of the Trade Expansion Act of 1962 ("section 232 tariffs").[100] A majority of U.S. producers and U.S. importers reported that the section 232 tariffs did not cause the cost of raw materials to change but that they did cause LVSE prices to increase.[101]

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[90] CR/PR at V-9-10.

[91] CR/PR at II-2.

[92] ***. Briggs & Stratton Posthearing Brief at 12.

[93] CR/PR at II-2.

[94] 19 U.S.C. § 2411.

[95] These duties applied to Chinese LVSEs imported under HTS subheadings 8407.90.10 and 8407.90.90. Subject imports imported under additional HTS subheadings 8409.91.50 and 8409.91.99 became subject to additional duties of 10 percent under section 301 in September 2018 and these duties were increased to 25 percent *ad valorem* in May 2019. CR/PR at I-9 & n.14.

[96] CR/PR at I-9-10 & nn.14-18. The section 301 tariffs also covered some engine components imported from China. CR/PR at V-1.

[97] CR/PR at V-1 & Figure V-1.

[98] CR/PR at Table VI-1.

[99] CR/PR at Table VI-1.

[100] 19 U.S.C. § 1862.

[101] CR/PR at V-2 & Table V-1.

C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[102]

As an initial matter, we reject respondents' arguments that we should rely primarily on value-based, rather than quantity-based, indicators to measure shipments of domestic product and imports.[103] The Commission normally relies on quantity-based measures, but has relied on value-based measures in investigations in which there was a large grouping of items differing greatly in size, applications, and price.[104] The record in these investigations does not show that there are such wide differences for the LVSEs at issue. LVSEs are used almost exclusively in riding and zero-turn radius lawn mowers.[105] LVSEs are categorized as either residential (which had the lowest average unit value ("AUV"), extended life residential, or commercial (which had the highest AUV). The range of product types and AUVs for LVSEs are not of the degree that would typically lead the Commission to rely primarily on value-based indicators.[106]

In addition, both domestically produced LVSEs and subject imports are overwhelmingly non-commercial LVSEs (*i.e.,* "residential" and "extended life residential"). During each year and interim period of the POI, between *** percent of U.S. shipments of the domestic like product and between *** percent of U.S. shipments of subject imports were non-commercial

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[102] 19 U.S.C. § 1677(7)(C)(i).

[103] OEM Respondents' Prehearing Brief at 26-28; Chinese Respondents' Prehearing Brief at 10.

[104] *Tapered Roller Bearings from China*, Inv. No. 731-TA-344 (Fourth Review), USITC Pub. 4824 (Sept. 2018) at 21, n.133.

[105] CR/PR at I-10, n.23.

[106] In the present investigations, there are just three categories of LVSEs (residential; extended life residential; commercial) and a reliable unit of measurement applicable to all categories (*i.e.* number of units). For domestically produced LVSEs, the ratio of the AUV for commercial engines compared to residential engines never exceeded *** in any year of the POI or interim period; for subject imports, the ratio never exceeded ***. Derived from CR/PR at Table III-8 and Table IV-7.

The record here contrasts with prior investigations where based on the facts of the individual investigation the Commission relied primarily on value-based indicators. *See, e.g*., *Wooden Cabinets and Vanities from China*, Inv. Nos. 701-TA-620 and 731-TA-1445 (Final), USITC Pub. 5042 (April 2020) at 30 and n.115 (the Commission relied primarily on value-based indicators for components since "there is no reliable unit of measurement to collect quantity data for components due to the variety of shapes, sizes and weights of various cabinet components."); *Diamond Sawblades and Parts Thereof from China*, Inv. No. 731-TA-1092 (Review), USITC Pub. 4559 at 12 n.64 (Sept. 2015); (the Commission relied on value-based indicators since the product in those investigations "includes a large grouping of items differing greatly in size, characteristics, applications and price."); *see also Tapered Roller Bearings from China*, Inv. No. 731-TA-344 (Fourth Review), USITC Pub. 4824 at 21 n.133 (Sept. 2018). We also note that the record in these investigations contains separate data for the three categories of LVSEs. *See* CR/PR at Table III-8 and Table IV-7.

engines.[107] Moreover, the AUVs of the domestically produced non-commercial LVSEs remained within a relatively narrow range throughout the POI, and AUVs of subject imports of this product type similarly did not show wide variations.[108]

Thus, consistent with our traditional approach, we rely on quantity-based indicators to assess volume effects in these investigations.[109]

The volume of subject imports increased each year from 2017 to 2019 and was sharply higher in interim 2020 than in interim 2019. Subject imports increased from *** units in 2017 to *** units in 2018 and *** units in 2019, a *** percent increase from 2017 to 2019. The volume of subject imports was *** units in interim 2019 and *** units in interim 2020; subject imports were *** percent higher in interim 2020 than in interim 2019.[110]

The market share of subject imports increased by *** percentage points from 2017 to 2019 and was sharply higher, by *** percentage points, in interim 2020 compared to interim 2019. Subject imports' share of the quantity of apparent U.S. consumption was *** percent in 2017, *** percent in 2018, and *** percent in 2019; it was *** percent in interim 2019 and *** percent in interim 2020.[111]

[107] CR/PR at Table III-8 and Table IV-7.

[108] AUVs for non-commercial domestically produced LVSEs ranged from $*** to $*** per unit and AUVs for non-commercial subject imports ranged from $*** to $*** over the POI. CR/PR at Table III-8 and Table IV-7. Commercial LVSEs did have higher unit values, with the AUV of domestically produced commercial engines ranging between $*** and $*** per unit and the AUV of importers' shipments of commercial engines from China ranging between $*** and $*** per unit. *Id.* As explained above, however, the vast majority of shipments throughout the POI from both importers and domestic producers consisted of non-commercial engines and the concentration of shipments of commercial and non-commercial engines from these different sources remained fairly steady. *Id.*

[109] We also note that relying on value-based indicators could understate volume and market share of low-priced products.

[110] CR/PR at IV-2 & Table IV-2.

[111] CR/PR at IV-19 and Table C-1. We also note that the increase in subject import market share was at the direct expense of the domestic industry, which lost *** percentage points of market share from 2017 to 2019 and *** percentage points between interim periods. CR/PR at Table C-1.

We find that the volume of the subject imports and the increase in that volume, particularly in interim 2020, are significant in both absolute terms and relative to consumption in the United States.[112] [113] [114]

D. Price Effects of the Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of the subject imports, the Commission shall consider whether

> (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
> (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[115]

We found above in Section IV.B.3 that there is at least a moderate degree of substitutability between domestically produced LVSEs and subject imports, with higher substitutability among engines with similar power and performance characteristics for specific mower platforms.[116] We further found that price is an important consideration in purchasing decisions, along with other factors.[117]

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[112] The higher subject import volume in interim 2020 occurred after USTR granted exclusions from section 301 duties to certain LVSEs between July and October 2019. These exclusions expired on December 31, 2020. CR/PR at I-9.

[113] Chinese Respondents argue that subject import volume is not significant due to the attenuated competition between domestically produced LVSEs and subject imports. Chinese Respondents' Prehearing Brief at 7-9. We explain in section IV.E. below why we do not find that competition between the domestic like product and the subject imports is substantially attenuated.

[114] Commissioner Johanson notes that the increase in market share of subject imports by quantity from 2017 to 2019, of *** percentage points, was small, and the increase in U.S. shipments of subject imports in relation to U.S. production in this period was even smaller, from *** percent in 2017 to *** percent in 2019. Calculated from CR/PR Table C-1. Nevertheless, he finds the increase in subject imports significant in relation to domestic consumption in light of the increase in subject imports' market share in 2020. He notes this increase followed the issuance of exclusions from the Section 301 tariffs and also ***.

[115] 19 U.S.C. § 1677(7)(C)(ii).

[116] CR/PR at II-16.

[117] CR/PR at Table II-10. As explained above, reliability of supply/availability, quality/performance, and brand/reputation are also important in purchasing decisions.

The Commission collected quarterly price data for the total quantity and f.o.b. value of four LVSE products shipped by U.S. producers and importers to unrelated customers between January 2017 and June 2020.[118] All three U.S. producers and one importer (***) provided usable price data for sales of the requested products, although no firms reported price data for all products for all quarters. Price data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. shipments of LVSEs and *** percent of subject imports in 2019.[119]

Subject imports undersold the domestic like product in all 28 quarterly price comparisons at an average underselling margin of *** percent; the quantity of subject imports in these underselling comparisons was *** units.[120] Furthermore, a majority of purchasers reported that the domestic like product was inferior to subject imports with respect to price, indicating that prices for domestic products were higher than those for subject imports.[121]

As some OEMs themselves import subject merchandise, the Commission also obtained landed duty-paid purchase costs and quantities for the same four pricing products that are directly imported.[122] Four U.S. OEMs that directly imported LVSEs (***) provided purchase cost data, which accounted for *** percent of subject imports from China in 2019, although no firms

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[118] CR/PR at V-10-11. The pricing products were:
Product 1. – Vertical Shaft Engine, Air-Cooled, Single Cylinder, Carbureted, 340-400cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours);
Product 2. – Vertical Shaft Engine, Air-Cooled, Single Cylinder, Carbureted, 410-550cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours);
Product 3. – Vertical Shaft Engine, Air-Cooled, Twin Cylinder, Carbureted, 650-700cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours);
Product 4. – Vertical Shaft Engine, Air-Cooled, Twin Cylinder, Carbureted, 701-750cc displacement, extended life residential (EPA-certified nominal useful life rating of more than 250 hours but less than 1,000 hours).

[119] CR/PR at V-11.

[120] CR/PR at Table V-8. OEM Respondents argue that the pricing comparisons in the Commission report are not reliable because the domestically produced and imported LVSEs included within particular pricing products differ with respect to rated engine displacement, terms of sale, and other factors. OEM Respondents' Prehearing Brief at 55-56. We find the pricing comparisons to be reliable. Respondents had a full opportunity to suggest changes to pricing product definitions in their comments on the draft questionnaires, but did not suggest any changes based on terms of sale or engine displacement ranges. MTD and Toro did ask the Commission to adjust pricing product definitions to indicate the EPA useful life designation of the engine. MTD Comments on Draft Questionnaires dated June 26, 2020 at 3; Toro Comments on Draft Questionnaires dated June 26, 2020 at 2. The Commission made adjustments to its pricing products in response to those requests. *See* CR/PR at V-11.

[121] CR/PR at Table II-10.

[122] CR/PR at V-10-11.

reported purchase cost data for all products for all quarters.[123] Landed duty-paid costs for LVSEs were below the price of domestically produced LVSEs in all 29 quarterly comparisons at an average price-cost differential of *** percent; the quantity of subject imports in these comparisons was *** units.[124]

The Commission also requested that importers reporting import purchase cost data provide estimates of additional costs associated with their importing activities (that is, costs incurred by importing rather than purchasing from a U.S. producer or importer) that were not included in the landed duty-paid values.[125] Three of the four importers that furnished import purchase cost data reported such additional costs.[126] ***.[127] These additional costs were substantially less than the average price-cost differential of *** percent between landed duty-paid costs for the subject imports and prices for the domestic like product.

U.S. OEMs that directly imported were also asked whether the cost of LVSEs they imported was lower than the price of purchasing LVSEs from a U.S. producer or importer. *** reported that the costs were not lower and *** reported that they were lower. ***, however, estimated that it saved *** percent of landed duty-paid value by importing LVSEs rather than purchasing them from a U.S. importer, and importer *** estimated saving *** percent by importing LVSEs compared to purchasing them from a U.S. producer.[128]

We have also considered lost sales data in our underselling analysis. Of the 11 purchasers that responded to the Commission's questionnaires, four reported that they had purchased subject imports rather than the domestic like product since 2017. Two of these purchasers reported that subject import prices were lower than those for the domestic like

[123] CR/PR at V-11.

[124] CR/PR at Table V-9.

[125] OEM Respondents argue that they incur additional costs when purchasing subject imports that are not incorporated in the prices of the subject imports or in the reported purchase cost data but that are incorporated in the prices reported for domestically produced engines, specifically servicing warranty claims and costs for co-developing innovations. OEM Respondents' Prehearing Brief at 57-58. The record reflects that importers' cost to provide LVSE warranties accounted for 0.3 to 2 percent of the price of an engine, which is well below the underselling margins and cost-price differentials on the record. CR/PR at V-10. As for the costs for co-developing innovations, OEMs Respondents do not explain how the price and purchase cost data should be adjusted due to these costs, and as discussed below, some importers report that they save money by importing LVSEs directly.

[126] CR/PR at V-20.

[127] CR/PR at V-20 (specifying additional costs *** incur by importing directly).

[128] CR/PR at V-21-22.

product, and one of these purchasers reported that price was a primary reason for its decision to purchase subject imports rather than the domestic like product.[129]

The record evidence demonstrates that prices and purchase costs for subject imports were substantially lower than prices for the domestic like product and most purchasers reported that subject imports were lower priced than the domestic like product. In addition, as discussed above, we find that there is at least a moderate degree of substitutability between domestically manufactured LVSEs and subject imports, with higher substitutability among engines with similar power and performance characteristics for specific mower platforms (and, as further discussed below, we note the record evidence of pricing pressure by subject imports). In light of this evidence, we find that the underselling by subject imports is significant. As price is important to purchasing decisions, we further find that the significant underselling caused a shift in market share from the domestic industry to subject imports during the POI, as subject imports gained market share at the direct expense of the domestic industry.[130] From 2017 to 2019, subject imports gained *** percentage points of U.S. market share, while the domestic industry lost *** percentage points. This trend was exacerbated over the interim periods, as subject imports gained *** percentage points of market share while the domestic industry lost *** percentage points between interim 2019 and interim 2020.[131]

The record shows mixed price trends for the domestic like product and subject imports during the POI. Between the first quarter of 2017 and the second quarter of 2020, prices decreased by *** and *** percent for domestically produced Products 1 and 4, respectively, and prices increased by *** percent for domestically produced Product 2. During this period, subject import prices for Product 2 increased by *** percent and decreased by *** percent for Product 4, while subject import purchase costs decreased by *** percent for Product 1 and by *** percent for Product 2.[132]

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[129] CR/PR at V-27 and Table V-11. No purchasers reported that U.S. producers had reduced prices in order to compete with lower-priced imports from China; five purchasers reported that U.S. producers had not reduced prices in order to compete with lower-priced imports from China, and six purchasers reported that they did not know. CR/PR at V-27-28.

[130] We address the respondents' alleged non-price reasons for purchasing subject imports further below in the impact discussion. *See, e.g.*, OEM Respondents' Prehearing Brief at 11.

[131] CR/PR at IV-19 and Table C-1.

[132] CR/PR at Table V-3, Table V-4, Table V-5, Table V-6, and Table V-7. There were no prices reported for domestically produced Product 3, and subject import purchase cost data for Product 3 fluctuated within a narrow range. *Id.* at Table V-5.

We have also considered whether the subject imports prevented price increases for the domestic like product that otherwise would have occurred.[133] The domestic industry's ratio of COGS to net sales increased by *** percentage points from 2017 to 2019 and was *** percentage points higher in interim 2020 than in interim 2019.[134] During the POI, the domestic industry's costs were rising, as its unit COGS increased by $*** from 2017 to 2019 and was $*** higher in interim 2020 than in interim 2019.[135] While the domestic industry's net unit sales AUV increased, it did not keep pace with the increasing costs; it increased by only $***

[133] Commissioner Johanson does not join the following five paragraphs of this opinion, and does not find that the effect of subject imports was to "prevent{} price increases, which otherwise would have occurred, to a significant degree." 19 USC 1677(C)(ii)(II).

Throughout the POI, the domestic industry was unable to increase its prices as much as its costs increased: the domestic industry's ratio of COGS to sales increased from *** percent in 2017 to *** percent in 2018 and *** percent in 2019, and was *** percent in interim 2019 and *** percent in interim 2020. Yet, LVSE prices are typically fixed months or years before engines are manufactured and delivered. CR/PR at V-6 to V-7; Preliminary Determinations, USITC Pub. 5034 at 22-23. This means that during a period of steady input cost increases, rising input costs would tend to outpace LVSE producers' ability to increase prices. The resulting cost-price squeeze, moreover, would tend to continue at least until costs stabilized or declined. Since the domestic LVSE industry's costs increased steadily throughout the POI, CR/PR Table VI-1, the domestic industry's cost-price squeeze would have been likely to occur regardless of subject imports.

Commissioner Johanson also notes that other factors not related to subject imports suppressed LVSE prices in the latter part of the POI. First, while aggregate consumption increased *** percent from 2017 to 2018, it decreased *** percent from 2018 to 2019 and was *** percent lower in interim 2020 than in interim 2019. CR/PR at Table C-1. He finds the decreases most likely resulted from lawnmower inventory liquidation by major retailer Sears in 2018, and the COVID-19 pandemic in 2020. MTD and Toro Prehearing Brief, Exhibit 1 (BDO Report) at 25-31; CR/PR at II-15. These factors would have reduced demand for new LVSEs from late 2018 through early 2020, and thus reduced prices.

In addition, in 2019, ***. CR/PR at Table VI-3. Evidence indicates that ***. *See, e.g.,* OEM Prehearing Brief 77-80 & Exhibit 14 (*** Declaration.); Toro Post-Hearing Brief, Exhibit 3 (***) and Answers at 30-34; CR/PR at Table III-4.

Given these other factors preventing LVSE producers from increasing prices enough to cover steadily rising costs, particularly in the more recent part of the POI, Commissioner Johanson does not find that subject imports prevented price increases that would otherwise have occurred "to a significant degree." 19 USC 1677(C)(ii)(II).

[134] CR/PR at Table VI-1 and Table C-1. The domestic industry's ratio of COGS to sales was *** percent in 2017, *** percent in 2018, *** percent in 2019, *** percent in interim 2019, and *** percent in interim 2020. *Id*.

[135] CR/PR at Table VI-1 -Table VI-2. Unit COGS was $*** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019 and $*** in interim 2020. CR/PR at Table VI-1. The increase in unit COGS was driven primarily by increases in raw material costs from 2017 to 2019 and by higher other factory costs and raw materials costs in interim 2020. CR/PR at Table VI-2.

from 2017 to 2019 and was $*** higher in interim 2020 than in interim 2019.[136] Thus, the domestic industry was unable to increase its prices sufficiently to cover its increased costs.

Information in the record indicates several unsuccessful attempts by the domestic industry to raise prices. ***.[137] Briggs & Stratton provided information documenting that *** rejected multiple attempts by Briggs & Stratton to increase LVSE prices,[138] including evidence showing that ***.[139] ***.[140]

As the discussion above indicates, each of the three domestic producers reported that it encountered problems with cost recovery. This is corroborated by the available empirical data, as the COGS to net sales ratio *** increased from 2017 to 2019 and was higher in interim 2020 than in interim 2019.[141]

Chinese Respondents argue that the increase in the COGS/net sales ratio from 2017 to 2019 coincided with decreasing apparent U.S. consumption, which limited the domestic industry's ability to raise its prices.[142] While declining demand in some investigations may indicate that subject imports did not prevent price increases that would otherwise have occurred, we do not find that to be the case in the instant investigations. First, demand for riding mowers was stable to rising for most of the POI,[143] which would signal to LVSE market participants that demand for LVSEs could also be expected to be stable to rising. Moreover, the documentary evidence demonstrating the domestic industry's inability to raise prices does not identify consumption trends as a reason for the resistance to price increases; rather this documentation references lower-priced competition, which was understood to mean subject

[136] CR/PR at Table VI-1- Table VI-2. Net sales AUVs were $ *** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019, and $*** in interim 2020. CR/PR at Table VI-1. In terms of percentages, the industry's unit COGS increased by *** percent from 2017 to 2019 while the net sales AUV increased by *** percent, and unit COGS was *** percent higher in interim 2020 than in interim 2019 while the net sales AUV was *** percent higher. CR/PR at Table VI-2.

[137] CR/PR at V-2. Email from Kawasaki to Charles Cummings, EDIS Doc. No. 730722.

[138] Briggs & Stratton Posthearing Brief, Exhibit 4, Sworn Declaration of Randy Ballard, Attachments E and G ***.

[139] Briggs & Stratton Posthearing Brief, Exhibit 1, Answers to Questions of the Commission at 13 & Exhibit 4, Sworn Declaration of Randy Ballard at 2-3, 7-8 & Attachments A, E, F & G. Briggs & Stratton submitted a ***. Briggs & Stratton Posthearing Brief, Exhibit 1, Answers to Questions of the Commission at 13 & Exhibit 4, Sworn Declaration of Randy Ballard at 2-3 & Attachment A.

[140] Briggs & Stratton submitted ***. Briggs & Stratton also stated that ***. Briggs & Stratton Posthearing Brief, Exhibit 4, Sworn Declaration of Randy Ballard at 3-4 & Attachments B & C.

[141] CR/PR at Table VI-3.

[142] Chinese Respondents' Prehearing Brief at 14.

[143] *See* CR/PR at Figure II-1.

imports.[144] We also observe that price movements in this market may not always directly track trends in apparent U.S. consumption given that contract prices are typically negotiated in late spring to summer for delivery in late fall and early winter and do not fix volume, which likely creates some attenuation between consumption trends and prices.[145] We therefore reject respondents' assertion that the relatively small decline in demand (a *** percentage point drop from 2017 to 2019) – to the exclusion of the steady growth of substantially lower-priced subject imports – prevented domestic producers from passing on rising costs. As stated above, the industry's COGS to net sales ratio increased throughout the POI (by *** percentage points from 2017 to 2019), which indicates that U.S. producers were unable to fully recover their cost increases through the multiple contracting cycles covered by the investigation period.[146] We therefore find that the low-priced subject imports prevented price increases for the domestic like product which otherwise would have occurred to a significant degree.

In light of these considerations, we find that the subject imports had significant effects on prices for the domestic like product.

E. Impact of the Subject Imports[147]

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on

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[144] *See, e.g.,* Briggs & Stratton Posthearing Brief, Exhibit 4, Sworn Declaration of Randy Ballard and Exhibit 5, Sworn Declaration of Mark Schwertfeger; and Kohler Posthearing Brief, Exhibit 2, Declaration of Eric Hudak.

[145] We note that in our Preliminary Determinations we found that the contract practices of this industry may also have limited the domestic producers' ability to respond to changes in costs that occurred in the interim period. Preliminary Determinations, USITC Pub. 5034 at 22-23. As explained above, however, the record in the final phase of these investigations contains data on pricing and costs over multiple contracting cycles and the domestic industry's COGS to net sales ratio increased throughout the POI, indicating that domestic producers were consistently unable to adjust prices adequately to cover increasing costs**.**

[146] OEM Respondents argue that subject imports could not have suppressed domestic prices because certain domestic producers raised prices as a result of additional tariffs on inputs under sections 232 and 301. OEM Respondents' Prehearing Brief at 51 & Exhibit 13. The fact that domestic producers may have increased their prices somewhat in response to these tariffs does not mean that price increases that succeeded were equivalent to increasing costs or that further price increases would not have been possible in the absence of subject import competition.

[147] The statute instructs the Commission to consider the "magnitude of the dumping margin" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determination, Commerce found weighted-average dumping margins ranging from 177.65 to 468.33 percent for Chinese producers/exporters. Commerce Final AD Determination, 86 Fed. Reg. at 1937. We take into account in our analysis the fact that Commerce has (Continued...)

the state of the industry."[148] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[149]

The record in these investigations shows that most of the domestic industry's trade indicators fluctuated within a narrow range from 2017 to 2019, and then sharply deteriorated in interim 2020.[150] The domestic industry's capacity increased by *** percent from 2017 to 2019 but was *** percent lower in interim 2020 than in interim 2019; it was *** units in 2017, *** units in 2018, *** units in 2019, *** units in interim 2019, and *** units in interim 2020.[151] Production increased by *** percent from 2017 to 2019 and was *** percent lower in interim 2020 than in interim 2019; it was *** units in 2017, *** units in 2018, *** units in 2019, *** units in interim 2019, and *** units in interim 2020.[152]

The domestic industry's capacity utilization declined by *** percentage points from 2017 to 2019 and was *** percentage points lower in interim 2020 than in interim 2019; it was *** percent in 2017, *** percent in 2018, *** percent in 2019, *** percent in interim 2019, and *** percent in interim 2020.[153] Two of the U.S. producers consolidated their production facilities and one of those producers announced late in the POI that it planned to close a facility.[154]

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made final findings that all subject producers are selling subject imports in the United States at less than fair value. In addition to this consideration, our impact analysis has considered other factors affecting domestic prices. Our analysis of the significant price effects of subject imports, described in both the price effects discussion and below, is particularly probative to an assessment of the impact of the subject imports.

[148] 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 ("In material injury determinations, 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 also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

[149] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[150] *See* CR/PR at Figure III-1.

[151] CR/PR at III-4 and Table III-4 and Table C-1.

[152] CR/PR at III-4 and Table III-4 and Table C-1. *** had lower production in interim 2020 than in interim 2019. Production was ***. CR/PR at III-4 and Table III-4.

[153] CR/PR at Table III-4 and Table C-1.

[154] As discussed earlier, ***. CR/PR at Table III-3.

The domestic industry's U.S. shipments and market share declined from 2017 to 2019 and sharply fell between interim periods. The domestic industry's U.S. shipments declined by *** percent from 2017 to 2019, and were *** percent lower in interim 2020 than in interim 2019; they were *** units in 2017, *** units in 2018, and *** units in 2019, *** units in interim 2019, and *** units in interim 2020.[155] The domestic industry's market share declined by *** percentage points between 2017 and 2019 and was *** percentage points lower in interim 2020 than in interim 2019; its market share was *** percent in 2017, *** percent in 2018, *** percent in 2019, *** percent in interim 2019, and *** percent in interim 2020.[156] End-of-period inventories rose from *** units in 2017 to *** units in 2018 and *** units in 2019. They were *** units in interim 2019, and relatively steady, at *** units, in interim 2020.[157]

Employment-related indicators were mixed between 2017 and 2019 and were mainly lower in interim 2020 than in interim 2019. PRWs increased by *** percent from 2017 to 2019 and were *** percent lower in interim 2020 than in interim 2019.[158] Total hours worked increased by *** percent from 2017 to 2019 and were *** percent lower in interim 2020 than in interim 2019.[159] Wages paid increased by *** percent from 2017 to 2019 but were *** percent lower in interim 2020 than in interim 2019.[160] Productivity declined *** percent from 2017 to 2019 and was *** percent lower in interim 2020 compared to interim 2019.[161] Unit labor costs were *** percent higher from 2017 to 2019 and were *** percent higher in interim 2020 than in interim 2019.[162]

Most of the domestic industry's financial performance indicators declined between 2017 and 2019 and were sharply lower in interim 2020. Net sales revenues decreased by *** percent from 2017 to 2019 and were *** percent lower in interim 2020 than in interim 2019; they were $*** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019 and $*** in interim 2020.[163] The industry's total COGS increased by *** percent from 2017 to 2019 and was ***

[155] CR/PR at III-7 and Table III-6 and Table C-1.

[156] CR/PR at IV-19 and Table IV-9 and Table C-1.

[157] CR/PR at Table III-9 and Table C-1.

[158] PRWs were *** in 2017, *** in 2018, *** in 2019, *** in interim 2019 and *** in interim 2020. CR/PR at Table III-11 and Table C-1.

[159] Total hours worked were *** hours in 2017, *** hours in 2018, *** hours in 2019, *** hours in interim 2019, and *** hours in interim 2020. CR/PR at III-16 and Table III-11 and Table C-1.

[160] Wages paid were $*** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019 and $*** in interim 2020. CR/PR at Table III-11 and Table C-1.

[161] Productivity (in units per 1,000 hours) was *** in 2017, *** in 2018, *** in 2019, *** in interim 2019, and *** in interim 2020. CR/PR at Table III-11 and Table C-1.

[162] Unit labor costs (in dollars per hour) were $*** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019 and $*** in interim 2020. CR/PR at III-16 and Table III-11 and Table C-1.

[163] CR/PR at Table VI-1 and Table C-1.

percent lower in interim 2020 than in interim 2019: COGS totaled $*** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019, and $*** in interim 2020.[164] Because COGS increased from 2017 to 2019 when net sales revenues fell and fell at a slower rate than sales revenues in interim 2020, the domestic industry's ratio of COGS to net sales increased throughout the POI. This ratio increased by *** percentage points from 2017 to 2019 and was *** percentage points higher in interim 2020 than in interim 2019.[165] Gross profit declined by *** percent from 2017 to 2019 and was *** percent lower in interim 2020 than in interim 2019: it was $*** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019, and $*** in interim 2020.[166]

Operating income declined by *** percent from 2017 to 2019 and was *** percent lower in interim 2020 than in interim 2019: it was $*** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019, and $*** in interim 2020.[167] The domestic industry's operating margin declined by *** percentage points from 2017 to 2019 and was *** percentage points lower in interim 2020 than in interim 2019: it was *** percent in 2017, *** percent in 2018, *** percent in 2019, *** percent in interim 2019, and *** percent in interim 2020.[168] Net income declined from $*** in 2017 to $*** in 2018 and $*** in 2019; it was $*** in interim 2019, and lower, $***, in interim 2020.[169]

Capital expenditures declined by *** percent from 2017 to 2019 and were *** percent lower in interim 2020 than in interim 2019: they were $*** in 2017, $*** in 2018 and 2019, $*** in interim 2019 and $*** in interim 2020.[170] Research and development expenses declined by *** percent from 2017 to 2019 and were *** percent lower in interim 2020 than in interim 2019; they were $*** in 2017, $*** in 2018, $*** in 2019, $*** in interim 2019 and $*** in interim 2020.[171] Net asset values increased from $*** in 2017 to $*** in 2018 and $*** in 2019; operating return on assets declined from *** percent in 2017 to *** percent in 2018 and *** percent in 2019.[172] Two of the three U.S. producers reported that the subject imports had negative effects on investment, growth, and development, since January 1, 2017.[173]

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[164] CR/PR at Table VI-1 and Table C-1.

[165] The COGS to net sales ratio was *** percent in 2017, *** percent in 2018, *** percent in 2019, *** percent in interim 2019, and *** percent in interim 2020. CR/PR at Table VI-1 and Table C-1.

[166] CR/PR at Table VI-1 and Table C-1.

[167] CR/PR at Table VI-1 and Table C-1.

[168] CR/PR at Table VI-1 and Table C-1.

[169] CR/PR at Table VI-1 and Table C-1.

[170] CR/PR at Table VI-6 and Table C-1.

[171] CR/PR at Table VI-6 and Table C-1.

[172] CR/PR at Table VI-8.

[173] CR/PR at Table VI-10.

We find that the significant volume of low-priced subject imports, which rose from 2017 to 2019 and then increased even more sharply in interim 2020, took market share from the domestic industry. Consequently, the industry's shipments and sales were lower than they would have been otherwise. The low-priced subject imports also put downward pressure on domestic prices. These price-suppressing effects, together with the lost sales, caused the domestic industry to receive lower revenues that it would have otherwise, which resulted in declining financial performance.[174]

We have also considered whether there are other factors that may have had an impact on the domestic industry during the POI to ensure that we are not attributing injury from such other factors to subject imports. Nonsubject imports accounted for approximately *** percent or less of the market over the POI and cannot explain the domestic industry's loss in market share.[175] Furthermore, there is nothing in the record indicating that nonsubject imports, which had AUVs more than *** higher than subject imports, were a factor in the price pressure experienced by the domestic industry.[176] By contrast, there is evidence, discussed in the price effects section above, associating pricing pressure with subject imports.

The declines in apparent U.S. consumption over the POI do not explain the domestic industry's loss of market share to subject imports. While apparent U.S. consumption declined over the POI, the decline was only *** percent from 2017 to 2019. At the same time, subject import volume rose by *** percent, resulting in increased subject import market share at the expense of the domestic industry.[177] We also note that apparent U.S. consumption increased by *** percent in 2018, yet the domestic industry's financial performance declined that year, and at a greater rate than it declined in 2019.[178] While apparent U.S. consumption was *** percent lower in interim 2020 than in interim 2019, subject import U.S. shipment volume rose by *** percent, leading to a substantial increase in subject import market share at the expense of the domestic industry.[179]

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[174] As discussed above, Commissioner Johanson does not find that subject imports suppressed price increases that otherwise would have occurred to a significant degree. As he does not attribute significant price suppression to subject imports, his finding of significant impact rests on the domestic industry's lost sales and market share, particularly in interim 2020, caused by low-priced subject imports, and the resulting material declines in the domestic industry's production, capacity utilization, shipments, employment, hours worked and wages paid, net sales, gross profit, and operating income demonstrated on this record. *See* CR/PR at Table C-1.

[175] CR/PR at Table IV-9 and Table C-1.

[176] CR/PR at Table C-1.

[177] CR/PR at Table C-1.

[178] CR/PR at Table C-1. The domestic industry's operating margin fell by *** percentage points from 2017 to 2018 and by *** percentage points from 2018 to 2019. *Id.*

[179] CR/PR at Table C-1.

Respondents argue that non-price factors, such as availability, quality, reliability of supply, engine performance and safety, and product innovations drive purchasing decisions in this market.[180] They contend that the increase in subject import volume is due to their non-price advantages over the domestic product and characterize competition between the subject imports and domestic like product as attenuated.[181] While non-price factors play a role in purchasing decisions, the record does not support respondents' assertion that domestic producers were at a substantial disadvantage to subject imports with respect to such factors, nor that the low price of subject imports was not an important factor in purchasing decisions

[180] OEM Respondents' Prehearing Brief at 11.
[181] Chinese Respondents' Prehearing Brief at 7-9.

and the domestic industry's declining performance.[182] [183] This is confirmed by the information we discussed in section IV.D. above concerning negotiations between domestic producers and purchasers, which did not focus on quality or other product distinctions but rather on price.

[182] Respondents made several company-specific arguments regarding non-price reasons that purchasers chose subject imports rather than domestic product. However, we do not find these arguments to be persuasive. MTD and Toro state that they are reluctant to rely on Briggs & Stratton as a supplier because of its status as a lawn mower producer and, with respect to Toro, because of patent infringement litigation between Toro's subsidiary and Briggs & Stratton. MTD Prehearing Brief at 82-83, 86. However, Briggs & Stratton has not sold its mowers through mass retailers, by far the largest sales channel, since 2012, and thus competition with MTD or any other OEM is limited (Briggs & Stratton estimated its share of the mower market as around 5 percent). CR/PR at II-1, n.5; Briggs & Stratton Posthearing Brief, Exhibit 4, Sworn Declaration of Randy Ballard at 10. With respect to the alleged tensions stemming from the patent infringement litigation, petitioners point out that ***. Thus, the patent litigation cannot explain the increase in subject import volume and the decline in the domestic industry's market share. Briggs & Stratton Posthearing Brief at 12 n.80 and Exhibit 4, Sworn Declaration of Randy Ballard at 11-12.

Toro and MTD have also asserted that they do not wish to purchase LVSEs from Kohler due to alleged quality/fire issues. MTD Prehearing Brief at 77-79. Kohler, however, provided a copy of an independent survey of over 2,500 dealers in the United States that rate Kohler's quality as at or above industry competitors including Kawasaki. Kohler also provided evidence that its warranty claims have significantly declined over the POI. Kohler Posthearing Brief at 10-11 & Exhibit 2, Declaration of Eric Hudak at 2-3, 5, & Attachments 1 & 3. Moreover, both OEMs purchased substantial volumes of LVSEs from Kohler, undercutting their claims of serious quality and safety issues. Kohler Posthearing Brief, Exhibit 2, Declaration of Erik Hudak at 9.

OEM Respondents have also argued that they would rather purchase LVSEs from subject producers in China because subject producers provide some innovations that U.S. producers will not, and that, unlike domestic producers, subject producers allow private labels and permit OEMs to control warranty administration. MTD Prehearing Brief at 84-85, 93-96. Petitioners provided evidence that they have offered to provide innovations to MTD and Toro but they have been turned down because their prices are too high. Kohler Posthearing Brief, Exhibit 1, Answers to Commissioner Questions at 13-16 and Exhibit 2, Declaration of Erik Hudak at 7-8. In addition, ***. Briggs & Stratton Posthearing Brief, Exhibit 1, Answers to Questions of the Commission at 44-45. Finally, as *** and the majority of responding purchasers reported that domestic product and subject imports were comparable with respect to warranty; thus, we do not find that any differences in warranty administration outweigh the significant degree of underselling in purchasing decisions.

Thus, in sum, in light of the evidence in the record regarding respondents' contentions, as well as for the other reasons we describe in the text below, we find that the alleged non-price factors in purchasing decisions do not outweigh the importance of price, and that they do not explain subject imports' underselling and price suppressing effect.

[183] Commissioner Johanson does not join this sentence or the following sentence. With regard to quality, he notes that Kohler provided an independent survey of outdoor equipment dealers in the United States, and ***. Kohler Posthearing Brief Exhibit 2, (Declaration of ***) Attachments 1-3. *** Evidence also indicates that quality and other factors were frequently discussed in negotiations. *E.g.,* OEM Prehearing Brief at 77-78 & Exhibit 14; Kohler Posthearing Brief at 11 & Exhibit 2 (***) at para. 2; Briggs & Stratton Post-Hearing Brief, Exhibit 4 at Attachment G., ***.

Indeed, even acknowledging that some non-price distinctions exist between domestic and subject LVSEs, respondents' arguments do not undercut our finding that price is an important factor in purchasing decisions in this market. The record shows that domestically produced LVSEs are generally considered comparable to subject imports with respect to these non-price factors. A majority of purchasers reported that domestically produced LVSEs and subject imports were comparable with respect to quality meeting industry standards, quality exceeding industry standards, meeting purchaser specifications, engine safety, brand, engine features, reliability of supply, and warranty, and they reported a range of responses with respect to availability. A plurality of purchasers reported that domestically produced LVSEs were superior with respect to delivery time.[184] Moreover, the significant underselling by subject imports, and the margins of underselling, undercut respondents' arguments regarding subject imports' alleged superior quality as compared to domestic product.

OEM Respondents argue that any decrease in the profitability of the domestic industry was due to inflated selling, general, and administrative ("SG&A") costs, which they attribute in large part to Briggs & Stratton's Business Optimization Program, including its Enterprise Resource Planning system.[185] However, SG&A expenses are not included in COGS, so they are not a factor in the escalating COGS to net sales ratio over the POI, nor do they explain the loss of market share experienced by the industry or the deterioration in the domestic industry's gross profit over the POI.[186] Moreover, the industry's unit SG&A expense rose by only *** from 2017 to 2019, whereas its unit operating income fell by ***.[187]

Respondents argue that consumption shifted from residential to commercial mowers and that the domestic industry gained all of the growth in the commercial LVSE market.[188]

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[184] CR/PR at Table II-10.

[185] OEM Respondents Prehearing Brief at 75-76, 88-89.

[186] CR/PR at Table C-1. OEM Respondents also maintain that the section 232 and section 301 tariffs have been a factor in the domestic industry's decreased profitability. OEM Respondents' Prehearing Brief at 76-77. *** reports that it made minor pricing adjustments to account for the section 301 tariffs in 2018 but that the section 232 tariffs only had temporary effects. Kohler attempted to adjust its prices to account for the section 301 tariffs but it was usually unsuccessful in doing so. CR/PR at V-1, n.2, VI-13. In any event, this argument ignores subject imports' role in preventing the domestic industry from recovering these increased costs.

[187] CR/PR at Table VI-2. Unit SG&A expense rose by $*** in interim 2020 compared to interim 2019 while unit operating income fell by $***. *Id.*

[188] OEM Respondents' Prehearing Brief at 27, 32-33. Contrary to respondents' assertion regarding a notable shift toward commercial engines, the share of apparent U.S. consumption accounted for by commercial LVSEs increased by only *** percentage points from 2017 to 2019. CR/PR at Table D-4. Their share was *** percent in 2017 and *** percent in 2019; it was *** percent in interim 2019 and *** percent in interim 2020. *Id.*

Although the domestic industry increased its shipments of commercial LVSEs from 2017 to 2019, it experienced much larger declines in shipments in non-commercial LVSEs which were the great majority of its LVSE sales, and where it has experienced the most intense subject import competition.[189] As we have previously discussed, approximately *** percent of U.S. producer U.S. shipments of LVSEs over the POI were non-commercial LVSEs and approximately *** percent of U.S. shipments of subject imports were non-commercial LVSEs.[190] There is no indication that the domestic industry substantially shifted focus during the POI to the commercial market, which constituted a fairly consistent share of its overall shipments (and a much smaller portion of total U.S. shipments compared to non-commercial LVSEs).[191]

OEM Respondents argue that the domestic industry experienced lower sales and reduced market share in the non-commercial engine segment following *** and that Sears's bankruptcy adversely affected ***.[192] Although Husqvarna exited part of the LVSE market, Kohler's representative testified that the industry would adapt to this change and consumers would continue to buy mowers at different retailers as necessary.[193] MTD asserts that Sears' bankruptcy and Husqvarna's partial exit resulted in reductions in mower inventory which negatively impacted LVSE demand, but apparent U.S. consumption of LVSEs fell only slightly from 2017 to 2019.[194] Moreover, these events do not explain the magnitude of the domestic industry's market share loss during interim 2020 or the price suppression experienced by the domestic industry.

Respondents also argue that subject import competition was not a concern for Briggs & Stratton in light of its failure to discuss this consideration in its public disclosures and documentation prior to the filing of the petitions.[195] The record shows, however, that in its

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[189] CR/PR at Table III-8. The domestic industry's shipments of non-commercial LVSEs decreased by *** units from 2017 to 2019 and were *** units lower in interim 2020 than in interim 2019. In contrast, the domestic industry's shipments of commercial LVSEs increased by *** units from 2017 to 2019 but were *** units lower in interim 2020 than in interim 2019. Calculated from CR/PR at Table III-8.

[190] CR/PR at Table III-8 and Table IV-7.

[191] Given that there was no large shift away from residential-grade engines toward commercial-grade LVSEs over the POI, any fluctuation in the share of the domestic industry's U.S. shipments of commercial LVSEs does not explain any increase in the industry's unit COGS, or explain why the industry was unable to cover its increasing costs, particularly in light of the higher AUVs for commercial-grade engines.

[192] OEM Respondents' Prehearing Brief at 34-35, 70. Respondents highlight statements by Briggs & Stratton as to the negative impact of the Sears bankruptcy on the company but these statements are not specific to the LVSE market. OEM Respondents' Prehearing Brief at 70.

[193] Tr. at 88 (Hudak). ***.

[194] MTD Posthearing Brief, Exhibit 1, Responses to the Commission's Questions at 7.

[195] OEM Respondents' Prehearing Brief at 84 & Exhibit 1 at 20.

2017, 2018, and 2019 SEC Form 10-K submissions, Briggs & Stratton disclosed that it engaged in highly competitive markets with significant competitors, and Chinese competition was discussed in October 2018 and November 2019 analyst earnings calls. Moreover, ***.[196]

While our analysis is based on the industry as a whole, we have examined respondents' arguments that *** and was not adversely affected by the subject imports due to its allegedly higher quality engines.[197] First, we note that ***, and that its SG&A expenses were ***; as a result, Kawasaki's *** the other two firms.[198] Even so, contrary to respondents' assertions, the record shows that Kawasaki was not immune to adverse effects from subject import price competition during the POI. Its gross profit to net sales ratio was ***.[199] Moreover, Kawasaki's ***.[200] ***. Kawasaki also indicated that ***, and it reported that it had ***.[201]

Respondents argue that subject imports were pulled into the U.S. market in interim 2020 due to limited availability of domestically produced LVSEs whose production was allegedly impacted by the COVID-19 pandemic. The record does not support this assertion. As discussed above, domestic producers generally remained operational despite the COVID-19 pandemic. While there were some temporary limitations on domestic production in interim 2020, the magnitude of the increase in subject imports in interim 2020 cannot be explained by supply shortages experienced by the domestic industry. Furthermore, the domestic industry had a significant build up in its end-of-year inventories of LVSEs in 2019 so it was able to supply more engines than it produced in 2020.[202]

We consequently conclude that other causes cannot explain the injury we have attributed to the subject imports. In light of the foregoing, we find that subject imports had a significant impact on the domestic industry. We accordingly determine that the domestic industry is materially injured by reason of subject imports.

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[196] Briggs & Stratton Posthearing Brief, Exhibit 5, Sworn Declaration of Mark Schwertfeger at 2- 5 and Attachments A, B, and C. We note that ***.

[197] MTD Prehearing Brief at 3, 8, 22. Chinese Respondents' Prehearing Brief at 15-17.

[198] CR/PR at Table VI-3 and V-2; ***. CR/PR at VI-11 n.3. ***. CR/PR at Table VI-3. ***. Email dated December 21, 2020 from ***. EDIS No. 728687.

[199] CR/PR at Table VI-3.

[200] CR/PR at Table VI-3.

[201] CR/PR at V-27 and Email from Kawasaki to Charles Cummings, EDIS Doc. No. 730722. ***, EDIS No. 723039.

[202] The domestic industry had end-of-period inventories of *** units at the end of 2019. In the first half of 2020, it produced *** units and shipped *** units to the U.S. market and *** units to export markets, but it still had *** units in inventory at the end of the first half of 2020. CR/PR at Table III-4, Table III-6, Table III-9 and Table C-1; *see also* Briggs & Stratton Posthearing Brief at 2.

V. Critical Circumstances

A. Legal Standards

In its final antidumping duty determination, Commerce found that critical circumstances exist with respect to certain subject producers/exporters in China. Because we have determined that the domestic industry is materially injured by reason of subject imports, we must further determine "whether the imports subject to the affirmative {Commerce critical circumstances} determination ... are likely to undermine seriously the remedial effect of the antidumping order to be issued."[203]

The SAA indicates that the Commission is to determine "whether, by massively increasing imports prior to the effective date of relief, the importers have seriously undermined the remedial effect of the order" and specifically "whether the surge in imports prior to the suspension of liquidation, rather than the failure to provide retroactive relief, is likely to seriously undermine the remedial effect of the order."[204] The legislative history for the critical circumstances provision indicates that the provision was designed "to deter exporters whose merchandise is subject to an investigation from circumventing the intent of the law by increasing their exports to the United States during the period between initiation of an investigation and a preliminary determination by {Commerce}."[205] An affirmative critical circumstances determination by the Commission, in conjunction with an affirmative determination of material injury by reason of subject imports, would normally result in the retroactive imposition of duties for those imports subject to the affirmative Commerce critical circumstances determination for a period 90 days prior to the suspension of liquidation.

The statute provides that, in making this determination, the Commission shall consider, among other factors it considers relevant,

> (I) the timing and the volume of the imports,
>
> (II) a rapid increase in inventories of the imports, and
>
> (III) any other circumstances indicating that the remedial effect of the {order} will be seriously undermined.[206]

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[203] 19 U.S.C. § 1673d(b)(4)(A)(ii).

[204] SAA at 877.

[205] *ICC Industries, Inc. v United States,* 812 F.2d 694, 700 (Fed. Cir. 1987), *quoting* H.R. Rep. No. 96-317 at 63 (1979), *aff'g* 632 F. Supp. 36 (Ct. Int'l Trade 1986). *See* 19 U.S.C. §§ 1671b(e)(2), 1673b(e)(2).

[206] 19 U.S.C. §§ 1671d(b)(4)(A)(ii), 1673d(b)(4)(A)(ii).

In considering the timing and volume of subject imports, the Commission's practice is to consider import quantities prior to the filing of the petition with those subsequent to the filing of the petition using monthly statistics on the record regarding those firms for which Commerce has made an affirmative critical circumstances determination.[207] [208]

B. Party Arguments

Petitioners' Arguments. Petitioners argue that the Commission should make an affirmative critical circumstance determination in the antidumping duty investigation.[209] They argue that subject imports surged before Commerce imposed provisional antidumping duties in August 2020. They further contend that the inventory data reflect that purchasers stocked up on merchandise that will be installed on mowers and shipped out to customers for model year 2021.[210]

Respondents' Arguments. Respondents argue that subject import volume and inventories in these investigations have not increased by such a magnitude that they could seriously undermine the remedial effects of an order.[211] OEM Respondents argue that the domestic industry has gained sales and has been able to adjust its prices since the petitions were filed; therefore, the provisional duties have already had remedial effects.[212] OEM Respondents argue that given the 120-day lead time for orders to come from China to the

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[207] *See Lined Paper School Supplies from China, India, and Indonesia,* Inv. Nos. 701-TA-442-43, 731-TA-1095-97**,** USITC Pub. 3884 at 46-48 (Sept. 2006); *Carbazole Violet Pigment from China and India,* Inv. Nos. 701-TA-437 and 731-TA-1060-61 (Final), USITC Pub. 3744 at 26 (Dec. 2004); *Certain Frozen Fish Fillets from Vietnam,* Inv. No. 731-TA-1012 (Final), USITC Pub. 3617 at 20-22 (Aug. 2003).

[208] Chair Kearns and Commissioner Karpel observe that the statute directs the Commission to consider the following factors in making this determination: "the timing and volume the imports, a rapid increase in the inventories of the imports, and any other circumstances indicating that the remedial effect of the antidumping order will be seriously undermined." 19 U.S.C. §1673d(b)(4)(A)(ii). In their analysis, they would therefore take into account a number of factors as appropriate to a given investigation (as directed by the statute) and do not necessarily give precedence to the pre- and post-petition subject import volumes. Among the factors they may consider, depending on the facts of the investigation and the available data, are the parties' arguments, subject import volumes relative to apparent U.S. consumption or production, monthly changes in subject import volume, subject import inventories (both absolute and relative to imports or shipments of imports), purchaser inventories, pricing, and the domestic industry's performance.

[209] Kohler's Prehearing Brief at 48; Briggs & Stratton's Prehearing Brief at 14, n.78.

[210] Kohler's Prehearing Brief at 50, Kohler's Posthearing Brief, Responses to Commissioner Questions at 56.

[211] OEM Respondents' Prehearing Brief at 104-105; Chinese Respondents' Prehearing Brief at 23-24; Toro and Honda's Posthearing Brief at 12-13.

[212] OEM Respondents' Posthearing Brief at 14.

United States, imports in the first quarter of 2020 were ordered before the petitions were filed.[213]

C. Analysis

We first consider the appropriate period for comparison of pre-petition and post-petition levels of the imports subject to the affirmative critical circumstances finding. In light of the circumstances of this investigation, we have included January 2020 in the pre-petition period.[214] In previous investigations, the Commission has relied on a shorter than six-month comparison period when Commerce's preliminary determination applicable to imports from the country at issue fell within the six-month post-petition period the Commission typically considers.[215] That situation arises here.[216] We have therefore compared the volume of subject

[213] OEM Respondents' Posthearing Brief at 8-9, *citing to Utility Scale Wind Towers from Canada, Indonesia, Korea, and Vietnam*, Inv. Nos. 701-TA-627-629 and 731-TA-1458-1461 (Final), USITC Pub. 5101 (Aug. 2020).

[214] The petitions in these investigations were filed on January 15, 2020. Given the long lead times for LVSEs to be shipped from China to the United States, which respondents reported to be as long as 120 days, we have included January in the pre-petition period since subject imports which entered the United States in the latter half of January 2020 could not have been in reaction to the filing of the petition. Although we have found that seasonality is a factor in the LVSE market, subject imports throughout the POI were not subject to sufficiently consistent seasonal fluctuations to warrant a departure from our general mode of comparing periods immediately preceding and succeeding the filing of the petition. *See* CR/PR at Table IV-3, Figure IV-2. In addition, we note that subject imports were subject to 25 percent *ad* valorem section 301 duties in the first part of 2019, until an exclusion request *** for certain LVSEs was granted on July 31, 2019. *See* Briggs & Stratton Posthearing Brief at 1. As noted above, the exclusion was in effect until December 31, 2020. Therefore, while it is possible to consider comparison periods that take this seasonality into account (February – June 2019 compared to February – June 2020), this would contrast a period during which subject imports were subject to section 301 duties with a period when they were excluded from those duties, potentially injecting significant distortion into our analysis**.** Comparison periods based on the months immediately preceding and succeeding the filing of the petition eliminates that significant distortion, as subject imports were subject to the section 301 exclusion throughout both periods.

[215] *Certain Hot-Rolled Steel Flat Products from Australia, Brazil, Japan, Korea, the Netherlands, Turkey, and the United Kingdom*, Inv. Nos. 701-TA-545-547, 731-TA-1291-1297 (Final), USITC Pub. 4638 at 49-50 (Sept. 2016); *Certain Corrosion-Resistance Steel Products from China, India, Italy, Korea, and Taiwan*, Inv. No. 701-TA-534-537 and 731-TA-1274-1278 (Final), USITC Pub. 4630 at 35-40 (July 2016); *Carbon and Certain Steel Wire Rod from China*, Inv. Nos. 701-TA-512, 731-TA-1248 (Final), USITC Pub. 4509 at 25-26 (Jan. 2015) (using five-month periods because preliminary Commerce countervailing duty determination was during the sixth month after the petition).

[216] Commerce issued its initial preliminary determination in the countervailing duty investigation in June 2020, within the fifth month of the post-petition period we are using here. *Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof From the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination, Preliminary Negative Critical Circumstances*
(Continued...)

imports using five-month comparison periods. Consequently, the pre-petition period is September 2019 through January 2020 and the post-petition period is February through June 2020.

Imports of LVSEs from China subject to Commerce's affirmative critical circumstances finding increased from *** units in the pre-petition period to *** units in the post-petition period, an increase of *** percent.[217] U.S. importers' end-of-period inventories of subject imports were *** percent higher at *** units in June 2020 than in December 2019 at *** units.[218]

While subject imports and U.S. importer inventories of subject imports increased during the post-petition period, we find that these increases are not of a degree, in either absolute or relative terms, that would undermine seriously the remedial effect of the antidumping duty order. There are also no indications of any other circumstances demonstrating that the remedial effect of the order will be or has been seriously undermined by the post-petition imports from China. Given the lead times from China, portions of the post-petition import volumes were ordered before the petition was filed. ***.[219] That the domestic industry has entered into new multi-year contracts with OEMs to supply LVSEs in interim 2020, ***, indicates that the provisional duties have already had beneficial effects and that the increase in subject imports and inventories have not undermined the remedial effects of the order.[220] [221]

Determination, and Alignment of Final Determination With Final Antidumping Duty Determination, 85 Fed. Reg. 37061 (June 19, 2020).

[217] Calculated from CR/PR at Table IV-3.

[218] CR/PR at Table VII-5. Available inventory data do not correspond precisely to the comparison periods.

[219] ***. CR/PR at Table IV-1.

[220] OEM Respondents' Posthearing Brief at 12-14.

[221] Chair Kearns and Commissioner Karpel concur that the record in this investigation does not support a finding that the imports subject to Commerce's critical circumstance finding are likely to undermine seriously the remedial effects of the order. As noted above, in their analysis, they take into account a number of factors as appropriate to a given investigation and in light of available data, and do not necessarily give precedence to the pre- and post-petition subject import volumes. Their finding in these investigations is based on five-month comparison periods as discussed above, with the post-petition period beginning February 2020, and on record evidence regarding pre-and post-petition subject import volumes and inventories (including relative to apparent domestic consumption), interim 2020 pricing data, and developments in the domestic industry's performance. As discussed above, comparing the pre- and post-petition periods, subject import volume increased by *** percent and importers' inventories rose by *** percent. Based on available data and consumption estimates, these increases amounted to somewhere in the range of only *** percent of apparent domestic consumption. *Derived from* apparent domestic consumption during January-June 2020, CR/PR at Table C-1, and from a five-month *pro rata* calculation of apparent domestic consumption based on Table C-1 data. They (Continued...)

We thus find that the imports from China subject to Commerce's critical circumstances determination are not likely to undermine seriously the remedial effect of the antidumping duty order, and we make a negative critical circumstances finding with regard to those imports.

VI. Conclusion

For the reasons stated above, we determine that an industry in the United States is materially injured by reason of subject imports of LVSEs from China that are sold in the United States at less than fair value and are subsidized by the government of China. We also find that the dumped imports subject to Commerce's affirmative critical circumstances determination are not likely to undermine seriously the remedial effect of the antidumping order to be issued.

observe that available data on prices do not indicate any clear trends. CR/PR at Tables V-3, V-4 and V-5. They also observe that, while the domestic industry's performance continued to decline significantly in interim 2020 as subject imports gained significant market share from domestic producers, the domestic industry has now entered into new multi-year contracts with OEMs. Given these facts, on balance they reach a negative critical circumstances finding. They also note that each Commission investigation is *sui generis*, based on the specific record evidence of each investigation. *See Nucor Corp. v. United States*, 414 F.3d 1331, 1340 (Fed. Cir. 2005); *Cleo Inc. v. United States*, 501 F.3d 1291 (Fed. Cir. 2007); *Hitachi Metals, Ltd. v. United States*, 949 F.3d 710, 718 (Fed. Cir. 2020).

Part I: Introduction

Background

These investigations result from petitions filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by the Coalition of American Vertical Engine Producers (Kohler Co., Kohler, Wisconsin and Briggs & Stratton Corporation, Wauwatosa, Wisconsin), on January 15, 2020, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value ("LTFV") imports of certain vertical shaft engines between 225 and 999 cubic centimeters ("cc") and parts thereof ("large VSEs" or "LVSEs") from China.[1] The following tabulation provides information relating to the background of these investigations.[2] [3]

Effective date	Action
January 15, 2020	Petitions filed with Commerce and the Commission; institution of Commission investigations (85 FR 3945, January 23, 2020)
February 4, 2020	Commerce's notices of initiation (85 FR 8809 and 85 FR 8835, February 18, 2020)
March 6, 2020	Commission's preliminary determinations (85 FR 13184, March 6, 2020)
June 19, 2020	Commerce's preliminary CVD determination (85 FR 37061, June 19, 2020)
August 19, 2020	Commerce's preliminary AD determination (85 FR 51015, August 19, 2020); amended October 7, 2020 (85 FR 63248, October 7, 2020); scheduling of final phase of Commission investigations (85 FR 58384, September 18, 2020)
January 5, 2021	Commission's hearing
January 11, 2021	Commerce's final determinations (86 FR 1933 and 86 FR 1936, January 11, 2021)
February 2, 2021	Commission's vote
February 16, 2021	Commission's views

[1] See the section entitled "The subject merchandise" in Part I of this report for a complete description of the merchandise subject in this proceeding.

[2] Pertinent *Federal Register* notices are referenced in appendix A and may be found at the Commission's website (www.usitc.gov).

[3] Appendix B is reserved for the witnesses appearing at the Commission's hearing.

Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the "Act") (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission--

> *shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--[4]

> *In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant. . . In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . . (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree. . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.*

[4] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that—[5]

(J) EFFECT OF PROFITABILITY.—The Commission may not determine that there is no material injury or threat of material injury to an industry in the United States merely because that industry is profitable or because the performance of that industry has recently improved.

Organization of report

Part I of this report presents information on the subject merchandise, subsidy/dumping margins, and domestic like product. Part II of this report presents information on conditions of competition and other relevant economic factors. Part III presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts IV and V present the volume of subject imports and pricing of domestic and imported products, respectively. Part VI presents information on the financial experience of U.S. producers. Part VII presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

Market summary

LVSEs are generally used in riding lawn mowers and zero-turn radius lawn mowers. The leading U.S. producer of LVSEs is ***, while the leading responding producers of LVSEs in China are ***. The leading U.S. importers of LVSEs from China are ***. Two U.S. importers reported imports of LVSEs from nonsubject sources (***. U.S. purchasers of LVSEs are firms that manufacture riding mowers; leading purchasers include MTD, Toro, Deere & Co. ("Deere"), and Husqvarna.

Apparent U.S. consumption of LVSEs totaled approximately *** units ($***) in 2019. Currently, three firms are known to produce LVSEs in the United States. U.S. producers' U.S. shipments of LVSEs totaled approximately *** units ($***) in 2019 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. Shipments of U.S. imports from China totaled *** units ($***) in 2019 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled *** units ($***) in 2019 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

[5] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

Summary data and data sources

A summary of data collected in these investigations is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of three firms that accounted for 100 percent of U.S. production of LVSEs during 2019. U.S. imports are based on the questionnaire responses of ten U.S. importers. U.S. imports reported by these ten firms represented *** percent of total U.S. imports from China and *** percent of total U.S. imports from nonsubject sources reported under statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080 of the Harmonized Tariff Schedule of the United States ("HTS") in 2019. Data on producers of LVSEs in China are based on the questionnaire responses of five Chinese firms. These Chinese firms' reported exports to the United States accounted for approximately *** percent of total U.S. imports from China reported under HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080 in 2019.[6]

Previous and related investigations

The Commission completed the preliminary phase of proceedings concerning small vertical shaft engines ("small VSEs") between 99cc and a maximum displacement of up to, but not including, 225cc and parts thereof from China (Investigation Nos. 701-TA-643 and 731-TA-1493). On March 18, 2020, Briggs & Stratton Corporation, Wauwatosa, Wisconsin, filed petitions with the Commission and Commerce alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized imports of small VSEs from China and LTFV imports of small VSEs from China. The merchandise subject to the small VSEs investigations are provided for in HTS subheadings 8407.90.10, 8409.91.99, 8433.11.00, 8424.30.90, and 8407.90.90. The Commission determined that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from China of small VSEs that were alleged to be sold at LTFV and subsidized by the government of China. The Commission completed and filed its preliminary phase determinations on May 4, 2020.[7] Commerce published its preliminary affirmative CVD determination on August 24, 2020 and its preliminary affirmative AD determination on October

[6] LVSEs covered by the scope as set forth by Commerce are primarily imported under HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080, but subject goods may also be imported under HTS statistical reporting numbers 8407.91.5085, 8409.91.9990, 8407.90.9060, and 8407.90.9080. The U.S. importer from China and foreign producer questionnaire coverage estimates are both over 100 percent when only the primary statistical reporting numbers are used in the official import figures to generate the coverage estimates.

[7] 85 FR 27243, May 7, 2020.

21, 2020.[8] The Commission published the scheduling notice for the final phase of the small VSEs proceedings on November 27, 2020.[9]

Small VSEs covered by the investigations are spark-ignited, non-road, vertical shaft engines, whether finished or unfinished, whether assembled or unassembled, whether mounted or unmounted, primarily for walk-behind lawn mowers. Small VSEs meeting this physical description may also be for other non-hand-held outdoor power equipment, including but not limited to, pressure washers. The subject engines are spark ignition, single-cylinder, air cooled, internal combustion engines with vertical power take off shafts with a minimum displacement of 99cc and a maximum displacement of up to, but not including, 225cc. Typically, engines with displacements of this size generate gross power of between 1.95 kilowatts ("kW") to 4.75 kW.

Nature and extent of subsidies and sales at LTFV

Subsidies

On January 11, 2021, Commerce published a notice in the *Federal Register* of its final determination of countervailable subsidies for producers and exporters of LVSEs from China.[10] Commerce identified the following government programs in China:[11]

1. Policy Loans to the LVSE Industry
2. Export Seller's Credits
3. Export Buyer's Credits
4. Provision of Unwrought Aluminum for Less Than Adequate Remuneration ("LTAR")
5. Provision of Land-Use Rights for LTAR to LVSE Producers
6. Provision of Electricity for LTAR
7. Income Tax Deductions for Research and Development (R&D) Expenses Under the Enterprise Income Tax Law

[8] 85 FR 52086, August 24, 2020 and 85 FR 66932, October 21, 2020.
[9] 85 FR 76103, November 27, 2020.
[10] 86 FR 1933, January 11, 2021.
[11] *Issues and Decision Memorandum for the Final Affirmative Determination and Final Negative Critical Circumstances Determination in the Countervailing Duty Investigation of Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof from the People's Republic of China*, January 4, 2021, pp.7-9.

8. Import Tariff and VAT Exemptions for Foreign Invested Enterprises (FIEs) and Certain Domestic Enterprises Using Imported Equipment in Encouraged Industries
9. Subsidy Fund for Foreign Trade Development
10. Interest Payment Subsidies
11. Other Subsidies

Table I-1 presents Commerce's findings of subsidization of LVSEs in China.

Table I-1
LVSEs: Commerce's final subsidy determination with respect to imports from China

Producer/exporter	Subsidy rate (percent)
Loncin Motor Co.	17.75
Chongqing Zongshen General Power Machine Co.	19.29
All others	18.72

Source: 86 FR 1933, January 11, 2021.

Sales at LTFV

On January 11, 2021, Commerce published a notice in the *Federal Register* of its final determination of sales at LTFV with respect to imports from China.[12] Table I-2 presents Commerce's dumping margins with respect to imports of LVSEs from China.

Table I-2
LVSEs: Commerce's final weighted-average LTFV margins with respect to imports from China

Producer	Exporter	Estimated weighted-average dumping margin (percent)	Cash deposit rate (adjusted for export subsidy offset) (percent)
Loncin Motor Co., Ltd	Loncin Motor Co., Ltd	177.65	165.42
Chongqing Zongshen General Power Machine Co., Ltd	Chongqing Zongshen General Power Machine Co., Ltd	336.26	324.93
Chongqing Rato Technology Co., Ltd	Chongqing Rato Technology Co., Ltd	270.95	259.17
Jialing-Honda Motors Co., Ltd	Jialing-Honda Motors Co., Ltd	270.95	259.17
Yamaha Motor Powered Products Jiangsu Co., Ltd	Yamaha Motor Powered Products Jiangsu Co., Ltd	270.95	259.17
China-Wide Entity		468.33	457.00

Source: 86 FR 1936, January 11, 2021.

The subject merchandise

Commerce's scope

In the current proceeding, Commerce has defined the scope as follows:[13]

> *The merchandise covered by these investigations consists of spark-ignited, non-road, vertical shaft engines, whether finished or unfinished, whether assembled or unassembled, primarily for riding lawn mowers and zero-turn radius lawn mowers. Engines meeting this physical description may also be for other non-hand-held outdoor power equipment such as, including but not limited to, tow-behind brush mowers, grinders, and vertical shaft generators. The subject engines are spark ignition, single or multiple cylinder, air cooled, internal combustion engines with vertical power take off shafts with a minimum displacement*

[12] 86 FR 1936, January 11, 2021.
[13] 85 FR 51015, August 19, 2020.

of 225 cubic centimeters (cc) and a maximum displacement of 999cc. Typically, engines with displacements of this size generate gross power of between 6.7 kilowatts (kW) to 42 kW.

Engines covered by this scope normally must comply with and be certified under Environmental Protection Agency (EPA) air pollution controls title 40, chapter I, subchapter U, part 1054 of the Code of Federal Regulations standards for small non-road spark-ignition engines and equipment. Engines that otherwise meet the physical description of the scope but are not certified under 40 CFR part 1054 and are not certified under other parts of subchapter U of the EPA air pollution controls are not excluded from the scope of these proceedings. Engines that may be certified under both 40 CFR part 1054 as well as other parts of subchapter U remain subject to the scope of these proceedings.

For purposes of these investigations, an unfinished engine covers at a minimum a sub-assembly comprised of, but not limited to, the following components: Crankcase, crankshaft, camshaft, piston(s), and connecting rod(s). Importation of these components together, whether assembled or unassembled, and whether or not accompanied by additional components such as an oil pan, manifold, cylinder head(s), valve train, or valve cover(s), constitutes an unfinished engine for purposes of these investigations. The inclusion of other products such as spark plugs fitted into the cylinder head or electrical devices (e.g., ignition modules, ignition coils) for synchronizing with the motor to supply tension current does not remove the product from the scope. The inclusion of any other components not identified as comprising the unfinished engine subassembly in a third country does not remove the engine from the scope.

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to these investigations is imported under a number of provisions of the Harmonized Tariff Schedule of the United States ("HTS"). LVSEs (including any unfinished good that has the essential character of a complete engine) are primarily imported under statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080, while the covered less-than complete engines are imported under statistical reporting numbers 8409.91.5085 and 8409.91.9990. Subject goods may also be imported under statistical reporting numbers 8407.90.9060 and 8407.90.9080. The 2020 general rate of duty is free for HTS subheadings 8407.90.10 and 8407.90.90, and 2.5 percent *ad valorem* for HTS subheadings

8409.91.50 and 8409.91.99. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Section 301 tariff treatment

Various Chinese products subject to these investigations are also subject to additional duties under Section 301 of the Trade Act of 1974. Imported Chinese products subject to these investigations that are subject to additional 25 percent *ad valorem* import duties under Section 301 are those classified in subheadings 8407.90.10, 8407.90.90, 8409.91.50, and 8409.91.99.[14] Exclusions were granted based on descriptions at the statistical reporting number level and were granted to products imported under HTS 8407.90.1020 on July 31, 2019,[15] and to products classified in 8407.90.9060 on September 20, 2019 and October 2, 2019.[16] These exclusions expired December 31, 2020.[17]

The following goods[18] covered by Commerce's scope were previously eligible for exclusion of the additional Section 301 duties:

- Spark-ignition rotary or reciprocating internal combustion piston engines, to be installed in agricultural or horticultural machinery or equipment, each rated at 4,476 W or more but not more than 37.6 kW (described in statistical reporting number 8407.90.1020).
- Spark-ignition reciprocating or rotary internal combustion piston engines, not elsewhere specified or included, each rated at 4,476 W or more but not exceeding 18.65 kW, with an engine displacement of not more than 690cc (described in statistical reporting number 8407.90.9060).
- Spark-ignition internal combustion engines (other than aircraft engines, other than marine propulsion engines, other than reciprocating piston engines of a kind used for the propulsion of vehicles of chapter 87, other than to be installed in agricultural or horticultural machinery or equipment and other than natural gas or LP engines), rated

[14] See U.S. note 20(f), subchapter lll of HTS chapter 99. Subheading 8407.90.10 and 8407.90.90 were in the second tranche, which went into effect August 23, 2018. Subheadings 8409.91.50 and 8409.91.99 were included in the third tranche, which went into effect September 24, 2018, and then the tariff rates were increased from 10 percent to 25 percent on May 10, 2019. For more information see https://ustr.gov/issue-areas/enforcement/section-301-investigations/tariff-actions.

[15] This exclusion only applies to engines valued at less than $180. See: *Notice of Product Exclusions: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation,* 84 FR 37381, 37382 (U.S. Trade Rep., July 31, 2019).

[16] Notice of Product Exclusions: China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation, 84 FR 52553, 52557 (U.S. Trade Rep., Oct 2, 2019).

[17] 85 FR 45949, July 30, 2020; 85 FR 59595, September 22, 2020; 85 FR 62786, October 5, 2020.

[18] 84 FR 37382, July 31, 2019; 84 FR 49607, September 20, 2019; 84 FR 52557, October 2, 2019.

4,476 W or greater but not exceeding 16.50 kW, of a cylinder capacity not exceeding 710cc (described in statistical reporting number 8407.90.9060).

The product

Description and applications

LVSEs are spark-ignited, single or multiple cylinder, air cooled, internal combustion, nonroad engines with vertical power take off shafts with a minimum displacement of 225cc and a maximum displacement of 999cc.[19] Most engines with this size displacement generate a gross power between 6.7 kW and 42 kW.[20] LVSEs covered by this scope also include subassemblies (unassembled or unfinished VSEs) but do not include engines with a displacement of 224cc or less, nor does it include engines with a horizontal shaft.[21] The subassemblies are designed for dedicated use in becoming a completed VSE or as a replacement assembly, and have no independent use and no separate markets.[22] LVSEs are primarily used in riding lawn mowers and zero-turn radius lawn mowers, although engines meeting this physical description may also be used in other non-hand-held outdoor power equipment.[23] LVSEs are therefore primarily sold to OEMs of these riding lawn mowers, who then primarily sell to "big box" retailers such as Home Depot.[24]

The engine displacements in this range correspond to horsepower ranges for riding lawn mowers and are generally not used for non-riding lawn mowers or other types of vehicles (such as automobiles). Engines with a displacement less than 225cc or with a horizontal shaft have different characteristics and uses, and therefore have different customers.[25] Similarly, horizontal shaft engines have different customers, distribution channels, and price points, and are primarily used in generators and various construction equipment.[26]

[19] Petitioner Briggs & Stratton prehearing brief, p. 2; petitioner Kohler's prehearing brief, p. 4.
[20] Petition p. 5.
[21] Petitioner Briggs & Stratton prehearing brief, pp. 2-3.
[22] Petitioner Kohler's prehearing brief, pp. 6-7.
[23] LVSEs used in other applications account for less than one percent of all LVSEs in the U.S. market. Hearing transcript, p. 20 (Melka), and Conference transcript, p. 69 (Melka).
[24] Hearing transcript, p. 78 (Coad).
[25] Petitioner Briggs & Stratton prehearing brief, pp. 2-3.
[26] Conference transcript, p. 54 and p. 68 (Hudak).

Figure I-1
LVSE: Briggs & Stratton 656–810cc engines

Source: Briggs & Stratton Website, https://www.briggsandstratton.com/na/en_us/product-catalog/engines/riding-lawn-mower-engines/commercial-series-engines.html, retrieved November 18, 2020.

LVSEs must comply with and be certified to meet U.S. Environmental Protection Agency ("EPA") air pollution control standards, with the most recent standards coming into effect in 2011.[27] LVSEs covered by the scope of these investigations are all EPA class II engines, which are defined as "nonhandheld equipment engines greater than or equal to 225cc in displacement."[28] These regulations have specific requirements for residential, extended life residential (general purpose), and commercial LVSEs.[29] The engines must meet these standards over the full period of the useful life of the engine.[30] The useful life is based on five years or the number of hours of operation, whichever comes first.[31] For class II engines (which encompasses the LVSEs covered by the scope of these investigations), useful life is typically the number of engine operating hours specified in the regulations that most closely matches the expected median in-use life of the engine (table I-3).[32] Commercial grade engines tend to be larger when compared to residential ones, as well as consisting of extra features and higher quality components which

[27] Petition, p. 5; The Border Center Website, https://www.bordercenter.org/smallengines.php, retrieved November 17, 2020.

[28] EPA class II engines also include horizontal shaft engines, and could include engines with greater than the 999cc, both of which are not covered by the scope of this investigation. EPA Website, https://www.epa.gov/ve-certification/small-nonroad-spark-ignition-engines, retrieved November 11, 2020.

[29] 40 C.F.R. §1054.107.

[30] 40 C.F.R. §1054.103.

[31] 40 C.F.R. §1054.107.

[32] 40 C.F.R. §1054.107.

extend their average useful life.[33] The EPA has rated commercial engines to have four times the average useful life of the residential grade engines.[34]

Table I-3
LVSEs: EPA nominal useful life provisions for non-handheld class II engines

Class	Residential	Extended life residential (or general purpose)	Commercial
Class II	250	500	1,000

Source: 40 C.F.R. §1054.107.

There are a number of different ways that engine power for LVSEs is rated, including displacement, torque, and kilowatts.[35] Power measurements are typically done according to Society of Automotive Engineers ("SAE") standards.[36] Displacement is the "intended swept volume of all the engine's cylinders. The swept volume of the engine is the product of the internal cross-section area of the cylinders, the stroke length, and the number of cylinders."[37] Torque is the amount of rotational power that can be created to, in the case of a lawn mower, turn the blades that cut the grass.[38]

Subject LVSEs certified by the EPA for model year 2020 have displacements ranging from 340cc to 999cc. The maximum engine power of certified LVSEs range from 4.55 to 29.3 kW.[39] The size and displacement of EPA certified engines is shown in figure I-2. Figure I-3 shows the

[33] Hearing Transcript, p. 197 (Trumpler)

[34] Hearing Transcript, p. 197-198 (Trumpler)

[35] Ratings may also be expressed as net power and gross power. "Net power values are taken with exhaust and air cleaner installed whereas gross power values are collected without these attachments. Actual gross engine power will be higher than net engine power and is affected by, among other things, ambient operating conditions and engine to engine variability." Briggs & Stratton Website, https://www.briggsandstratton.com/na/en_us/support/faqs/browse/engine-horsepower-or-torque-value.html, retrieved November 11, 2020.

[36] Briggs & Stratton Website, https://www.briggsandstratton.com/na/en_us/support/faqs/browse/mower-power-measurement.html, retrieved November 11, 2020.

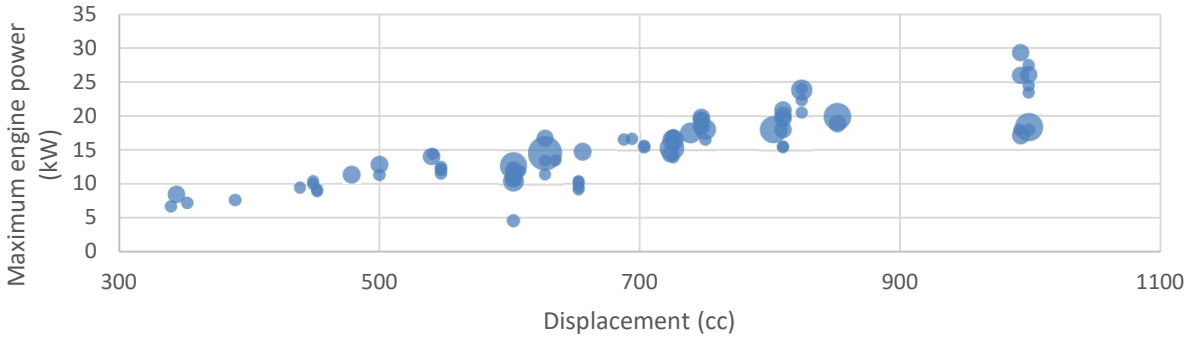
[37] 40 C.F.R. §1054.140.

[38] Williams, Diana K., "Torque Vs. Horsepower in Small Engine Lawn Mowers," *San Francisco Chronicle*, https://homeguides.sfgate.com/torque-vs-horsepower-small-engine-lawn-mowers-87440.html, retrieved November 11, 2020; Briggs & Stratton Website, https://www.briggsandstratton.com/na/en_us/support/faqs/browse/engine-horsepower-or-torque-value.html, retrieved November 11, 2020.

[39] EPA, Annual Certification Data for Vehicles, Engines, and Equipment, Small NRSI Engine Certification Data (Model years: 2011–Present), January 24, 2020, https://www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment, retrieved October 28, 2020.

range of displacement and maximum engine power for residential, extended life residential, and commercial engines in model year 2020.

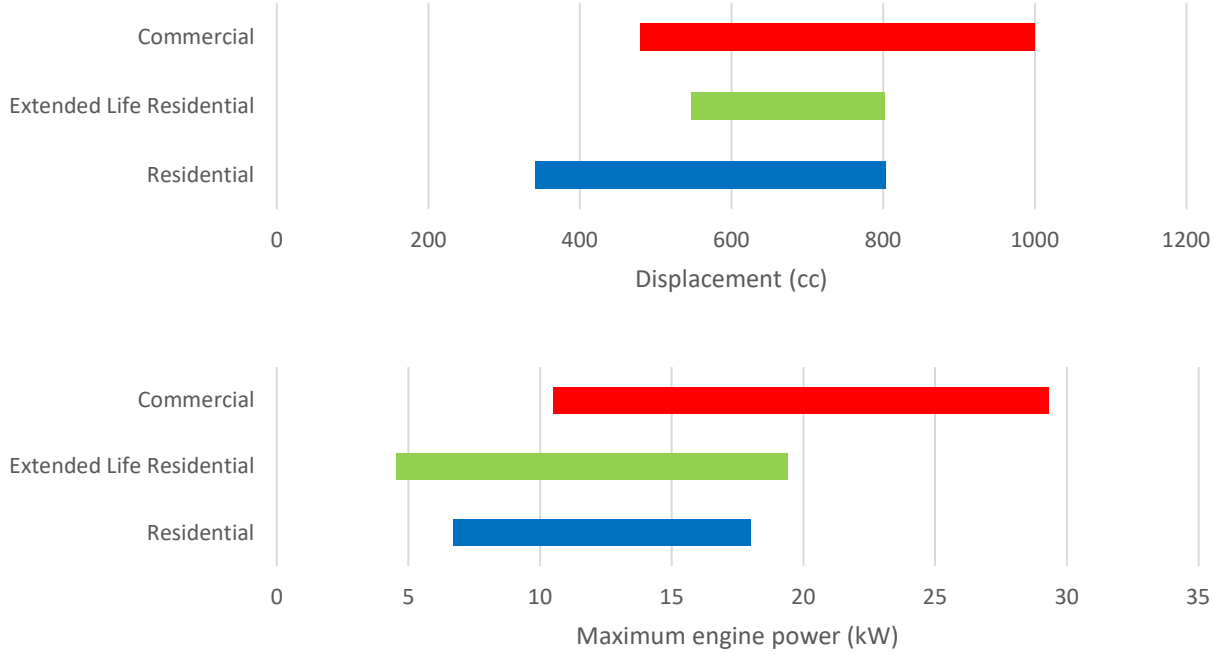
Figure I-2
LVSEs: Displacement and power of EPA certified LVSEs, model year 2020



Note: Size of the bubble is proportional to the number of engines with the same displacement and power.

Source: EPA, Annual Certification Data for Vehicles, Engines, and Equipment, Small NRSI Engine Certification Data (Model years: 2011 – Present), January 24, 2020, https://www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment, retrieved October 28, 2020.

Figure I-3
LVSEs: Range of displacement (top) and power (bottom) of EPA certified LVSE, by type, model year 2020



Source: EPA, Annual Certification Data for Vehicles, Engines, and Equipment, Small NRSI Engine Certification Data (Model years: 2011–Present), January 24, 2020, https://www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment, retrieved October 28, 2020.

Manufacturing processes[40]

The manufacturing process for LVSEs is a continuous and lengthy operation, consisting of five production stages: (1) casting major components; (2) machining these components; (3) assembling the short block; (4) assembling the long block; and (5) finishing. The first two stages are casting and machining. The process begins by casting (figure I-4) various major cast iron and aluminum components (i.e. the crankcases, cylinder heads, oil pans, crankshafts, camshafts, balance shafts, connecting rods, pistons, and flywheels) that make up the predominant portions of the engines. Some engine producers are vertically integrated such that this is done using their own aluminum cast houses and iron foundries, while others use external foundries.

Figure I-4
LVSEs: Cast Cylinder

Source: "How Lawnmower Engines are Made," Aug 10, 2015, https://www.youtube.com/watch?v=uBPbSUUkTck, retrieved November 12, 2020

[40] Unless otherwise noted, information in this section is from the Petition, pp. 6-8.

The next stage is to machine these casted components. Machining includes the process of milling, turning, drilling, boring, grinding, honing, deburring, balancing, and washing, as well as any other step required to transform the casted parts into components that can be used in a finished engine. The exact number of components that are machined varies from producer to producer, but most engine manufacturers perform machining "in-house."[41]

After casting and machining, the primary assembly process occurs on an assembly line. Most of the major cast iron and aluminum components produced in the prior two steps (including the engine crankcase, oil pan, crankshaft, camshaft, balance shafts, connecting rods, and pistons (figures I-5 and I-6) create the "short block" subassembly. At this stage of production, the short block represents about *** of the completed engine's total value.[42] Added to those components are smaller minor parts such as rings, gaskets, bolts, screws, springs, governor gears, and washers, among others, to complete the short block. The assembly process then continues by adding the valvetrain, cylinder heads, valve covers, and breather system components to the short block to create the "long block" assembly (figure I-7). These additional components add approximately another *** of the final value, bringing the total value of the long block to roughly *** of the completed engine's final value.[43]

[41] Some producers source components from external machine shops instead of machining the components internally.

[42] Petitioner Kohler's prehearing brief, p. 7.

[43] Petitioner Kohler's prehearing brief, p. 7.

Figure I-5
LVSEs: Crank shaft assembly inserted into the cylinder box

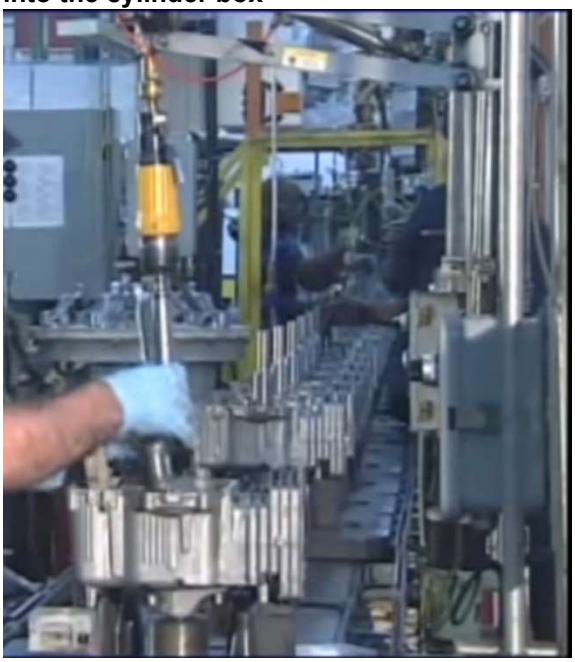
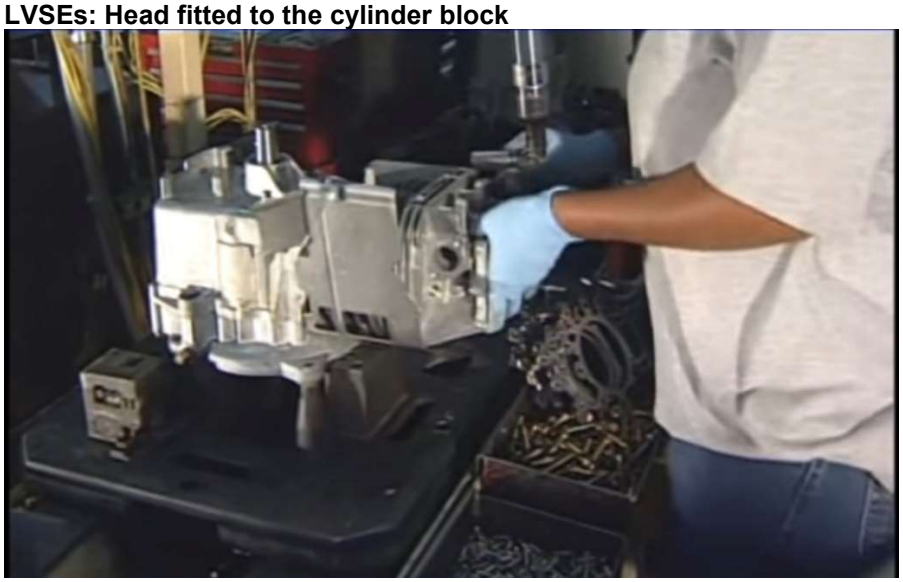


Figure I-6
LVSEs: Piston installed into the cylinder

Source: "How Lawnmower Engines are Made," Aug 10, 2015, https://www.youtube.com/watch?v=uBPbSUUkTck, retrieved November 12, 2020

Figure I-7
LVSEs: Head fitted to the cylinder block



Source: "How Lawnmower Engines are Made," Aug 10, 2015, https://www.youtube.com/watch?v=uBPbSUUkTck, retrieved November 12, 2020

The final phase of the assembly process requires adding the remaining engine parts to create a finished engine. These additional components include an intake manifold, carburetor, starter, flywheel, spark plugs, ignition modules, cooling fan, and any other component required to power the engine and meet emissions requirements. Moreover, various testing occurs to ensure quality control and EPA compliance. In additional to numerous internal testing and quality control, all engines covered by the scope of these LVSE investigations should also comply with and be certified under the EPA air pollution controls title 40, chapter I, subchapter U, part 1054 of the Code of Federal Regulations standards for small non-road spark-ignition engines and equipment.[44] There is also an additional certification required for engines in California set forth by the California Air Resources Board and, in general, engines are certified to meet both sets of regulations.[45]

Domestic like product issues

The petitioner proposes a domestic like product coextensive with the scope of these investigations and contends that the Commission should include vertical shaft engine subassemblies in the same domestic like product as finished engines.[46] None of the respondent parties challenged the petitioner's proposed definition of the domestic like product or raised domestic like product issues during the preliminary or final phases of these investigations.

[44] Petition p. 5. However, engines that otherwise meet the physical description of the scope but are not certified under 40 CFR part 1054 and are not certified under other parts of subchapter U of the EPA air pollution controls are not excluded from the scope.

[45] Conference transcript, pp. 155-156 (Krueger).

[46] Hearing transcript, p. 48 (DeFrancesco).

Part II: Conditions of competition in the U.S. market

U.S. market characteristics

LVSEs are used in riding mowers, both traditional riding mowers (also referred to as tractors) and zero-turn mowers, which are commonly used by professional landscapers.[1] Most LVSEs are consumed in the U.S. market, which is estimated to comprise 85 percent of the total world market.[2]

The U.S. LVSE market is supplied by three domestic producers, Briggs & Stratton, Kawasaki Motors Mfg. Corp. USA ("Kawasaki"), and Kohler, as well as imported product.[3] Kawasaki reportedly competes at the higher end of the market, in both price and quality.[4] In addition to producing engines, Briggs & Stratton also produces riding mowers, which it sells to its dealer networks but not to major retailers.[5]

Most LVSEs are sold to the OEMs that manufacture riding mowers, with a small share sold to the replacement market. OEMs sell their mowers to major home center retailers, such

[1] Petition, exhibit I-17, p. 1. Conference transcript, p. 29 (Rodgers).

[2] Conference transcript, p. 35 (Melka).

[3] ***.

***.

[4] Conference transcript, p. 82 (Rodgers). ***. Petitioner Briggs & Stratton postconference brief, exhibit 16.

[5] Hearing transcript, p. 83 (Coad), conference transcript, p. 40 (Brown) and p. 87 (Rodgers). Briggs & Stratton stopped selling its lawn and garden products through mass retailers in 2012. Petitioner Briggs & Stratton postconference brief, p. 5. Briggs & Stratton estimates that its branded riding mowers and zero turn mowers held *** share of the market in ***. Petitioner Briggs & Stratton posthearing brief, exhibit 4, p. 10.

as Home Depot and Lowe's, as well as hardware stores, home and garden stores, and dealers.[6] The OEM market is concentrated among a small number of manufacturers, including Deere, Husqvarna, MTD, and Toro.[7] Many of the major OEMs source LVSEs from multiple producers, including U.S. producers and Chinese producers.[8] MTD is one of the largest U.S. producers of powered outdoor lawn equipment and purchases LVSEs from all three U.S. producers. MTD also purchases from Chinese producer Zongshen, with which MTD has a joint development agreement for LVSEs.[9]

LVSEs may be branded with the engine manufacturer's name, or in some cases, the brand name of the mower OEM. Briggs & Stratton sells LVSEs only under its two labels, Briggs & Stratton and Vanguard (its brand for premium commercial engines), except for engines it supplies to Deere that carry the Deere label. The vast majority of Kohler's engines carry the Kohler brand name.[10] Kawasaki reportedly only sells Kawasaki-branded LVSEs.[11] Engines produced in China for MTD and Toro carry these OEMs' respective brand names.[12]

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[6] Conference transcript, p. 32 (Rodgers), p. 41 (Brown). ***. Petitioner Briggs & Stratton prehearing brief, exhibit 18.

[7] Conference transcript, p. 88 (Rodgers). ***.

[8] Conference transcript, p. 21 (DeFrancesco). ***.

[9] MTD mower brands include Cub Cadet, Troy Bilt, Remington, and Yard Machines. MTD also private labels mowers under the Craftsman, Murray, and Snapper names. MTD reported that under its agreement with Zongshen to develop engines that are individually optimized for MTD's product, MTD supports product development, engineering, quality assurance, and assists with compliance testing and certification to U.S. standards. MTD reported that with its own engines it has more control of quality, warranty and consumer experience/satisfaction and that its engines are not directly interchangeable with petitioners' engines. Hearing transcript, pp. 192-197 (Trumpler), conference transcript, pp. 112-116 (Trumpler), p. 88 (Rodgers).

Briggs & Stratton licenses some of its mower brands to Walmart, and ***. Petitioner Briggs & Stratton postconference brief, exhibit 1, p. 5, Petitioner Briggs & Stratton posthearing brief, exhibit 4, pp. 10-11.

[10] Conference transcript, p. 90 (Melka and Rodgers).

[11] Hearing transcript, p. 230 (Griffin).

[12] U.S. producers' and importers' shipments of branded and private label engines are shown in Parts III and IV.

Riding lawn mowers have model years.[13] OEMs decide how to pair a particular engine to each mower model.[14] U.S. manufacturers typically ship engines to OEMs on a trailer with 2 to 4 engines per rack with the rack and steel trailer returned to the OEM. Engines sold by U.S. producers to distributors and dealers and engines sold by importers to all channels are typically packaged individually in a cardboard box.[15] Engine warranties generally are for 2 to 3 years, with the highest rate of claims in the first year.[16]

As discussed in part I, LVSEs are classified by useful life rating as residential, extended life residential, or commercial. According to petitioners, zero-turn mowers exist in both the residential and commercial categories.[17] All three U.S. producers manufacture all three categories of LVSEs, and LVSEs in all three categories are also imported from China (see parts III and IV). MTD and Toro purchase commercial LVSEs from domestic producers but do not import them from China.[18]

Firms were asked if there were any changes in the marketing or product range of LVSEs since 2017. U.S. producer *** stated that robotic mower use has increased in Europe but that this has not had a significant effect on the U.S. market. Among importers, ***. *** stated that Husqvarna exited the market for entry-level residential mowers,[19] which negatively affected Briggs & Stratton's and Kohler's engine shipments in this category. Further, *** stated that the Sears bankruptcy and store closings artificially drove the U.S. market for LVSEs down when their inventories were marked down for clearance. *** stated that it entered the rental market, which requires large engines. ***.

Apparent U.S. consumption of LVSEs fluctuated during 2017-19, increasing from 2017 to 2018 and then decreasing from 2018 to 2019. Overall, apparent U.S. consumption in 2019 was *** percent lower than in 2017. It was *** percent lower in January-June 2020 than during

[13] Petition, p, 18.
[14] Petition, p. 18.
[15] Petition, exhibit I-8, p.4.
[16] Petition, exhibit I-17, p. 3. Warranties are discussed in more detail in Parts V and VI.
[17] Petitioner Kohler postconference brief, p. 13.
[18] Hearing transcript, p. 292 (Buenz and Griffin).
[19] ***. Husqvarna continues to sell some mowers that use LVSEs. Hearing transcript, p. 87 (Hudak).

January-June 2019. As discussed later in Part II, COVID-19-related supply and demand disruptions affected the LVSE market in the first half of 2020.[20]

Impact of section 301 tariffs

As discussed in part I, various products subject to these investigations have been subject to section 301 tariffs beginning in August 2018. Some exclusions were granted in July, September, and October 2019, and these exclusions expired on December 31, 2020. Most firms (2 of 3 U.S. producers, 6 of 8 importers, and 6 of 10 purchasers) reported that section 301 tariffs had an impact on the LVSEs market.[21] Firms' reported impacts are shown in table II-1.

U.S. producer *** stated that there were "exceptionally" high quantities of imported engines from China in April and May 2018, before the tariffs went into effect, that imports continued after the tariffs went into effect, that import volumes surged after the exclusions were granted, and that even when the section 301 relief was in place, Chinese imports consistently suppressed and depressed *** prices and that it continued to lose sales volumes to subject imports. *** stated that these duties initially caused subject imports to decline, but the exclusion received by MTD (***) brought subject imports back into the U.S. market. It stated that the section 301 duties did not impact *** production of LVSEs, that it did not benefit from any long-term price increases, and that after the exclusions were granted, MTD became more aggressive in its price negotiations with ***. OEM Toro stated that it did not change any of its engine placements when the section 301 duties were imposed.[22]

Table II-1
LVSEs: Impact of Section 301 tariffs

	U.S. producers				U.S. importers				U.S. purchasers			
Country pair	I	NC	D	F	I	NC	D	F	I	NC	D	F
U.S. supply	1	1	---	1	1	2	---	1	---	4	---	---
China supply	2	---	---	1	---	2	2	1	---	3	1	---
Other country supply	---	2	---	1	2	2	---	---	---	3	---	---
Prices	1	---	1	1	4	---	---	2	5	---	---	---
U.S. demand	---	1	2	---	3	2	---	1	---	4	---	---
Raw material costs	---	---	---	2	4	3	---	---	2	2	---	---

Note: I=increased, NC=no change, D=decreased, F=fluctuated.

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

[20] See also Parts III and VII for U.S. producer and foreign producer responses concerning COVID-19.
[21] The remaining responding importers and purchasers reported that they did not know.
[22] Hearing transcript, p. 219 (Buenz).

Regarding raw material costs, ***.

Importer *** reported increased costs of raw materials and component parts that go into engine production and importer *** stated that exemptions from section 301 tariffs have allowed it to continue its business. Importer *** stated that section 301 tariffs increased the price of engines from China and that U.S. producers quoted a similar price increase because of the increased costs of Chinese components used in U.S.-produced engines. Importer *** stated that LVSE prices increased by 17 to 25 percent and *** stated that it increased prices on subject LVSEs during the period they were subject to section 301 tariffs. *** stated that 301 tariffs on components such as starters and ignition coils imported by U.S. producers have driven up raw material costs for U.S. produced LVSEs. Purchaser *** reported that some LVSE components were subject to section 301 tariffs, which impacted the overall price. Purchaser *** reported that LVSE prices have increased, with the price of Chinese LVSEs increasing by the amount of the tariff and the price of domestic LVSEs increasing by the amount of the section 301 tariffs on the components LVSE producers purchase from China.

U.S. purchasers

The Commission received 11 usable questionnaire responses from firms that purchased LVSEs during January 2017-June 2020.[23] [24] Ten of the 11 responding purchasers are OEMs and two are distributors.[25] The largest purchasers of LVSEs, by descending order of reported 2019

[23] The following firms provided purchaser questionnaire responses: ***.

[24] All 11 responding purchasers purchased domestic LVSEs, 7 purchased subject imports from China, and 4 purchased imports of LVSEs from other sources.

[25] ***.

purchases and imports, were ***, ***, ***, and ***.[26] [27]

Six of the 11 purchasers (***) reported competing with their engine suppliers, mainly with Briggs & Stratton for sales of mowers and other lawn and garden products. Firms reported the following competition with Briggs & Stratton: ***. *** reported that it sells to the same retailers as its engine suppliers. In addition, ***.

Channels of distribution

LVSEs are mostly sold to OEMs, for use in production of riding mower engines, with a much smaller volume sold to distributors that sell to or support a dealer network.[28] During January 2017-June 2020, *** of U.S. producers' and subject imports' U.S. shipments, and *** percent of nonsubject import shipments were to OEMs (table II-2).

Geographic distribution

U.S. producers and importers reported selling LVSEs to all U.S. regions (table II-3). For U.S. producers, 26 percent of sales were within 100 miles of their production facility, 61 percent were between 101 and 1,000 miles, and 31 percent were over 1,000 miles. Importers sold 85 percent within 100 miles of their U.S. point of shipment, 14 percent between 101 and 1,000 miles, and about 2 percent over 1,000 miles.

[26] Shares are based on total purchases and imports reported in purchaser questionnaire responses. Purchaser responses were equivalent to *** percent of apparent U.S. consumption in 2019.

[27] In 2020, MTD closed its factory in Europe and moved this production of riding mowers to the United States. Respondent MTD posthearing brief, exhibit 1, p. 46.

[28] Petition, pp. 18-19.

Table II-2
LVSEs: U.S. producers' and importers' U.S. shipments, by sources and channels of distribution, January 2017-June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Share of U.S. shipments (percent)				
U.S. producers: to Distributors or dealers	***	***	***	***	***
to OEMs	***	***	***	***	***
U.S. importers: China to Distributors or dealers	***	***	***	***	***
to OEMs	***	***	***	***	***
U.S. importers: Nonsubject to Distributors or dealers	***	***	***	***	***
to OEMs	***	***	***	***	***
U.S. importers: All sources: to Distributors or dealers	***	***	***	***	***
to OEMs	***	***	***	***	***

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

Table II-3
LVSEs: Geographic market areas in the United States served by U.S. producers and importers

Region	U.S. producers	Importers
Northeast	3	3
Midwest	3	5
Southeast	3	4
Central Southwest	3	4
Mountain	3	3
Pacific Coast	3	3
Other	3	1
All regions (except Other)	3	3
Reporting firms	3	5

Note: All other U.S. markets, including AK, HI, PR, and VI.

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

Supply and demand considerations

U.S. supply

Table II-4 provides a summary of the supply factors regarding LVSEs from U.S. producers and from China. U.S. producers' reported capacity was more than five times that reported by Chinese producers. U.S. producers ship mainly to the U.S. home market whereas Chinese producers reported a relatively small share of shipments to the Chinese home market.

Table II-4
LVSEs: Supply factors that affect the ability to increase shipments to the U.S. market

Item	Capacity (1,000 units)		Capacity utilization (percent)		Inventories as a ratio to total shipments (percent)		Shipments by market in 2019 (percent)		Able to shift to alternate products
	2017	2019	2017	2019	2017	2019	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	***	***	***	***	***	***	***	***	1 of 3
China	***	***	***	***	***	***	***	***	2 of 5

Note: Responding U.S. producers accounted for all of U.S. production of LVSEs in 2019. Responding foreign producer/exporter firms accounted for virtually all of U.S. imports of LVSEs from China during 2019. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from China, please refer to Part I, "Summary Data and Data Sources."

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

Domestic production

Based on available information, U.S. producers of LVSEs have the ability to respond to changes in demand with large changes in the quantity of shipments of U.S.-produced LVSEs to the U.S. market. The main contributing factors to this degree of responsiveness of supply is the availability of unused capacity. U.S. producers have a limited ability to shift shipments from alternate markets and to shift production to or from alternate products.

U.S. producers' capacity increased by *** percent from 2017 to 2019, more than the production increase of *** percent, leading to slightly lower capacity utilization in 2019. U.S. producers' reported export markets were ***. All three U.S. producers also produce horizonal shaft engines on the same equipment as LVSEs, although horizontal engines comprised a small percentage of total production on this equipment. Factors affecting U.S. producers' ability to shift production include much more limited demand for horizontal engines, higher prices for vertical shaft engines, that engines are produced-to-order, and that a different configuration for the horizontal shaft lines is not easily changed.

Subject imports from China

Based on available information, responding Chinese producers of LVSEs have the ability to respond to changes in demand with large changes in the quantity of shipments of LVSEs to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and some ability to shift shipments from alternate markets. A

factor mitigating responsiveness of supply is a limited ability to shift production to or from alternate products.

Responding foreign producers' capacity increased from 2017 to 2019. Capacity utilization decreased slightly from *** percent in 2017 to *** percent in 2019. Three of the producers reported that their principal other export market besides the United States was Europe and one of these firms also exported LVSEs to Korea. Three of the five responding Chinese producers reported that they were unable to switch production to other products. Two Chinese producers reported that they also produce horizontal shaft engines on the same equipment as LVSEs.

Imports from nonsubject sources

Sources of nonsubject imports include Japan and ***. Briggs & Stratton imported LVSEs from Japan through a joint venture which ***. ***. Nonsubject imports accounted for *** percent of total U.S. import quantity in 2019, down from *** percent in 2017, and were *** percent of imports in interim 2020.

Supply constraints

Most U.S. producers (2 of 3) and importers (6 of 8) reported no supply constraints. ***. ***.[29]

In the preliminary phase, Toro stated that it was increasing its purchases from Kawasaki in 2020 but that prior to that time, Kawasaki had told Toro that it lacked production capacity to produce the particular engines Toro required.[30] Yamaha stated that when it was entering the market in 2016 and 2017, Kawasaki's inability to meet demand created an opportunity for Yamaha's imports.[31] ***

[29] Petitioner Briggs & Stratton posthearing brief, exhibit 4, p. 2.
[30] Conference transcript, p 108 (Stoel).
[31] Respondent Yamaha postconference brief, p. 29.

***.[32]

Most purchasers (8 of 11) reported that a firm refused, declined, or was unable to supply LVSEs since January 1, 2017. Many of these firms reported that U.S. producers had supply constraints. *** reported that Kawasaki had constrained supply from 2015 to 2017 while expanding capacity, during which time Kohler temporarily secured some of Kawasaki's engine placements. *** added that COVID-19 has caused supply disruptions and that since July 2020, domestic producers have been unable to consistently meet increased demand. *** reported ongoing U.S. production limitations, particularly with Kawasaki, which were exacerbated even further in 2020, when Kawasaki temporarily took some production offline because of the COVID-19 pandemic. *** stated that these production curtailments interrupted its mower assembly operations in 2020 during the critical spring sales and distribution period. *** stated that ***.[33]

Purchaser *** reported that Kawasaki had constraints in 2017 and 2018 and that Kawasaki worked with *** to meet its delivery needs and these constraints also led to *** diversifying its supply base. *** reported supply constraints from Kawasaki and that all domestic manufacturers had issues with availability of replacement/service parts for non-U.S. markets, such as Europe. *** reported that it worked closely with Kawasaki in 2017 to ensure production of engines to keep up with *** increased demand. *** reported that in the summer of 2020, Briggs & Stratton experienced financial challenges and excess inventory at a key facility, causing Briggs & Stratton to stop all new production to reduce its inventory. *** reported supply disruptions due to COVID-19 and manufacturer component shortages. *** reported that, because of COVID-19 effects on Briggs & Stratton's supply chain, Briggs & Stratton did not have the components in stock to fill orders. ***.[34]

[32] Petitioner Briggs & Stratton postconference brief, exhibit 16.

[33] ***.

[34] Respondent MTD posthearing brief, exhibit 4, p. 2.

Six of 11 purchasers reported changes in the availability of domestic LVSEs since 2017. *** and *** reported that Kawasaki had capacity issues in meeting demand. *** and *** reported that U.S. producers had COVID-19 related supply chain issues. *** generally reported that U.S. producers experienced supply issues and *** reported that Kohler has had repeated quality and safety issues that make it an unreliable supplier. *** also reported that Kawasaki had capacity constraints in 2017. *** reported growth in domestic availability and expansion of categories into new markets.

Four purchasers reported changes in the availability of Chinese LVSEs since 2017. *** reported that COVID-19 has caused supply disruptions in 2020. Two purchasers reported increased availability since 2017: *** reported added capacity in China (e.g., Yamaha) but stated that this increased availability has not altered its sourcing from China, and *** reported increased availability of Chinese engines in the U.S. market.

Two firms reported changes in the availability of nonsubject imports, with ***.

New suppliers

Three of 11 purchasers indicated that new suppliers entered the U.S. market since January 1, 2017. Purchasers reported that Yamaha began producing engines in China in 2018 and that Liquid Combustion was a new supplier.

U.S. demand

Based on available information, the overall demand for LVSEs is likely to experience small changes in response to changes in price. The main contributing factors are the lack of substitute products and the small-to-moderate cost share of LVSEs in its end-use products.

End uses and cost share

U.S. demand for LVSEs depends on the demand for riding lawn mowers and zero-turn mowers. LVSEs account for a small-to-moderate share of the cost of riding mowers and zero-turn mowers, reportedly 10 to 25 percent.

Business cycles

The market for LVSEs is seasonal, based on the demand for landscape services for residential mowing. OEMs generally make most of their engine purchases in early winter and then sell their mowers to retailers in late winter and spring.[35]

Most responding firms (all 3 responding U.S. producers, 7 of 8 importers, and 7 of 9 purchasers) indicated that the LVSE market was subject to business cycles. Firms reported seasonal sales and that weather affects demand, with higher rainfall increasing demand. Several firms reported that most engines are sold in winter during the fourth and first quarters of the year, and OEM *** stated that deliveries of the engines take place in the first and second quarters of the year. MTD stated that it typically builds its mowers during ***, during which time it receives the engines from U.S. producers.[36]

Most firms (2 of 3 responding U.S. producers, 5 of 8 importers, and 7 of 9 purchasers) indicated that the market was not subject to other distinct conditions of competition. Among firms reporting distinctive conditions, U.S. producer *** noted the small number of OEMs, and OEM *** noted the small number of domestic engine manufacturers. *** added that among the three U.S. producers, *** has limited capacity ***, *** has repeated quality and safety issues that make it an unreliable supplier, and *** is a direct competitor in the mower segment and ***. OEM *** reported the following other conditions of competition: ***. Importer *** stated that commercial customers require quality and reliability.

Some firms reported changes to the conditions of competition. U.S. producer *** stated that subject imports have taken the increase in overall demand and market share from domestic producers. Importer *** cited growth in battery-operated and robotic mowers, increased consumer desirability of engines branded with the mower name, increased use of commercial lawn services, and Kawasaki's capacity constraints ***. *** reported reduced domestic supply options since 2017, including that Kohler had quality problems and that Kawasaki took some production

[35] Petition, p. 19, hearing transcript, p. 42 (Hudak), and conference transcript, p. 20 (DeFrancesco).
[36] Respondents MTD and Toro postconference brief, exhibit 1, item 22.

temporarily offline in 2020 due to the COVID-19 pandemic. *** reported disruptions to its mower production due to COVID-19 related factory shutdowns. *** stated that U.S. producer Kawasaki was unable or unwilling to supply OEM requirements.

Demand trends

U.S. demand for LVSEs is driven by demand for riding mowers, which in turn, is driven by demand for new homes. According to ***, overall U.S. shipments of riding and zero-turn mowers increased from 2017 to 2018, decreased in 2019, and were projected to increase in 2020 through 2022 (figure II-1).[37] Shipments of zero-turn mowers have experienced the largest increase, with shipments projected to be *** percent higher in 2020 compared to 2017. Shipments of commercial riding mowers increased from 2017 to 2019 but were projected to be lower in 2020 before increasing again in 2021 and 2022. Residential riding mower shipments rose slightly from 2017 to 2018 but were lower in 2019. They were projected to experience an increase in 2020 but were projected to be lower in 2021 and 2022. ***.[38]

Residential housing drives demand for mowers.[39] New home construction increased from January 2017 to September 2019 and increased sharply in the fourth quarter of 2019, followed by a precipitous decline between February and April 2020. New home construction has rebounded through November 2020 (figure II-2). Overall, the number of new privately-owned housing units started increased by 4.9 percent between January 2017 and June 2020.

[37] ***.

[38] ***.

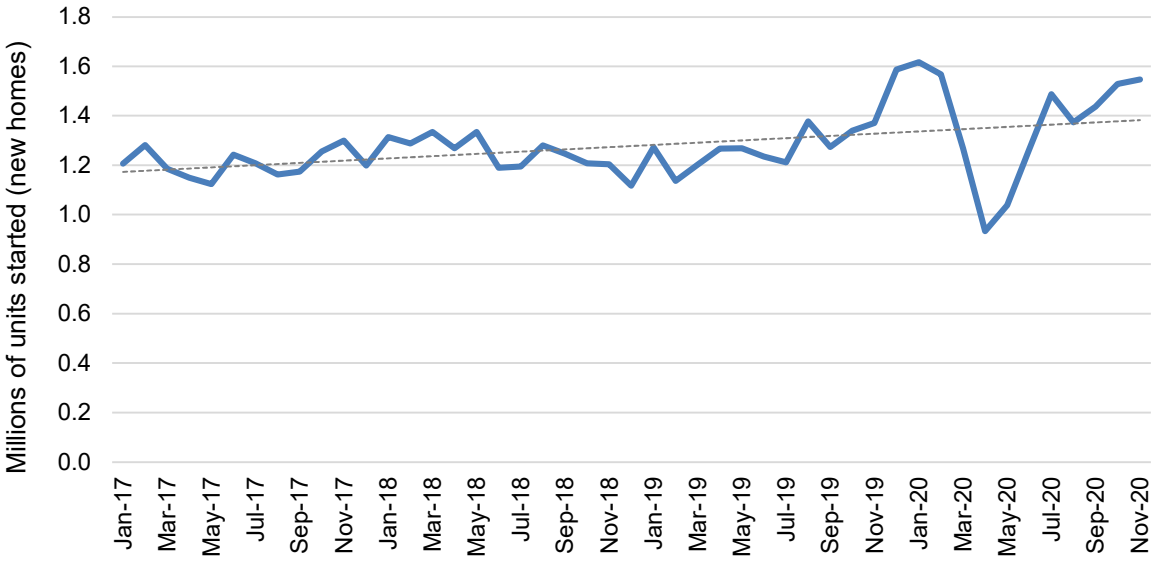
[39] Petition, p. 19.

Figure II-1
U.S. riding mower shipments: *, annual, 2017-19 (actual), and 2020-22 (projected)**

* * * * * * *

Source: ***.

Figure II-2
Home construction: New privately-owned housing units started, seasonally adjusted, monthly, January 2017-November 2020



Source: Census Bureau, https://www.census.gov/construction/nrc/index.html, retrieved January 4, 2021.

A majority of importers and a plurality of purchasers reported an increase in U.S. demand for LVSEs since January 1, 2017, while U.S. producers' responses varied (table II-5). U.S. producer *** reported increased demand driven by residential housing starts and record rainfall in 2019 but stated that subject imports have captured the increased demand. *** reported an overall Increase in the turf market. *** reported flat overall demand, with declines in demand for tractors and increased demand for zero-turn mowers, with a temporary uptick in demand due to the COVID-19 stay-at-home orders (particularly after the first half of 2020).

Table II-5
LVSEs: Firms' responses regarding U.S. demand and demand outside the United States

Item	Increase	No change	Decrease	Fluctuate
Demand in the United States:				
U.S. producers	1	1	---	1
Importers	5	---	2	---
Purchasers	4	1	3	2
Demand outside the United States:				
U.S. producers	---	---	1	2
Importers	1	1	1	3
Purchasers	3	2	2	---
Demand for end use product(s):				
Purchasers	5	---	2	2

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

Importers and purchasers cited a number of factors with respect to U.S. demand trends. *** reported new home construction, the overall economy, weather, and COVID-19 as reasons for increased demand. *** reported decreased demand, citing California's intent to eliminate gas engines by 2025, growth in battery-powered mowers, price increases because of tariff increases, emission regulations, robotics growth, low margins at opening price points, Husqvarna exiting the residential market, and the Sears bankruptcy. It also reported temporary fluctuations in demand because of COVID-19. *** reported that the market has generally had stable growth, with occasional weather-related variation and that COVID-19 initially slowed sales but since has driven a double-digit percent increase in sales. *** reported decreased demand as it faced increased competition from imports and dominant competitors in its categories. *** stated that weather, seasonal growing conditions, the state of the economy, changing homeowner demographics, and the changing preferences affect the mix of residential and commercial mower models it sells.

A majority of responding purchasers reported increased demand for their end-use products (i.e., mowers). *** reported increased sales of mowers. *** stated it does not have enough capacity to manufacture all models demanded by its customers and has had to purchase finished machines from other manufacturers to support customer demand, which has

reduced its total engine purchases. *** stated that there has been continued strong demand growth throughout the United States and at times it has been challenging for *** to meet this growing demand. Toro stated it experienced slow retail sales for its riding mowers in the first quarter of 2020 because of COVID-19 but that demand increased substantially starting in April 2020.[40]

Regarding demand outside of the United States, firms reported decreased demand in Europe and Canada, the major non-U.S. markets for LVSEs. U.S. producer *** reported some weather-related decreases in demand in Europe, and *** reported a slight decline in demand in Europe with the increased use of robotic mowers. Importer *** reported decreased demand in Europe and Canada due to an increase of battery-powered products and robotics. *** described the market outside of the United States as stable and mature. *** reported increased sales in some markets related to new home construction, the overall economy, and COVID-19.

Substitute products

Substitutes for LVSEs are limited. Most responding firms (2 of 3 U.S. producers, 6 of 7 importers, and 8 of 10 purchasers) reported that there were no substitutes. Among firms reporting substitutes, U.S. producer *** stated that diesel and water-cooled engines and battery-powered mowers are substitutes but are priced higher than LVSEs. Importer *** stated that battery-powered engine growth and more aggressive battery-powered engine pricing have created downward pressure on pricing and demand for gas engines. Purchaser *** cited electric motors as a substitute for LVSEs but stated that the electric mower product targets a different customer than the traditional gasoline mower customer.

Substitutability issues

The degree of substitution between domestic and imported LVSEs depends upon such factors as relative prices, quality (e.g., grade standards, defect rates, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, reliability of supply, product services, etc.). Based on available data, staff believes that there is a moderate degree of substitutability between domestically produced LVSEs and LVSEs imported from China. Factors limiting substitutability include engines designed for a specific mower platform, engine features, supplier relationships, warranty procedures, and OEM branding of engines.

[40] Hearing transcript, p. 180 (Hawley).

Lead times

U.S. producers typically produce LVSEs for the customer when a purchase order is issued.[41] U.S. producers reported that *** percent of their commercial shipments were produced-to-order, with lead times averaging 37 days.[42]

Importer inventories are in most cases held by an OEM that is itself the importer of record or held by the importer for a particular OEM that placed the order. Importers reported that *** percent of sales were from U.S. inventories with lead times of 2 days. *** imports during the period were by OEMs, including ***. These firms do not resell LVSEs and thus are not included in the lead times data. ***.[43]

Importers reported lead times of 120 days for produced-to-order product from China. Respondents reported experiencing lead times of *** from U.S. producers and *** from China.[44] MTD stated that Zongshen manufactures the engines upon receipt of a purchase order from MTD and that it typically takes 60 to 120 days from release of the purchase order to the engines entering the United States, with an average of 90 days.[45] ***.[46]

Knowledge of country sources

All 11 responding purchasers indicated they had marketing/pricing knowledge of domestic product, 7 of Chinese product, and 3 of Japanese product.

[41] Petitioner's responses to supplemental questions concerning Volume I of Petitions, p. 6.
[42] ***.
[43] ***.
[44] Respondents MTD and Toro postconference brief, exhibit 2, p. 1.
[45] Respondent MTD posthearing brief, exhibit 1, pp. 32, 38.
[46] Respondent MTD's posthearing brief, exhibit 4, p. 6.

As shown in table II-6, five of 10 responding purchasers always or usually make decisions based on the producer, four sometimes do, and one never does. Four purchasers reported that their customers usually make decisions based on the producer of the engine and four reported that their customers sometimes do. Country of origin is less frequently a factor than the producer of the engine, with 7 of 10 purchasers reporting that they never make decisions based on country of origin. *** stated that customers often have a brand preference and that engine brand is typically listed in marketing materials as one of the top three features of mowers. *** stated that the reputation of the engine brand is a factor in purchase decisions. *** stated that OEMs generally purchase engines from a small number of manufacturers. *** stated that some of its customers (i.e., retailers) select engine producers based on the customers' "receipt of kickbacks and other incentives."

Table II-6
LVSEs: Purchasing decisions based on producer and country of origin

Purchaser/customer decision	Always	Usually	Sometimes	Never
Purchaser makes decision based on producer	3	2	4	1
Purchaser's customers make decision based on producer	---	4	4	---
Purchaser makes decision based on country	1	1	1	7
Purchaser's customers make decision based on country	---	---	5	2

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

Five of 11 purchasers reported that they sometimes order LVSEs from a particular country. *** reported a preference for domestic engines. *** also stated that it generally prefers domestic sources but that it needs alternative sources of supply ***. ***. It added that the U.S. engine brands have a good reputation with customers but that increasing volumes of low-priced Chinese engines have eroded the preference for American-made engines.

Three of 10 purchasers reported that certain types of engines were only available from certain sources. *** stated that Honda produces its LVSEs at its facility in China. *** stated that certain features *** are not widely available from domestic suppliers but are available from ***. *** stated that LVSEs that are suitable for its products are only available from the United States and China.

Factors affecting purchasing decisions

The most often cited top-three factors firms consider in their purchasing decisions for LVSEs were price (6 firms), reliability of supply/availability (6 firms), quality/performance (5 firms), and brand/reputation (5 firms), as shown in table II-7. Quality/performance was the

most frequently cited first-most important factor (cited by 5 firms), followed by brand/reputation (3 firms). Reliability of supply/availability was the most frequently reported second-most important factor (4 firms); and price was the most frequently reported third-most important factor (5 firms).

Table II-7
LVSEs: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Factor	First	Second	Third	Total
Reliability of supply/availability	0	4	2	6
Price	0	1	5	6
Quality/performance	5	0	0	5
Brand/reputation	3	2	0	5
Supplier product line	1	0	0	1
Warranty	0	1	1	2
Other	1	2	2	5

Note: Other factors include exclusive distribution contract for the first factor; "ability to service engines used on our machines through our warehouse and dealer network" and product meets value requirements (financial and customer demand) for the second factor; and customer demand and meet purchaser's specifications for the third factor.

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

Other factors listed by purchasers, but not included in these firms' top-three factors, were range of supplier's product line (***), ability to purchase an engine that has a manufacturer's warranty that matches the warranty of its mower (***), and availability of replacement parts for mowers sold in non-U.S. markets (***). *** stated that each of the three domestic producers fails on an important factor (***). *** stated that domestic manufacturers were unable or unwilling to provide its major purchasing factors: ***.

Almost all responding purchasers (10 of 11) reported that they sometimes purchase the lowest-priced product and one never does. No purchaser reported that it always or usually purchases the lowest-priced product.

Engine selection

Purchasers were asked to describe how they select the LVSEs to pair with the mowers they produce. *** considers quality/performance, followed by brand, and then price. *** considers performance, cost, reliability, and market reputation. *** first identifies

certain engine features ***, and if there are multiple engines that meet these factors, it then considers serviceability, ease of maintenance, and parts availability via its dealer network. It added that it gives priority to engine manufacturers that make service and warranty parts available to its dealers. *** works with its engine suppliers to select engines based on its suppliers' engine options and availability and does not have special engines built specific to its product. *** makes and sells some mowers with ***. *** uses consumer insights to guide its engine selection to produce a mower that meets or exceeds customer expectations and completes the selection process by performing rigorous application testing to ensure form, fit and function. *** selects engines based on quality, manufacturer reputation, on-time delivery, and cost. *** looks at the best value proposition for each mower model. *** mowers are designed to be mated with specific engines based on their displacement and various engine producers supply competing models pursuant to these standards.

Purchasers were also asked how they analyze the total value proposition of purchasing LVSEs from different sources. *** considers product quality, supplier quality, and value, along with the needs of its research and development team. *** factors in customer satisfaction, cost, and reliability. *** considers quality, manufacturer reputation, on-time delivery, and cost. *** considers price, as well as quality, parts availability (particularly in the European Union and in other non-EU countries), and branding ((i.e., the ability to use own brand versus the engine manufacturer's brand)). *** evaluates the consumers' perception versus cost and value as well as the engine supplier's reputation and reliability for the price point. *** selection process includes a decision analysis tool that assigns weights to quality/performance, brand, and price. *** stated that the engine selected must have the configuration and durability needed to match each customer's need (consumer or commercial) and must then pass its rigorous testing program prior to being selected for an application. *** buys engines from Kawasaki to ***. *** process involves using consumer insights to narrow the available options and then focuses on factors such as availability, quality, delivery, cost of warranty, and cost to understand its expected return on investment.

*** stated that its value proposition includes ability to obtain exclusive engine features, longevity, performance, reliability, cost, supplier reliability, quality, delivery,

engineering, warranty, and brand value. It stated that customers, dealers and distributors often prefer having all warranty claims handled by *** rather than the engine manufacturer, which is only possible with Chinese engines. ***.[47] ***.[48]

Six of 10 responding purchasers work with their engine suppliers to develop LVSEs for their particular mower models.[49] These firms were asked to explain this process, whether competition for mowers with engine producers affects these relationships, and the importance of matching the engine brand to the mower brand. *** stressed the importance of offering certain engines on different tiers of equipment. *** typically negotiates minor aesthetic adjustments to a supplier's standard model to differentiate it when used with *** mowers. *** works with its engine suppliers to identify the correct displacement, PTO style, air filtration, cooling system configuration, speed controls, and connection points appropriate for the application, and conducts application review and field testing to confirm performance before the engine supplier performs its own review. *** stated that there are risks of working with engine producers that are also mower competitors and that in these situations it limits the release of confidential information and schedules the engine supplier's application review as close to the mower's public unveiling as possible. In addition, it stated that its dealers request that its *** brand be used on engines used in its mowers but that many engine manufacturers are unwilling to remove their brand information from the engine. ***

[47] ***.
[48] ***.
[49] ***.

***.

***.

Seven of 10 purchasers said that their expenses to procure engines vary by producer. *** stated that Briggs & Stratton engines are its lowest-cost engines, followed by Kawasaki, and that Honda supplies its most expensive engines. *** stated that *** of its engines are from Kohler, which provides the lowest-cost engines. *** stated that each engine producer has different logistics, packaging costs, base costs, feature pricing, and warranty claim processing costs.[50] ***. ***.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 20 factors in their purchasing decisions (table II-8). Nearly all purchasers (at least 9 of 11) rated five of the factors as very important: availability, engine safety, meet purchaser specifications, quality meets industry standards, and reliability of supply. The other factors rated as very important by more than half of responding purchasers were engine features and brand (8 firms each); product consistency (7 firms); and price, quality exceeds industry standards, and warranty (6 firms each). None of the factors were rated as not important by a majority of firms.

[50] It stated that warranty costs are provided by the engine manufacturer in some cases and are provided by *** in other cases.

Table II-8
LVSEs: Importance of purchase factors, as reported by U.S. purchasers, by factor

Factor	Very important	Somewhat important	Not important
Availability	10	1	---
Brand	8	3	---
Delivery terms	5	5	1
Delivery time	5	5	1
Discounts offered	2	9	---
Engine features	8	3	---
Engine safety	9	2	---
Meet purchaser specifications	9	2	---
Minimum quantity requirements	2	6	3
Packaging	1	8	2
Payment terms	2	9	---
Price	6	5	---
Product consistency	7	4	---
Product range	2	8	1
Quality meets industry standards	10	2	---
Quality exceeds industry standards	6	4	1
Reliability of supply	10	1	---
Technical support/service	5	6	---
U.S. transportation costs	1	8	2
Warranty	6	5	---

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

Supplier certification

Six of the 11 responding purchasers, including the four largest purchasers, require their suppliers to become certified or qualified to sell LVSEs to their firm.[51] Purchasers reported that the time to qualify a new supplier ranged from 60 days to 2 years.[52] Two of the 11 responding purchasers reported that a domestic or foreign supplier had failed in its attempt to qualify LVSEs or had lost its approved status since 2017. *** reported that Liquid Combustion was unable to pass its field test program. *** reported that no producers failed to qualify, although a particular LVSE offered by a producer may fail *** engine application approval process. *** reported that all of its suppliers have had initial failures in its qualification process but that the engines are often improved and ultimately pass qualification after subsequent tests. MTD reported "Every engine MTD places on a lawn care product must meet ANSI {American National Standards Institute} and EPA certification testing, which is conducted

[51] Purchasers *** require certification.

[52] *** reported 60 days, *** reported 60-75 days, *** reported 180 days, *** reported one year, and *** and *** reported 2 years.

by both MTD and the EPA." [53] MTD stated, that in addition to certification of each engine, each engine-to-platform combination must also be tested and certified.[54]

Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2017 (table II-9). Firms reported decreased domestic purchases because of market competition (***) and Kawasaki supply constraints (***). ***. *** stated that COVID-19 affected sales in March, April, and May but that its monthly sales in June were much higher. Among firms reporting increased domestic purchases, *** reported an increase in its mower sales and *** reported an expansion of its mower lineup. *** reported that since 2017, its share of purchases of U.S. and Chinese engines has been stable but that in 2020 this pattern was interrupted when Kawasaki temporarily took a plant offline because of the COVID-19 pandemic and that Kohler had continued quality issues. Reasons reported for fluctuating purchases from U.S. producers were sales variances, ***), and consumer preference (***).

Table II-9
LVSEs: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	---	4	3	1	3
China	3	2	2	1	2
Other	5	2	---	---	1

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

Two purchasers reported decreases in purchases from China because of market competition and purchase orders issued in 2016 and 2017 but engines not taken until 2019 and 2020 (***) and engine suppliers moving engine manufacturing away from China (***). One purchaser, ***, reported increased purchases of Chinese engines because of increased mower sales. *** reported fluctuating purchases from China, explaining that it needed a reliable second source of supply due to U.S. manufacturer supply constraints and that U.S. engine manufacturers did not have enough parts available for U.S.-produced mowers that are shipped to the EU or other non-U.S. markets.

[53] Respondent MTD posthearing brief, exhibit 1, p. 15.
[54] Respondent MTD posthearing brief, p. 14.

Two firms reported a decrease in purchases of LVSEs from nonsubject countries. *** reported that Yamaha moved engine manufacturing away from China, and *** reported that it no longer purchases LVSEs from Japan, since Briggs & Stratton moved its engine production in Japan to the United States.

Almost all responding purchasers (10 of 11) reported that they had not changed suppliers since January 1, 2017. *** reported that it currently does not purchase LVSEs from *** due to customer preference but has otherwise not added or dropped any engine supplier during this time period.

Importance of purchasing domestic product

Purchaser responses indicate that the vast majority of reported purchases (93.2 percent) had no domestic purchase requirements. Six purchasers, including the largest four purchasers (***), reported that none of their purchases had a domestic requirement.

Comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing LVSEs produced in the United States, subject countries, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 20 factors (table II-10) for which they were asked to rate the importance.

Most purchasers reported that U.S. and subject LVSEs were comparable on 17 of the 20 factors. A majority of responding purchasers reported that subject imports were lower-priced than domestic LVSEs. Firms' responses were divided on availability and delivery time. As noted previously, availability was rated as a very important factor by 10 of 11 purchasers, price was rated as very important by 6 of 11 purchasers, and delivery time was rated as very important by 5 of 11 purchasers.

Table II-10
LVSEs: Purchasers' comparisons between U.S.-produced and imported product

Factor	Number of firms reporting								
	United States vs. China			United States vs. nonsubject sources			China vs. nonsubject sources		
	S	C	I	S	C	I	S	C	I
Availability	3	3	3	3	1	1	2	3	1
Brand	2	5	2	1	4	---	---	4	2
Delivery terms	1	7	1	1	4	---	---	6	---
Delivery time	4	2	3	3	2	---	1	4	1
Discounts offered	---	7	2	---	4	---	1	5	---
Engine features	2	6	1	---	5	---	---	5	1
Engine safety	1	7	1	---	5	---	---	5	1
Meet purchaser specifications	---	9	---	---	5	---	---	6	---
Minimum quantity requirements	---	9	---	---	5	---	---	6	---
Packaging	2	7	---	---	5	---	---	6	---
Payment terms	1	7	1	1	4	---	1	5	---
Price	1	3	5	1	4	---	3	3	---
Product consistency	1	7	1	---	5	---	---	5	1
Product range	3	6	---	---	5	---	---	5	1
Quality meets industry standards	---	9	---	---	5	---	---	6	---
Quality exceeds industry standards	1	8	---	---	5	---	---	5	1
Reliability of supply	2	5	2	---	4	1	---	6	---
Technical support/service	4	5	---	---	5	---	---	5	1
U.S. transportation costs	3	6	---	1	3	---	---	6	---
Warranty	1	6	2	---	5	---	1	5	---

Note: 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 list country's product is inferior.

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

Comparison of U.S.-produced and imported LVSEs

In order to determine whether U.S.-produced LVSEs can generally be used in the same applications as imports from China, U.S. producers, importers, and purchasers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-11, the three U.S. producers reported that U.S. and Chinese LVSEs were always (***) or frequently (***) interchangeable. Most importers (5 of 7) reported that these sources were never (***) or sometimes

(*** interchangeable while two reported they were frequently interchangeable ***). Most purchasers (5 of 9) reported that U.S. and Chinese LVSEs were frequently interchangeable (***) while three reported they were sometimes interchangeable ***.

Table II-11
LVSEs: Interchangeability between LVSEs produced in the United States and in other countries, by country pair

Country pair	U.S. producers				U.S. importers				U.S. purchasers			
	A	F	S	N	A	F	S	N	A	F	S	N
United States vs. China	2	1	---	---	---	2	2	3	1	5	3	---
United States vs. Other	2	---	---	---	---	2	1	2	2	4	1	---
China vs. Other	2	---	---	---	---	2	1	2	2	3	1	---

Note: A=Always, F=Frequently, S=Sometimes, N=Never.

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

Importers with related Chinese LVSE manufacturers reported several reasons for limited interchangeability. *** stated that mowers are designed with a specific engine "for the best cost purpose" and that different engine sources have different dimensions, sizes, and structures; therefore, the OEM may have to change a lot of parts or some parts in order to switch to another engine source. *** reported that the engines they import from their related producers are specifically engineered for their brand and meet internal quality requirements and proprietary technical specifications.[55]

Several OEMs also reported factors that limit interchangeability between sources. *** reported that U.S. producer Kawasaki and Chinese producer Yamaha offer superior quality compared to U.S. producers Briggs & Stratton and Kohler and Chinese producer Loncin. *** stated that it requires an array of engines with different displacements optimized for each end-use application and that domestic producers prefer to use a small number of engine platforms that they modify based on the application such that the only available domestic option for many applications is an outsized engine that has been modified to run with a lower output by running less efficiently. *** stated that the engines are interchangeable but additional parts such as pulleys and mounting brackets must also be changed. *** reported that engines are matched to an application, chassis, and interconnected to a mower on many points (including various electrical connections for power and communication diagnosis and gauges) and that each engine has its own vibration characteristics and must be tested on a

[55] ***.

chassis to confirm smooth operation without resonance or out-of-control shaking. It added that engines also have serviceability needs when installed, that service access in a chassis must be confirmed, and that there are no substitutes for service/replacement engines since it must use the same engine that was originally sold with the machine.

***.[56] ***.[57] ***ore than 70 percent of Toro's matched engine-platform models remain in sales for three years or more".

As can be seen from table II-12, 10 of 11 responding purchasers reported that domestically produced product always or usually met minimum quality specifications and 5 of 9 responding purchasers reported that Chinese LVSEs always or usually met minimum quality specifications.

Table II-12
LVSEs: Ability to meet minimum quality specifications, by source

Source	Always	Usually	Sometimes	Rarely or never
United States	6	4	1	---
China	5	4	---	---
All other sources	---	2	---	---

Note: Purchasers were asked how often domestically produced or imported LVSEs meets minimum quality specifications for their own or their customers' uses.

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

In addition, U.S. producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of LVSEs from the United States, subject, or nonsubject countries. As seen in table II-13, U.S. producers reported that such differences were sometimes or never significant, but most importers reported that such differences were always significant. Purchaser responses were split with half of responding purchasers reporting that differences other than price were always or frequently significant and half reporting sometimes or never.

[56] Respondent MTD posthearing brief, exhibit 3, p. 6.
[57] ***. Respondents Toro and Honda posthearing brief, posthearing Q&A, pp. 43-44.

Table II-13
LVSEs: Significance of differences other than price between LVSEs produced in the United States and in other countries, by country pair

Country pair	U.S. producers				U.S. importers				U.S. purchasers			
	A	F	S	N	A	F	S	N	A	F	S	N
United States vs. China	---	---	2	1	6	1	1	---	2	2	3	1
United States vs. Other	---	---	1	1	4	1	1	---	---	1	3	3
China vs. Other	---	---	1	1	4	1	1	---	---	2	2	1

Note: A = Always, F = Frequently, S = Sometimes, N = Never.

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

*** reported that its brand engineering, quality, performance, and technical support are "priority value propositions" for consumers. *** stated that quality, brand, and parts availability outside of the U.S. market are important non-price factors. *** stated that U.S. OEMs represent high quality and reliability and consider engine performance, quality, customer feedback and the communication and relationship with the engine supplier as they strive to present better and more reliable products to the end user. *** stated that Chinese manufacturers allow *** to provide technical support to its dealer network. ***.
*** reported that differences other than price considered when making a purchase decision include supplier reliability (quality, delivery, engineering, warranty, brand value), status as a non-competitor, and consumer and channel preference. It stated that customers, dealers, and distributors often prefer having all warranty claims—including for engines— handled by the OEM, rather than by the engine manufacturer. ***.[58] ***

[58] ***.

***.

Elasticity estimates

This section discusses elasticity estimates. Kohler stated it concurred with the elasticity estimates.[59] The other parties did not comment on the estimates.

U.S. supply elasticity

The domestic supply elasticity for LVSEs measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of LVSEs. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced LVSEs. Analysis of these factors above indicates that the U.S. industry has the ability to greatly increase or decrease shipments to the U.S. market; an estimate in the range of 4 to 8 is suggested.

U.S. demand elasticity

The U.S. demand elasticity for LVSEs measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of LVSEs. This estimate depends on factors discussed above such as the existence, availability, and commercial viability of substitute products, as well as the component share of the LVSEs in the production of any downstream products. Based on the available information, the aggregate demand for LVSEs is likely to be inelastic; a range of -0.25 to -0.75 is suggested.

[59] "Kohler concurs with the estimates. Demand for LVSE is inelastic and does not respond to small changes in price. Supply, however, is very elastic. This elasticity is evidenced by Chinese producers' ability to ramp up production and surge imports following the 301 exclusions and in advance of the preliminary duties. Substitution elasticity is also high as demonstrated by subject imports ability to take market share from domestic producers." Petitioner Kohler prehearing brief, p. 23.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[60] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms/discounts/promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced LVSEs and imported LVSEs is likely to be in the range of 2 to 4. Factors limiting substitutability include engines designed for a specific mower platform, engine features, supplier relationships, warranties, and branding.

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

Part III: U.S. producers' production, shipments, and employment

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire responses of three firms that accounted for all known U.S. production of LVSEs during 2019.

U.S. producers

The Commission issued U.S. producer questionnaires to three firms based on information contained in the petition. All three firms provided usable data on their operations. Staff believes that these responses represent all U.S. production of LVSEs. Table III-1 lists U.S. producers of LVSEs and their positions on the petition, production locations, and shares of total production.

Table III-1
LVSEs: U.S. producers, their position on the petition, location of production, and share of reported production, 2019

Firm	Position on petition	Production locations	Share of production (percent)
Briggs & Stratton	Petitioner	Statesboro, Georgia Auburn, Alabama Wauwatosa, Wisconsin Poplar Bluff, Missouri Murray, Kentucky	***
Kawasaki	***	Maryville, Missouri Lincoln, Nebraska	***
Kohler	Petitioner	Kohler, Wisconsin Hattiesburg, Mississippi	***
Total			100.0

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

Table III-2 presents information on U.S. producers' ownership, related, and/or affiliated firms. *** reported being related to a foreign producer (***) of LVSEs.[1]

Table III-2
LVSEs: U.S. producers' ownership, related and/or affiliated firms

Item/Firm	Firm Name	Affiliated/Ownership
Ownership:		
***	***	***
***	***	***
Related producers:		
***	***	***

Note: *** is a Japanese firm.

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

Table III-3 presents U.S. producers' reported changes in operations since January 1, 2017. *** U.S. producers reported plant closings, *** reported a plant relocation, *** reported expansions, *** reported consolidations of facilities, *** reported prolonged shutdowns or curtailments, and *** U.S. producer reported a revised labor agreement.

[1] ***.

Table III-3
LVSEs: U.S. producers' reported changes in operations, since January 1, 2017

Item / Firm	Reported changed in operations
Plant closings:	
***	***
***	***
Relocations:	
***	***
Expansions:	
***	***
Consolidations:	
***	***
***	***
Prolonged shutdowns or curtailments:	
***	***
***	***
***	***
Revised labor agreements:	
***	***
Other:	
***	***

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

U.S. production, capacity, and capacity utilization

Table III-4 and figure III-1 present U.S. producers' production, capacity, and capacity utilization. U.S. producers' total capacity increased by *** percent between 2017 and 2019. From 2017-19, *** increased their capacities (by ***) while *** capacity decreased by *** percent.

*** accounted for *** percent of U.S. LVSE production in 2019. Between 2017 and 2019, *** increased their production (by *** percent, respectively) while *** production decreased by *** percent. This resulted in U.S. producers' total LVSE production increasing by *** percent over the period. (*** capacity utilizations increased by *** and *** percentage points, respectively, while *** capacity utilization decreased by *** percentage points over the period. This resulted in an overall U.S. producer capacity utilization decrease of *** percentage points between 2017 and 2019.

U.S. producers' total capacity, production, and capacity utilization figures were all lower in interim 2020 than in interim 2019. Briggs & Stratton, Kawasaki, and Kohler reported *** percent reductions in their production across the comparison periods, respectively, resulting in a total production fall of *** percent in interim 2020 as compared to interim 2019. U.S. producers' total capacity was *** percent lower in interim 2020 as compared to interim 2019. Briggs & Stratton, Kawasaki, and Kohler reported (*** percentage point reductions in capacity utilizations across comparison periods, respectively. This resulted in an overall capacity utilization reduction of *** percentage points in interim 2020 as compared to interim 2019.

Briggs & Stratton noted, "***." Kawasaki commented, "***."

Table III-4
LVSEs: U.S. producers' capacity, production, and capacity utilization, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Capacity (units)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Production (units)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Capacity utilization (percent)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Share of production (percent)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	100.0	100.0	100.0	100.0	100.0

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

Figure III-1
LVSEs: U.S. producers' capacity, production, and capacity utilization, 2017-19, January to June 2019, and January to June 2020

* * * * * * *

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

Alternative products

U.S. producers were asked whether they produced any out-of-scope products using the same equipment, machinery, or employees as used to produce LVSEs during the indicated periods. *** firms reported that they also produce horizontal shaft engines using such equipment, machinery, or employees. As shown in table III-5, the reported percentage of out-of-scope production using the same equipment, machinery, or employees as used to produce LVSEs ranged between *** and *** percent between 2017 and 2019.

With regards to its ability to switch production between horizontal and vertical shaft engine production, Briggs & Stratton noted, "***." Kohler noted, "***." Kawasaki commented, "***."

Table III-5
LVSEs: U.S. producers' overall capacity and production on the same equipment, machinery, or employees as subject production, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
Overall capacity	***	***	***	***	***
Production: LVSEs	***	***	***	***	***
Out-of-scope production	***	***	***	***	***
Total production on same machinery	***	***	***	***	***
	Ratios and shares (percent)				
Overall capacity utilization	***	***	***	***	***
Share of production: LVSEs	***	***	***	***	***
Out-of-scope production	***	***	***	***	***
Total production on same machinery	100.0	100.0	100.0	100.0	100.0

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

U.S. producers' U.S. shipments and exports

Table III-6 presents U.S. producers' U.S. shipments, export shipments, and total shipments. U.S. producers' U.S. shipments of LVSEs decreased by *** units between 2017 and 2019 (a *** percent decrease). U.S. shipments were also *** units lower in interim 2020 than interim 2019 (a *** percent decrease across the comparison periods). Total shipments fell by *** units during 2017-19 (a *** percent decrease) and were *** units lower in interim 2020 as compared to interim 2019 (a *** percent decrease across periods).

Of the three firms, two (***) reported internal consumption and two (***) reported transfers to related firms during the period of investigation. *** accounted for ***. *** reported ***. From 2017-19, internal consumption as a share of total shipments by quantity rose from *** to *** percent and transfers as a share of total shipments by quantity rose from *** to *** percent. The rise in transfers as a share of total shipments was due to ***.

The value of U.S. producers' U.S. shipments increased by *** percent from 2017 to 2019 but decreased in interim 2020 as compared to interim 2019 by *** percent. U.S.

producers' U.S. commercial shipments as a share of the quantity of total shipments was *** percent in 2017, *** percent in 2018, and *** percent in 2019. The value of U.S. producers' total shipments was down slightly between 2017 and 2019 (by *** percent).

U.S. producers' export shipments fell by *** percent by quantity and *** percent by value from 2017-19 and were down *** percent by quantity and *** percent by value in interim 2020 as compared to interim 2019. U.S. producers' export shipments as a share of total shipments quantity decreased by *** percentage points between 2017 and 2019. Export shipments accounted for *** percent of total shipments by quantity and *** percent of total shipments by value in 2019.

The average unit value for total shipments increased $*** from 2017 to $*** in 2019 (a *** percent increase) and was up to $*** per unit in interim 2020 (a *** percent increase as compared to interim 2019). The average unit value for U.S. producers' commercial U.S. shipments of LVSEs was $*** per unit in 2019, down slightly from the average unit price in 2017 of $*** per unit. The average unit value for internal consumption was above the average unit value for U.S. commercial shipments in all periods. The average unit value for export shipments increased from $*** per unit to $*** per unit over the period.

Table III-6
LVSEs: U.S. producers' U.S. shipments, export shipments, and total shipments, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
Commercial U.S. shipments	***	***	***	***	***
Internal consumption	***	***	***	***	***
Transfers to related firms	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
Commercial U.S. shipments	***	***	***	***	***
Internal consumption	***	***	***	***	***
Transfers to related firms	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per unit)				
Commercial U.S. shipments	***	***	***	***	***
Internal consumption	***	***	***	***	***
Transfers to related firms	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
Commercial U.S. shipments	***	***	***	***	***
Internal consumption	***	***	***	***	***
Transfers to related firms	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
Commercial U.S. shipments	***	***	***	***	***
Internal consumption	***	***	***	***	***
Transfers to related firms	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0

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

U.S. shipments by type

Table III-7 shows U.S. producers' U.S. shipments by level of processing and branding. Only one firm (***) reported any shipments of unfinished engines, and unfinished engines comprised less than *** percent of total U.S. shipments in all periods. Thus, the principal distinction shown in table III-7 is the breakdown of U.S. shipments of finished engines that have been assembled and sold with the name of the engine manufacturer ("branded") versus the U.S. shipments of finished engines that have been assembled and sold with the name of a firm other than the engine manufacturer (e.g., the lawn mower OEM's name or brand) ("private label"). Two of the three firms (***) reported sales of finished, private label engines during the period (all three reported sales of engines branded with their own names). By quantity, private label sales comprised between *** and *** percent of total U.S. shipments between 2017 and 2019, and engines branded with the engine manufacturer's name comprised between *** and *** percent of total U.S. shipments over the period. The percentage of private label U.S. shipments was up in interim 2020 to *** percent of U.S. shipments by quantity. The average unit value of finished, private label engines was the lowest of the three category types in each of the periods (***). The average unit value of unfinished engines was the highest of the three category types in each of the periods.

Table III-7
LVSEs: U.S. producers' U.S. shipments by type, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. shipment by type.--Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Value (1,000 dollars)				
U.S. shipment by type.--Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. shipment by type.--Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Share of quantity (percent)				
U.S. shipment by type.--Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. shipment by type.--Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	100.0	100.0	100.0	100.0	100.0

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

Table III-8 shows U.S. producers' U.S. shipments by nominal useful life rating (residential, extended life residential/ general purpose, and commercial engines).[2] *** reported U.S. LVSE shipments in each of the three nominal useful life categories in each of the periods. As a share of total U.S. shipments, commercial engine shipments were lowest in each of the periods by both quantity and value, ranging between *** and *** percent of the total quantity of U.S. shipments and *** and *** percent of the total value of U.S. shipments. The average unit values of commercial engines were significantly higher than the other two categories across the periods (ranging between $*** and $*** per unit as compared to $*** to $*** per unit for residential engines). Residential engine shipments as a share of total U.S. shipments by quantity was highest in all periods but 2018; however, extended life engine shipments made up a higher percentage of total shipments by value in all periods but interim 2019 (extended life engine unit values were higher than residential engine shipments, ranging between $*** and $*** per unit across the periods as compared to the previously reported residential engine unit value range of $*** to $*** per unit).

[2] See the product description section in Part I and table I-3 for the definitions of residential, extended life residential (general purpose), and commercial engines.

Table III-8
LVSEs: U.S. producers' U.S. shipments by nominal useful life rating, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. shipment by nominal useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. shipment by nominal useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. shipment by nominal useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. shipment by nominal useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. shipment by nominal useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0

Table notes continued on next page.

Table III-8—Continued.
LVSEs: U.S. producers' U.S. shipments by nominal useful life rating, 2017-19, January to June 2019, and January to June 2020

Note: ***

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

U.S. producers' inventories

Table III-9 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments for each given period. U.S. producers' total end-of-period inventories increased between 2017 and 2019 by *** percent but decreased by *** percent in interim 2020 as compared to interim 2019. From 2017-19, the end-of-period inventories for two of the three U.S. producers, ***, increased (by *** percent and *** percent, respectively), while *** end-of-period inventories decreased by *** percent over the period. Between 2017 and 2019, the ratios of total end-of-period inventories to U.S. production, U.S. shipments, and total shipments all increased (by *** percentage points, respectively). The ratios of end-of-period inventories to U.S. production, U.S. shipments, and total shipments were all also higher in interim 2020 as compared to interim 2019 (by *** percentage points, respectively).

Table III-9
LVSEs: U.S. producers' inventories, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. producers' end-of-period inventories	***	***	***	***	***
	Ratio (percent)				
Ratio of inventories to.--					
U.S. production	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

U.S. producers' imports and purchases

U.S. producers' imports of LVSEs are presented in table III-10. *** reported imports of LVSEs from one nonsubject country (***), and these imports represented *** percent or less as a ratio of Briggs & Stratton's U.S. production during the period. *** noted that ***. ***.[3] No U.S. producers reported any LVSE imports from China during the period in question.

Table III-10
LVSEs: U.S. producers' imports, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
Briggs & Stratton's U.S. production	***	***	***	***	***
Briggs & Stratton's U.S. imports from.--					
China	***	***	***	***	***
Nonsubject sources (Japan)	***	***	***	***	***
All imports sources	***	***	***	***	***
	Ratio (percent)				
Briggs & Stratton's ratio to U.S. production of imports from.--					
China	***	***	***	***	***
Nonsubject sources (Japan)	***	***	***	***	***
All imports sources	***	***	***	***	***
	Narrative				
Briggs & Stratton's reason for importing	***				

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

[3] ***

U.S. employment, wages, and productivity

Table III-11 shows U.S. producers' employment-related data. U.S. producers' average number of production and related workers (PRWs) increased by *** PRWs between 2017 and 2019, an increase of *** percent. However, there were *** fewer average number of PRWs in interim 2020 as compared to interim 2019, a decrease of *** percent. The total hours worked by PRWs reported by the three firms increased by *** hours between 2017 and 2019, an increase of *** percent. Total hours worked by PRWs was *** hours less in interim 2020 as compared to interim 2019, a reduction of *** percent. *** reported increased hours worked by PRWs between 2017 and 2019 (increases of *** and *** hours, respectively), while *** reported a decrease of *** hours worked by PRWs over the period.

Total wages paid, hourly wages, and unit labor costs all increased between 2017 and 2019. Total wages paid increased by *** percent, average hourly wages paid to PRWs increased by *** percent, and unit labor costs increased by *** percent over the period. Productivity as measured in units per 1,000 hours decreased during 2017-19 by *** percent.

Table III-11
LVSEs: U.S. producers' employment related data, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (units per 1,000 hours)	***	***	***	***	***
Unit labor costs (dollars per unit)	***	***	***	***	***

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

Part IV: U.S. imports, apparent U.S. consumption, and market shares

U.S. importers

The Commission issued importer questionnaires to 159 firms believed to be U.S. importers of LVSEs, as well as to all U.S. producers of LVSEs.[1] Usable questionnaire responses were received from 10 companies:[2] American Honda Motor Co. ("Honda"); Briggs & Stratton, LLC; Generac Power Systems, Inc. ("Generac"); Central Purchasing LLC, dba Harbor Freight Tools ("Harbor Freight"); Husqvarna Consumer Outdoor Products N.A., Inc. ("Husqvarna"); Liquid Combustion Technology, LLC ("Liquid Combustion"); Loncin Motor Co., Ltd. ("Loncin"); MTD Products Inc. ("MTD"); The Toro Company ("Toro"); and Yamaha Motor Corporation, U.S.A. ("Yamaha"). U.S. imports reported by these firms represented *** percent of total U.S. imports from China reported under HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080 in 2019 by quantity. Table IV-1 lists all responding U.S. importers of LVSEs from China and other sources, their locations, and their shares of U.S. imports in 2019.

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have accounted for more than one percent of total imports under HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080 in 2018.

[2] Additionally, 35 firms certified that they had not imported LVSEs from any country since January 1, 2017: ***

Table IV-1
LVSEs: U.S. importers, their headquarters, and share of total imports by source, 2019

Firm	Headquarters	Share of imports by source (percent)		
		China	Nonsubject sources	All import sources
American Honda	Torrance, CA	***	***	***
Briggs & Stratton	Wauwatosa, WI	***	***	***
Generac	Waukesha, WI	***	***	***
Harbor Freight	Calabasas, CA	***	***	***
Husqvarna	Charlotte, NC	***	***	***
Liquid Combustion	Travelers Rest, SC	***	***	***
Loncin	Chongqing, China	***	***	***
MTD	Valley City, OH	***	***	***
Toro	Bloomington, MN	***	***	***
Yamaha	Cypress, CA	***	***	***
Total		***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

U.S. imports

Table IV-2 presents data for U.S. imports of LVSEs from China, nonsubject sources, and all import sources. Between 2017 and 2019, U.S. imports of LVSEs from China increased by both quantity and value (by *** and *** percent, respectively). U.S. imports from China were also higher in interim 2020 than in interim 2019 (*** percent higher by quantity and *** percent higher by value across the periods). Comparatively, LVSE imports from nonsubject sources were down *** percent by quantity and *** percent by value over the 2017-19 period and were also down in interim 2020 as compared to interim 2019 (down *** percent by quantity and *** percent by value).[3] Resultingly, LVSE imports from all sources were up over the 2017-19 period overall (*** percent by quantity and *** percent by value) and were also higher in interim 2020 than in interim 2019 (*** percent higher by quantity and *** percent higher by value).

The average unit values of imports from China increased *** percent from 2017-19; while the average unit value for imports from nonsubject sources fluctuated but was *** percent lower in 2019 than in 2017. The average unit values for imports from China and from nonsubject sources were both lower in interim 2020 compared to interim 2019 (by *** and

[3] ***.

*** percent, respectively). From 2017-19, imports from China as the share of total U.S. imports of LVSEs rose by both quantity and value while the share of imports from nonsubject sources fell by both quantity and value over the period. Imports from China as the share of total U.S. imports was *** percent by quantity and *** percent by value in interim 2020.

Table IV-2
LVSEs: U.S. imports, by source, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. imports from.--China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from.--China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. imports from.--China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Share of quantity (percent)				
U.S. imports from.--China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from.--China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	100.0	100.0	100.0	100.0	100.0
	Ratio to U.S. production				
U.S. imports from.--China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Figure IV-1
LVSEs: U.S. import quantities and average unit values, 2017-19, January to June 2019, and January to June 2020

* * * * * * *

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

Critical circumstances

On January 11, 2021, Commerce issued its final determination that "critical circumstances" exist with regard to imports of LVSEs from China found to be sold at less than fair value from Loncin Motor Co., Ltd. ("Loncin"); Chongqing Zongshen General Power Machine Co., Ltd. ("Zongshen"); all non-individually investigated companies, and the China-wide entity.[4] As part of its final CVD determination, Commerce found that critical circumstances do not exist with regard to imports from China of LVSEs.[5] In this investigation, if both Commerce and the Commission make affirmative final critical circumstances determinations, certain subject

[4] 86 FR 1936, January 11, 2021, referenced in app. A. When petitioners file timely allegations of critical circumstances, Commerce examines whether there is a reasonable basis to believe or suspect that (1) either there is a history of dumping and material injury by reason of dumped imports in the United States or elsewhere of the subject merchandise, or the person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the subject merchandise at LTFV and that there was likely to be material injury by reason of such sales; and (2) there have been massive imports of the subject merchandise over a relatively short period.

[5] 86 FR 1933, January 11, 2021.

imports may be subject to antidumping duties retroactive by 90 days from August 19, 2020, the effective date of Commerce's preliminary affirmative LTFV determination. Tables IV-3 and IV-4 and figures IV-2 through IV-4 present data related to this analysis. Table IV-3 and figure IV-2 show official U.S. import statistics for HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080 for the entire period of investigation, while Table IV-4 and figure IV-3 compare official U.S. import statistics for the six months before and the six months after the filing of the petition. Lastly, figure IV-4 shows U.S. import volume comparisons by six-month periods (January through June and July through December) for January 2017 through October 2020 to aid in comparison taking the potential seasonality of sales into account.

Table IV-3
LVSEs: U.S. imports by month, January 2017 through October 2020

Month	China	Nonsubject sources	All import sources
	Quantity (units)		
2017.--			
January	27,076	289	27,365
February	26,000	226	26,226
March	8,641	188	8,829
April	13,569	2	13,571
May	22,440	196	22,636
June	10,938	169	11,107
July	1,584	188	1,772
August	2,887	131	3,018
September	1,854	257	2,111
October	4,116	94	4,210
November	12,755	65	12,820
December	12,402	87	12,489
2018.--			
January	17,328	148	17,476
February	17,155	2,722	19,877
March	27,893	36	27,929
April	41,240	50	41,290
May	38,921	184	39,105
June	15,475	42	15,517
July	13,683	70	13,753
August	9,718	1,201	10,919
September	4,912	1,597	6,509
October	15,179	58	15,237
November	19,767	21,378	41,145
December	28,211	5,833	34,044

Table continued on next page.

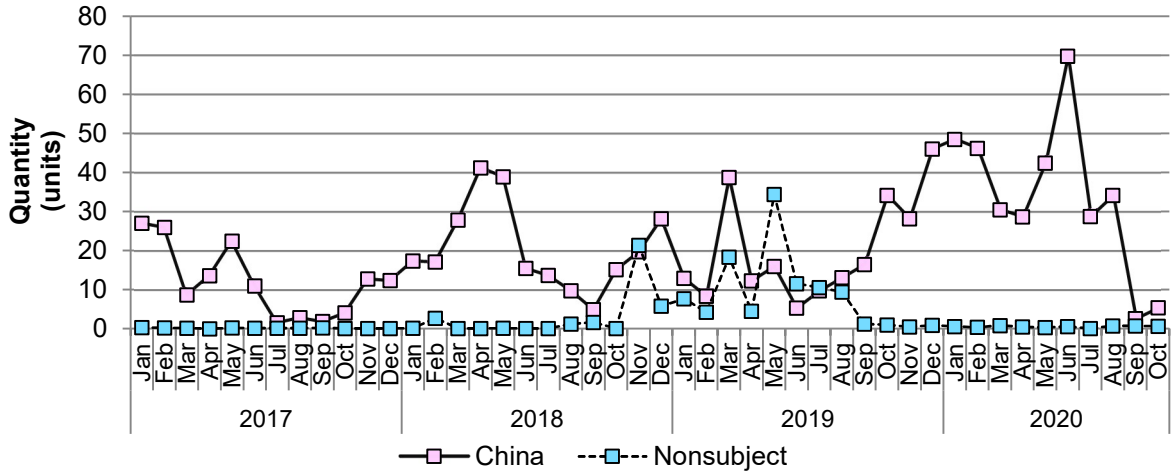
Table IV-3—Continued.
LVSEs: U.S. imports by month, January 2017 through October 2020

Month	China	Nonsubject sources	All import sources
	Quantity (units)		
2019.--			
January	12,912	7,734	20,646
February	8,353	4,230	12,583
March	38,758	18,384	57,142
April	12,299	4,488	16,787
May	15,948	34,412	50,360
June	5,321	11,579	16,900
July	9,743	10,564	20,307
August	13,126	9,435	22,561
September	16,455	1,243	17,698
October	34,203	949	35,152
November	28,168	472	28,640
December	46,052	907	46,959
2020.--			
January	48,506	540	49,046
February	46,255	374	46,629
March	30,443	818	31,261
April	28,719	461	29,180
May	42,487	283	42,770
June	69,834	578	70,412
July	28,753	43	28,796
August	34,132	704	34,836
September	2,620	725	3,345
October	5,429	638	6,067

Note: The HTS statistical reporting numbers used includes out of scope products.

Source: Official U.S. import statistics for HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080, accessed November 30, 2020.

Figure IV-2
LVSEs: U.S. imports from China and nonsubject countries by month, January 2017 through October 2020



Note: The HTS statistical reporting numbers used includes out of scope products.

Source: Official U.S. import statistics for HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080, accessed November 30, 2020.

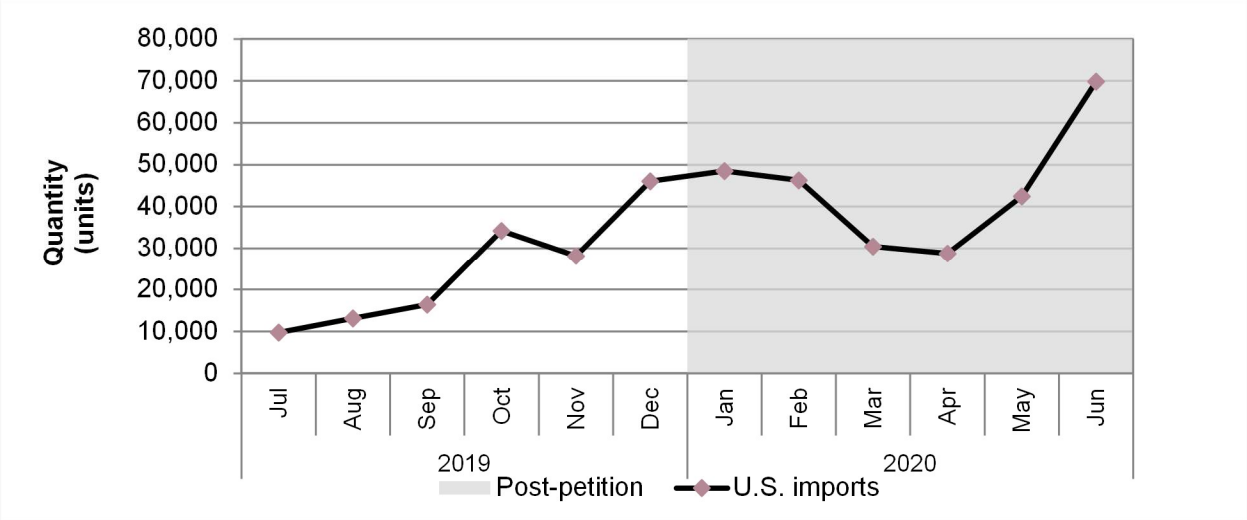
Table IV-4
LVSEs: U.S. imports subject to Commerce's final AD critical circumstances determinations for certain U.S. imports from China, July 2019 to June 2020

Month	Actual monthly quantity (units)	Outwardly cumulative subtotals (units)	Percentage change from comparable period (percent)
2019.--			
July	9,743	147,747	
August	13,126	138,004	
September	16,455	124,878	
October	34,203	108,423	
November	28,168	74,220	
December	46,052	46,052	
Petition file date: January 15, 2020			
2020.--			
January	48,506	48,506	▲5.3
February	46,255	94,761	▲27.7
March	30,443	125,204	▲15.5
April	28,719	153,923	▲23.3
May	42,487	196,410	▲42.3
June	69,834	217,738	▲47.4

Note: The percent increase or (decrease) over the comparable pre-petition period.

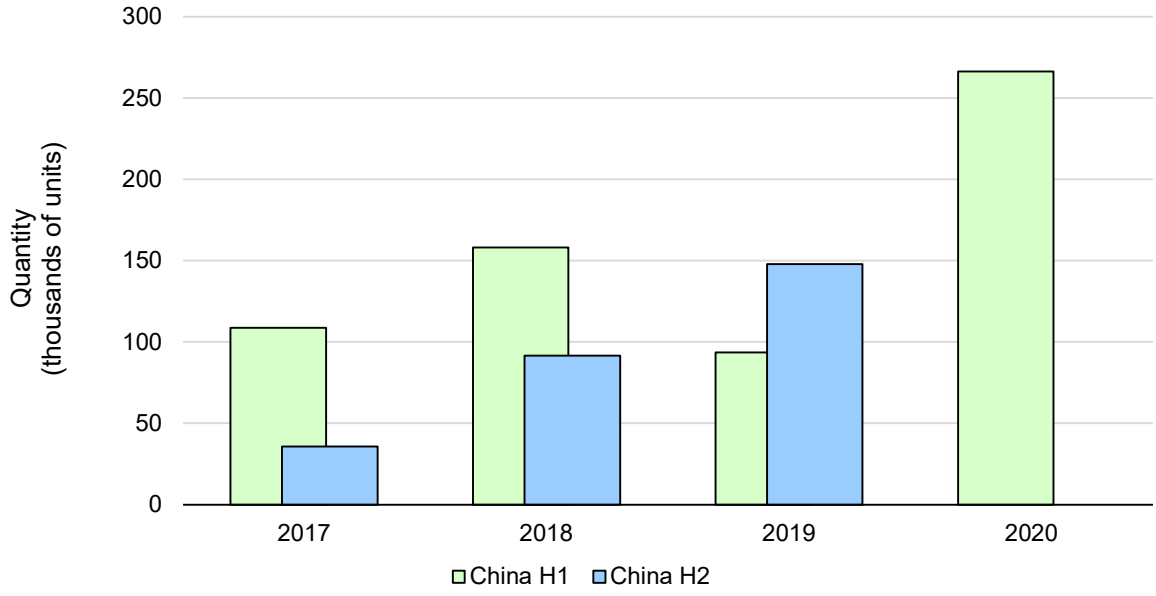
Source: Official U.S. import statistics for HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080, accessed November 30, 2020.

Figure IV-3
LVSEs: U.S. imports subject to Commerce's final AD critical circumstances determinations for certain U.S. imports from China, July 2019 to June 2020



Source: Official U.S. import statistics for HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080, accessed November 30, 2020.

Figure IV-4
LVSEs: U.S. import volume comparisons by six-month periods, January 2017 through October 2020



Note.-- H2 2020 is not reported due to the data for the entire six months period being unavailable.

Source: Official U.S. import statistics for HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080, accessed November 30, 2020.

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[6] Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[7] Imports from China accounted for *** percent of total imports of LVSEs by quantity during 2019.

Table IV-5
LVSEs: U.S. imports in the twelve-month period preceding the filing of the petition, January through December 2019

Item	January through December 2019	
	Quantity (units)	Share quantity (percent)
U.S. imports from.-- China	***	***
Nonsubject sources	***	***
All import sources	***	100.0

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

[6] Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

[7] Section 771 (24) of the Act (19 U.S.C § 1677(24)).

U.S. imports by type

Table IV-6 shows U.S. LVSE imports by level of processing and branding, and table IV-7 shows U.S. shipments of imports by nominal useful life rating. *** of the responding importers reported any U.S. imports of any unfinished engines from any source. Additionally, only *** importers (***) reported any imports from nonsubject sources during the investigation period (from ***), and neither firm reported any imports of private label engines from these nonsubject sources. Thus, the principal distinction shown in table IV-6 is the breakdown of U.S. imports from China of finished branded engines versus the U.S. imports from China of finished private label engines.[8] Of the *** firms to report imports from China, *** of the firms (***) reported all of their imports as being branded engines while the other *** importers, ***, reported all of their imports as being private label engines. U.S. imports of finished, private label engines from China comprised between *** and *** percent of total imports from China by quantity and between *** and *** percent of imports from China by value during the 2017-19 period. The average unit value of imports of private label engines from China was lower than the average unit value of imports of branded engines from China in every period.

[8] See the description of table III-7 for the definitions of “branded” versus “private label” engines.

Table IV-6
LVSEs: U.S. imports by level of processing, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. imports from China by level of processing.--					
Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from China by level of processing.--					
Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. imports from China by level of processing.--					
Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Share of quantity (percent)				
U.S. imports from China by level of processing.--					
Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from China by level of processing.--					
Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	100.0	100.0	100.0	100.0	100.0

Table continued on next page.

Table IV-6--Continued
LVSEs: U.S. imports by level of processing, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. imports from nonsubject sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from nonsubject sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. imports from nonsubject sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Share of quantity (percent)				
U.S. imports from nonsubject sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from nonsubject sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	100.0	100.0	100.0	100.0	100.0

Table continued on next page.

Table IV-6--Continued
LVSEs: U.S. imports by level of processing, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. imports from all sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from all sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. imports from all sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	***	***	***	***	***
	Share of quantity (percent)				
U.S. imports from all sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from all sources by level of processing.-- Unfinished	***	***	***	***	***
Finished, branded	***	***	***	***	***
Finished, private label	***	***	***	***	***
All Finished	***	***	***	***	***
Total shipment by type	100.0	100.0	100.0	100.0	100.0

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

Table IV-7 shows U.S. shipments of imports by nominal useful life rating (residential, extended life residential/ general purpose, and commercial engines).[9] As previously noted, only *** importers (***) reported any imports from nonsubject sources during the investigation period (from ***), and all shipments of U.S. imports from these sources were reported to be of commercial engines. Of the *** firms that reported shipments of U.S. imports from China, *** reported of all their shipments were of commercial engines, *** reported all their shipments were of residential engines, *** reported a mix of residential and extended life engine shipments, and *** reported a mix of residential and commercial engine shipments.

As a share of total shipments of U.S. imports from China, commercial engine shipments were lowest in each of the periods by both quantity and value, ranging between *** and *** percent of the total quantity of U.S. shipments of imports from China and *** and *** percent of the total value of U.S. shipments during 2017-19. As a share of total shipments of U.S. imports from China, shipment shares of residential engines were highest in each period by quantity (ranging between *** and *** percent during 2017-19). As a share of total shipments of U.S. imports from China, shipment shares of residential engines were highest in all years by value but 2018 (when extended life engines held a higher share by value) and ranged between *** and *** percent from 2017-19. Average unit values increased in value in order of residential, extended life residential/ general purpose, and commercial engines in each period. From 2017-19, average unit values for shipments imported from China of residential engines ranged from $*** to $*** per unit, extended life engines ranged from $*** to $*** per unit, and commercial engines ranged from $*** to $*** per unit.

[9] See the product description section in Part I and table I-3 for the definitions of residential, extended life residential (general purpose), and commercial engines.

Table IV-7
LVSEs: U.S. shipments of imports by nominal useful life rating, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. imports from China by nominal useful life rating.--					
Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from China by nominal useful life rating.--					
Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. imports from China by nominal useful life rating.--					
Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. imports from China by nominal useful life rating.--					
Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from China by nominal useful life rating.--					
Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0

Table continued on next page.

Table IV-7--Continued
LVSEs: U.S. shipments of imports by nominal useful life rating, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. imports from nonsubject sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from nonsubject sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. imports from nonsubject sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. imports from nonsubject sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from nonsubject sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0

Table continued on next page.

Table IV-7--Continued
LVSEs: U.S. shipments of imports by nominal useful life rating, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. imports from all sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from all sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per unit)				
U.S. imports from all sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. imports from all sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0
	Share of value (percent)				
U.S. imports from all sources by useful life rating.-- Residential	***	***	***	***	***
Extended life or general purpose	***	***	***	***	***
Other than commercial	***	***	***	***	***
Commercial	***	***	***	***	***
Total shipments	100.0	100.0	100.0	100.0	100.0

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

Apparent U.S. consumption

Table IV-8 presents data on apparent U.S. consumption of LVSEs by quantity and value and figure IV-5 shows apparent U.S. consumption of LVSEs and shares by quantity. Apparent U.S. consumption of LVSEs fluctuated between 2017-19 by both quantity and value. It decreased by *** percent over the period overall by quantity but increased *** percent overall by value. Apparent consumption was lower in interim 2020 as compared to interim 2019 by both quantity and value (by *** and *** percent, respectively).

Table IV-8
LVSEs: Apparent U.S. consumption, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***

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

Figure IV-5
LVSEs: Apparent U.S. consumption, 2017-19, January to June 2019, and January to June 2020

* * * * * * *

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

U.S. market shares

U.S. market share data are presented in table IV-9. From 2017-19, U.S. producers' U.S. shipments' share of apparent U.S. consumption fell *** percentage points by quantity and *** percentage points by value. The share comprised of U.S. importers' U.S. shipments from nonsubject sources also fell by both quantity and value between 2017 and 2019 (by *** and *** percentage points, respectively). Consequently, the share of apparent U.S. consumption comprised of U.S. importers' U.S. shipments from China rose by both quantity and value from 2017-19 (by *** and *** percentage points, respectively).

U.S. producers' U.S. shipments' share of apparent U.S. consumption was also lower in interim 2020 as compared to interim 2019 as measured by both quantity and value (*** percentage points lower by quantity and *** percentage points lower by value). When comparing interim 2019 data to interim 2020 data, nonsubject imports' share of U.S. consumption also fell by both quantity and value (by *** and *** percentage points, respectively). As a result, subject imports' share of U.S. consumption was higher in terms of both quantity and value across the interim periods (by *** and *** percentage points, respectively).

Table IV-9
LVSEs: Market shares, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
Apparent U.S. consumption	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Value (1,000 dollars)				
Apparent U.S. consumption	***	***	***	***	***
	Share of value (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Part V: Pricing data

Factors affecting prices

Raw material costs

During 2017-19, U.S. producers' raw materials' share of the cost of goods sold were steady at about *** percent in each year. During January-June 2019 and January-June 2020, the shares were *** percent and *** percent, respectively. LVSEs are produced from machined cast iron and aluminum parts. Engine producers may have their own aluminum cast houses or iron foundries or may use external foundries.[1] Since 2017, some imported LVSE raw materials and other inputs have been subject to section 232 tariffs on steel and aluminum and section 301 tariffs on imported engine components from China. Some contracts to purchase engines have pricing that adjusts for changes in aluminum costs.

The prices of aluminum and steel scrap decreased overall between January 2017 and June 2020, by *** and *** percent, respectively (figure V-1). Aluminum prices increased by *** percent from January 2017 to May 2018, declined by *** percent through September 2019, and then fluctuated through June 2020. Steel scrap prices have generally followed a similar trend.

Two U.S. producers reported that raw material prices have fluctuated since January 1, 2017, and one (***) reported that raw material prices have not changed. ***.[2] Importers reported that raw material prices either increased, fluctuated, or did not change.

Most purchasers (9 of 11) reported that they were familiar with raw material costs for LVSEs, and four reported that such costs affected their negotiations or contracts to purchase LVSEs. *** reported that its purchase agreements have an adjustment for aluminum and *** stated that aluminum price changes impact engine price negotiations. *** reported that its contract in place since *** has not changed regarding material input cost treatment.

[1] Petition, exhibit I-8, p. 2.
[2] ***.

Figure V-1
Raw materials: Prices of aluminum and steel scrap, monthly, January 2017-September 2020

* * * * * * *

Source: ***.

Most U.S. producers and importers reported that section 232 tariffs caused no change in raw material prices but that LVSE prices increased (table V-1). *** reported a short-term increase in raw material costs and *** when the section 232 tariffs went into effect.[3] U.S. producer (***) raised its LVSE prices to cover increased production costs and the other two producers attempted to raise prices but were unsuccessful. ***.

[3] ***.

Table V-1
LVSEs: Firms' responses regarding the impact of the section 232 tariffs

Item	Number of firms reporting			
	Increase	No change	Decrease	Fluctuate
Impact on the cost of raw materials: U.S. producers	---	2	---	1
Importers	3	5	---	---
Impact on the prices of LVSEs: U.S. producers	2	---	---	1
Importers	5	1	---	---

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

Transportation costs to the U.S. market

Transportation costs for LVSEs shipped from China to the United States averaged 3.9 percent during 2019. These estimates were derived from official import data and represent the transportation and other charges on imports.[4]

U.S. inland transportation costs

All three responding U.S. producers and two of five importers reported that their customers typically arrange transportation. Two U.S. producers reported U.S. inland transportation costs of approximately 2 to 3 percent and most importers reported costs of 3 percent or less.

Pricing practices

Pricing methods

LVSE prices are based on power (horsepower, output power, rated engine displacement), type of starter, type of fuel used, and other features and options.[5] Price negotiations between LVSE manufacturers and OEMs for a particular model year mower typically begin in spring and summer, up to a year prior to the delivery of the engine to OEM, with deliveries typically occurring in the late fall through early winter.[6] Sales agreements

[4] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2019 and then dividing by the customs value based on the HTS subheadings 8407.90.1020, 8407.90.1060, 8407.90.1080, and 8409.91.9990.

[5] Petition, volume II, p. 2.

[6] Petition, pp. 18-20. Hearing transcript, p. 42 (Hudak).

establish a price for the engine but may not establish a volume of sales.[7] OEMs typically provide volume forecasts to the engine manufacturer.

U.S. producers and importers reported using a variety of methods to set prices. Briggs & Stratton sells LVSEs under annual contracts, while Kohler's negotiations establish a price but generally do not involve a commitment to purchase a particular volume.[8] ***. ***.[9] ***.[10] ***.[11] Kohler frequently offers pricing packages for a suite of LVSEs, which can include residential and commercial engines.[12] ***.

[7] Petition, p. 19. Conference transcript, p. 21 (DeFrancesco). For Kohler, in the vast majority of instances, once the LVSE price is set, it does not change for the model year of the mower. Hearing transcript, p. 64 (Hudak).

[8] Petitioner Kohler postconference brief, p. 14. Hearing transcript, p. 43 (Hudak).

[9] Petitioner Briggs & Stratton postconference brief, exhibit 1, p. 8.

[10] Petitioner Briggs & Stratton postconference brief, exhibit 16.

[11] Petitioner Kohler postconference brief, exhibit 1, pp. 15-16. ***. Petitioner Kohler posthearing brief, exhibit 2, p. 6.

[12] Hearing transcript, p. 43 (Hudak).

Among importers that sell to OEMs, *** uses contracts and a price list, *** uses contracts, *** issues price lists and also has annual program agreement prices with OEMs to address competing market prices, and *** sets prices using cost plus margin. Among other importers, ***.

U.S. producers reported that the majority of their sales in 2019 were via long-term and annual contract sales with the remaining sales on a spot basis, and importers reported selling mostly via short-term contracts (table V-2). U.S. producers ***. Among importers that sell engines, *** reported 100 percent short-term contracts; *** reported 100 percent annual contracts; and *** reported 100 percent spot sales.

Table V-2
LVSEs: U.S. producers' and importers' shares of U.S. shipments by type of sale, 2019

Type of sale	U.S. producers	Importers
Long-term contracts	***	***
Annual contracts	***	***
Short-term contracts	***	***
Spot sales	***	***
Total	100.0	100.0

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

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

Several OEMs described their purchase agreements for LVSEs. MTD enters into annual price agreements with its suppliers in the spring (typically April) and asks its suppliers "for directional guides on pricing" so that MTD can quote mower prices to its customers.[13] MTD stated that supplier prices *** and pricing can sometimes be adjusted if there are large changes to product offerings.[14] ***

[13] Respondent MTD and Toro postconference brief, exhibit 1, item 9.
[14] Respondent MTD and Toro postconference brief, exhibit 1, items 9 and 22.

***.[15] ***.

Purchasers were asked to describe the price negotiation process with their suppliers of LVSEs. *** described a 6- to 12-month process in which it creates specifications, requests quotes from suppliers, completes a decision analysis, finalizes pricing, and signs a purchase agreement. *** discusses with its suppliers the market and the cost for the engine specifications it purchases. *** process involves opening a quote, receiving requests for quotation ("RFQs"), samples, testing, certification, and then making the purchase decision. *** creates new mower models throughout the year, selects engines to meet the application, and then prices are provided once the final specification has been confirmed. *** has annual price negotiations to support its "go-to-market strategy" for the next selling season. *** periodically renegotiates price based on product quality, anticipated annual volume and future growth, and level of supplier partnership/collaboration. *** negotiations usually involve specific placement and volumes for a specified time period. *** contracts are typically on an annual basis to be concluded by the fall of each year.

***

[15] Respondent MTD and Toro postconference brief, exhibit 2, p. 2.

***. ***.[16] ***.[17]

***.[18]

Purchasers were asked to describe their contracts with each of their suppliers. *** typically has annual contracts that specify price and volume targets. *** contracts with its suppliers are typically for three years, with fixed pricing for each year and no volume specifications. *** stated that new models typically last six or more years, with an initial estimate of annual units and no fixed pricing. *** has one-year contracts with fixed pricing. *** enters into annual sales agreements with its engine suppliers and ***. ***. *** stated that contracts vary depending on factors such as the OEM and placement opportunity. It stated that U.S. engine suppliers (***) often include large rebates and cash marketing support ***.

*** does not have contracts with its LVSE suppliers but requests annual pricing. *** has purchase orders and annual contracts for cost plus deliveries. *** does not have a contract for its engine purchases from ***. *** does not have

[16] Respondent MTD posthearing brief, exhibit 4, p. 2.

[17] ***. Respondent MTD posthearing brief, exhibit 4, p. 2.

[18] Respondents Toro and Honda posthearing brief, posthearing Q&A, pp. 42-43.

contracts, but the suppliers provide annual pricing and *** provides a forecast and purchase orders for the engines.

Most purchasers (8 of 11) reported that their purchases involve negotiations with their supplier. These negotiations can include branding (including ability to use the OEM's own brand versus the engine manufacturer's brand), price, engine features, annual quantity, lead time, payment terms, parts availability (including in overseas markets such as the EU), warranties, ability to supply volume and deliver quality, and customers' specifications. ***. Responding purchasers, including ***, stated that they do not disclose competing prices in these negotiations. *** stated that it is not possible to quote competing prices since the engine models from each manufacturer are not directly comparable.

Six of 10 responding purchasers reported that they purchase product weekly and four purchase daily. All 11 responding purchasers reported that their purchasing frequency had not changed since 2017. Purchasers reported contacting 1 to 6 suppliers before making a purchase, with six purchasers contacting a minimum of 1 or 2 suppliers and five purchasers contacting at least 3 suppliers.

Sales terms, discounts, and rebates

All three U.S. producers and five of six responding importers typically quote prices on an f.o.b. basis. U.S. producers typically offer quantity-based discount and rebate programs for OEMs.[19] Volume rebates may also be offered to the OEMs' customers (i.e., retailers) and may be paid by the engine producer either to the OEM or directly to the retailer. Most importers, including ***, reported no discount policy.

Regarding discounts to OEMs, ***.[20] ***. ***

[19] Petition, p. 20.

[20] ***. Petitioner Briggs & Stratton postconference brief, exhibit 1, p. 9, exhibit 16.

***.[21] ***. ***. ***.[22]

With regard to discounts to distributors of replacement engines, ***.

Two U.S. producers (***), but no importers, reported providing direct or indirect rebates to their customers or their customers' customers (i.e., retailers). ***.

Warranties

U.S. producers' engines are typically sold with warranty protection. All three U.S. producers reported providing warranties for their engines, with warranty periods lasting between 3 months and 3 years. ***

[21] Petitioner Kohler postconference brief, exhibit 1, p. 17.

[22] Respondent MTD and Toro postconference brief, exhibit 2, p. 2.

***.

Five importers reported providing warranties for LVSEs. Importers reported that their warranties account for 0.3 to 2 percent of the price of an engine. ***. U.S. producer *** stated that Chinese producers offer warranties that are similar to those of U.S. producers but that the OEM rather than the Chinese engine manufacturer handles warranty administration and dealer training. It added that except for superficial component issues, the complete engine is replaced, rather than repaired, and that this further incentivizes OEMs to purchase Chinese engines.

Four of the five responding Chinese producers reported providing warranties for their exports of LVSEs to the United States. ***.

Price leadership

Seven purchasers did not name any price leaders in the U.S. market and four named one or more leaders. *** stated that the three U.S. producers, Briggs & Stratton, Kawasaki, and Kohler were price leaders. *** stated that Kohler was the price leader and provides EFI and commercial engines at a lower cost. *** stated that Kawasaki was the leader in the commercial market and has premium pricing. ***.

Price and purchase cost data

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following LVSE products shipped to unrelated U.S. customers during January 2017-June 2020. In addition, firms that imported these products from China for use in production of mowers were requested to provide import purchase cost data for these products.

Product 1: Vertical Shaft Engine, Air-Cooled, Single Cylinder, Carbureted, 340-400cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

Product 2: Vertical Shaft Engine, Air-Cooled, Single Cylinder, Carbureted, 410-550cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

Product 3: Vertical Shaft Engine, Air-Cooled, Twin Cylinder, Carbureted, 650-700cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

Product 4: Vertical Shaft Engine, Air-Cooled, Twin Cylinder, Carbureted, 701-750cc displacement, extended life residential (EPA-certified nominal useful life rating of more than 250 hours but less than 1,000 hours).

Three U.S. producers (***) and one importer (***) provided usable pricing data for sales of the requested products, and four importers (***) reported usable import purchase cost data.[23] [24] [25] Pricing data reported by these firms accounted for approximately *** percent of U.S. producers' U.S. shipments of LVSEs and *** percent of imports from China in 2019. Purchase cost data reported by these firms accounted for *** percent of imports from China in 2019.

Price data and landed duty paid purchase cost data for products 1-4 are presented in tables V-3 to V-6 and figures V-2 to V-5.[26]

[23] No firms reported pricing or cost data for all products for all quarters. Per-unit pricing and cost data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

[24] ***.

[25] ***.

[26] LDP import value does not include any potential additional costs that a purchaser may incur by importing, rather than purchasing from another importer or U.S. producer. Price-cost differentials are based on LDP import values, whereas margins of underselling/overselling are based on importer sales prices.

As discussed previously, U.S. producers *** provide direct or indirect rebates to their customers or their customers' customers (i.e., retailers). *** reported that these rebates were deducted from their reported price data. ***, such rebates in 2019 averaged ***. ***, such rebates in 2019 averaged ***. Importers reported that they did not provide such rebates.

Table V-3
LVSEs: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), and landed duty-paid costs, by quarter, January 2017-June 2020

Period	United States		China - price			China - cost		
	Price (dollars per unit)	Quantity (units)	Price (dollars per unit)	Quantity (units)	Margin (percent)	LDP value (dollars per unit)	Quantity (units)	Price-cost differential (percent)
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2020: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***

Note: Product 1: Vertical Shaft Engine, Air-Cooled, Single Cylinder, Carbureted, 340-400cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

Note: ***.

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

Table V-4
LVSEs: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), and landed duty-paid costs, by quarter, January 2017-June 2020

Period	United States		China - price			China - cost		
	Price (dollars per unit)	Quantity (units)	Price (dollars per unit)	Quantity (units)	Margin (percent)	LDP value (dollars per unit)	Quantity (units)	Price-cost differential (percent)
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2020: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***

Note: Product 2: Vertical Shaft Engine, Air-Cooled, Single Cylinder, Carbureted, 410-550cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

Note: ***.

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

Table V-5
LVSEs: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), and landed duty-paid costs, by quarter, January 2017-June 2020

Period	United States		China - price			China - cost		
	Price (dollars per unit)	Quantity (units)	Price (dollars per unit)	Quantity (units)	Margin (percent)	LDP value (dollars per unit)	Quantity (units)	Price-cost differential (percent)
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2020: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***

Note: Product 3: Vertical Shaft Engine, Air-Cooled, Twin Cylinder, Carbureted, 650-700cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

Note: ***.

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

Table V-6
LVSEs: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), and landed duty-paid costs, by quarter, January 2017-June 2020

Period	United States		China - price			China - cost		
	Price (dollars per unit)	Quantity (units)	Price (dollars per unit)	Quantity (units)	Margin (percent)	LDP value (dollars per unit)	Quantity (units)	Price-cost differential (percent)
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2020: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***

Note: Product 4: Vertical Shaft Engine, Air-Cooled, Twin Cylinder, Carbureted, 701-750cc displacement, extended life residential (EPA-certified nominal useful life rating of more than 250 hours but less than 1,000 hours).

Note: ***.

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

Figure V-2
LVSEs: Weighted-average prices, import purchase costs, and quantities of domestic and imported product 1, by quarter, January 2017-June 2020

* * * * * * *

Note: ***.

Product 1: Vertical Shaft Engine, Air-Cooled, Single Cylinder, Carbureted, 340-400cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

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

Figure V-3
LVSEs: Weighted-average prices, import purchase costs, and quantities of domestic and imported product 2, by quarter, January 2017-June 2020

* * * * * * *

Product 2: Vertical Shaft Engine, Air-Cooled, Single Cylinder, Carbureted, 410-550cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

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

Figure V-4
LVSEs: Weighted-average prices, import purchase costs, and quantities of domestic and imported product 3, by quarter, January 2017-June 2020

* * * * * * *

Note: ***.

Product 3: Vertical Shaft Engine, Air-Cooled, Twin Cylinder, Carbureted, 650-700cc displacement, residential (EPA-certified nominal useful life rating of no more than 250 hours).

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

Figure V-5
LVSEs: Weighted-average prices, import purchase costs, and quantities of domestic and imported product 4, by quarter, January 2017-June 2020

* * * * * * *

Note: ***.

Product 4: Vertical Shaft Engine, Air-Cooled, Twin Cylinder, Carbureted, 701-750cc displacement, extended life residential (EPA-certified nominal useful life rating of more than 250 hours but less than 1,000 hours).

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

Import purchase cost data

Importers reporting import purchase cost data were asked to provide additional information regarding the costs and benefits of directly importing LVSEs. Three of the four importers providing useable cost data reported that they incurred additional costs beyond landed duty-paid costs by importing LVSEs directly, rather than purchasing from a U.S. producer or U.S. importer.[27] ***.

***.

Firms were also asked to describe how these additional costs incurred by importing LVSEs compare with additional costs incurred when purchasing from a U.S. producer or U.S. importer.[28] MTD stated that it incurs the following costs on its imports from Zongshen that it does not incur when purchasing from U.S. producers: handling and servicing warranty claim costs, customer service costs, and costs for co-developing innovations.[29] ***. ***

[27] ***.

[28] ***.

[29] Respondent MTD and Toro postconference brief, exhibit 1, item 10.

***.

Three of the four importers *** reporting useable import cost data indicated that they compare costs of importing to the cost of purchasing from a U.S. producer in determining whether to import LVSEs. One importer *** also compares costs to purchasing from a U.S. importer, and one importer (***) does not compare costs of purchasing from either U.S. producers or importers.

Four importers identified benefits from importing LVSEs directly, instead of purchasing from U.S. producers or importers. ***.

When asked whether the import cost (both excluding and including additional costs) of LVSEs they imported are lower than the price of purchasing LVSEs from a U.S. producer or importer, *** and *** reported that the costs were not lower and *** and ***[30] reported that they were lower. Importer *** estimated that it saved *** percent of LDP value by importing LVSEs rather than purchasing them from a U.S. importer, and importer

[30] ***.

*** estimated saving *** percent by importing LVSEs compared to purchasing the product from a U.S. producer.[31]

Price and import purchase cost trends

U.S. producers' price trends were mixed during January 2017-June 2020. Table V-7 summarizes the price trends, by country and by product. As shown in the table, domestic price decreases for products 1 and 4 were *** and *** percent, respectively, and domestic prices increased for product 2 by *** percent during January 2017-June 2020. Subject import prices increased by *** percent for product 2 and decreased by *** percent for product 4. Import purchase costs decreased by *** for product 1 and by *** percent for product 2.

Indexed price data for products 1, 2 and 4, and purchase cost data for products 1-4 are shown in figure V-6. U.S. producers' prices for products 1, 2, and 4 showed mixed trends with some seasonal variations for product 1 but generally fluctuated within a narrow range. U.S. producers' prices for product 4 increased in the second half of 2019 and then declined in 2020.

Subject import prices of products 2 and 4 were relatively stable in 2017 and then increased in 2018, with a larger increase from third quarter 2018 through first quarter 2019. These prices then declined through the second quarter of 2020, ending the period at nearly the same level as 2017. Subject import purchase costs of products 1 and 2 generally increased from 2017 through the third quarter of 2018. Import purchase costs for product 1 increased in the second quarter of 2019 and then declined through second quarter of 2020. Import purchase costs for product 3 increased in the third quarter of 2019, declined through first quarter 2020 and then increased in the second quarter of 2020. As noted previously, section 301 tariffs on LVSEs began taking effect in August 2018 (with exclusions granted in the second half of 2019) and section 232 tariffs on imported steel and aluminum took effect in March 2018.

[31] *** reported that its estimate is based on previous company transactions.

Table V-7
LVSEs: Summary of weighted-average f.o.b. prices and importer purchase costs, for products 1-4, by country

Item	Number of quarters	Low price/cost (dollars per unit)	High price/cost (dollars per unit)	Change in price/cost over period[1] (percent)
Product 1:				
United States	14	***	***	***
China price	---	***	***	***
China cost	14	***	***	***
Product 2:				
United States	14	***	***	***
China price	14	***	***	***
China cost	14	***	***	***
Product 3:				
United States	---	***	***	***
China price	---	***	***	***
China cost	9	***	***	***
Product 4:				
United States	14	***	***	***
China price	14	***	***	***
China cost	1	***	***	***

Note: Change in price is the percentage change from the first quarter in which data were available to the last quarter in which price data were available.

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

Figure V-6
LVSEs: Indexed prices and purchase costs, January 2017-June 2020

* * * * * * *

Figure continued on next page.

Figure V-6--Continued.
LVSEs: Indexed prices and purchase costs, January 2017-June 2020

* * * * * * *

Note: Data are shown only for pricing products for which there were sales or imports during 2017.

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

Price and purchase cost comparisons

Price comparisons

As shown in table V-8, prices for product imported from China were below those for U.S.-produced product in all 28 instances (***); margins of underselling ranged from *** to *** percent.

Table V-8
LVSEs: Instances of underselling/overselling and the range and average of margins, by product, January 2017-June 2020

Product	Underselling				
	Number of quarters	Quantity (units)	Average margin (percent)	Margin Range (percent)	
				Min	Max
Product 1	---	---	---	---	---
Product 2	14	***	***	***	***
Product 3	---	---	---	---	---
Product 4	14	***	***	***	***
Total, underselling	28	***	***	***	***

Note: There were no quarters of overselling. These data include only quarters in which there is a comparison between the U.S. and subject product.

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

Price-cost comparisons

As shown in table V-9, landed duty-paid costs for LVSEs imported from China were below the sales price for U.S.-produced product in all 29 instances (*** units); price-cost differentials ranged from *** to *** percent.

Table V-9
LVSEs: Comparisons of import purchase costs and U.S.-producer sales prices, January 2017-June 2020

Product	Import purchase cost lower than U.S. sales price				
	Number of quarters	Quantity (units)	Average price-cost difference (percent)	Range of price-cost difference (percent)	
				Min	Max
Product 1	14	***	***	***	***
Product 2	14	***	***	***	***
Product 3	---	---	---	---	---
Product 4	1	***	***	***	***
Total, lower	29	***	***	***	***

Note: These data include only quarters in which there is a comparison between the U.S. and subject product. There were no quarters in which the import purchase cost was higher than the U.S. sales price.

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

Lost sales and lost revenue

In the preliminary phase of the investigations, the Commission requested that U.S. producers of LVSEs report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of LVSEs from China during January 2017-September 2019. Two U.S. producers submitted lost sales and lost revenue allegations, and identified five firms with which they lost sales or revenue (all five consisting of both lost sales and lost revenues allegations).[32] ***. Petitioners reported lost sales in all annual years of the period of investigation. *** stated that it particularly lost sales in 2019, following the section 301 tariffs exclusions on some LVSEs, and stated that if it had won these sales it would have produced these engines at the end of 2019 and into 2020.[33]

In the final phase of the investigation, all three U.S. producers reported that they had to reduce prices, one reported it had to roll back announced price increases, and all three firms reported that they had lost sales. Staff received responses from 11 purchasers. Responding purchasers reported purchasing *** LVSEs during January 2017-June 2020 (table V-10).

Of the 11 responding purchasers, four reported that, since 2017, they had purchased imported LVSEs from China instead of U.S.-produced product. Two of these purchasers reported that subject import prices were lower than U.S.-produced product, and one of these purchasers reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product (table V-11). No purchasers estimated the quantity of LVSEs from China purchased instead of domestic product. Purchasers identified the desire to use a particular engine brand on certain mower models, U.S. supply limitations, and the ability to collaborate and innovate with partners in China as non-price reasons for purchasing imported rather than U.S.-produced product.

None of the 11 responding purchasers reported that U.S. producers had reduced prices in order to compete with lower-priced imports from China, five reported that U.S. producers

[32] ***. Additional details regarding these allegations are shown in the petition, volume 1, exhibit I-24.
[33] Petition, exhibit, I-17, p. 3.

had not reduced prices in order to compete with lower-priced imports from China, and six reported that they did not know.[34]

Table V-10
LVSEs: Purchasers' reported purchases and imports, January 2017-June 2020

Purchaser	Purchases and imports in January 2017-June 2020 (units)			Change in domestic share (pp, 2017-19)	Change in subject country share (pp, 2017-19)
	Domestic	Subject	Nonsubject		
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	***	***	***	***	***

Note: Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

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

[34] The five purchasers that answered "no" to this question were ***.

Table V-11
LVSEs: Purchasers' responses to purchasing subject imports instead of domestic product

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased subject imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity (units)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--4; No--7	Yes--2; No--2	Yes--1; No--3	***	

Note: ***.

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

Part VI: Financial experience of U.S. producers

Background

Three U.S. producers, Briggs & Stratton, Kawasaki, and Kohler provided usable financial results on their LVSEs operations. All of the responding U.S. producers provided their results on the basis of generally accepted accounting principles ("GAAP") and they reported their financial results on a calendar-year basis.[1] [2]

Operations on LVSEs

Figures VI-1 and VI-2 present the responding firms' share of the total net sales quantity and value in 2019, respectively. Table VI-1 presents aggregated data on U.S. producers' operations in relation to LVSEs over the period examined. Table VI-2 presents changes in the average unit value ("AUV") data for the data presented in table VI-1, while table VI-3 presents selected company-specific financial data.

[1] ***. U.S. producers' questionnaire response, III-14.

[2] Staff conducted a verification of the financial section data, and selected elements of the trade and price data, of *** U.S. producer questionnaire. Data changes pursuant to verification are reflected in this section of the report (EDIS # 730464).

Figure VI-1
LVSEs: Share of net sales quantity, by firm, 2019

* * * * * * *

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

Figure VI-2
LVSEs: Share of net sales value, by firm, 2019

* * * * * * *

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

Table VI-1
LVSEs: Results of operations of U.S. producers, 2017-19, January-June 2019, and January-June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
Commercial sales	***	***	***	***	***
Internal consumption	***	***	***	***	***
Transfers to related firms	***	***	***	***	***
Total net sales	***	***	***	***	***
	Value (1,000 dollars)				
Commercial sales	***	***	***	***	***
Internal consumption	***	***	***	***	***
Transfers to related firms	***	***	***	***	***
Total net sales	***	***	***	***	***
Cost of goods sold.-- Metal components	***	***	***	***	***
All other raw materials	***	***	***	***	***
All raw materials	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Total COGS	***	***	***	***	***
Gross profit	***	***	***	***	***
SG&A expense	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***
Interest expense	***	***	***	***	***
All other expenses and income	***	***	***	***	***
Net income or (loss)	***	***	***	***	***
Depreciation/amortization	***	***	***	***	***
Cash flow	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold.-- Metal components	***	***	***	***	***
All other raw materials	***	***	***	***	***
All raw materials	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Average COGS	***	***	***	***	***
Gross profit	***	***	***	***	***
SG&A expense	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***
Net income or (loss)	***	***	***	***	***

Table continued on next page.

Table VI-1--Continued

LVSEs: Results of operations of U.S. producers, 2017-19, January-June 2019, and January-June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Ratio to total COGS (percent)				
Cost of goods sold.-- Metal components	***	***	***	***	***
All other raw materials	***	***	***	***	***
All raw materials	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Average COGS	***	***	***	***	***
	Unit value (dollars per unit)				
Commercial sales	***	***	***	***	***
Internal consumption	***	***	***	***	***
Transfers to related firms	***	***	***	***	***
Total net sales	***	***	***	***	***
Cost of goods sold.-- Metal components	***	***	***	***	***
All other raw materials	***	***	***	***	***
All raw materials	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Average COGS	***	***	***	***	***
Gross profit	***	***	***	***	***
SG&A expense	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***
Net income or (loss)	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	***	***	***	***	***

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

Table VI-2
LVSEs: Changes in AUVs between calendar years and partial periods, January-June 2019, and January-June 2020

Item	Between calendar years			Between partial year period
	2017-19	2017-18	2018-19	2019-20
	Change in AUVs (percent)			
Commercial sales	▼***	▼***	▲***	▲***
Internal consumption	▲***	▲***	▲***	▲***
Transfers to related firms	▲***	▲***	▲***	▼***
Total net sales	▲***	▲***	▲***	▲***
Cost of goods sold.-- Metal components	▲***	▲***	▲***	▲***
All other raw materials	▲***	▲***	▲***	▲***
All raw materials	▲***	▲***	▲***	▲***
Direct labor	▲***	▲***	▲***	▲***
Other factory costs	▲***	▲***	▲***	▲***
Average COGS	▲***	▲***	▲***	▲***
	Change in AUVs (dollars per unit)			
Commercial sales	▼***	▼***	▲***	▲***
Internal consumption	▲***	▲***	▲***	▲***
Transfers to related firms	▲***	▲***	▲***	▼***
Total net sales	▲***	▲***	▲***	▲***
Cost of goods sold.-- Metal components	▲***	▲***	▲***	▲***
All other raw materials	▲***	▲***	▲***	▲***
All raw materials	▲***	▲***	▲***	▲***
Direct labor	▲***	▲***	▲***	▲***
Other factory costs	▲***	▲***	▲***	▲***
Average COGS	▲***	▲***	▲***	▲***
Gross profit	▼***	▼***	▼***	▼***
SG&A expense	▲***	▲***	▼***	▲***
Operating income or (loss)	▼***	▼***	▼***	▼***
Net income or (loss)	▼***	▼***	▼***	▼***

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

Table VI-3
LVSEs: Results of operations of U.S. producers, 2017-19, January-June 2019, and January-June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Total net sales (units)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Total net sales (1,000 dollars)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Cost of goods sold (1,000 dollars)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Gross profit or (loss) (1,000 dollars)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	SG&A expenses (1,000 dollars)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Operating income or (loss) (1,000 dollars)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***

Table continued on next page.

Table VI-3--Continued
LVSEs: Results of operations of U.S. producers, by company, 2017-19, January-June 2019, and January-June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Net income or (loss) (1,000 dollars)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	COGS to net sales ratio (percent)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Gross profit or (loss) to net sales ratio (percent)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	SG&A expense to net sales ratio (percent)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Operating income or (loss) to net sales ratio (percent)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Net income or (loss) to net sales ratio (percent)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***

Table continued on next page.

Table VI-3--Continued
LVSEs: Results of operations of U.S. producers, 2017-19, January-June 2019, and January-June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Unit net sales value (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Unit raw materials (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Unit direct labor (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Unit other factory costs (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Unit COGS (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Unit gross profit or (loss) (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***

Table continued on next page.

Table VI-3--Continued
LVSEs: Results of operations of U.S. producers, by company, 2017-19, January-June 2019, and January-June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Unit SG&A expenses (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Unit operating income or (loss) (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Unit net income or (loss) (dollars per unit)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***

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

Net sales

In addition to commercial sales, U.S. producers reported internal consumption and transfers to related firms. Commercial sales, internal consumption, and transfers to related firms accounted for ***, ***, and *** percent, respectively, of total reported net sales, by quantity; and ***, ***, and *** percent, of total reported net sales by value, respectively, in 2019.[3]

The industry's total net sales quantity declined irregularly from *** units in 2017 to *** units in 2019, it was also lower in interim 2020, at *** units, compared with interim 2019, at *** units. Total net sales also declined irregularly in value from 2017 to 2019 from $*** in 2017 to $*** in 2019, and was also lower in interim 2020, at $***, compared with interim 2019, at $***. The total net sales AUV increased from $*** per unit in 2017 to $*** per unit in 2019 and was higher in interim 2020 at $*** per unit compared with interim 2019 at $*** per unit.[4] Commercial sales, which accounted for the majority of total sales, rose *** between 2017 and 2018 before falling in 2019, and were *** lower in interim 2020 compared with interim

[3] Internal consumption was reported by ***. ***. Email from ***, February 4, 2020. *** also reported a relatively small amount of transfers to related firms. ***. U.S. producers' questionnaire response, III-12.

The *** industry transfers were reported by ***, which classified *** of its net sales as transfers to related firms. The company indicated these were ***. Email from ***, February 14, 2020.

[4] The average unit values for commercial sales varied widely between the three U.S. producers, this disparity may be attributed to their focus on different grades of engines. Commercial sales' AUVs of ***. *** shipments appear to be oriented toward residential and smaller engines compared with ***, while a greater percentage of shipments by *** and *** were of commercial engines. Although ***. Comparison of U.S. producers' questionnaire responses, question II-10 and pricing products, question IV-2b.

2019 on a quantity and value basis. Commercial sales' AUVs were *** lower in 2018 than in 2017 and essentially unchanged from 2017 to 2019 but were higher in interim 2020 than in interim 2019. Internal consumption and transfers to related firms steadily increased from 2017 to 2019 but were lower in interim 2020 than in interim 2019 on a quantity and value basis; the AUVs of these two categories of sales both rose between the full years while the AUV of internal consumption was higher in interim 2020 than in interim 2019 and the AUV of transfers was lower.

Cost of goods sold and gross profit or loss

Raw material costs, direct labor, and other factory costs accounted for ***, *** and *** percent of total COGS, respectively, in 2019. Raw material costs, the biggest component of COGS, irregularly increased from $*** to $*** between 2017 and 2019 despite a decline in net sales quantities during the same period, they were lower in interim 2020 at $*** than in interim 2019 at $***. On a per unit basis, raw materials costs also increased from $*** in 2017 to $*** in 2019 and were higher in interim 2020 than in interim 2019. As a ratio to net sales, raw materials costs increased between 2017 and 2019 but were slightly lower in interim 2020 than in interim 2019. As shown by the data in table VI-1, metal components accounted for approximately *** the value of all other raw materials in terms of its ratio to total net sales and as a percentage share of total COGS. The average unit values of metal components and all other raw materials rose between 2017 and 2019 and were higher in interim 2020 than in interim 2019.[5] U.S. producers' raw material costs are subject to market price fluctuations. Firms reported purchasing their raw materials under different length supply contracts in 2019: ***.

[5] U.S. producers were requested to break out their raw material costs by metal and all other components. Metal components are composed of various cast iron and aluminum components as described earlier in Part I. Other raw materials include items such as ***. U.S. producers' questionnaire response, III-9c (preliminary phase).

*** reported that the Section 301 and Section 232 tariffs caused a fluctuation in prices of components and raw materials such as engine parts, components (***, and aluminum, but "have not had a significant impact on the firm's production or sales of LVSEs."[6] With regard to the Section 301 tariffs on components imported from China, *** implemented price increases between October 27, 2018 and December 10, 2018, ranging from $*** to $*** per engine which remain in force.[7] *** stated that it purchases aluminum domestically and prices were affected by the Section 232 tariffs, initially increasing and then falling; *** adjusted prices for engines upwards when costs increased and then reduced prices when raw material costs declined.[8] ***.[9] [10]

Other factory costs, the second largest component of COGS, increased between 2017 and 2018 but fell between 2018 and 2019, with an overall increase between 2017 and 2019. Other factory costs were lower in interim 2020 than in interim 2019 by *** percent. On a per unit basis other factory costs increased from $*** in 2017 to $*** in 2019 and were higher in interim 2020 ($***) than in interim 2019 ($***); the same trend was followed for other factory costs as a ratio to net sales.

Direct labor costs increased between 2017 and 2019, and were lower in interim 2020 than in interim 2019 by *** percent. On a per unit basis direct labor costs also increased from $*** in 2017 to $*** in 2019, and were higher in interim 2020 at ($***) than in interim 2019 at ($***). The same trend was followed for direct labor costs as a ratio to net sales.

The Commission requested U.S. producers to provide information on their warranty expenses. Warranty expenses are a contractual expense related to the repair, replacement, or compensation to a buyer or user for any product defects. In accounting, warranty expenses

[6] Email from ***, November 9, 2020. EDIS # 724693.
[7] Email from ***, November 9, 2020. EDIS # 724693.
[8] Email from ***, November 9, 2020. EDIS #724693.
[9] Email from ***, November 4, 2020. EDIS # 724181.
[10] *** indicated that it did not experience any *** in raw material costs due to section 232 and 301 tariffs. U.S. producers' questionnaire response, III-9d.

should be recognized when they are probable and can be estimated. Warranty expenses are estimated based on claims experience. The income statement is impacted by the full amount of warranty expenses when a sale occurs, even if there are no warranty claims during the period (this is the "matching principle" to revenue recognition, a basic element of GAAP). When claims appear in the later accounting periods, the only further impact is made on the balance sheet, since the company reduces both the warranty liability and inventory accounts.[11] *** classified warranty expense within COGS. Total warranty expenses and cash outlays are summarized in table VI-4.[12]

[11] Retrieved from https://corporatefinanceinstitute.com/resources/knowledge/accounting/warranty-expense/, November 29, 2020.

[12] ***. Email from ***, December 4, 2020. ***. U.S. producers' questionnaire response, III-9f and email from ***, December 21, 28, 2020. ***. Email from ***, December 9, 2020. Warranties are also discussed in part V of the report.

Table VI-4

LVSEs: Warranty expenses, cash outlays, and number of claims, 2017-19, January-June 2019, and January- June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
Warranty expenses (1,000 dollars)	***	***	***	***	***
Warranty cash outlays (1,000 dollars)	***	***	***	***	***
Number of claims (count)	***	***	***	***	***
Average unit value of warranty expenses (dollars per claim)	***	***	***	***	***
Ratio of warranty expenses to net sales (percent)	***	***	***	***	***
Ratio of warranty expenses to operating expenses (percent)	***	***	***	***	***

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

Warranty expense is the liability recorded on sale of a LVSE (this account is adjusted for the expiry of warranties in past years and claims under warranty); warranty cash outlay represents the amount of total current expenses incurred for claims on LVSEs that are under warranty, which may be from sales made as long as several years prior to the current reporting period. With regard to claims, ***. With regard to warranty cash outlays, ***. *** recorded an excess of cash outlays over warranty expenses in 2019 and interim 2020, ***. Overall, warranty expenses, cash outlays, and the number of claims each declined from 2017 to 2019, as did the ratio of warranty expenses to net sales and the ratio of warranty expenses to operating expenses (COGS plus SG&A expenses). Of the three reporting firms, *** reported a small increase of *** percent of warranty cash outlays in 2018 from 2017, and *** reported an increase of *** percent from 2018 to 2019; *** reported decreasing cash outlays between each of the yearly periods. Each of the three firms reported a lower number of claims in 2019 compared with 2017 (claims reported by *** were down by *** percent, those of *** were down by *** percent, and those of *** were down by *** percent), as well as between 2017 and 2018. *** reported an increased number of claims in 2019 compared

with 2018. The average unit value of a claim ranged in 2019 from $*** for ***, to $*** for ***, and to $*** to ***. *** unit value per claim increased from $*** in 2017 to $*** in 2018 before falling to $*** in 2019; *** average unit claim value was $*** in each period reported, while *** average unit claim value fell from $*** in 2017 to $*** in 2019. For ***, these values were much lower in interim 2020 compared with interim 2019.

As a ratio to total net sales, total COGS increased from *** percent in 2017 to *** percent in 2019 and was *** percent in interim 2019 and *** percent in interim 2020. On a company-by-company basis, all three U.S. producers reported an increase in their COGS to sales ratios from 2017 to 2019, and in interim 2020 compared to interim 2019. The AUV of total COGS increased from $*** per unit in 2017 to $*** per unit in 2019, and was higher in interim 2020, at $*** per unit, than during interim 2019, at $*** per unit. [13]

As seen in table VI-1, net sales revenue decreased while total COGS increased between 2017 and 2019, which resulted in gross profit decreasing from $*** in 2017 to $*** in 2019. In the interim periods, both total net sales revenue and total COGS were lower in interim 2020 than in interim 2019, the difference in the net sales revenue between the interim periods was greater. This led to gross profit being lower in interim 2020 at $*** compared with interim 2019 at $***.

SG&A expenses and operating income or loss

As seen in table VI-1, the industry's selling, general, and administrative ("SG&A") expenses increased by *** percent between 2017 and 2018, from $*** to $***, but decreased by *** percent to $*** in 2019, and overall decreased by *** percent between 2017 and 2019. SG&A expenses were also lower in interim 2020 than in interim 2019. The SG&A expense ratio (the ratio of SG&A expenses to net sales value) decreased from *** percent in 2017 to *** percent in 2019, after increasing to *** percent in 2018, and was lower in interim 2019 (at *** percent) compared with interim 2020

[13] ***. Email from ***, January 7, 2021.

(at *** percent). *** accounted for the largest share of the increase from 2017 to 2018. The company reported ***.[14]
It also reported that the majority of the ***.[15]

Operating income decreased between 2017 ($***) and 2019 ($***) and was lower in interim 2020 at $*** than in interim 2019 at $***. As a ratio to net sales operating income decreased from *** percent in 2017 to *** percent in 2019 and was lower in interim 2020 at *** percent than in interim 2019 at *** percent. As depicted by the data in table VI-3, operating losses were reported by ***.

Other income/expenses and net income or loss

The industry's total interest expense increased from $*** in 2017 to $*** in 2019 and was higher in interim 2020 than in interim 2019. All other expenses, net of other income, increased irregularly from $*** in 2017 to $*** in 2018 but declined by *** percent to $*** between 2018 and 2019, and overall increased irregularly between 2017 and 2019, all other expenses were lower in interim 2020 than in interim 2019.[16]

Net income fell from $*** to $*** between 2017 and 2019. The three firms together reported a net loss of $*** in interim 2020 compared to a net income of $*** in interim 2019. As depicted by the data in table VI-3, net losses were reported by ***. These data drove the industry trend and totals. Depreciation charges increased between 2017 and 2019 and were higher in interim 2020 than in interim

[14] The company reported ***'s U.S. producers' questionnaire response, III-10.
[15] Email from ***, February 4, 2020.
[16] ***.

2019.[17] Cash flow (the sum of depreciation plus net income) followed the trend of net income, declining from 2017 to 2019, and was noticeably lower in interim 2020 than in interim 2019.

Variance analysis

A variance analysis for the operations of U.S. producers of LVSEs is presented in table VI-5.[18] The information for this variance analysis is derived from table VI-1.

The data in this table indicate that the price variance on commercial sales was unfavorable (unit sales prices decreased) between the full yearly periods (except 2018-19) but was favorable (unit sales prices increased) between the interim periods. The price variance on internal consumption and transfers was generally favorable (unit sales values rose) between the full yearly periods and was unfavorable for transfers only between the interim periods. The combined effect meant that, overall, the price variance for total net sales was favorable in each period for which data were gathered. The cost/expense variance was generally unfavorable (unit costs/expenses increased) between the full yearly periods and between the interim periods. The combination of variances on price, cost/expense, and volume led to the changes in operating income previously discussed in this section of the report.

[17] ***. U.S. producers' questionnaire response, III-10.

[18] The Commission's variance analysis is calculated in three parts: Sales variance, cost of sales variance (COGS variance), and SG&A expense variance. Each part consists of a price variance (in the case of the sales variance) or a cost or expense variance (in the case of the COGS and SG&A expense variance), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or per-unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or per-unit cost/expense. Summarized at the bottom of the table, the price variance is from sales; the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expense variances. The overall volume component of the variance analysis is generally small.

Table VI-5
LVSEs: Variance analysis on the operations of U.S. producers, 2017-19, January-June 2019, and January-June 2020

Item	Between calendar years			Between partial year period
	2017-19	2017-18	2018-19	2019-20
	Value (1,000 dollars)			
Commercial sales: Price variance	***	***	***	***
Volume variance	***	***	***	***
Net sales variance	***	***	***	***
Internal consumption: Price variance	***	***	***	***
Volume variance	***	***	***	***
Net sales variance	***	***	***	***
Transfers: Price variance	***	***	***	***
Volume variance	***	***	***	***
Net sales variance	***	***	***	***
Net sales: Price variance	***	***	***	***
Volume variance	***	***	***	***
Net sales variance	***	***	***	***
COGS: Cost variance	***	***	***	***
Volume variance	***	***	***	***
COGS variance	***	***	***	***
Gross profit variance	***	***	***	***
SG&A expenses: Cost/expense variance	***	***	***	***
Volume variance	***	***	***	***
Total SG&A expense variance	***	***	***	***
Operating income variance	***	***	***	***
Summarized (at the operating income level) as: Price variance	***	***	***	***
Net cost/expense variance	***	***	***	***
Net volume variance	***	***	***	***

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

Capital expenditures and research and development expenses

Table VI-6 presents capital expenditures and research and development ("R&D") expenses by firm, comments on the nature and focus of capital expenditures and R&D expenses are shown in table VI-7.

The industry's capital expenditures irregularly decreased from $*** in 2017 to $*** in 2019 and were lower in interim 2020 at $*** compared with interim 2019 at $***. R&D expenses irregularly decreased from $*** in 2017 to $*** in 2019 and were also lower in interim 2020 compared with interim 2019.

Table VI-6
LVSEs: Capital expenditures and R&D expenses of U.S. producers, 2017-19, January-June 2019, and January-June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Capital expenditures (1,000 dollars)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***
	Research and development expenses (1,000 dollars)				
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All firms	***	***	***	***	***

Note: As noted earlier, ***.

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

Table VI-7
LVSEs: Narrative descriptions of U.S. producers' capital expenditure and R&D expenses since January 1, 2017

Item / Firm	Narrative
Capital expenditure nature and focus:	
***	***
***	***
***	***
Research and development nature and focus:	
***	***
***	***
***	***

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

Assets and return on assets

Table VI-8 presents data on the U.S. producers' total assets and their return on assets ("ROA"), and a description of each firm's reported assets is presented in table VI-9.[19] Total assets increased by *** percent between 2017 and 2019. *** reported the largest increase in assets between 2017 and 2019 affecting the overall increase of all U.S. producers during those same years.

[19] The return on assets ("ROA") is calculated as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. Thus, high-level allocations are generally required in order to report a total asset value for the subject product.

Table VI-8
LVSEs: U.S. producers' total assets and return on assets, 2017-19

Firm	Calendar year		
	2017	2018	2019
	Total net assets (1,000 dollars)		
Briggs & Stratton	***	***	***
Kawasaki	***	***	***
Kohler	***	***	***
All firms	***	***	***
	Operating return on assets (percent)		
Briggs & Stratton	***	***	***
Kawasaki	***	***	***
Kohler	***	***	***
All firms	***	***	***

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

Table VI-9
LVSEs: Narrative descriptions of U.S. producers' assets, January 1, 2019

Item / Firm	Narrative
***	***
***	***
***	***

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

Capital and investment

The Commission requested U.S. producers of LVSEs to describe any actual or potential negative effects of imports of LVSEs from China on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-10 presents the number of firms reporting an impact in each category and table VI-11 provides the U.S. producers' narrative responses.

Table VI-10
LVSEs: Actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2017

Item	No	Yes
Negative effects on investment	1	2
Cancellation, postponement, or rejection of expansion projects		1
Denial or rejection of investment proposal		0
Reduction in the size of capital investments		2
Return on specific investments negatively impacted		1
Other		1
Negative effects on growth and development	1	2
Rejection of bank loans		0
Lowering of credit rating		1
Problem related to the issue of stocks or bonds		1
Ability to service debt		1
Other		2
Anticipated negative effects of imports	1	2

Note: ***.

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

Table VI-11
LVSEs: Narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2017

Item / Firm	Narrative
Cancellation, postponement, or rejection of expansion projects:	
***	***
Reduction in the size of capital investments:	
***	***
***	***
Return on specific investments negatively impacted:	
***	***
Other negative effects on investments:	
***	***
Lowering of credit rating:	
***	***
Problem related to the issue of stocks or bonds:	
***	***
Ability to service debt:	
***	***

Table continued on next page.

Table VI-11--Continued
LVSEs: Narratives relating to actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2017

Other effects on growth and development:	
***	***
***	***
Anticipated effects of imports:	
***	***
***	***

Note: ***.

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

Part VII: Threat considerations and information on nonsubject countries

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

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
>
> *(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
>
> *(V) inventories of the subject merchandise,*

[1] Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition."

(VI) 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,

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

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

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).[2]

Information on the nature of the subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in *Parts IV* and *V*; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in *Part VI*. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries.

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

The industry in China

The Commission issued foreign producers' or exporters' questionnaires to 34 firms believed to produce and/or export LVSEs from China.[3] Usable responses to the Commission's questionnaire were received from five firms: Honda Power Products (China) Co., Ltd. ("Honda"); Jiangsu Lister Utility Engine Manufacturing Co., Ltd ("Jiangsu Lister "), Loncin Motor Co., Ltd. ("Loncin"); Yamaha Motor Powered Products Jiangsu Co., Ltd. ("Yamaha"), and Chongqing Zongshen General Power Machine Co., Ltd. ("Zongshen").[4] These firms' reported exports to the United States that accounted for approximately *** percent total U.S. imports from China reported under HTS statistical reporting numbers 8407.90.1020, 8407.90.1060, and 8407.90.1080 in 2019.[5] Table VII-1 presents information on the LVSEs operations of the responding producers and exporters in China.

Table VII-1
LVSEs: Summary data on firms in China, 2019

Firm	Production (units)	Share of reported production (percent)	Exports to the United States (units)	Share of reported exports to the United States (percent)	Total shipments (units)	Share of firm's total shipments exported to the United States (percent)
Honda	***	***	***	***	***	***
Jiangsu Lister	***	***	***	***	***	***
Loncin	***	***	***	***	***	***
Yamaha	***	***	***	***	***	***
Zongshen	***	***	***	***	***	***
All firms	***	100.0	***	100.0	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

[3] These firms were identified through a review of information submitted in the petition and contained in *** records.

[4] Additionally, three firms certified that they had not produced or exported LVSEs in China at any time since January 1, 2017: ***.

[5] ***.

Changes in operations

As presented in table VII-2 producers in China reported several operational and organizational changes since January 1, 2017. *** firms reported expansions, *** reported prolonged shutdowns or curtailments, and *** reported a name change.

Table VII-2
LVSEs: Reported changes in operations by producers in China, since January 1, 2017

Item / Firm	Reported changed in operations
Expansions:	
***	***
***	***
Prolonged shutdowns or curtailments:	
***	***
***	***
***	***
Other:	
***	***

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

Operations on LVSEs

Table VII-3 presents information on the LVSEs operations of the responding producers and exporters in China. Production capacity of the responding Chinese producers increased by *** percent from 2017 to 2019. As noted in table VII-2, ***. Production capacity was also higher in interim 2020 than interim 2019 by *** percent. The capacity increases across interim periods are ***.

Chinese production of LVSEs production increased by *** percent from 2017 to 2019. The increased production over this period was principally driven by *** whose production increased by *** percent over the period, respectively. Chinese production was higher in interim 2020 than interim 2019 by *** percent. This increase was again principally due to *** whose production increased by *** and *** percent across the comparison periods, respectively.

Chinese producer capacity utilization fell *** percentage points from 2017-19 but was *** percentage points higher in interim 2020 as compared to interim 2019. End-of-period inventories increased by *** percent from 2017 to 2019; however, inventories were lower in interim 2020 than interim 2019 by *** percent.

Chinese producer export shipments to the United States by quantity comprised *** percent of total Chinese producer shipments in 2017 and rose to *** percent of their total shipments in 2019. Export shipments to the United States by quantity were higher in interim 2020 than interim 2019 (exports to the United States comprised *** percent of total Chinese shipments in interim 2020 as compared to *** percent of total shipments in interim 2019). Overall, Chinese producer export shipments by quantity to the United States increased *** percent from 2017-19 and were *** percent higher in interim 2020 as compared to interim 2019. Chinese exports to other markets as a ratio of total Chinese shipments were lower in 2019 than 2017 by *** percentage points and were down *** percentage points in interim 2020 as compared to interim 2019.

Due to uncertainties stemming from COVID-19, ***.

***.

Four of the five firms reported that their production or sales had been impacted by the COVID-19 pandemic in 2020, including production halts in Spring 2020 and an inability to meet with OEMs. ***.

In terms of projected 2021 capacity, ***. *** projected 2021 capacity is *** compared to 2020. As compared to 2020 capacity, *** projects a *** percent reduction in its 2021 capacity, *** projects a *** percent *** in its 2021 capacity, and *** projects a *** percent *** in its 2021 capacity. Overall, projected 2021 capacity is *** percent lower than projected 2020 capacity.

Table VII-3
LVSEs: Data on industry in China, 2017-19, January to June 2019, and January to June 2020 and projection calendar years 2020 and 2021

Item	Actual experience					Projections	
	Calendar year			January to June		Calendar year	
	2017	2018	2019	2019	2020	2020	2021
	Quantity (units)						
Capacity	***	***	***	***	***	***	***
Production	***	***	***	***	***	***	***
End-of-period inventories	***	***	***	***	***	***	***
Shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***
	Ratios and shares (percent)						
Capacity utilization	***	***	***	***	***	***	***
Inventories/production	***	***	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***	***	***
Share of shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***

Table notes continued on next page.

Table VII-3—continued.
LVSEs: Data on industry in China, 2017-19, January to June 2019, and January to June 2020 and projection calendar years 2020 and 2021

Note: ***.

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

Alternative products

Foreign producers were also asked whether they produced any out-of-scope products using the same equipment, machinery, or employees as used to produce LVSEs during the indicated periods. *** of the five firms (***) reported that they also produce horizontal shaft engines using such equipment, machinery, or employees. As shown in table VII-4, the reported percentage of out-of-scope production using the same equipment, machinery, or employees as used to produce LVSEs ranged between *** and *** percent between 2017 and 2019.

Table VII-4
LVSEs: Overall capacity and production on the same equipment as in-scope production by producers in China, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
Overall capacity	***	***	***	***	***
Production:					
LVSEs	***	***	***	***	***
Out-of-scope production	***	***	***	***	***
Total production on same machinery	***	***	***	***	***
	Ratios and shares (percent)				
Overall capacity utilization	***	***	***	***	***
Production:					
LVSEs	***	***	***	***	***
Out-of-scope production	***	***	***	***	***
Total production on same machinery	***	***	***	***	***

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

Exports

In questionnaire responses, Chinese producers *** reported *** as their principal export market outside the United States. *** also reported *** and *** reported *** as additional principal export markets. Global Trade Atlas ("GTA") publishes data on global exports of engines, including those for subheadings 8407.90 (other engines) and 8409.91 (parts for spark-ignition, internal combustion engines). However, both of these subheadings are huge categories that, in addition to products covered by the scope of these investigations, also include many products outside the scope of these investigations.[6] Due to these limitations, GTA data on China's exports by destination market are not included here.

U.S. inventories of imported merchandise

Table VII-5 presents data on U.S. importers' reported inventories of LVSEs. Inventories of imports from China increased by *** percent from 2017-19 and were *** percent higher in interim 2020 as compared to interim 2019. From 2017-19, imports from nonsubject sources *** decreased each consecutive year for a net decline of *** percent. Nonsubject source import inventories were *** percent higher in 2020 than interim 2019 levels, though. Total U.S. importers' end-of-period inventories of imports from all sources increased by *** percent from 2017 to 2019 and were *** percent higher in interim 2020 than in interim 2019.

[6] For example, of U.S. imports under 8407.90, only 40.8 percent of imports are products covered by the scope of these investigations.

Table VII-5
LVSEs: U.S. importers' end-of-period inventories of imports by source, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Inventories (units); Ratios (percent)				
Imports from China					
Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from nonsubject sources:					
Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from all import sources:					
Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***

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

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of LVSEs from China after June 30, 2020. The reported arranged imports are presented in table VII-6.

Table VII-6
LVSEs: Arranged imports, January 2020 through December 2020

Item	Period				
	Jul-Sep 2020	Oct-Dec 2020	Jan-Mar 2021	Apr-Jun 2020	Total
	Quantity (units)				
Arranged U.S. imports from.--					
China	***	***	***	***	***
All other sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Antidumping or countervailing duty orders in third-country markets

There are no known antidumping or countervailing duty orders in orders in third-country markets on LVSEs.[7]

[7] On February 3, 2020, Argentina initiated an antidumping investigation on imports of certain weeding machines and lawnmowers with a motor, specifically products classified under HS code subheadings 8467.29.99 and 8433.11.00. The products subject to the Argentinian investigation include riding mowers under subheading 8433.11.00, which could utilize an LVSE covered by these investigations. Global Trade Alert, "Argentina: Initiation of antidumping investigation on imports of certain lawnmowers and weeding machines from China," (accessed November 3, 2020), https://www.globaltradealert.org/intervention/78429/anti-dumping/argentina-initiation-of-antidumping-investigation-on-imports-of-certain-lawnmowers-and-weeding-machines-from-china.

Information on nonsubject countries

As previously noted, GTA publishes data on global exports of engines, including those for subheadings 8407.90 (other engines) and 8409.91 (parts for spark-ignition, internal combustion engines). However, both of these subheadings are huge categories that, in addition to products covered by the scope of these investigations, also include many products outside the scope of these investigations. Due to this data limitation, GTA data on nonsubject countries are not included. EPA annual certification data for small nonroad spark-ignition engines list only three firms with EPA certified vertical shaft engines from 225 to 999 cc in nonsubject countries for model year 2020: Briggs & Stratton Corporation (Japan)[8], Honda (Thailand), and Chongqing Dajiang Power Equipment Co., Ltd. (Vietnam).[9] The other major known exporter of LVSEs is Japan, who is also the world's third largest exporter under 8407.90.[10] Japan's engine exports are categorized by horsepower, with the Japanese statistical reporting number that includes LVSEs totaling nearly $332 million in exports in 2019, $213 million of which were exported to the United States.[11]

[8] As previously noted, ***.

[9] EPA, Annual Certification Data for Vehicles, Engines, and Equipment, Small NRSI Engine Certification Data (Model years: 2011 – Present), January 24, 2020, https://www.epa.gov/compliance-and-fuel-economy-data/annual-certification-data-vehicles-engines-and-equipment, retrieved October 12, 2020.

[10] Conference transcript, p. 110 (Stoel); Official exports statistics under HS subheading 8407.90 as reported by Japan Ministry of Finance in the Global Trade Atlas database, accessed February 13th, 2020.

[11] Japanese statistical reporting number 8407.90.200 corresponds to, "spark-ignition reciprocating or rotary internal combustion piston engines with a rating of more than 3 horsepower," excluding engines for use in aircrafts, marine propulsion devices, or motor vehicles. Riding lawn mowers typically have a rating of 13-30 horsepower. Official exports statistics under HS subheading 8407.90.200 as reported by Japan Ministry of Finance in the Global Trade Atlas database, accessed December 11, 2020; Surina, Echo, "How to Choose the Right Lawnmower," accessed November 3, 2020, https://home.howstuffworks.com/how-to-choose-the-right-lawnmower4.htm.

APPENDIX A

FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations and reviews on its website, www.usitc.gov. In addition, the following tabulation presents, in chronological order, *Federal Register* notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
85 FR 3945, January 23, 2020	*Vertical Shaft Engines From China; Institution of Anti-Dumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.govinfo.gov/content/pkg/FR-2020-01-23/pdf/2020-01016.pdf
85 FR 8809, February 18, 2020	*Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*	https://www.govinfo.gov/content/pkg/FR-2020-02-18/pdf/2020-03103.pdf
85 FR 8835, February 18, 2020	*Certain Vertical Shaft Engines Between 223cc and 999cc, and Parts Thereof From the People's Republic of China: Initiation of Countervailing Duty Investigation*	https://www.govinfo.gov/content/pkg/FR-2020-02-18/pdf/2020-03104.pdf
85 FR 13184, March 6, 2020	*Vertical Shaft Engines From China; Determinations*	https://www.govinfo.gov/content/pkg/FR-2020-03-06/pdf/2020-04592.pdf
85 FR 37061, June 19, 2020	*Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof From the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination, Preliminary Negative Critical Circumstances Determination, and Alignment of Final Determination With Final Antidumping Duty Determination*	https://www.govinfo.gov/content/pkg/FR-2020-06-19/pdf/2020-13270.pdf

Table continued on next page.

Citation	Title	Link
85 FR 51015, August 19, 2020	*Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof, From the People's Republic of China: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Preliminary Affirmative Determination of Critical Circumstances, Postponement of Final Determination, and Extension of Provisional Measures*	https://www.govinfo.gov/content/pkg/FR-2020-08-19/pdf/2020-18157.pdf
85 FR 58384, September 18, 2020	*Large Vertical Shaft Engines From China; Scheduling of the Final Phase of Countervailing and Anti-Dumping Duty Investigations*	https://www.govinfo.gov/content/pkg/FR-2020-09-18/pdf/2020-20633.pdf
85 FR 63248, October 7, 2020	*Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof, From the People's Republic of China: Amended Negative Preliminary Determination of Critical Circumstances*	https://www.govinfo.gov/content/pkg/FR-2020-10-07/pdf/2020-22179.pdf
86 FR 1933, January 11, 2021	*Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof From the People's Republic of China: Final Affirmative Countervailing Duty Determination and Final Negative Critical Circumstances Determination*	https://www.govinfo.gov/content/pkg/FR-2021-01-11/pdf/2021-00212.pdf
86 FR 1936, January 11, 2021	*Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value and Final Affirmative Critical Circumstances Determination*	https://www.govinfo.gov/content/pkg/FR-2021-01-11/pdf/2021-00213.pdf

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

Those listed below appeared in the United States International Trade Commission's hearing via videoconference:

Subject: Large Vertical Shaft Engines from China

Inv. Nos.: 701-TA-637 and 731-TA-1471 (Final)

Date and Time: January 5, 2021 - 9:30 a.m.

OPENING REMARKS:

Petitioners (**Daniel B. Pickard**, Wiley Rein LLP)
Respondents (**Alexander Schaefer**, Crowell & Moring LLP)

In Support of the Imposition of Antidumping and Countervailing Duty Orders:

Wiley Rein LLP
King & Spalding LLP
Washington, DC
on behalf of

Coalition of American Vertical Engine Producers
Kohler Co.
Briggs & Stratton, LLC

Stephen Andrews, Chief Executive Officer, Briggs & Stratton, LLC

Mark Schwertfeger, Chief Financial Officer, Briggs & Stratton, LLC

Jeffrey Coad, Vice President, Product Management & Marketing, Briggs & Stratton, LLC

William Harrison, Director, Division Controller, Briggs & Stratton, LLC

John Booher, Vice President, Legal, Compliance & Governmental Affairs, Briggs & Stratton, LLC

Brian Melka, Kohler Power Group President, Kohler Co.

In Support of the Imposition of
Antidumping and Countervailing Duty Orders (continued):

Eric Hudak, Director of Product Marketing for Gasoline Engines, Kohler Co.

Dr. Seth T. Kaplan, Economist, International Economic Research

Amy Sherman, International Trade Analyst, Wiley Trade Analytics Group

Daniel B. Pickard)
Robert E. DeFrancesco, III)
Jake R. Frischknecht)
) – OF COUNSEL
Stephen J. Orava)
Stephen P. Vaughn)
Clinton R. Long)

In Opposition to the Imposition of
Antidumping and Countervailing Duty Orders:

Hogan Lovells US LLP
Washington, DC
on behalf of

The Toro Company
Toro Purchasing Company

Bill Buenz, Commodity Manager, Engines, The Toro Company

Ross Hawley, Managing Director of Marketing and Customer Experience for the Residential and Landscape Contractor Division, The Toro Company

Dr. Mitchell Ginsburg, Associate Principal, Charles River Associates

Jonathan T. Stoel)
) – OF COUNSEL
Nicholas R. Sparks)

In Opposition to the Imposition of
Antidumping and Countervailing Duty Orders (continued):

McDermott Will & Emery LLP
Hughes Hubbard & Reed LLP
Washington, DC
on behalf of

Loncin Motor Company, Ltd. ("Loncin")
Chongqing Zongshen Power Machinery Co., Ltd. ("Zongshen")

Dean Pinkert)
) – OF COUNSEL
Mingze Yu)

Crowell & Moring LLP
Washington, DC
on behalf of

MTD Products Inc.

Steve Trumpler, Senior Vice President and General Manager, Wheeled Products Division, MTD Products Inc.

Edward Griffin, Director of Powertrain Sourcing and Strategy, MTD Products Inc.

Erik Krueger, Vice President of Research Development and Engine Development, MTD Products Inc.

Alexander Schaefer) – OF COUNSEL

REBUTTAL/CLOSING REMARKS:

Petitioners (**Stephen P. Vaughn**, King & Spalding LLP)
Respondents (**Alexander Schaefer**, Crowell & Moring LLP; and **Jonathan T. Stoel**, Hogan Lovells US LLP)

-END-

APPENDIX C

SUMMARY DATA

Table C-1

LVSEs: Summary data concerning the U.S. market, 2017-19, January to June 2019, and January to June 2020

(Quantity=units; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per unit; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2017	2018	2019	2019	2020	2017-19	2017-18	2018-19	2019-20
U.S. consumption quantity:									
Amount	***	***	***	***	***	▼***	▲***	▼***	▼***
Producers' share (fn1)	***	***	***	***	***	▼***	▼***	▼***	▼***
Importers' share (fn1):									
China	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources	***	***	***	***	***	▼***	▼***	▼***	▼***
All import sources	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. consumption value:									
Amount	***	***	***	***	***	▲***	▲***	▼***	▼***
Producers' share (fn1)	***	***	***	***	***	▼***	▼***	▲***	▼***
Importers' share (fn1):									
China	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources	***	***	***	***	***	▼***	▼***	▼***	▼***
All import sources	***	***	***	***	***	▲***	▲***	▼***	▲***
U.S. importers' U.S. shipments of imports from:									
China:									
Quantity	***	***	***	***	***	▲***	▲***	▼***	▲***
Value	***	***	***	***	***	▲***	▲***	▼***	▼***
Unit value	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	***	***	▲***	▲***	▲***	▲***
Nonsubject sources:									
Quantity	***	***	***	***	***	▼***	▼***	▼***	▼***
Value	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit value	***	***	***	***	***	▼***	▲***	▼***	▼***
Ending inventory quantity	***	***	***	***	***	▼***	▼***	▼***	▲***
All import sources:									
Quantity	***	***	***	***	***	▲***	▲***	▼***	▲***
Value	***	***	***	***	***	▲***	▲***	▼***	▼***
Unit value	***	***	***	***	***	▼***	▲***	▼***	▼***
Ending inventory quantity	***	***	***	***	***	▲***	▲***	▲***	▲***
U.S. producers':									
Average capacity quantity	***	***	***	***	***	▲***	▲***	▲***	▼***
Production quantity	***	***	***	***	***	▲***	▲***	▼***	▼***
Capacity utilization (fn1)	***	***	***	***	***	▼***	▲***	▼***	▼***
U.S. shipments:									
Quantity	***	***	***	***	***	▼***	▲***	▼***	▼***
Value	***	***	***	***	***	▲***	▲***	▼***	▼***
Unit value	***	***	***	***	***	▲***	▲***	▲***	▲***
Export shipments:									
Quantity	***	***	***	***	***	▼***	▼***	▼***	▼***
Value	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit value	***	***	***	***	***	▲***	▲***	▲***	▼***
Ending inventory quantity	***	***	***	***	***	▲***	▲***	▲***	▼***
Inventories/total shipments (fn1)	***	***	***	***	***	▲***	▲***	▲***	▲***
Production workers	***	***	***	***	***	▲***	▲***	▲***	▼***
Hours worked (1,000s)	***	***	***	***	***	▲***	▲***	▼***	▼***
Wages paid ($1,000)	***	***	***	***	***	▲***	▲***	▲***	▼***
Hourly wages (dollars per hour)	***	***	***	***	***	▲***	▼***	▲***	▲***
Productivity (units per 1,000 hours)	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit labor costs	***	***	***	***	***	▲***	▼***	▲***	▲***

Table continued on next page.

Table C-1--Continued

LVSEs: Summary data concerning the U.S. market, 2017-19, January to June 2019, and January to June 2020

(Quantity=units; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per unit; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2017	2018	2019	2019	2020	2017-19	2017-18	2018-19	2019-20
U.S. producers'--Continued:									
Net sales:									
Quantity	***	***	***	***	***	▼***	▲***	▼***	▼***
Value	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit value	***	***	***	***	***	▲***	▲***	▲***	▲***
Cost of goods sold (COGS)	***	***	***	***	***	▲***	▲***	▼***	▼***
Gross profit or (loss) (fn2)	***	***	***	***	***	▼***	▼***	▼***	▼***
SG&A expenses	***	***	***	***	***	▼***	▲***	▼***	▼***
Operating income or (loss) (fn2)	***	***	***	***	***	▼***	▼***	▼***	▼***
Net income or (loss) (fn2)	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit COGS	***	***	***	***	***	▲***	▲***	▲***	▲***
Unit SG&A expenses	***	***	***	***	***	▲***	▲***	▼***	▲***
Unit operating income or (loss) (fn2)	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit net income or (loss) (fn2)	***	***	***	***	***	▼***	▼***	▼***	▼***
COGS/sales (fn1)	***	***	***	***	***	▲***	▲***	▲***	▲***
Operating income or (loss)/sales (fn1)	***	***	***	***	***	▼***	▼***	▼***	▼***
Net income or (loss)/sales (fn1)	***	***	***	***	***	▼***	▼***	▼***	▼***
Capital expenditures	***	***	***	***	***	▼***	▼***	▲***	▼***
Research and development expenses	***	***	***	***	***	▼***	▼***	▲***	▼***
Net assets	***	***	***	***	***	▲***	▲***	▲***	***

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than "(0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a "▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.

fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

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

APPENDIX D

U.S. PRODUCERS' AND U.S. IMPORTERS' U.S. SHIPMENTS BY NOMINAL USEFUL LIFE RATING

Table D-1
LVSEs: U.S. producers' U.S. shipments and U.S. importers' U.S. shipments of residential engines, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. producers' U.S. shipments from.- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments from.- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	100.0	100.0	100.0	100.0	100.0
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments from.- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.
Source: Compiled from data submitted in response to Commission questionnaires.

Table D-2
LVSEs: U.S. producers' U.S. shipments and U.S. importers' U.S. shipments of extended life or general purpose engines, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. producers' U.S. shipments from.--					
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments from.--					
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	100.0	100.0	100.0	100.0	100.0
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments from.--					
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.
Source: Compiled from data submitted in response to Commission questionnaires.

Table D-3
LVSEs: U.S. producers' U.S. shipments and U.S. importers' U.S. shipments of other than commercial engines, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. producers' U.S. shipments from.-- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments from.-- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	100.0	100.0	100.0	100.0	100.0
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments from.-- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.
Source: Compiled from data submitted in response to Commission questionnaires.

Table D-4
LVSEs: U.S. producers' U.S. shipments and U.S. importers' U.S. shipments of commercial engines, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. producers' U.S. shipments from.--					
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments from.--					
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	100.0	100.0	100.0	100.0	100.0
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments from.--					
Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.--					
China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.
Source: Compiled from data submitted in response to Commission questionnaires.

Table D-5
LVSEs: U.S. producers' U.S. shipments and U.S. importers' U.S. shipments of all LVSEs, 2017-19, January to June 2019, and January to June 2020

Item	Calendar year			January to June	
	2017	2018	2019	2019	2020
	Quantity (units)				
U.S. producers' U.S. shipments from.-- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments from.-- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	100.0	100.0	100.0	100.0	100.0
	Ratio to overall apparent consumption (percent)				
U.S. producers' U.S. shipments from.-- Briggs & Stratton	***	***	***	***	***
Kawasaki	***	***	***	***	***
Kohler	***	***	***	***	***
All U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments of imports from.-- China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Combined producers and imports	99.9	100.0	100.0	100.0	100.0

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Also note that the ratio to overall apparent consumption reported here does not perfectly match data shown in part IV (i.e., not summing to 100 percent) due to *** reported U.S. shipments by type of engine in question II-10 not reconciling perfectly with the data it reported in question II-7 of its U.S. producers' questionnaire submission.

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